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As filed with the Securities and Exchange Commission on April 14, 2008

Registration No. 333-

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Form S-1

REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

FLUIDIGM CORPORATION

(Exact name of Registrant as specified in its charter)

Delaware	**3826**	**77-0513190**
(State or other jurisdiction of incorporation or organization)	*(Primary Standard Industrial Classification Code Number)*	*(I.R.S. Employer Identification Number)*

7000 Shoreline Court, Suite 100
South San Francisco, CA 94080
(650) 266-6000
(Address, including zip code, and telephone number, including area code, of Registrant's principal executive offices)

Gajus V. Worthington
President and Chief Executive Officer
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080
(650) 266-6000
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act, as amended, check the following box. o

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Ruler 12b-2 of the Exchange Act. (Check one):

Large accelerated filer o	Accelerated filer o	Non-accelerated filer o	Smaller reporting company o
		(Do not check if a smaller reporting company)	

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	**Proposed Maximum Aggregate Offering Price(1)**	**Amount of Registration Fee(2)**
Common Stock $0.001 par value per share	$86,250,000	$3,389.63

(1) Estimated solely for the purpose of computing the amount of the registration fee pursuant to Rule 457(o) under the Securities Act. Includes $11,250,000 of shares that the underwriters have the option to purchase to cover over-allotments, if any.
(2) Calculated pursuant to Rule 457(o) under the Securities Act based on an estimate of the proposed maximum offering price.

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to such Section 8(a), may determine.

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The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is declared effective. This preliminary prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

PROSPECTUS (Subject to Completion)
Issued April 14, 2008

Shares

COMMON STOCK

Fluidigm Corporation is offering shares of its common stock. This is our initial public offering, and no public market currently exists for our shares. We anticipate that the initial public offering price will be between $ and $ per share.

We intend to apply to list our common stock on the NASDAQ Global Market under the symbol "FLDM."

Investing in our common stock involves risks. See "Risk Factors" beginning on page 8.

PRICE $ A SHARE

	Price to Public	*Underwriting Discounts and Commissions*	*Proceeds to Fluidigm Corporation*
Per Share	*$*	*$*	*$*
Total	*$*	*$*	*$*

We have granted the underwriters the right to purchase up to an additional shares of common stock to cover over-allotments.

The Securities and Exchange Commission and state securities regulators have not approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Morgan Stanley & Co. Incorporated expects to deliver the shares to purchasers on , 2008.

MORGAN STANLEY

UBS INVESTMENT BANK

LEERINK SWANN

, 2008

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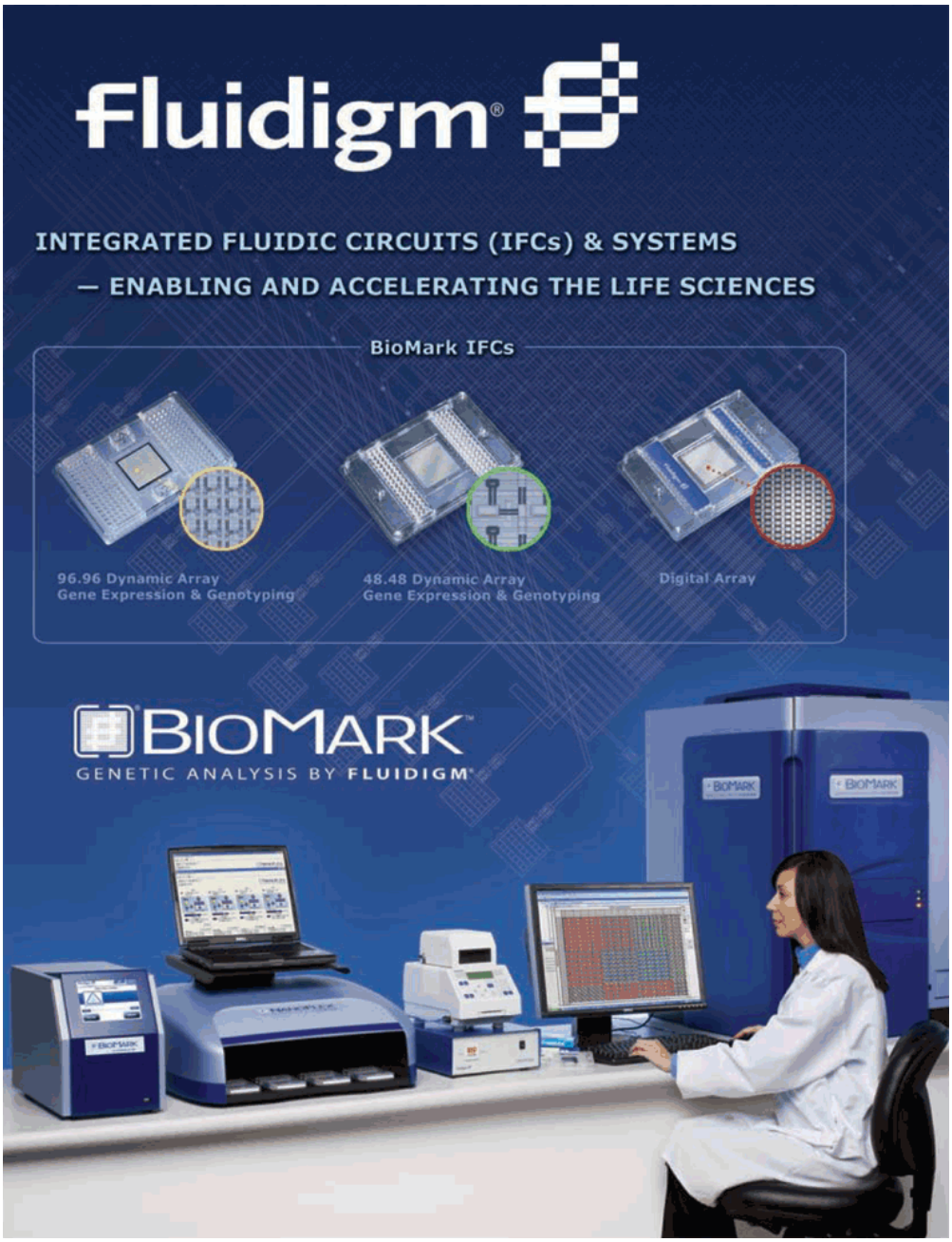

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You should rely only on the information contained in this prospectus and in any free writing prospectus prepared by or on behalf of us. We have not, and the underwriters have not, authorized anyone to provide you with information different from, or in addition to, that contained in this prospectus or any related free writing prospectus. This prospectus is an offer to sell only the shares offered hereby but only under circumstances and in jurisdictions where it is lawful to do so. The information contained in this prospectus is current only as of its date.

Through and including, , 2008 (the 25th day after the date of this prospectus), all dealers effecting transactions in these securities, whether or not participating in this offering, may be required to deliver a prospectus. This is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

For investors outside the United States: Neither we nor any of the underwriters have done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than the United States. You are required to inform yourselves about and to observe any restrictions relating to this offering and the distribution of this prospectus.

PROSPECTUS SUMMARY

This summary highlights information contained in greater detail elsewhere in this prospectus. This summary may not contain all the information that you should consider before investing our common stock. You should read the entire prospectus carefully, including "Risk Factors" beginning on page 8 and our consolidated financial statements and related notes included elsewhere in this prospectus, before making an investment decision. Unless otherwise indicated, the terms "Fluidigm," "we," "us" and "our" refer to Fluidigm Corporation.

FLUIDIGM CORPORATION

Overview

We develop, manufacture and market proprietary Integrated Fluidic Circuit systems that significantly improve productivity in life science research. Our Integrated Fluidic Circuits, or IFCs, integrate a diverse set of critical liquid handling functions on a nanoliter scale. Our IFCs can meter, combine, diffuse, fold, mix, separate or pump nanoliter volumes of fluids with precise control and reproducibility, many thousands of times — all in parallel on a single chip. This technology enables our customers to perform thousands of sophisticated biochemical measurements on samples smaller than the content of a single cell, with minute volumes of reagents, in half the area of a credit card. We achieved this "integrated circuit for biology" by miniaturizing and integrating liquid handling components on a single microfabricated device. Through innovations in material science and manufacturing, our IFC architectures are highly flexible, and can be designed to support a wide range of applications and assay types. Our IFC systems, consisting of instrumentation, software and single-use IFCs, increase throughput, decrease costs and enhance sensitivity compared to conventional laboratory systems.

We have commercialized IFC systems for a wide range of life science applications, including our BioMark system for gene expression analysis, genotyping and digital PCR, and our Topaz system for protein crystallization. Researchers and clinicians have successfully employed our products to help achieve breakthroughs in a variety of fields, including genetic variation, cellular function and structural biology. These include using our IFC systems to help detect life-threatening mutations in patients' cancer cells, discover indicators of susceptibility to cancer, manage some of the world's most valuable fisheries, analyze the genetic composition of individual stem cells, identify fetal chromosomal abnormalities, analyze the infectiousness of the avian flu virus and assess the quality of agricultural seed products. We believe that the broad applicability of our IFC technology will lead to the development of IFC systems for a wide variety of additional markets and applications, including molecular diagnostics.

We attribute our success and continued growth prospects to the following:

- *Disruptive and Enabling Technology.* We believe our IFC systems overcome many of the limitations of conventional methods of laboratory research by integrating on a single device a multitude of diverse microfluidic components, such as channels, valves, reaction chambers, pumps and mixers, to perform thousands of experiments at one time and in nanoliter volumes. In addition, we believe our IFC architectures assist users in addressing problems that would be difficult or impractical to solve using conventional life science tools.
- *Market Validation of Technology through Multiple Marketed Products.* We have sold our Topaz and BioMark IFCs to over 100 customers. These customers include many leading biotechnology and pharmaceutical companies, academic institutions and life science laboratories worldwide, such as MedImmune, Merck & Co., Myriad Genetics, the National Cancer Institute and Vertex Pharmaceuticals.
- *Readily Adoptable Products.* Our IFC systems are compatible with a variety of widely-used chemistries, such as TaqMan for real time quantitative PCR, and typically accommodate users' existing assays without requiring significant modifications and re-validation. Additionally, the reliability and accuracy of the data produced by our systems has proven comparable to or better than conventional microwell plates for large-scale experimentation. Our IFCs are designed to be compatible with standard, existing equipment for liquid dispensing and consumables handling.

- *Broad Application In the Life Science Market.* We believe that our IFC technology is broadly applicable to biotechnology automation and could be further developed for a wide variety of additional applications, including molecular diagnostics. To date, researchers have successfully used IFCs in such diverse fields as immunoassays, high throughput drug screening, chemical synthesis, pharmacogenomics, systems biology, synthetic biology and cellular assays.
- *Large and Growing Target Markets.* Our IFC systems are designed for various applications in the life science market, with particular emphasis currently on genomic analysis instruments and supplies. Gene expression and genotyping together comprise a market of approximately $4.9 billion, with 8% annual growth expected through 2010, according to Strategic Directions International. The digital PCR market is currently an emerging market, but we believe it has the potential to grow significantly as new applications are developed.
- *Strong Research and Development Capabilities and Intellectual Property Position.* We have and will continue to invest substantially in research and development to increase the density and throughput of our IFCs, thereby enabling scalability and greater efficiency. We have developed an extensive portfolio of intellectual property, including more than 80 issued U.S. patents and 240 patent applications pending worldwide either owned by or licensed to us.
- *Efficient Singapore-Based Manufacturing and Process Development.* We established our manufacturing facility in Singapore to take advantage of the skilled workforce, supplier and partner network, lower operating costs and government support available there. Our IFC manufacturing process includes photolithography and fabrication technologies that are very similar to those used in the fabrication of semiconductor chips. As a result, we are able to hire from a pool of skilled manpower and access and collaborate with a broad network of suppliers and partners for our manufacturing operations created by the existing semiconductor industry in Singapore.

Our Target Markets

The life science industry is currently facing challenges similar to those faced by the information technology industry when computational power was constrained by the inherent limitations of the vacuum tube. Life science research efforts, ranging from large-scale initiatives, such as the Human Genome Project, to more traditional academic and commercial research projects, are continuing to reveal the complex biological and chemical processes that are fundamental to living organisms. Developing and applying this knowledge increasingly requires performing experimentation on a scale and with a precision that can be achieved only through automation. However, the most common forms of life science automation rely on cumbersome robotic systems that are slow, expensive and labor intensive and, we believe, fundamentally constrain life science research. In much the same way that integrated circuits overcame the limitations of early computers by placing an increasing number of transistors on a single silicon chip, our IFCs are designed to overcome many of the limitations of conventional laboratory systems by integrating an increasing number of fluidic components on a single microfabricated IFC.

Our IFCs are designed to meet the needs of researchers and clinicians performing large-scale experimentation in the areas of genomics, including gene expression, genotyping and digital PCR, protein crystallization and, potentially, molecular diagnostics. Genomic analysis is useful in a broad range of medical, scientific and commercial applications. Protein crystallization is a fundamental step in structural biology and is widely used to understand and analyze disease pathways and the effects of pharmaceutical agents. Molecular diagnostic tests are used in clinical practice to diagnose, classify or monitor a disease, often by using forms of genomic analysis.

To achieve and exploit advances in genomics, proteomics and molecular diagnostics, research and clinical laboratories need robust systems that deliver increased throughput and simpler workflows at decreased costs. Researchers performing large-scale experimentation using conventional laboratory systems, such as microwell-based systems, face many limitations including complex workflow, limited throughput, labor intensive operations, large sample requirements and high running costs. Alternative high throughput approaches, such as microarrays, pre-formatted arrays, bead arrays and mass spectrometry analysis face one or more limitations such as limited flexibility, poor data quality, complex and slow workflows or high running costs.

The Fluidigm Solution

Our IFC systems are designed to overcome many of the limitations of conventional methods by enabling researchers and clinicians to rapidly perform a large number of experiments at one time and in nanoliter volumes, significantly increasing throughput, reducing reagent costs, conserving patient samples and reducing workflow complexity. We commercially introduced our Topaz IFCs in the first quarter of 2003, our BioMark 48.48 IFC in the fourth quarter of 2006 and we expect to commercialize our BioMark 96.96 IFCs in the second half of 2008.

The advantages of our IFC systems over existing microwell-based systems include:

- *Reduced Complexity.* Loading our IFC requires orders of magnitude fewer pipetting steps than 384 microwell plates for the same experiment, which reduces the time, cost and potential for error.
- *Improved Throughput.* A single IFC based on our 96.96 format can conduct 9,216 real time quantitative PCR or other assays, or 24 times the assays that can be conducted on a single 384 microwell plate. The improved throughput reduces the time and cost associated with complex experiments and expands the number and range of experiments that may be conducted.
- *Nanoliter Precision.* Our IFC systems allow users to dispense samples and reagents in volumes which are automatically combined and mixed in nanoliter and sub-nanoliter volumes. In addition to cost and workflow benefits, this capability makes it practical for users to conduct certain high sensitivity, low volume techniques, such as digital PCR and single cell analysis.
- *Reduced Reagent and Sample Requirements.* Our systems operate on nanoliter volumes of reagents and samples. Each assay conducted on our systems requires a total of 10 nanoliters or less of reagents and samples, which is between 0.5% and 1.0% of the amount required by conventional microwell systems.
- *Decreased Capital Cost.* A single BioMark system has the same throughput as the combined throughput of multiple conventional systems. As a result, for high volume users, the cost of purchasing one BioMark system can be much lower than the cost of purchasing the number of competing systems and associated robotic equipment required to provide the same throughput, even though our BioMark system may cost more on a per unit basis.
- *Compatibility with Existing Infrastructure.* Our IFCs incorporate plastic input frames that are the same size as standard microwell plates and are designed to work with the most commonly used laboratory systems, including existing robotic pipetting systems, bar code readers, plate handling systems and other equipment. Our IFCs are also designed to work with standard real time quantitative PCR techniques and TaqMan chemistries.

Our systems and technology also have advantages over other high throughput methods for large-scale experimentation. Unlike many microarrays, pre-formatted arrays and bead arrays, our systems offer a range of flexibility that allow researchers to dynamically specify and refine their assay panels during the course of a study. Conventional microwell plates are routinely used to measure gene expression levels over a broad range whereas microarrays, pre-formatted arrays, bead arrays and mass spectrometer analysis generally do not. These other methods can also be very expensive for certain types of large-scale experimentation. For validation studies, which typically require the analysis of thousands or tens of thousands of samples, the high per unit cost of microarrays and bead arrays often make them uneconomical. Similarly, the high initial setup costs for mass spectrometry analysis generally make it economical only for very large-scale studies.

The Fluidigm Strategy

We intend to become a global leader in providing life science automation systems. Our business strategy consists of the following elements:

- Establish our IFC technology as the leading solution for a broad range of life science applications;
- Continue to increase the throughput and efficiency of our IFCs;
- Expand recurring IFC revenue stream through product innovation and system sales;

- Provide superior customer service;
- Enhance IFC manufacturing efficiency; and
- Continue to develop our technology and intellectual property position.

Risks Affecting Us

Our business is subject to numerous risks, as more fully described in the section entitled "Risk Factors" immediately following this prospectus summary, including the following:

- We have incurred significant losses since our inception, had an accumulated deficit of $133.8 million as of December 29, 2007 and expect to incur losses for the foreseeable future.
- If our products fail to achieve and sustain market acceptance, our revenue will be adversely affected.
- Our sales cycle for the BioMark and Topaz systems is lengthy and unpredictable, which makes it difficult for us to forecast revenue and could cause significant quarterly fluctuations in revenue and other operating results.
- We receive a substantial portion of our revenues from a limited number of customers and other entities, and the loss of, or a significant reduction in, orders or grants from one or more of our major customers or grantors would adversely affect our operations and financial condition.
- The life science industry is highly competitive and subject to rapid technological change, and we may not be able to successfully compete.
- We have limited experience in producing our products, and we may experience development or manufacturing problems or delays that could limit the growth of our revenue or increase our losses.
- We are dependent on single source suppliers for some of the components and materials used in our systems, and the loss of any of these suppliers could harm our business.
- Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain, and we are dependent on certain licensed-in technology. In addition, future third-party claims of intellectual property infringement could adversely affect our operations and financial condition.

Corporate History and Information

We were incorporated in California in May 1999 as Mycometrix Corporation, changed our name to Fluidigm Corporation in April 2001 and reincorporated in Delaware in July 2007. Our principal executive offices are located at 7000 Shoreline Court, Suite 100, South San Francisco, CA 94080. Our telephone number is (650) 266-6000. Our website address is www.fluidigm.com. Information contained on our website is not incorporated by reference into this prospectus, and should not be considered to be part of this prospectus.

"Fluidigm," the Fluidigm logo, "Topaz," "BioMark," "AutoInspeX," "MSL" and "NanoFlex" are trademanrks or registered trademarks of Fluidigm. Other service marks, trademarks and trade names referred to in this prospectus are the property of their respective owners.

THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding after this offering	shares
Use of proceeds	We intend to use the net proceeds from this offering to expand our sales force, support the commercialization of our products, continue research and development, expand our facilities and manufacturing operations and for working capital and other general corporate purposes. We may also use a portion of the net proceeds to acquire other businesses, products or technologies. However, we do not have agreements or commitments for any specific acquisitions at this time. See "Use of Proceeds."
Proposed NASDAQ Global Market symbol	FLDM

The number of shares of our common stock to be outstanding following this offering is based on 66,572,205 shares of our common stock outstanding as of December 29, 2007, but excludes:

- 7,467,230 shares of common stock issuable upon exercise of options outstanding as of December 29, 2007 at a weighted average exercise price of $0.79 per share;
- 698,720 shares of common stock issuable upon the exercise of warrants outstanding as of December 29, 2007 at a weighted average exercise price of $2.71 per share, after conversion from preferred stock;
- 1,197,154 shares of common stock reserved for future issuance under our stock-based compensation plans, including shares of common stock reserved for issuance under our 2008 Equity Incentive Plan, which will become effective on the date of this prospectus, and any future increase in shares reserved for issuance under such plan; and
- 33,334 shares of common stock that were legally issued and outstanding but were not included in stockholders' deficit as of December 29, 2007 pursuant to accounting principles generally accepted in the United States, as these shares were subject to a right of repurchase by us.

Unless otherwise indicated, this prospectus reflects and assumes the following:

- a -for- reverse split of our outstanding common stock and convertible preferred stock, to be effected prior to the completion of this offering;
- the conversion of all outstanding shares of our convertible preferred stock into an aggregate of 56,670,894 shares of common stock upon the closing of this offering;
- the filing of our amended and restated certificate of incorporation immediately prior to the effectiveness of this offering;
- the automatic conversion of principal and accrued interest on a convertible promissory note held by Biomedical Sciences Fund Pte. Ltd. into 1,466,210 shares of our common stock upon closing of this offering; and
- no exercise by the underwriters of their over-allotment option.

SUMMARY CONSOLIDATED FINANCIAL DATA

We have derived the summary consolidated statement of operations data for the years ended December 31, 2005, December 31, 2006 and December 29, 2007 and the consolidated balance sheet data as of December 29, 2007 from our audited consolidated financial statements included elsewhere in this prospectus. Our historical results are not necessarily indicative of the results that may be expected in the future. The following summary consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes, included elsewhere in this prospectus.

	Year Ended		
	December 31, 2005	December 31, 2006	December 29, 2007
	(in thousands, except per share amounts)		
Consolidated Statement of Operations Data:			
Revenue:			
Product revenue	$ 6,076	$ 3,959	$ 4,451
Collaboration revenue	1,568	1,376	460
Grant revenue	30	1,063	2,364
Total revenue	7,674	6,398	7,275
Cost and expenses:			
Cost of product revenue	4,764	2,773	3,514
Research and development	11,449	15,589	14,389
Selling, general and administrative	7,955	9,699	12,898
Total costs and expenses	24,168	28,061	30,801
Loss from operations	(16,494)	(21,663)	(23,526)
Interest expense	(898)	(2,261)	(2,790)
Interest income	340	565	1,140
Other income (expense), net	30	(194)	(170)
Loss before provision for income taxes and cumulative effect of change in accounting principle	(17,022)	(23,553)	(25,346)
Provision for income taxes	—	—	(105)
Loss before cumulative effect of change in accounting principle	(17,022)	(23,553)	(25,451)
Cumulative effect of change in accounting principle	637	—	—
Net loss	$ (16,385)	$ (23,553)	$ (25,451)
Net loss per share of common stock, basic and diluted(1)	$ (1.82)	$ (2.53)	$ (2.63)
Shares used in computing net loss per share of common stock, basic and diluted(1)	9,018	9,316	9,671
Pro forma net loss per share of common stock, basic and diluted(1)	$		
Shares used in computing net loss per share of common stock, basic and diluted			

(1) Please see Note 2 to our audited consolidated financial statements for an explanation of the method used to calculate basic and diluted net loss per share and pro forma net loss per share.

	As of December 29, 2007		
	Actual	Pro Forma(1)	Pro Forma As Adjusted(2)(3)
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents and available-for-sale securities	$ 40,363	$	$
Working capital	38,754		
Total assets	54,776		
Total long-term debt and convertible promissory notes	14,359		
Convertible preferred stock warrant liabilities	468		
Convertible preferred stock	162,082		
Total stockholders' equity (deficit)	(130,331)		

(1) The pro forma balance sheet data in the table above reflects (1) the automatic conversion principal and accrued interest of a convertible promissory note held by BioMedical Sciences Fund Pte. Ltd. into 1,466,210 shares of our common stock upon closing of this offering, (2) the conversion of all outstanding shares of convertible preferred stock into common stock and (3) the reclassification of the convertible preferred stock warrant liabilities to additional paid-in-capital, each effective upon the closing of this offering.

(2) The pro forma as adjusted balance sheet data in the table above also reflects the sale of shares of our common stock in this offering and the application of the net proceeds at an initial public offering price of $ per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the range set forth on the cover page of this prospectus, would increase (decrease) each of cash, cash equivalents and available-for-sale securities, working capital, total assets and total stockholders' equity by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions payable by us. Each increase of 1.0 million shares in the number of shares offered by us would increase each of cash, cash equivalents, available-for-sale securities, working capital, total assets and total stockholders' equity by approximately $ million. Similarly, each decrease of 1.0 million shares in the number of shares offered by us would decrease each of cash, cash equivalents, available-for-sale securities, working capital, total assets and total stockholders' equity by approximately $ million. The pro forma as adjusted information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including our consolidated financial statements and related notes, before deciding whether to purchase shares of our common stock. If any of the following risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the price of our common stock could decline and you could lose part or all of your investment.

Risks Related to our Business and Strategy

We have incurred losses since inception, and we expect to continue to incur substantial losses for the foreseeable future.

We have a limited operating history and have incurred significant losses in each fiscal year since our inception, including net losses of $16.4 million, $23.6 million and $25.5 million during 2005, 2006 and 2007. As of December 29, 2007, we had an accumulated deficit of $133.8 million. These losses have resulted principally from costs incurred in our research and development programs and from our selling, general and administrative expenses. We expect to continue to incur operating and net losses and negative cash flow from operations, which may increase, for the foreseeable future due in part to anticipated increases in expenses for research and product development and expansion of our sales and marketing capabilities. Additionally, following this offering, we expect that our selling, general and administrative expenses will increase due to the additional operational and reporting costs associated with being a public company. We anticipate that our business will generate operating losses until we successfully implement our commercial development strategy and generate significant additional revenues to support our level of operating expenses. Because of the numerous risks and uncertainties associated with our commercialization efforts and future product development, we are unable to predict when we will become profitable, and we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase our profitability.

If our products fail to achieve and sustain sufficient market acceptance, our revenue will be adversely affected.

Our success depends, in part, on our ability to develop and market products that are recognized and accepted as reliable, enabling and cost effective. Most of our potential customers already use expensive research systems in their laboratories and may be reluctant to replace those systems. Market acceptance of our instrument systems will depend on many factors, including our ability to convince potential customers that our systems are an attractive alternative to existing technologies. Compared to other technologies, our Integrated Fluidic Circuit, or IFC, technology is new and unproven, and most potential customers have limited knowledge of, or experience with, our products. Prior to adopting our technology, potential customers generally need to devote significant effort to testing and validating our systems and benchmarking them against their current systems and performance requirements. Any failure of our systems to meet these customer benchmarks could result in customers choosing to retain their existing systems or to purchase systems other than ours.

In addition, many customers intend to publish the results of their experiments in scientific and medical journals. Therefore, it is important that our systems be perceived as accurate and reliable by the scientific and medical research community as a whole. Many factors influence the perception of a system including its use by leading research groups and the publication of their results in well regarded journals. A significant part of our sales and marketing efforts have been directed at convincing industry leaders of the advantages of our systems and encouraging such leaders to publish or present the results of their evaluation of our system. If we are unable to induce leading researchers to use our system or if such researchers are unable to achieve and publish or present significant experimental results using our system, acceptance and adoption of our systems will be slowed.

Our sales cycle is lengthy and unpredictable, which makes it difficult for us to forecast revenue and could cause significant quarterly fluctuations in revenue and other operating results.

The sales cycles for our instrument systems is lengthy, which makes it difficult for us to accurately forecast revenues in a given period, and may cause revenue and operating results to vary significantly from period to period.

Due in part to the high up-front cost associated with our systems, potential customers for our instrument systems typically need to commit significant time and resources to evaluate our technology and their decision to purchase our instruments may be further limited by budgetary constraints and several layers of internal review and approval, which are beyond our control. Even after initial approval by appropriate decision makers, the negotiation and documentation processes for a purchase can be lengthy. As a result of these factors, our sales cycle has varied widely and, in certain instances has been longer than 12 months. The complexity and variability of our sales cycle has made it difficult for us to accurately project quarterly revenues, and we have frequently failed to meet our internal quarterly projections. Moreover, we do not recognize revenue on sales of our systems until the system has been delivered to the customer and, in many instances, installed and our other revenue recognition criteria have been met. This further complicates our ability to project quarterly revenue as we may have entered into a sale agreement with a customer for a system but cannot predict when that customer will take delivery of the system and when we will be able to recognize the revenue. We expect that our sales will continue to fluctuate on a quarterly basis and that our financial results for some periods may be below those projected by securities analysts. Such fluctuations could have a material adverse effect on our business and on the price of our common stock.

Our sales efforts require significant time and effort and could hinder our ability to increase sales.

Before purchasing one of our systems, customers typically require input from one or more scientific evaluators as well as a review by personnel with finance or operational expertise. As a result, during our sales effort, we must identify all persons involved in the purchasing decision and devote a sufficient amount of time to presenting our systems to those individuals. The newness and complexity of our products often requires us to spend substantial time and effort assisting potential customers in evaluating our instruments including providing demonstrations and benchmarking our products against other available technologies. This process can be costly and time consuming. We expect that our sales process will become less burdensome as our products become more widely known and used. However, if this change does not occur, we will not be able to expand our sales effort as quickly as anticipated and our sales will be adversely affected.

Our future success is dependent upon our ability to expand our customer base and introduce new applications.

Our customer base is primarily composed of pharmaceutical and biotechnology companies, academic institutions and life science laboratories that perform large-scale experimentation for life science research purposes. Our success will depend in part upon our ability to increase our market share amongst these customers, attract life science research customers who do not currently perform large-scale experimentation, attract customers outside the life science research market and market new applications to existing and new customers as we develop such applications. Attracting new customers and introducing new applications requires substantial time and expense. For example, it may be difficult to identify, engage and market to customers who do not currently perform large-scale experimentation or are unfamiliar with our current applications. In addition, certain new applications that we are considering developing are not practical to perform with conventional techniques. Any failure to expand our existing customer base or launch new applications would adversely affect our ability to increase our revenues.

Our inability to develop new systems and enhance the capabilities of our IFC systems to keep pace with rapidly changing technology and customer requirements could adversely affect our business.

Our success depends on our ability to develop new applications for our IFC technology in existing and new markets, while improving the performance and cost effectiveness of our systems. New technologies, techniques or products could emerge that might offer better combinations of price and performance than our current or future product lines and systems. Existing markets for our products, including gene expression analysis, genotyping, digital polymerase chain reaction, or PCR, and proteomics, as well as potential markets for our products such as molecular diagnostics, are characterized by rapid technological change and innovation. It is critical to our success for us to anticipate changes in technology and customer requirements and to successfully introduce new, enhanced and competitive technology to meet our customers' and prospective customers' needs on a timely basis. While we have planned substantial improvements to the BioMark system, including enhancing the capabilities of our IFCs, we may not be able to successfully implement these improvements. Even if we successfully implement some or all of these planned improvements, we could incur substantial development costs in doing so. We may not have adequate resources available to develop new technologies or be able to successfully introduce new applications of,

or enhancements to, our systems. We cannot guarantee that we will be able to maintain technological advantages over emerging technologies in the future. If we fail to keep pace with emerging technologies, demand for our systems will not grow and may decline, and our business, revenue, financial condition and operating results could suffer materially.

We have limited resources for marketing, selling and distributing our products and we may not be able to develop a direct sales and marketing force or distribution capabilities that can meet our customers' needs.

We have limited marketing, sales and distribution resources and capabilities. We sell our products primarily through our own sales force and through distributors in certain territories. Our first product line, the Topaz system for protein crystallization, was introduced for commercial sale in 2002. Our BioMark system was introduced for commercial sale in 2006.

Our future sales will depend in large part on our ability to develop and expand our direct sales force and to increase the scope of our marketing efforts. Our products are technically complex and used for highly specialized applications. As a result, we believe it is necessary to develop a direct sales force that includes people with specific scientific backgrounds and expertise and a marketing group with technical sophistication. Competition for such employees is intense. We may not be able to attract and retain personnel or be able to build an efficient and effective sales and marketing force, which could negatively impact sales of our products, and reduce our revenues and profitability.

In addition, we may seek to enlist one or more parties to assist with sales, distribution and customer support globally or in certain regions of the world. If we do seek to enter into such arrangements, we may not be successful in attracting desirable sales and distribution partners, or we may not be able to enter into such arrangements on favorable terms. If our sales and marketing efforts, or those of any third-party sales and distribution partners, are not successful, our technologies and products may not gain market acceptance, which would materially impact our business operations.

The life science industry is highly competitive and subject to rapid technological change, and we may not be able to successfully compete.

The markets for our products are characterized by rapidly changing technology, evolving industry standards, changes in customer needs, emerging competition, new product introductions and strong price competition. We compete with both established and development stage life science companies that design, manufacture and market instruments for gene expression analysis, genotyping, other nucleic acid detection and additional applications using well established laboratory techniques, as well as newer technologies such as bead encoded arrays, microfluidics, nanotechnology, next-generation DNA sequencing and inkjet and photolithographic arrays. Most of our current competitors have significantly greater name recognition, greater financial and human resources, broader product lines and product packages, larger sales forces, large existing installed bases, substantial intellectual property portfolios and greater experience in research and development, manufacturing and marketing than we do. For example, companies such as Affymetrix, Applied Biosystems, BioTrove, Illumina, Roche Diagnostics and Sequenom have products that compete in certain segments of the market in which we sell our BioMark system.

Competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. In light of these advantages, even if our technology is more effective than the product or service offerings of our competitors, current or potential customers might accept competitive products and services in lieu of purchasing our technology. We anticipate that we will face increased competition in the future as existing companies and competitors develop new or improved products and as new companies enter the market with new technologies. We may not be able to compete effectively against these organizations. Increased competition is likely to result in pricing pressures, which could harm our sales, profitability or market share. Our failure to compete effectively could materially and adversely affect our business, financial condition and results of operations.

We receive a substantial portion of our revenue from a limited number of customers and other entities, and the loss of, or a significant reduction in, orders or grants from one or more of our major customers or grantors would adversely affect our operations and financial condition.

We receive a substantial portion of our revenue from a limited number of customers and grantors. We received an aggregate of approximately 36%, 44% and 37% of our total revenue from our top three customers in 2005, 2006 and 2007. Grant revenue from the Singapore Economic Development Board, or EDB, represented 14% and 24% of our total revenue in 2006 and 2007. We anticipate that we will continue to be dependent on a limited number of customers and grantors for a significant portion of our revenue in the near future and in some cases the portion of our revenue attributable to certain customers or grantors may increase in the future. However, we may not be able to maintain or increase sales to our top customers or grants from our top grantors for a variety of reasons, including the following:

- our agreements with our customers and grantors do not require them to purchase a minimum quantity of our products or make a minimum amount of grants in any year;
- our customers can stop using our products with limited notice to us and suffer little or no payment penalty;
- our grants are subject to the achievement of milestones that we may not meet; and
- many of our customers have pre-existing or concurrent relationships with our current or potential competitors that may affect the customers' decisions to purchase our products.

In the past, we have relied in significant part on our strategic relationships with customers that are technology leaders in our target markets. We intend to pursue the expansion of such relationships and the formation of new strategic relationships but we cannot assure you that we will be able to do so. These relationships often require us to develop new products that may involve significant technological challenges. Our customers frequently place considerable pressure on us to meet their tight development schedules. Our grantors frequently condition their present and future grants on our compliance with certain development, hiring and local investment milestones. Accordingly, we may have to devote a substantial amount of our resources to our strategic relationships, which could detract from or delay our completion of other important development projects. Delays in development could impair our relationships with our strategic customers and grantors and negatively impact sales of the products under development or future grant activity. The loss of a key customer or grantor, a reduction in sales to any key customer, a reduction in grants from a key grantor, or our inability to attract new significant customers could seriously impact our revenue and materially and adversely affect our results of operations.

Our business depends on research and development spending levels of pharmaceutical and biotechnology companies and academic, clinical and governmental research institutions and any reduction in such spending could limit our ability to sell our products.

We expect that our revenue in the foreseeable future will be derived primarily from sales of instruments and IFCs to academic institutions, biotechnology and pharmaceutical companies and life science laboratories worldwide. Our success will depend upon their demand for and use of our products. Accordingly, the spending policies of these customers could have a significant effect on the demand for our technology. These policies may be based on a wide variety of factors, including the resources available to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods and changes in the political climate. In addition, academic, governmental and other research institutions that fund research and development activities may be subject to stringent budgetary constraints that could result in spending reductions, reduced allocations or budget cutbacks, which could jeopardize the ability of these customers to purchase our system. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers. For example, reductions in capital expenditures by these customers may result in lower than expected system sales and, similarly, reductions in operating expenditures by these customers could result in lower than expected sales of IFCs. These reductions and delays may result from factors that are not within our control, such as:

- changes in economic conditions;
- changes in government programs that provide funding to research institutions and companies;

- changes in the regulatory environment affecting life science companies and life science research;
- market-driven pressures on companies to consolidate operations and reduce costs;
- mergers and acquisitions in the life science industry; and
- other factors affecting research and development spending.

Any decrease in our customers' budgets or expenditures or in the size, scope or frequency of capital or operating expenditures as a result of the foregoing or other factors could materially adversely affect our operations or financial condition.

If we cannot provide quality technical support, we could lose customers and our operating results could suffer.

The placement of our products at new customer sites, the introduction of our technology into our customers' existing systems and ongoing customer support can be complex. Accordingly, we need highly trained technical support personnel. Hiring technical support personnel is very competitive in our industry due to the limited number of people available with the necessary biochemistry background and ability to understand our systems at a technical level. We are currently expanding our technical support staff and will need to increase it further to support expected new customers as well as the expanding needs of existing customers. If we are unable to attract, train or retain the number of highly qualified technical services personnel that our business needs, our business and prospects will suffer.

To use our products, customers typically need to purchase specialized reagents. Any interruption in the availability of these reagents for use in our products could limit our ability to market our products.

Our products must be used in conjunction with one or more reagents designed to produce or facilitate the particular biological or chemical reaction desired by the user. Many of these reagents are highly specialized and available to the user only from a single supplier or a limited number of suppliers. Our customers typically purchase these reagents directly from the suppliers and we have no control over the supply of those materials. In addition, our products are designed to work with these reagents as they are currently formulated. We have no control of the formulation of these reagents and the performance of our products might be adversely affected if the formulation of these reagents was changed. If one or more of these reagents were to become unavailable or were reformulated, our ability to market and sell our products could be materially and adversely affected.

In addition, the use of a reagent for a particular process may be covered by one or more patents relating to the reagent itself, the use of the reagent for the particular process, the performance of that process or the equipment required to perform the process. Typically, reagent suppliers, who are either the patent holders or their authorized licensees, sell the reagents along with a license or covenant not to sue with respect to such patents. The license accompanying the sale of a reagent often purports to restrict the purposes for which the reagent may be used. If a patent holder or authorized licensee were to assert against us or our customers that the license or covenant relating to a reagent precluded its use with our systems, our ability to sell and market our products could be materially and adversely affected. For example, the current applications of our BioMark system involve real-time polymerase chain reaction, or PCR, reactions. The primary producers of reagents for PCR reactions are Applied Biosystems and Roche Diagnostics, who are our direct competitors, and their licensees. These PCR reagents are sold pursuant to limited licenses or covenants with respect to patents held by these companies. We do not have any contractual relationship with Roche Molecular Diagnostics or Applied Biosystems regarding these PCR reagents, and we cannot assure you that these reagents will continue to be available to our customers for use with our systems, or that these patent holders will not seek to enforce their patents against us, our customers, or suppliers.

We are dependent on single source suppliers for some of the components and materials used in our systems, and the loss of any of these suppliers could harm our business.

We rely on single source suppliers for certain components and materials used in our systems. Of these single source suppliers, the loss of any of the following would require significant time and effort to locate and qualify an alternative source of supply:

- An essential component of our BioMark system is a specialized thermal cycler that is available from a limited number of suppliers. We purchase this thermal cycler from one supplier, Eppendorf North America, which customizes it to our specifications pursuant to a supply agreement.
- Our IFCs are fabricated using a specialized polymer that is available from a limited number of sources. In the past we have encountered quality issues that have reduced our manufacturing yield or required the use of additional manufacturing processes. We do not have a long term contract with our current sole supplier.
- The plastic carriers that hold the core components of our IFCs need to be produced to specifications and tolerances that few manufacturers are able to meet. We have experienced quality issues in the past and, as a result, have recently switched suppliers. We do not have a long term contract with either of our current sole suppliers for particular carriers.
- The reader for our BioMark system requires specialized high resolution camera lenses that are available from a limited number of sources. We do not have a long term contract with our current sole supplier.

Our reliance on these suppliers also subjects us to other risks that could harm our business, including the following:

- we may be subject to increased component costs;
- we are not a major customer of many of our suppliers, and these suppliers may therefore give other customers' needs higher priority than ours;
- we may not be able to obtain adequate supply in a timely manner or on commercially reasonable terms;
- our suppliers may make errors in manufacturing components that could negatively affect the efficacy of our systems or cause delays in shipment of our systems; and
- our suppliers may encounter financial hardships unrelated to our demand for components, which could inhibit their ability to fulfill our orders and meet our requirements.

We have in the past experienced supply problems with some of our suppliers, such as manufacturing errors, and may again experience problems in the future. We may not be able to quickly establish additional or replacement suppliers, particularly for our single source components. Any interruption or delay in the supply of components or materials, or our inability to obtain components or materials from alternate sources at acceptable prices in a timely manner, could impair our ability to meet the demand of our customers and cause them to cancel orders or switch to competitive products.

We have limited experience in producing our products, and we may experience development or manufacturing problems or delays that could limit the growth of our revenue or increase our losses.

We have limited experience manufacturing and assembling our products in commercial quantities and we may encounter unforeseen situations that would result in delays or shortfalls. In addition, our production processes and assembly methods may have to change to accommodate any significant future expansion of our manufacturing capacity. If we are unable to keep up with demand for our products, our revenue could be impaired, market acceptance for our products could be adversely affected and our customers might instead purchase our competitors' products. Our inability to successfully manufacture our products would have a material adverse effect on our operating results.

We first produced the IFCs used in our current Topaz system in June 2002 at our facility in South San Francisco. We have since moved our commercial production of IFCs to our facility in Singapore, which first produced commercial IFCs for our Topaz systems in October 2006 and first produced commercial IFCs for our BioMark

system in December 2007. We do not expect to commercialize our 96.96 BioMark IFCs until the second half of 2008. Production of the elastomeric block that is at the core of our IFCs is a complex process requiring advanced clean rooms, sophisticated equipment and strict adherence to procedures. Any contamination of the clean room, equipment malfunction or failure to strictly follow procedures can significantly reduce our yield in one or more batches. Such a drop in yield can greatly increase our cost to manufacture our IFCs or, in more severe cases, require us to halt the manufacture of IFCs until the problem is resolved. Identifying and resolving the cause of a drop in yield can require substantial time and resources. We have had significant yield problems in the past and cannot assure you that these types of yield issues will not occur again. Sustained yield problems would have a material adverse affect on our business, financial condition and results of operations.

In addition, developing an IFC for a new application typically requires developing a specific production process for that type of IFC. While all of our IFCs are produced using the same basic processes, significant variations are required to ensure adequate yield of any particular type of IFC. Developing such a process can be very time consuming, and any unexpected difficulty in doing so can delay the introduction of a product. For example, in the second quarter of 2006, our ability to conduct demonstrations for potential customers for our BioMark system was impaired because we were unable to produce sufficient quantities of that IFC. Though these production problems were resolved, the delay in conducting customer demonstrations resulted in the loss and delay of orders from potential customers. We cannot assure you that we will not face similar difficulties in developing new processes in the future.

If we are unable to recruit and retain key executives and scientists, we may be unable to achieve our goals.

Our performance is substantially dependent on the performance of our senior management and key scientific and technical personnel, particularly Gajus V. Worthington, our President and Chief Executive Officer. We do not maintain fixed term employment contracts with any of our employees. The loss of the services of any member of our senior management or our scientific or technical staff might significantly delay or prevent the development of our products or achievement of other business objectives by diverting management's attention to transition matters and identification of suitable replacements, if any, and could have a material adverse effect on our business. We do not maintain significant key man life insurance on any of our employees.

In addition, our research and product development efforts could be delayed or curtailed if we are unable to attract, train and retain highly skilled employees, particularly, senior scientists and engineers. To expand our research and product development efforts we need additional people skilled in areas such as molecular and cellular biology, assay development and manufacturing. Competition for these people is intense. Because of the complex and technical nature of our system and the dynamic market in which we compete, any failure to attract and retain a sufficient number of qualified employees could materially harm our ability to develop and commercialize our technology.

We may be unable to manage our anticipated growth effectively.

The rapid growth of our business has placed a significant strain on our managerial, operational and financial resources and systems. We have increased the number of our employees from 78 at December 31, 2005 to 131 at December 29, 2007. In addition, since October 2006 we have commenced manufacturing operations in Singapore and opened sales offices in Europe and Japan. To execute our anticipated growth successfully, we must continue to attract and retain qualified personnel and manage and train them effectively. We must also upgrade our internal business processes and capabilities to create the scalability that a growing business demands.

We believe our primary commercial manufacturing facility located in Singapore is sufficient to meet our short-term manufacturing needs. However, the current lease for our manufacturing facility in Singapore expires in October 2008. In order to meet the long-term demand for our IFC systems, we believe that we will need to add to our existing manufacturing space in Singapore or move all of our manufacturing facilities to a new location in Singapore. Such a move will involve significant expense in connection with the establishment of new clean rooms, the movement and installation of key manufacturing equipment and modifications to our manufacturing process and we cannot assure you that such a move would not delay or otherwise adversely affect our manufacturing activities.

Further, our anticipated growth will place additional strain on our suppliers and manufacturing facilities, resulting in an increased need for us to carefully monitor quality assurance. Any failure by us to manage our growth effectively could have an adverse effect on our ability to achieve our development and commercialization goals.

Our research and product development efforts may not result in commercially viable products within the timeline anticipated, if at all.

Our business is dependent on the improvement of our existing products, our development of new products to serve existing markets and our development of new products to create new markets and applications that were previously not practical with existing systems. We intend to devote significant personnel and financial resources to research and development activities designed to advance the capabilities of our IFC technology. Our IFC technology is new and complex and the behavior of fluids and surrounding compounds in a nanoscale environment is difficult to predict in advance. Though we have developed design rules for the implementation of our IFC technology, these are frequently revised to reflect new insights we have gained about the technology. In addition, we have discovered that biological or chemical reactions sometimes behave differently when implemented on IFCs rather than in a standard laboratory environment. As a result, significant research and development efforts may be required to transfer even well-understood reactions to our technology. In the past, product development projects have been significantly delayed when we encountered unanticipated difficulties in implementing a process on our IFCs. We may have similar delays in the future, and we may not obtain any benefits from our research and development activities. Any delay or failure by us to develop new products or enhance existing products would have a substantial adverse effect on our business and results of operations.

Our products, although not currently regulated, could in the future be subject to regulation by the U.S. Food and Drug Administration or other regulatory agencies.

Our products are currently labeled and sold for research purposes only and are not subject to U.S. Food and Drug Administration, or FDA, clearance or approval. However, in the future, certain of our products or related applications could be subject to the FDA's regulation, the FDA's regulatory jurisdiction could be expanded to include our products, or both. For example, if we wished to label and market our products for use in performing clinical diagnostics, FDA clearance or approval would be required. Even where a product is exempted from FDA clearance or approval, the FDA may impose restrictions on how and to whom we can market and sell our products. Obtaining FDA approval can be expensive and uncertain, generally takes several years to obtain and requires detailed and comprehensive scientific and clinical data. Notwithstanding the expense, these efforts may never result in FDA approval or clearance. Even if we were to obtain regulatory approval or clearance, it may not be for the uses we believe are important or commercially attractive. As a result, these regulations and restrictions could materially and adversely affect our business, financial condition and results of operations. Similar laws and regulations are also in effect in many foreign countries that could affect our ability to market certain products. The number and scope of these requirements are increasing. We may not be able to obtain regulatory approvals in such countries or may incur significant costs in obtaining or maintaining our foreign regulatory approvals.

Our future capital needs are uncertain and we may need to raise additional funds in the future.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents, available for sale securities balances and cash receipts generated from sales of our products, will be sufficient to meet our anticipated cash requirements for at least the next 18 months. However, we may need to raise substantial additional capital to:

- expand the commercialization of our products;
- fund our operations;
- continue our research and development;
- defend, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights;
- commercialize new products; and
- acquire companies and in-license products or intellectual property.

Our future funding requirements will depend on many factors, including:

- market acceptance of our products;
- the cost of our research and development activities;
- the cost of filing and prosecuting patent applications;
- the cost of defending, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights;
- the cost and timing of regulatory clearances or approvals, if any;
- the cost and timing of establishing additional sales, marketing and distribution capabilities;
- the cost and timing of establishing additional technical support capabilities;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

If we require additional funds in the future, such funds may not be available on acceptable terms, or at all.

We may require additional funds in the future and we may not be able to obtain such funds on acceptable terms, or at all. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, or delay, reduce the scope of or eliminate some or all of our development programs.

If we do not have, or are not able to obtain, sufficient funds, we may have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these factors could harm our operating results.

Our products could have unknown defects or errors, which may give rise to claims against us and adversely affect market adoption of our systems.

Our IFC systems utilize novel and complex technology applied on a nanoliter scale and such systems may develop or contain undetected defects or errors. We cannot assure you that material performance problems, defects or errors will not arise, and as we increase the density and integration of our IFCs, these risks may increase. While we do not provide express warranties that our IFCs will meet performance expectations or be free from defects, we have done so in the past, and expect to in the future in response to customer concerns in order to preserve customer relationships and help foster continued adoption and use of our systems. We typically do provide warranties relating to other parts of our IFC systems. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins.

In manufacturing our products, we depend upon third parties for the supply of various components. Many of these components require a significant degree of technical expertise to produce. If our suppliers fail to produce components to specification, or if the suppliers, or we, use defective materials or workmanship in the manufacturing process, the reliability and performance of our products will be compromised.

If our products contain defects, we may experience:

- a failure to achieve market acceptance or expansion of our product sales;
- loss of customer orders and delay in order fulfillment;
- damage to our brand reputation;

- increased cost of our warranty program due to product repair or replacement;
- product recalls or replacements;
- inability to attract new customers;
- diversion of resources from our manufacturing and research and development departments into our service department; and
- legal claims against us, including product liability claims, which could be costly and time consuming to defend and result in substantial damages.

The occurrence of any one or more of the foregoing could negatively affect our business, financial condition and results of operations.

We sell our systems internationally and are subject to various risks relating to such international activities which could adversely affect our international sales and operating performance.

In the years ended December 31, 2006 and December 29, 2007, approximately 39% and 52% of our total revenue was attributable to sales in areas outside of North America. We believe that a significant percentage of our future revenue will come from international sales as we expand our overseas operations and develop opportunities in additional international areas. Our international business may be adversely affected by changing economic, political and regulatory conditions in foreign countries. Because the majority of our sales are currently denominated in U.S. dollars, if the value of the U.S. dollar increases relative to foreign currencies, our products could become more costly to the international consumer and therefore less competitive in international markets, which could affect our financial performance. In addition, if the value of the U.S. dollar decreases relative to the Singapore dollar, it would become more costly in U.S. dollars for us to manufacture our products in Singapore. Furthermore, fluctuations in exchange rates could reduce our revenue and affect demand for our products. Engaging in international business inherently involves a number of other difficulties and risks, including:

- required compliance with existing and changing foreign regulatory requirements and laws;
- export or import restrictions;
- laws and business practices favoring local companies;
- longer payment cycles and difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- political and economic instability;
- potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements and other trade barriers;
- difficulties and costs of staffing and managing foreign operations; and
- difficulties protecting or procuring intellectual property rights.

If one or more of these risks occurs, it could require us to dedicate significant resources to remedy, and if we are unsuccessful in finding a solution, our financial results will suffer.

We use hazardous chemicals and biological materials in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.

Our research and development and manufacturing processes involve the controlled use of hazardous materials, including flammables, toxics, corrosives and biologics. Our operations produce hazardous biological and chemical waste products. We cannot eliminate the risk of accidental contamination or discharge and any resultant injury from these materials. In addition, our IFC systems involve the use of pressurized systems and may involve the use of hazardous materials, which could result in injury. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials. We do not currently maintain separate environmental liability coverage. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal

of hazardous materials. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research, development and production efforts.

If our facilities become inoperable, we will be unable to continue manufacturing our products and as a result, our business will be harmed until we are able to secure a new facility.

We manufacture and assemble our IFCs for commercial sale at our facility in Singapore and assemble our instrument platforms at our facilities in Singapore and South San Francisco, California. No other manufacturing or assembly facilities are currently available to us. Our facilities and the equipment we use to manufacture our products would be costly to replace and could require substantial lead time to repair or replace. The facilities may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, flooding and power outages, which may render it difficult or impossible for us to perform our research, development and manufacturing for some period of time. The inability to perform our research, development and manufacturing activities, combined with our limited inventory of reserve raw materials and manufactured supplies, may result in the loss of customers or harm our reputation, and we may be unable to reestablish relationships with those customers in the future. Although we possess insurance for damage to our property and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all.

If we fail to maintain effective internal control over financial reporting in the future, the accuracy and timing of our financial reporting may be adversely affected.

In connection with the audit of our consolidated financial statements for the years ended December 31, 2005 and 2006 we, together with our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting.

The material weaknesses related to our financial statement close process, revenue recognition and accrual processes and inventory costing, cost of sales, purchases cut-off and stock-based compensation. These material weaknesses resulted in the recording of numerous audit adjustments over the two year period ending December 31, 2006. Since the date of our independent registered public accounting firm's reports on our consolidated financial statements for the years ended December 31, 2005 and 2006 and through the date of this prospectus, we have taken steps intended to remediate these material weaknesses, primarily through the hiring of additional accounting and finance personnel with technical accounting and financial reporting experience. In addition, we have implemented procedures and controls in the financial statement close process designed to improve the accuracy and timeliness in financial accounting and reporting.

In April 2008, following the audit of our consolidated financial statements for 2007, we reviewed our internal control over financial reporting and concluded that we had certain significant deficiencies. A significant deficiency is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of a company's financial reporting. The significant deficiencies identified by us related to our controls for the consolidation and elimination entries relating to intercompany transfer pricing and elimination of intercompany profits embedded in deferred costs of our Japanese subsidiary and our controls for applying SFAS 123R to option grants with non-standard vesting terms and validation of stock compensation expenses calculated by our option tracking software.

We do not know the specific time frame that we will require to remediate the significant deficiencies identified. In addition, we expect to incur some incremental costs associated with this remediation. If we fail to enhance our internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act of 2002, or Sarbanes-Oxley Act, we may be unable to report our financial results accurately and prevent fraud. While we expect to remediate the significant deficiencies, we cannot assure you that we will be able to do so in a timely manner, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows.

No material weaknesses in internal control over financial reporting were identified in our April 2008 review. However, our management and independent registered public accounting firm did not perform an evaluation of our internal control over financial reporting during any period in accordance with the provisions of Section 404 of the

Sarbanes-Oxley Act. Had we and our independent registered public accounting firm performed an evaluation of our internal control over financial reporting in accordance with the provisions of Section 404 of the Sarbanes-Oxley Act, additional control deficiencies may have been identified by management or our independent registered public accounting firm.

We will incur significant increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives.

We have never operated as a public company. As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. In addition, the Sarbanes-Oxley Act, as well as new rules subsequently implemented by the Securities and Exchange Commission and the NASDAQ Global Market, have imposed various new requirements on public companies, including requiring changes in corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these new compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs and will make some activities more time-consuming and costly. For example, we expect these new rules and regulations to make it more difficult and more expensive for us to obtain director and officer liability insurance and we may be required to incur substantial costs to maintain the same or similar coverage.

In addition, the Sarbanes-Oxley Act requires, among other things, that we maintain effective internal control over financial reporting and disclosure controls and procedures. In particular, commencing in 2009, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. Our testing, or the subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses. Our compliance with Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues. We currently do not have an internal audit group and we will evaluate the need to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. Moreover, if we are not able to comply with the requirements of Section 404 in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the NASDAQ Global Market, the Securities and Exchange Commission or other regulatory authorities, which would require additional financial and management resources.

Some of our programs are partially supported by government grants, which may be reduced, withdrawn, delayed or reclaimed.

We have received and may continue to receive funds under research and economic development programs funded by the governments of Singapore and the United States. Funding by these governments may be significantly reduced or eliminated in the future for a number of reasons. For example, some U.S. programs are subject to a yearly appropriations process in Congress. Similarly, our grants from the Singapore government are part of an official policy to develop a life science industry in Singapore; that policy could change or the role of grants in it could be reduced or eliminated at any time. In addition, we may not receive funds under existing or future grants because of budgeting constraints of the agency administering the program. A restriction on the government funding available to us would reduce the resources that we would be able to devote to existing and future research and development efforts. Such a reduction could delay the introduction of new products and hurt our competitive position.

Our agreements with the government of Singapore provide that grants extended to us in the past and future grants are subject to our operation of increasing levels of research, development and manufacturing in Singapore, including the use of local service providers, the hiring of personnel in Singapore, the incurrence of research and development expenses in Singapore, our receipt of new investment in our company and our achievement of certain milestones relating to the development of our products. These agreements further provide the government with the right to demand repayment of past grants in the event that it concludes that we have not met our obligations under the applicable agreements.

Our ability to use net operating losses to offset future taxable income may be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code, a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change net operating losses or NOLs to offset future taxable income. Our existing NOLs may be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this offering, our ability to utilize NOLs could be further limited by Section 382 of the Internal Revenue Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Internal Revenue Code. We may not be able to utilize a material portion of the NOLs reflected on our balance sheet and for this reason, we have fully reserved against the value of our NOLs on our balance sheet.

Risks Related to Intellectual Property

Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain.

Our commercial success may depend in part on our ability to protect our intellectual property and proprietary technologies. We rely on patent protection, where appropriate and available, as well as a combination of copyright, trade secret and trademark laws, and nondisclosure, confidentiality and other contractual restrictions to protect our proprietary technology. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Our pending U.S. and foreign patent applications may not issue as patents or may not issue in a form that will be advantageous to us. Any patents we have obtained or do obtain may be subject to re-examination, reissue, opposition or other administrative proceeding, or may be challenged in litigation, and such challenges could result in a determination that the patent is invalid or unenforceable. In addition, competitors may be able to design alternative methods or devices that avoid infringement of our patents. To the extent our intellectual property, including licensed intellectual property, offers inadequate protection, or is found to be invalid or unenforceable, we are exposed to a greater risk of direct competition. If our intellectual property does not provide adequate protection against our competitors' products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent disputes can be time consuming and expensive. Furthermore, the laws of some foreign countries may not protect our intellectual property rights to the same extent as do the laws of the United States.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States. The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business. Changes in either the patent laws or in interpretations of patent laws in the United States or other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. For example:

- We might not have been the first to make the inventions covered by each of our pending patent applications.
- We might not have been the first to file patent applications for these inventions.
- Others may independently develop similar or alternative products and technologies or duplicate any of our products and technologies.
- It is possible that none of our pending patent applications will result in issued patents, and even if they issue as patents, they may not provide a basis for commercially viable products, or may not provide us with any competitive advantages, or may be challenged and invalidated by third parties.
- We may not develop additional proprietary products and technologies that are patentable.

- The patents of others may have an adverse effect on our business.
- We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, we may fail to apply for patents on important products and technologies in a timely fashion or at all.

In addition to pursuing patents on our technology, we take steps to protect our intellectual property and proprietary technology by entering into confidentiality agreements and intellectual property assignment agreements with our employees, consultants, corporate partners and, when needed, our advisors. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure. Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets.

We depend on certain technologies that are licensed to us. We do not control these technologies and any loss of our rights to them could prevent us from selling our products.

We rely on licenses in order to be able to use various proprietary technologies that are material to our business, including our core integrated fluidic circuit and multi-layer soft lithography technologies. We do not own the patents that underlie these licenses. Our rights to use these technologies and employ the inventions claimed in the licensed patents are subject to the negotiation of, continuation of and compliance with the terms of those licenses. In some cases, we do not control the prosecution, maintenance, or filing of the patents to which we hold licenses, or the enforcement of these patents against third parties. Some of our patents and patent applications were either acquired from another company who acquired those patents and patent applications from yet another company, or are licensed from a third party. Thus, these patents and patent applications are not written by us or our attorneys, and we did not have control over the drafting and prosecution. The former patent owners and our licensors might not have given the same attention to the drafting and prosecution of these patents and applications as we would have if we had been the owners of the patents and applications and had control over the drafting and prosecution. We cannot be certain that drafting and/or prosecution of the licensed patents and patent applications by the licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. Enforcement of our licensed patents or defense or any claims asserting the invalidity of these patents is often subject to the control or cooperation of our licensors. Certain of our licenses contain provisions that allow the licensor to terminate the license upon specific conditions. Our rights under the licenses are subject to our continued compliance with the terms of the license, including the payment of royalties due under the license. Because of the complexity of our products and the patents we have licensed, determining the scope of the license and related royalty obligation can be difficult and can lead to disputes between us and the licensor. An unfavorable resolution of such a dispute could lead to an increase in the royalties payable pursuant to the license. If a licensor believed we were not paying the royalties due under the license or were otherwise not in compliance with the terms of the license, the licensor might attempt to revoke the license. If such an attempt were successful, we might be barred from producing and selling some or all of our products. In addition, certain of the patents we have licensed relate to technology that was developed with U.S. government grants. Federal regulations impose certain domestic manufacturing requirements with respect to some of our products embodying these patents. We are in the process of assisting our licensors who received such government grants in considering the applicability of such regulations or seeking waivers from these regulations. If such waivers are required and are not obtained, and the federal government chooses to enforce these regulations, our sales and manufacturing could be materially disrupted, such licenses to us could be made non-exclusive or terminated.

We may be involved in lawsuits to protect or enforce our patents and proprietary rights and to determine the scope, coverage and validity of others' proprietary rights.

Litigation may be necessary to enforce our patent and proprietary rights and/or to determine the scope, coverage and validity of others' proprietary rights. Litigation on these matters has been prevalent in our industry and we expect that this will continue. To determine the priority of inventions, we may have to initiate and participate in interference and re-examination proceedings declared by the U.S. Patent and Trademark Office that could result in

substantial legal fees and could substantially affect the scope of our patent protection. Also, our intellectual property may be subject to significant administrative and litigation proceedings such as invalidity, unenforceability and opposition proceedings against our patents. The outcome of any litigation or interference proceeding might not be favorable to us, and we might not be able to obtain licenses to technology that we require. Even if such licenses are obtainable, they may not be available at a reasonable cost. In addition, if we resort to legal proceedings to enforce our intellectual property rights or to determine the validity, scope and coverage of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. Any litigation that may be necessary in the future could result in substantial costs and diversion of resources and could have a material adverse effect on our business, operating results or financial condition.

Litigation, other proceedings or third party claims of intellectual property infringement could require us to spend significant time and money and could prevent us from selling our products or services or impact our stock price.

Our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. Third parties have asserted and may assert in the future that we are employing their proprietary technology without authorization. Competitors may assert that our products infringe their intellectual property rights as part of a business strategy to impede our successful entry into those markets. For example, numerous significant intellectual property issues have been litigated between existing and new participants in the PCR market, including litigation initiated by Applied Biosystems, Inc., one of our competitors. In addition, our competitors and others may have patents or may in the future obtain patents and claim that use of our products infringes these patents. We could incur substantial costs and divert the attention of our management and technical personnel in defending against any of these claims. Parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products, and could result in the award of substantial damages against us. In the event of a successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties, or be prohibited from selling certain products. We may not be able to obtain these licenses at a reasonable cost, if at all. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins. In addition, we could encounter delays in product introductions while we attempt to develop alternative methods or products to avoid infringing third-party patents or proprietary rights. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing products, and the prohibition of sale of any of our products could materially affect our ability to grow and gain market acceptance for our products.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees' former employers.

Many of our employees were previously employed at universities or other life science companies, including our competitors or potential competitors. Although no claims against us are currently pending, we may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize certain potential products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Risks Related to Our Common Stock and this Offering

We expect that our stock price will fluctuate significantly, and you may not be able to resell your shares at or above the initial public offering price.

Prior to this offering, there has been no public market for shares of our common stock. We cannot predict the extent to which investor interest in our company will lead to the development of an active trading market on the NASDAQ Global Market or otherwise or how liquid that market might become. If an active trading market does not develop, you may have difficulty selling any of our shares of common stock that you buy. We and the underwriters will determine the initial public offering price of our common stock through negotiation. This price will not necessarily reflect the price at which investors in the market will be willing to buy and sell our shares following this offering. In addition, the trading price of our common stock following this offering may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- actual or anticipated quarterly variation in our results of operations or the results of our competitors;
- announcements by us or our competitors of new commercial products, significant contracts, commercial relationships or capital commitments;
- issuance of new or changed securities analysts' reports or recommendations for our stock;
- developments or disputes concerning our intellectual property or other proprietary rights;
- commencement of, or our involvement in, litigation;
- market conditions in the life science sector;
- any major change in our Board or management; and
- general economic conditions and slow or negative growth of our markets.

The trading market for our common stock will rely in part on the research and reports that equity research analysts publish about us and our business. We do not control these analysts or the content and opinions included in their reports. Securities analysts may elect not to provide research coverage of our common stock after the completion of this offering, and such lack of research coverage may adversely affect the market price of our common stock. The price of our stock could decline if one or more equity research analysts downgrade our stock or if those analysts issue other unfavorable commentary or cease publishing reports about us or our business. If one or more equity research analysts ceases coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The initial public offering price of our common stock is substantially higher than the net tangible book value per share of our common stock immediately after this offering. Therefore, if you purchase our common stock in this offering, you will incur an immediate dilution of $ in net tangible book value per share from the price you paid, based on an assumed initial public offering price of $ per share, the mid-point of the range set forth on the cover page of this prospectus. In addition, new investors who purchase shares in this offering will contribute approximately % of the total amount of equity capital raised by us through the date of this offering, but will only own approximately % of the outstanding share capital and approximately % of the voting rights. The exercise of outstanding options and warrants will result in further dilution. For a further description of the dilution that you will experience immediately after this offering, see "Dilution."

Future sales of shares by existing stockholders could cause our stock price to decline.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in this prospectus lapse, the trading price of our common stock could decline. Based on shares outstanding as of December 29, 2007, upon completion of this offering, we will have outstanding a total of shares of common stock, assuming no exercise of the

underwriters' over-allotment option. Of these shares, only the shares of common stock sold in this offering by us will be freely tradable, without restriction, in the public market immediately after the offering. Each of our directors and officers, and certain of our stockholders, have entered into lock-up agreements with the underwriters that restrict their ability to sell or transfer their shares. The lock-up agreements pertaining to this offering will expire 180 days from the date of this prospectus, although they may be extended for up to an additional 34 days under certain circumstances. Our underwriters, however, may, in their sole discretion, permit our officers, directors and other current stockholders who are subject to the contractual lock-up to sell shares prior to the expiration of the lock-up agreements. After the lock-up agreements expire, based on shares outstanding as of December 29, 2007, up to an additional shares of common stock will be eligible for sale in the public market, of which are held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act and various vesting agreements. In addition, shares of common stock that are subject to outstanding options as of December 29, 2007 will become eligible for sale in the public market to the extent permitted by the provisions of various vesting agreements, the lock-up agreements and Rules 144 and 701 under the Securities Act. If these additional shares are sold, or if it is perceived that they will be sold, in the public market, the trading price of our common stock could decline.

Our directors and executive officers will continue to have substantial control over us after this offering and could limit your ability to influence the outcome of key transactions, including changes of control.

Our executive officers, directors and their affiliates will beneficially own or control approximately % of the outstanding shares of our common stock, following the completion of this offering. Accordingly, these executive officers, directors and their affiliates, acting as a group, will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of us, even if such a change of control would benefit our other stockholders. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors' perception that conflicts of interest may exist or arise.

Anti-takeover provisions in our charter documents and under Delaware law could make an acquisition of us, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current management and limit the market price of our common stock.

Provisions in our certificate of incorporation and bylaws, as amended and restated upon the closing of this offering, may have the effect of delaying or preventing a change of control or changes in our management. Our amended and restated certificate of incorporation and amended and restated bylaws to become effective upon completion of this offering include provisions that:

- authorize our Board of Directors to issue, without further action by the stockholders, up to 20,000,000 shares of undesignated preferred stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our Board of Directors;
- establish that our Board of Directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered terms;
- provide that our directors may be removed only for cause;
- provide that vacancies on our Board of Directors may be filled only by a majority of directors then in office, even though less than a quorum;
- specify that no stockholder is permitted to cumulate votes at any election of directors; and

- require a super-majority of votes to amend certain of the above-mentioned provisions.

These provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our Board of Directors, which is responsible for appointing the members of our management. In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which limits the ability of stockholders owning in excess of 15% of our outstanding voting stock to merge or combine with us.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively.

We will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates and cause the price of our common stock to decline.

We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have paid no cash dividends on any of our classes of capital stock to date, have contractual restrictions against paying cash dividends and currently intend to retain our future earnings to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes forward-looking statements that relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Words such as, but not limited to, "believe," "expect," "anticipate," "estimate," "intend," "plan," "targets," "likely," "will," "would," "could," and similar expressions or phrases, or the negative of those expressions or phrases identify forward-looking statements. Although we believe that we have a reasonable basis for each forward-looking statement contained in this prospectus, we caution you that these statements are based on our projections of the future that are subject to known and unknown risks and uncertainties and other factors that may cause our actual results, level of activity, performance or achievements expressed or implied by these forward-looking statements, to differ. The sections in this prospectus entitled "Risk Factors," "Management's Discussion and Analysis of Financial Condition and Results of Operations" and "Business," as well as other sections in this prospectus, discuss some of the factors that could contribute to these differences.

Other unknown or unpredictable factors also could harm our results. Consequently, actual results or developments anticipated by us may not be realized or, even if substantially realized, may not have the expected consequences to, or effects on, us. Given these uncertainties, prospective investors are cautioned not to place undue reliance on such forward-looking statements. Except as required by law, we undertake no obligation to update or revise publicly any of the forward-looking statements after the date of this prospectus.

This prospectus contains market data that we obtained from industry sources. These sources do not guarantee the accuracy or completeness of the information. Although we believe that the industry sources are reliable, we have not independently verified the information. The market data include projections that are based on a number of projections. While we believe these assumptions to be reasonable and sound as of the date of this prospectus, if these assumptions turn out to be incorrect, actual results may differ from the projections based on these assumptions.

USE OF PROCEEDS

We estimate that the net proceeds from the sale of shares of our common stock that we are selling in this offering will be $ million, based on an assumed initial public offering price of $ per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the net proceeds to us by $ million, after deducting estimated underwriting discounts and commissions and estimated offering expenses, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. We may also increase or decrease the number of shares we are offering. An increase of 1.0 million shares in the number of shares offered by us would increase the net proceeds to us by $ million. Similarly, a decrease of 1.0 million shares in the number of shares offered by us would decrease the net proceeds to us by $ million. If the underwriters' over-allotment option is exercised in full, we estimate that we will receive net proceeds of $ million.

Of the net proceeds that we will receive from this offering, we expect to use approximately:

- $ million for sales and marketing initiatives, including significantly expanding our sales force, to support the ongoing commercialization of our products;
- $ for research and product development activities;
- $ million to expand our facilities and manufacturing operations; and
- the balance for working capital and other general corporate purposes.

We may also use a portion of our net proceeds to acquire and invest in complementary products, technologies or businesses; however, we currently have no agreements or commitments to complete any such transaction and are not involved in negotiations to do so. Pending these uses, we intend to invest our net proceeds from this offering primarily in investment-grade, interest-bearing instruments.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to be received upon the completion of this offering. The amount and timing of our expenditures will depend on several factors, including cash flows from our operations and the anticipated growth of our business. Accordingly, our management will have broad discretion in the application of the net proceeds and investors will be relying on the judgment of our management regarding the application of the proceeds from this offering. We reserve the right to change the use of these proceeds as a result of certain contingencies such as the results of our commercialization efforts, competitive developments, opportunities to acquire products, technologies or businesses and other factors.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain all future earnings for the operation and expansion of our business and, therefore, we do not anticipate declaring or paying cash dividends in the foreseeable future. The payment of dividends will be at the discretion of our Board of Directors and will depend on our results of operations, capital requirements, financial condition, prospects, contractual arrangements, any limitations on payment of dividends present in our current and future debt agreements, and other factors that our Board of Directors may deem relevant. In addition, we are subject to several covenants under our debt arrangements that place restrictions on our ability to pay dividends.

CAPITALIZATION

The following table sets forth our capitalization as of December 29, 2007:

- on an actual basis;
- on a pro forma basis to give effect to (1) the automatic conversion of principal and accrued interest on a convertible promissory note held by BioMedical Sciences Fund Pte. Ltd. into 1,466,210 shares of our common stock upon closing of this offering, (2) the conversion of all outstanding shares of convertible preferred stock into common stock and (3) the reclassification of the convertible preferred stock warrant liabilities to additional paid-in-capital, each effective upon the closing of this offering; and
- on a pro forma as adjusted basis to also give effect to the pro forma conversions and reclassifications described above and the sale of shares of our common stock in this offering and the application of the net proceeds at the assumed initial public offering price of $ per share, the midpoint of the range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus.

	As of December 29, 2007		
	Actual	Pro Forma	Pro Forma as Adjusted(1)
	(in thousands, except per share amounts)		
Long-term debt	$ 9,362	$	$
Convertible promissory notes	4,997		
Convertible preferred stock warrant liabilities	468		
Convertible preferred stock issuable in series, $0.001 par value: 61,798 shares authorized, 56,671 shares issued and outstanding (actual); no shares authorized, issued or outstanding (pro forma and pro forma as adjusted)	162,082		
Stockholders' equity (deficit):			
Common stock, $0.001 par value: 87,386 shares authorized, 9,901 shares issued and outstanding (actual); 87,386 shares authorized, shares issued and outstanding (pro forma); shares authorized, shares issued and outstanding (pro forma as adjusted)	10		
Preferred stock, $0.001 par value: no shares authorized, no shares issued (actual); shares authorized, no shares issued (pro forma and pro forma as adjusted)	—		
Additional paid-in capital(1)	3,592		
Accumulated other comprehensive loss	(135)		
Accumulated deficit	(133,798)		
Total stockholders' equity (deficit)(1)	(130,331)		
Total capitalization(1)	$ 46,578	$	$

(1) A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, the midpoint of the range set forth on the cover page of this prospectus, would increase (decrease) each of additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions payable by us. Each increase of 1.0 million shares in the number of shares offered by us, together with a $1.00 increase in the assumed offering price of $ per share, would increase additional paid-in capital, total stockholders' equity and total capitalization by approximately $ million. Similarly, each decrease of 1.0 million shares in the number of

shares offered by us, together with a $1.00 decrease in the assumed offering price of $ per share, would decrease additional paid-in capital, total stockholders' equity and total capitalization by approximately $ million. The pro forma as adjusted information discussed above is illustrative only and will adjust based on the actual public offering price and terms of this offering determined at pricing.

The table above excludes the following shares:

- 7,467,230 shares of common stock issuable upon exercise of options outstanding as of December 29, 2007 at a weighted average exercise price of $0.79 per share;
- 698,720 shares of common stock issuable upon the exercise of warrants outstanding as of December 29, 2007 at a weighted average exercise price of $2.71 per share, after conversion from preferred stock;
- 1,197,154 shares of common stock reserved for future issuance under our stock-based compensation plans, including shares of common stock reserved for issuance under our 2008 Equity Incentive Plan, and any future increase in shares reserved for issuance under such plan, each of which will become effective on the date of this prospectus; and
- 33,334 shares of common stock that were legally issued and outstanding but were not included in stockholders' deficit as of December 29, 2007 pursuant to accounting principles generally accepted in the United States, as these shares were subject to a right of repurchase by us.

DILUTION

If you invest in our common stock, your interest will be diluted to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering. Net tangible book value dilution per share to new investors represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the pro forma as adjusted net tangible book value per share of common stock immediately after completion of this offering.

Net tangible book value per share is determined by dividing our total tangible assets less our total liabilities by the number of shares of common stock outstanding. Our historical net tangible book value (deficit) as of December 29, 2007, was $(32.1) million, or $(0.48) per share. Our pro forma net tangible book value as of December 29, 2007 was $ million, or $ per share, based on the total number of shares of our common stock outstanding as of December 29, 2007, after giving effect to (1) the conversion of an outstanding convertible promissory note into 1,466,210 shares of common stock, (2) the conversion of all outstanding shares of our convertible preferred stock into common stock and (3) the reclassification of the convertible preferred stock warrant liabilities to additional paid-in-capital, each effective upon the closing of this offering.

After giving effect to our sale of shares of common stock in this offering at an assumed initial public offering price of $ per share, the midpoint of the range set forth on the cover page of this prospectus, and after deducting the estimated underwriting discounts and commissions and estimated offering expenses, our pro forma as adjusted net tangible book value as of December 29, 2007 would have been $ million, or $ per share. This represents an immediate increase in net tangible book value of $ per share to existing stockholders and an immediate dilution in net tangible book value of $ per share to purchasers of common stock in this offering, as illustrated in the following table:

Assumed initial public offering price per share		$
Historical net tangible book value per share as of December 29, 2007	$	
Pro forma as adjusted net tangible book value per share as of December 29, 2007	$	
Increase in pro forma as adjusted net tangible book value per share attributable to new investors	$	
Pro forma as adjusted net tangible book value per share after this offering		$
Pro forma dilution per share to new investors in this offering		$

Each $1.00 increase (decrease) in the assumed public offering price of $ per share, the mid-point of the range set forth on the cover of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value by approximately $ million, or approximately $ per share, and the pro forma dilution per share to investors in this offering by approximately $ per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions. We may also increase or decrease the number of shares we are offering. An increase of 1.0 million shares in the number of shares offered by us, together with a $1.00 increase in the assumed offering price of $ per share, would result in a pro forma as adjusted net tangible book value of approximately $ million, or $ per share, and the pro forma dilution per share to investors in this offering would be $ per share. Similarly, a decrease of 1.0 million shares in the number of shares offered by us, together with a $1.00 decrease in the assumed public offering price of $ per share, would result in an pro forma as adjusted net tangible book value of approximately $ million, or $ per share, and the pro forma dilution per share to investors in this offering would be $ per share. The pro forma as adjusted information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering determined at pricing.

If the underwriters' over-allotment option is exercised in full, the pro forma as adjusted net tangible book value per share after this offering would be $ per share, the increase in pro forma as adjusted net tangible book value per share to existing stockholders would be $ per share and the dilution to new investors purchasing shares in this offering would be $ per share.

The following table presents on a pro forma as adjusted basis as of December 29, 2007, after giving effect to the automatic conversion of all outstanding shares of convertible preferred stock into common stock, the differences between the existing stockholders and the purchasers of shares in this offering with respect to the number of shares purchased from us, the total consideration paid and the average price paid per share, and before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us (in thousands, except per share amounts and percentages):

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percent	
Existing stockholders		%	$	%	$
New investors					
Totals		100.0%	$	100.0%	$

(1) Each $1.00 increase (decrease) in the assumed initial public offering price of $ per share would increase (decrease) the total consideration paid to us by new investors and total consideration paid to us by all stockholder by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same, and after deducting estimated underwriting discounts and commissions payable by us. An increase of 1.0 million shares in the number of shares offered by us would increase the total consideration paid to us by new investors and total consideration paid to us by all stockholder by $ million. Similarly, a decrease of 1.0 million shares in the number of shares offered by us would decrease the total consideration paid to us by new investors and total consideration paid to us by all stockholder by $ million.

If the underwriters exercise their over-allotment option in full, our existing stockholders would own % and our new investors would own % of the total number of shares of our common stock outstanding after this offering.

The table above excludes the following shares:

- 7,467,230 shares of common stock issuable upon exercise of options outstanding as of December 29, 2007 at a weighted average exercise price of $0.79 per share;
- 698,720 shares of common stock issuable upon the exercise of warrants outstanding as of December 29, 2007 at a weighted average exercise price of $2.71 per share;
- 1,197,154 shares of common stock reserved for future issuance under our stock-based compensation plans, including shares of common stock reserved for issuance under our 2008 Equity Incentive Plan, and shares of common stock reserved for issuance under our 2008 Employee Stock Purchase Plan, each of which will become effective on the date of this prospectus; and
- 33,334 shares of common stock that were legally issued and outstanding but were not included in stockholders' deficit as of December 29, 2007 pursuant to accounting principles generally accepted in the United States, as these shares were subject to a right of repurchase by us.

Assuming the exercise in full of the outstanding options and warrants, pro forma net tangible book value before this offering at December 29, 2007 would be $ per share, and after giving effect to the sale of shares in this offering, there would be immediate dilution of $ per share to new investors in this offering.

Effective upon the closing of this offering, an aggregate of shares of our common stock will be reserved for future issuance under our benefit plans. To the extent that any of these options or warrants are exercised, new options are issued under our benefit plans or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering.

SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this prospectus. We have derived the selected consolidated statement of operations data for the years ended December 31, 2005, December 31, 2006 and December 29, 2007 and the selected consolidated balance sheet data as of December 31, 2006 and December 29, 2007 from our audited consolidated financial statements included elsewhere in this prospectus. We have derived the selected consolidated statement of operations data for the years ended December 31, 2003 and 2004 and the selected consolidated balance sheet data as of December 31, 2003, 2004 and 2005 from our audited consolidated financial statements not included in this prospectus. Our historical results are not necessarily indicative of the results to be expected for any future period.

	Year Ended				
	December 31, 2003	December 31, 2004	December 31, 2005	December 31, 2006	December 29, 2007
	(in thousands, except per share amounts)				
Consolidated Statement of Operations Data:					
Revenue:					
Product revenue	$ 3,133	$ 4,603	$ 6,076	$ 3,959	$ 4,451
Collaboration revenue	—	366	1,568	1,376	460
Grant revenue	—	70	30	1,063	2,364
Total revenue	3,133	5,039	7,674	6,398	7,275
Costs and expenses:					
Cost of product revenue	1,918	3,362	4,764	2,773	3,514
Research and development	11,218	9,608	11,449	15,589	14,389
Selling, general and administrative	7,263	8,690	7,955	9,699	12,898
Total costs and expenses	20,399	21,660	24,168	28,061	30,801
Loss from operations	(17,266)	(16,621)	(16,494)	(21,663)	(23,526)
Interest expense	(305)	(508)	(898)	(2,261)	(2,790)
Interest income	267	291	340	565	1,140
Other income (expense), net	—	—	30	(194)	(170)
Loss before provision for income taxes and cumulative of change in accounting principle	(17,304)	(16,838)	(17,022)	(23,553)	(25,346)
Provision for income taxes	—	—	—	—	(105)
Loss before cumulative effect of change in accounting principle	(17,304)	(16,838)	(17,022)	(23,553)	(25,451)
Cumulative effect of change in accounting principle	—	—	673	—	—
Net loss	$ (17,304)	$ (16,838)	$ (16,385)	$ (23,553)	$ (25,451)
Net loss per share of common stock, basic and diluted(1)	$ (2.23)	$ (1.98)	$ (1.82)	$ (2.53)	$ (2.63)
Shares used in computing net loss per share of common stock, basic and diluted(1)	7,775	8,505	9,018	9,316	9,671

(1) Please see Note 2 to our audited consolidated financial statements for an explanation of the method used to calculate basic and diluted net loss per share.

	As of				
	December 31, 2003	December 31, 2004	December 31, 2005	December 31, 2006	December 29, 2007
			(in thousands)		
Consolidated Balance Sheet Data:					
Cash and cash equivalents and available-for-sale securities	$ 28,874	$ 12,520	$ 19,659	$ 25,518	$ 40,363
Working capital	23,590	9,610	14,764	23,964	38,754
Total assets	34,908	20,150	27,750	36,493	54,776
Total long-term debt and convertible promissory notes	5,261	6,111	16,800	25,910	14,359
Convertible preferred stock warrant liabilities	—	—	814	223	468
Convertible preferred stock	75,072	76,596	88,966	112,295	162,082
Total stockholder's deficit	(49,812)	(65,471)	(83,154)	(106,172)	(130,331)

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of the financial condition and results of our operations should be read in conjunction with the consolidated financial statements and related notes included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below, and those discussed in the section titled "Risk Factors" included elsewhere in this prospectus.

Overview

We develop, manufacture and market proprietary Integrated Fluidic Circuit systems that significantly improve the productivity of life science research. Our Integrated Fluidic Circuits, or IFCs, enable the simultaneous performance of thousands of biochemical measurements in extremely minute volumes. We created this "integrated circuit for biology" by achieving unprecedented miniaturization, integration and automation of sophisticated liquid handling processes on a single microfabricated device. Our IFC systems, consisting of instrumentation, software and single-use IFCs, increase throughput, decrease costs and enhance sensitivity compared to conventional laboratory systems. We have sold our IFCs to over 100 customers, including many leading biotechnology and pharmaceutical companies, academic institutions, and life science laboratories worldwide.

We have commercialized IFC systems for a wide range of life science applications, including our BioMark system for gene expression analysis, genotyping and digital PCR, and our Topaz system for protein crystallization. Researchers and clinicians have successfully employed our products to help achieve breakthroughs in the fields of genetic variation, cellular function and structural biology. We believe that the broad applicability of our IFC technology will lead to the development of IFC systems for a wide variety of additional markets and applications, including molecular diagnostics.

We were founded in 1999. In the first quarter of 2003, we introduced our first product line, the Topaz system for protein crystallization based on our first generation Topaz IFC. In subsequent years, we enhanced the capability of the Topaz system by introducing IFCs with increased throughput. Prior to 2007, Topaz system products accounted for substantially all of our product revenue. In the fourth quarter of 2006, we announced the commercial availability of our BioMark system. We currently sell two types of single-use IFCs for use with the BioMark system, the Dynamic Array for gene expression and genotyping and the Digital Array for digital PCR.

We have incurred significant losses in each year since our inception, including net losses of $16.4 million, $23.6 million and $25.5 million in 2005, 2006 and 2007. As of December 29, 2007, we had an accumulated deficit of $133.8 million. We sell our IFC systems around the world. For 2007, customers in North America accounted for approximately 54% of our product revenue while European and Asian customers accounted for 17% and 29%. We distribute our systems through our direct field sales and support organizations located in North America, Europe and Asia and through distributors or sales agents in several European countries. Our manufacturing operations are located in Singapore and South San Francisco. Our facility in Singapore fabricates all of our IFCs for commercial sale and some IFCs for our own research and development purposes and assembles certain elements of our BioMark and Topaz instrumentation. Our South San Francisco facility also assembles certain elements of our BioMark and Topaz instrumentation and fabricates IFCs for our own research and development purposes.

Since 2002, we have received significant revenue from research and development agreements and government grants. The most significant of these arrangements has been with entities associated with the government of Singapore that have helped support our establishment of manufacturing facilities in Singapore and research and development activities. Our agreements with the government of Singapore provide for reimbursement of eligible research and development expenses relating to our BioMark instruments and IFCs. Together these agreements provide for funding through 2011. In addition, we have entered into other collaboration and license arrangements that generally provide us with up-front and periodic milestone fees or fees based on agreed-upon rates for time incurred by our research staff.

Fiscal Year Presentation

During the year ended December 29, 2007, we adopted a 52 or 53 week year convention for our fiscal years and, therefore, our 2007 fiscal year ended on December 29, 2007 and future fiscal years will end on the last Saturday in December of each year. Prior to the adoption of this method, we reported our fiscal years on a calendar basis. The fiscal years discussed in this management's discussion and analysis of financial condition and results of operations ended on December 31, 2005, December 31, 2006 and December 29, 2007.

Critical Accounting Policies, Significant Judgments and Estimates

Our consolidated financial statements and the related notes included elsewhere in this prospectus are prepared in accordance with accounting principles generally accepted in the United States. The preparation of these consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Changes in the accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results could differ significantly from the estimates made by our management. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are material differences between these estimates and actual results, our future financial statement presentation, financial condition, results of operations and cash flows will be affected.

We believe that the following critical accounting policies involve a greater degree of judgment and complexity than our other accounting policies. Accordingly, these are the policies we believe are the most critical to understanding and evaluating our consolidated financial condition and results of operations.

Revenue Recognition

We generate revenue from sales of our products and services, collaboration agreements and government grants. Our products consist of single-use IFCs, various instruments and software related to our BioMark and Topaz systems. Our services include system installation, training and customer support services. We also have entered into a number of research and development contracts and have received government grants to conduct research and development activities.

We record revenue in accordance with the guidelines established by the Securities and Exchange Commission, or SEC, Staff Accounting Bulletin No. 104, *Revenue Recognition*, or SAB 104. In addition, we have concluded that software included with certain of our instruments is essential to their functionality. We apply AICPA Statement of Position 97-2, *Software Revenue Recognition*, or SOP 97-2. If the arrangement includes IFCs, we use the separation criteria in EITF Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*, to separate revenues related to IFCs, which are non-software related deliverables, from software related deliverables. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services rendered, the price to the buyer is fixed or determinable and collectibility is reasonably assured. The evaluation of these revenue recognition criteria requires significant management judgment. For instance, we use judgment to assess items such as collectibility based on factors such as the customer's creditworthiness and past collection history, if applicable. If we determine that collection of a payment is not reasonably assured, revenue recognition is deferred until the time collection becomes reasonably assured, which is generally upon receipt of payment. We also use judgment to assess whether a price is fixed or determinable by reviewing contractual terms and conditions related to payment terms and sales price adjustments, if any.

In 2007, no right of return existed for our products. In prior years, if an agreement included a right of return, the related revenue was deferred until the right had lapsed. Historically, we have not experienced any significant returns of our products. Also, accruals are provided for estimated warranty expenses at the time that the associated revenue is recognized. We use judgment to estimate these accruals and if we were to experience an increase in warranty claims, or if costs of servicing our products under warranty were greater than our estimates, our gross margins could be adversely affected in future periods.

Some of our sales contracts, which include items such as our BioMark instrument systems or our Topaz readers, involve the delivery or performance of multiple products and services within contractually binding arrangements.

Significant contract interpretation is sometimes required to determine the appropriate accounting, including whether the deliverables specified in a multiple element arrangement should be treated as separate units of accounting for revenue recognition purposes, and if so, how the price should be allocated among the elements, when to recognize revenue for each element, and the period over which revenue should be recognized. We use judgment to evaluate whether a delivered item has value on a stand-alone basis prior to delivery of the remaining items by determining whether we have made separate sales of such items or whether the undelivered items are essential to the functionality of the delivered items. Further, we use judgment to evaluate whether there is vendor-specific objective evidence, or VSOE, of fair value of the undelivered items, determined by reference to stand-alone sales of such items. We recognize revenue for delivered elements only when we determine that the fair values of undelivered elements are known. For a multiple element arrangement that includes both IFCs and instruments we separate these elements into separate units of accounting as we consider these elements to have standalone value to the customer. We recognize revenue for the IFCs under SAB 104 and the instruments under SAB 104 or SOP 97-2, as applicable. If the fair value of any undelivered item related to instruments and software included in a multiple element arrangement cannot be objectively determined, revenue will be deferred until all items are delivered, or until fair value can objectively be determined for any remaining undelivered items. However, if the only such undelivered element is post-contract customer support services, such as maintenance agreements, the entire revenue is recognized ratably over the service period. Recognition of revenue from these arrangements generally begins upon installation of the instruments as installation is deemed essential to the functionality of the instruments. The corresponding costs of products sold related to multiple element arrangements are also deferred and amortized over the same period.

Our deferred revenue balance increased by $1.6 million during 2007. This increase is primarily due to the increase in sales of our BioMark instrument systems, all of which included maintenance agreements. We expect this trend to continue, and therefore, our deferred revenue balance will continue to increase until we are able to establish VSOE of the fair value of the post-contract customer support. We expect to establish VSOE for post-contract customer support as we enter into renewal agreements for maintenance with our customers upon the expiration of the initial agreements; however, we are not able to estimate when that will occur.

Changes in judgments and estimates regarding application of these revenue recognition guidelines as well as changes in facts and circumstances including the establishment of VSOE of fair value could result in a change in the timing or amount of revenue recognized in future periods.

Revenue from the sales of our products that is not part of a multiple element arrangement is recognized when no significant obligations remain undelivered and collection of the receivables is reasonably assured, which is generally upon shipment of the product and transfer of title to the customer.

We have entered into collaboration research and development arrangements that generally provide us with up-front and periodic milestone fees or fees based on agreed-upon rates for time incurred by our research staff. Revenue is recognized either ratably over the term of the agreement or as time is incurred on the project. Revenue from government grants is for reimbursement of research and development expenses and recognized in the period related costs are incurred, provided that the conditions under which the government grants were awarded have been substantially met.

Stock-Based Compensation

Prior to January 1, 2006, we accounted for our stock options granted to employees using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees*, or APB 25, and related interpretations as permitted by Statement of Financial Accounting Standards, or SFAS No. 123, *Accounting for Stock-Based Compensation*, or SFAS 123, and SFAS No. 148, *Accounting for Stock-Based Compensation — Transaction and Disclosure*, or SFAS 148. Accordingly, any compensation cost relating to stock options was recorded on the date of the grant in stockholders' equity as deferred compensation and was thereafter amortized to expense over the vesting period of the grant, which was generally four years. We amortized deferred stock-based compensation using the multiple option method as prescribed by FASB Interpretation No. 28, *Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans*, or FIN 28, over the option vesting period using an accelerated amortization schedule.

Effective January 1, 2006, we adopted the fair value recognition provisions of SFAS No. 123 (revised 2004), *Share-Based Payment*, or SFAS 123(R), which requires companies to measure the cost of employee services received in exchange for an award of equity instruments, including stock options, based on the grant date fair value of the award. The fair value is estimated using Black-Scholes option-pricing model. The resulting cost is recognized over the period during which an employee is required to provide service in exchange for the award, usually the vesting period.

We adopted SFAS 123(R) using the prospective-transition method as all prior grants were measured using the minimum value method for the pro forma disclosures previously required by SFAS 123. The prospective-transition method requires us to continue to apply APB 25 in future periods to equity awards outstanding at the date of our adoption of SFAS 123(R) on January 1, 2006. Under the prospective-transition method, any compensation costs that will be recognized from January 1, 2006 will include only: (a) compensation cost for all stock-based awards granted prior to, but not yet vested as of, December 31, 2005, based on the intrinsic value method in accordance with the provisions of ABP 25; and (b) compensation cost for all stock-based awards granted or modified subsequent to December 31, 2005, net of estimated forfeitures, based on the grant date fair value estimated in accordance with the provisions of SFAS 123(R). We amortize the fair value of stock-based compensation under SFAS 123(R) on a straight-line basis. In accordance with the prospective-transition method as prescribed under SFAS 123(R), results for prior periods are not restated.

We account for stock options issued to nonemployees in accordance with the provisions of SFAS 123(R) and EITF Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, or EITF 96-18. In accordance with SFAS 123(R) and EITF 96-18, stock options issued to nonemployees are accounted for at their estimated fair value determined using the Black-Scholes option-pricing model. The fair value of the options granted to nonemployees is remeasured as they vest, and the resulting increase in value, if any, is recognized as expense during the period the related services are rendered.

We use the Black-Scholes option-pricing model to calculate the fair value of our options on the grant date. This model requires inputs such as expected term, expected volatility and risk-free interest rate. Further, the forfeiture rate also affects the amount of aggregate compensation. These inputs are subjective and generally require significant judgment.

Our expected volatility is derived from the historical volatilities of several unrelated public companies within the life science industry because we have little information on the volatility of the price of our common stock since we have no trading history. When making the selections of our industry peer companies to be used in the volatility calculation, we also considered the stage of development, size and financial leverage of potential comparable companies. Our historical volatility is weighted based on certain qualitative factors and combined to produce a single volatility factor. The risk-free interest rate is based on the U.S. Treasury yield in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to each grant's expected life. Given our limited history to accurately estimate the expected lives for the various employee groups, we used the 'simplified' method as provided by Staff Accounting Bulletin No. 107, *Share Based Payment*. The 'simplified' method is calculated as the average of the time-to-vesting and the contractual life of the options.

Beginning on January 1, 2006 upon the adoption of SFAS 123(R), the fair value of each new option awarded was estimated on the grant date for the periods below using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	2006 Grants	2007 Grants
Expected volatility	72.8%	63.0%
Expected life	6.1 years	6.0 years
Risk-free interest rate	4.8%	4.4%
Dividend yield	0%	0%

If in the future we determine that another method is more reasonable, or if another method for calculating these input assumptions is prescribed by authoritative guidance, and, therefore, should be used to estimate expected volatility or expected life, the fair value calculated for our stock options could change significantly. Higher

volatility and longer expected lives result in an increase to stock-based compensation expense determined at the date of grant. Stock-based compensation expense affects our cost of revenue; sales and marketing expense; research and development expense; and general and administrative expense.

We estimate our forfeiture rate based on an analysis of our actual forfeitures and will continue to evaluate the appropriateness of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover behavior and other factors. Quarterly changes in the estimated forfeiture rate can have a significant effect on reported stock-based compensation expense, as the cumulative effect of adjusting the rate for all expense amortization is recognized in the period the forfeiture estimate is changed. If a revised forfeiture rate is higher than the previously estimated forfeiture rate, an adjustment is made that will result in a decrease to the stock-based compensation expense recognized in the consolidated financial statements. If a revised forfeiture rate is lower than the previously estimated forfeiture rate, an adjustment is made that will result in an increase to the stock-based compensation expense recognized in the consolidated financial statements. The effect of forfeiture adjustments during 2006 and 2007 was insignificant. We will continue to use judgment in evaluating the expected term, volatility and forfeiture rate related to our own stock-based compensation on a prospective basis and incorporating these factors into the Black-Scholes option-pricing model.

Also required for the fair value calculation of the options is the fair value of the underlying common stock. We have historically granted stock options with exercise prices no less than the fair market value of our common stock as determined at the date of grant by our Board of Directors, with input from management. The following table summarizes, by grant date, the number of stock options granted since January 1, 2007 and the associated per share exercise price, which equaled the fair value of our common stock for each of these grants.

Grant Date	Number of Options Granted	Exercise Price and Fair Value Per Share of Common Stock
May 8, 2007	1,613,500	$ 1.36
September 20, 2007	100,700	$ 1.38
December 28, 2007	328,000	$ 2.40

Given the absence of an active market for our common stock prior to this offering, our Board of Directors determined the fair value of our common stock for our grants of stock options. Our Board of Directors determined the estimated fair value of our common stock based in part on an analysis of relevant metrics, including the following:

- the prices of our convertible preferred stock sold to outside investors in arms-length transactions;
- the rights, preferences and privileges of our convertible preferred stock relative to those of our common stock;
- the rights of freestanding warrants and other similar instruments related to shares that are redeemable;
- our operating and financial performance;
- the hiring of key personnel;
- the introduction of new products;
- our stage of development;
- the fact that the option grants involve illiquid securities in a private company;
- the risks inherent in the development and expansion of our products and services; and
- the likelihood of achieving a liquidity event, such as an initial public offering or sale of our company given prevailing market conditions.

During 2007, our Board of Directors performed three contemporaneous valuations of our common stock to coincide with our three stock option grants during the year.

The valuations were prepared using the market approach and the income approach to estimate our aggregate enterprise value at each valuation date. The market approach measures the value of a company through the analysis of recent sales of comparable companies. Consideration is given to the financial condition and operating performance of the company being valued relative to those of publicly traded companies operating in the same or similar lines of business. When choosing the comparable companies to be used for the market approach, we focused on companies in the life science industry. Some of the specific criteria used to select comparable companies within this industry include the business description, business size, projected growth, financial condition and historical earnings. The income approach measures the value of a company as the present value of its future economic benefits by applying an appropriate risk-adjusted discount rate to expected cash flows, based on forecasted revenue and costs. We prepared a financial forecast for each valuation report to be used in the computation of the enterprise value for both the market approach and the income approach. The financial forecasts took into account our past experience and future expectations. The risks associated with achieving these forecasts were assessed in selecting the appropriate discount rate. There is inherent uncertainty in these estimates.

In assessing the fair value of our common stock, our Board of Directors applied an equal weighting to the value indications presented by the income approach and market approach. In order to arrive at the estimated fair value of our common stock, the indicated enterprise value of our company calculated at each valuation date was allocated to the shares of convertible preferred stock and the warrants to purchase these shares, and shares of common stock and the options to purchase these shares using an option-pricing methodology. The option-pricing method treats common stock and preferred stock as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common stock has value only if the funds available for distribution to stockholders exceed the value of the liquidation preference at the time of a liquidity event, such as a strategic sale, merger or initial public offering, assuming the enterprise has funds available to make a liquidation preference meaningful and collectable by the holders of preferred stock. The common stock is modeled as a call option on the underlying equity value at a predetermined exercise price. In the model, the exercise price is based on a comparison with the total equity value rather than, as in the case of a regular call option, a comparison with a per share stock price. Thus, common stock is considered to be a call option with a claim on the enterprise at an exercise price equal to the remaining value immediately after the preferred stock is liquidated. The option-pricing method uses the Black-Scholes option-pricing model to price the call options. This model defines the securities' fair values as functions of the current fair value of a company and uses assumptions such as the anticipated timing of a potential liquidity event and the estimated volatility of the equity securities. The anticipated timing of a liquidity event utilized in these valuations was based on then-current plans and estimates of our Board of Directors and management regarding a liquidity event. Estimates of the volatility of our stock were based on available information on the volatility of capital stock of comparable publicly traded companies. This approach is consistent with the methods outlined in the AICPA Practice Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. Also, we considered the fact that our stockholders cannot freely trade our common stock in the public markets. Therefore, the estimated fair value of our common stock at each grant date reflected a non-marketability discount.

There is inherent uncertainty in these estimates and if we had made different assumptions than those described above, the amount of our stock-based compensation expense, net loss and net loss per share amounts could have been significantly different.

Our Board of Directors performed a contemporaneous valuation in order to determine the fair value of our common stock for the grant of options on May 8, 2007 which indicated a fair value of $1.36 per share for our common stock. Our Board of Directors performed a second contemporaneous valuation in order to update the determination of the fair value of our common stock for the grant of options on September 20, 2007 which indicated a fair value of $1.38 per share for our common stock. The increase in the fair value between the contemporaneous valuation performed for the grant of options on May 8, 2007 and the date of this contemporaneous valuation was minimal, however, it relates mostly to a slight decrease in the non-marketability discount rate and the time to a liquidity event. Our Board of Directors performed another contemporaneous valuation in order to update the determination of the fair value of our common stock for the grant of options on December 28, 2007 which indicated a fair value of $2.40 per share for our common stock. The increase in the fair value between the contemporaneous valuation performed for the grant of options on September 20, 2007 and the date of the most recent

contemporaneous valuation relates mostly to the decrease in the non-marketability discount rate, the risk-adjusted discount and the time to a liquidity event.

We recorded stock-based compensation of $5,000, $0.1 million and $0.7 million during 2005, 2006 and 2007. Included in these amounts was employee stock-based compensation of $0, $145,000 and $526,000, and nonemployee stock-based compensation of $5,000, $59,000 and $182,000 during 2005, 2006 and 2007. In future periods, stock-based compensation expense is expected to increase as a result of our existing unrecognized stock-based compensation and as we issue additional stock-based awards to continue to attract and retain employees and nonemployee directors. Additionally, SFAS 123(R) requires that we recognize compensation expense only for the portion of stock options that are expected to vest. If the actual rate of forfeitures differs from that estimated by management, we may be required to record adjustments to stock-based compensation expense in future periods. As of December 29, 2007, we had $1.7 million of unrecognized stock-based compensation costs related to stock options granted under our 1999 Stock Option Plan, which is expected to be recognized over an average period of 2.9 years.

Accounting for Income Taxes

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. We have recorded a full valuation allowance on our net deferred tax assets as of December 31, 2006 and December 29, 2007 due to uncertainties related to our ability to utilize our deferred tax assets in the foreseeable future. These deferred tax assets primarily consist of certain net operating loss carryforwards and research and development tax credits.

We adopted FASB Interpretation No. 48, *Accounting for Uncertainties in Income Taxes — an interpretation of FASB Statement No. 109*, or FIN 48, effective January 1, 2007. FIN 48 requires us to recognize the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. Upon adoption, the Company recorded a charge of $75,000 as a cumulative effect of a change in accounting principle in the accumulated deficit during 2007.

Inventory Valuation

We record adjustments to inventory for potentially excess, obsolete or impaired goods in order to state inventory at net realizable value. The business environment in which we operate is subject to rapid changes in technology and customer demand. We regularly review inventory for excess and obsolete products and components, taking into account product life cycle and development plans, product expiration and quality issues, historical experience and our current inventory levels. If actual market conditions are less favorable than anticipated, additional inventory adjustments could be required.

Warrants to Purchase Convertible Preferred Stock

We account for freestanding warrants related to shares that are redeemable in accordance with FASB Staff Position No. 150-5, *Issuer's Accounting Under FASB Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares That Are Redeemable*, or FSP 150-5, an interpretation of SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. Under FSP 150-5, freestanding warrants to purchase shares of our convertible preferred stock are classified as liabilities on the consolidated balance sheets at fair value because the warrants may conditionally obligate us to transfer assets at some point in the future. The warrants are subject to remeasurement at each balance sheet date, and any change in fair value will be recognized as a component of other income (expense), net in the consolidated statements of operations. We estimated the fair value of these warrants at the respective balance sheet dates using the Black-Scholes option-pricing model. A number of our assumptions used in the Black-Scholes option-pricing model, especially the market value and the expected volatility, are highly judgmental and could differ materially in the future.

We will continue to record adjustments to the fair value of the warrants until they are exercised, expire or, upon the closing of this offering, become warrants to purchase shares of our common stock, wherein the warrants will no longer be subject to FSP 150-5. At that time, the then-current aggregate fair value of these warrants will be

reclassified from current liabilities to additional paid-in capital, a component of stockholders' equity, and we will cease to record any related periodic fair value adjustments. Upon the closing of this offering, the preferred stock warrants will be converted into common stock warrants with the same exercise prices and expiration dates.

Results of Operations

Revenue

The following table presents our revenue by source for each period presented (in thousands).

	2005	2006	2007
Revenue:			
Product revenue	$ 6,076	$ 3,959	$ 4,451
Collaboration revenue	1,568	1,376	460
Grant revenue	30	1,063	2,364
Total revenue	$ 7,674	$ 6,398	$ 7,275

We generate revenue from sales of our products, collaboration agreements and government grants. Our products consist of single-use IFCs, various instruments, software and service related to our BioMark and Topaz systems. We also have entered into a number of research and development contracts and have received government grants to conduct research and development activities.

Total Revenue

Our total revenue for 2007 increased by $0.9 million, or 14%, compared to 2006, and our 2006 revenue decreased by $1.3 million, or 17%, compared to 2005. Total revenue from our top five customers comprised 50% of revenue in 2005, 47% of revenue in 2006 and 47% of revenue in 2007. We expect this percentage to decrease over time as we continue to grow our business and expand into new markets.

As we expand our business through Europe and Asia, we expect our sales from outside of North America to increase as a percentage of our revenue. The following table presents our revenue by geography based on the billing address of our customers for each period presented (in thousands).

	2005		2006		2007	
North America	$ 4,185	55%	$ 3,932	61%	$ 3,526	48%
Europe	545	7%	189	3%	735	10%
Asia	2,944	38%	2,277	36%	3,014	42%
Total revenue	$ 7,674	100%	$ 6,398	100%	$ 7,275	100%

Product Revenue

We derive product revenue from sales to leading academic institutions, biotechnology and pharmaceutical companies and life science laboratories worldwide. These sales are generally made through direct sales personnel to customers in North America, Asia and most of Europe and through distributors in parts of Europe and Asia.

Product revenue for 2007 increased by $0.4 million, or 12%, compared to 2006. The increase relates mostly to the increase in sales of our BioMark instrument systems, and related IFCs, which were introduced in late 2006, as we sold 14 BioMark instrument systems during 2007 compared to three BioMark instrument systems during 2006. This increase of $1.2 million in revenue recognized for BioMark instrument systems and IFCs, however, was mostly offset by a decrease in the revenue related to Topaz IFC sales, which were $1.1 million. The unit sales of our Topaz systems remained constant as we sold 10 Topaz systems during both 2006 and 2007. In addition, our deferred revenue balance increased from $1.8 million at December 31, 2006 to $3.4 million at December 29, 2007 as we sold more BioMark instrument systems as part of multiple element arrangements for which we did not have VSOE on post-contract support. We recognized $1.0 million of the deferred revenue balance at December 31, 2006 during

2007. We expect the current portion of our deferred revenue balance as of December 29, 2007 in the amount of $2.6 million will be recognized as revenue during 2008. Product revenue for 2006 decreased by $2.1 million, or 35%, when compared to 2005. The decrease was primarily due to a decrease in the sales of our Topaz systems as we sold 10 Topaz systems during 2006 compared to 16 Topaz systems during 2005; however, sales of our Topaz IFCs remained relatively consistent with 2005.

The increase in sales of our BioMark instrument systems in 2007 and the concurrent decrease in sales of our Topaz systems reflect the refocusing of our product development and sales and marketing efforts, beginning in 2005, to focus on the larger markets served by our BioMark instrument systems. Since then, we have reduced new Topaz product introductions. We will continue to manufacture and sell our Topaz systems and IFCs and we expect unit sales of Topaz systems and IFCs in 2008 and future periods to be consistent with or slightly lower than the 2006 and 2007 levels. We expect unit sales of our BioMark instrument systems and IFCs to increase in 2008.

Collaboration Revenue

We receive payments from third parties under research and development contracts. Fixed-fee research and development contracts generally provide us with up-front and periodic milestone-based fees. Variable-fee research and development contracts generally provide us with fees based on an agreed-upon rate for time incurred by our research staff.

Collaboration revenue for 2007 decreased by $0.9 million, or 67%, compared to 2006. This decrease was primarily due to the completion of one of our collaboration agreements during 2006 that accounted for $1.0 million of our 2006 collaboration revenue. Collaboration revenue for 2006 decreased by $0.2 million, or 12%, compared to 2005. The decrease was primarily due to the termination of one of our collaboration agreements in December 2005. We expect collaboration revenue to continue to decrease as we complete our current collaboration agreements, most of which are likely to terminate during 2008.

Grant Revenue

We receive payments in the form of grants from certain government entities. Government grants are agreements that generally provide us reimbursement for specified research and development activities over a contractually defined period.

Grant revenue for 2007 increased by $1.3 million, or 122%, when compared to 2006 and our grant revenue for 2006 increased by $1.0 million when compared to 2005. These increases were primarily due to the addition of a grant from the National Institutes of Health, or NIH, which was awarded in June 2006, and Singapore research grants, which were awarded in January 2006 and February 2007. We recognized revenue from the 2006 Singapore research grant in the amount of $0.9 million during 2006 and $1.1 million during 2007. In addition, we recognized revenue in the amount of $0.6 million during 2007 from the 2007 Singapore research grant. Also, we recognized revenue from the NIH grant in the amount of $0.2 million during 2006 and $0.6 million during 2007. Although the NIH grant is scheduled to terminate in June 2008, we expect grant revenue from the Singapore research grants to increase in 2008 and remain at such levels through 2011, therefore, we expect our total grant revenue in 2008 through 2011 to be consistent with 2007 levels.

Our agreements with the government of Singapore provide that grants extended to us in the past and future grants are subject to our operation of increasing levels of research, development and manufacturing in Singapore, including the use of local service providers, the hiring of personnel in Singapore, the incurrence of research and development expenses in Singapore, our receipt of new investment in our company and our achievement of certain milestones relating to the development of our products. These agreements further provide the government with the right to demand repayment of past grants in the event that it concludes that we have not met our obligations under the applicable agreements. We have confirmed that we have satisfied all conditions applicable to funds received from grants as of December 29, 2007.

Cost of Product Revenue and Gross Margin

The following table presents our cost of revenue and gross margin for each period presented (in thousands).

	2005	2006	2007
Cost of product revenue	$ 4,764	$ 2,773	$ 3,514
Gross margin	22%	30%	21%

Cost of product revenue includes manufacturing costs incurred in the production process, including component materials, assembly labor and overhead, testing, installation, warranty, packaging and delivery costs. In addition, cost of product revenue includes royalty expenses for licensed technologies included in our products, provisions for warranties and stock-based compensation expense. Costs related to collaboration and government grant revenue are included in research and development expense. Cost of product revenue for 2007 increased $0.7 million, or 27%, compared to 2006, primarily driven by higher instrument sales, start-up costs for our new Singapore manufacturing facility and underutilized capacity as we transitioned manufacturing from the U.S. to Singapore. Additionally we wrote-off obsolete raw materials in 2007 in the amount of $0.2 million, which decreased our gross margin by 5 percentage points. Cost of product revenue for 2006 decreased by $2.0 million, or 42%, when compared to 2005, primarily driven by a decrease in sales of our Topaz instruments during 2006. We expect our unit costs to decline in future periods as a result of our ongoing efforts to automate our manufacturing processes and expected increases in production volumes and yields. However, improvement in unit costs may be offset by increasing price competition, which could cause our gross margins to fluctuate from year-to-year and quarter-to-quarter.

Operating Expenses

The following table presents our operating expenses for each period presented (in thousands):

	2005	2006	2007
Operating expenses:			
Research and development	$ 11,449	$ 15,589	$ 14,389
Selling, general and administrative	7,955	9,699	12,898
Total operating expenses	$ 19,404	$ 25,288	$ 27,287

Research and Development

Research and development expense is the largest component of our operating expenses and consists primarily of personnel costs, independent contractor costs, prototype expenses and other allocated facilities and information technology expenses. We have made substantial investments in research and development since our inception. Our research and development efforts have focused primarily on the tasks required to optimize our technologies and to support commercialization of the products and services derived from these technologies. Research and development expense decreased in 2007 by $1.2 million, or 8%, compared to 2006, primarily due to decreased research and development license costs of $0.3 million, decreased supply costs of $0.3 million due to more efficient development activities and decreased compensation costs of $0.2 million. Research and development expense for 2006 increased by $4.1 million, or 36%, compared to 2005, primarily due to increased compensation costs of $2.1 million, of which $0.1 million was related to the adoption of SFAS 123(R) during 2006, $0.7 million attributable to increased contractor expenses, $0.6 million in increased licenses and royalties, and $0.3 million attributable to increased supply expenses. We believe that our continued investment in research and development is essential to a long-term competitive position and expect these expenses, including stock-based compensation, to increase in future periods.

Selling, General and Administrative

Selling, general and administrative expense consists primarily of personnel costs for our sales and marketing, business development, finance, legal, human resources and general management, as well as professional services, such as legal and accounting services. Selling, general and administrative expense for 2007 increased by

$3.2 million, or 33%, primarily due to increased compensation costs of $1.7 million, including a $0.5 million increase in stock-based compensation over 2006, an increase of $1.4 million in spending primarily for accounting and legal services, $0.3 million resulting from increased advertising and promotions, and $0.2 million attributable to increased supplies for customer demonstrations. However, this increase was partially offset by a decrease of $0.4 million due to fewer patent filings. Selling, general administrative expense for 2006 increased by $1.7 million, or 22%, compared to 2005, primarily due to increased compensation costs of $1.1 million, $0.4 million due to the filing of additional patents, $0.1 million from increased advertising and promotions, and $0.1 million attributable to increased supplies for customer demonstrations. We expect selling, general and administrative expense, including stock-based compensation, to significantly increase in 2008 and future periods as we continue to grow our sales, technical support, marketing and administrative headcount, support increased product sales, broaden our customer base and incur additional costs to support the growth in our business.

Interest Income and Expense

We receive interest income from our cash and cash equivalents and our available-for-sale security balances held with certain financial institutions. Conversely, we incur interest expense from our long-term debt and convertible promissory notes and the amortization of our debt discounts related to these items. The following table presents our interest income and expense for each period presented (in thousands).

	2005	2006	2007
Interest income	$ 340	$ 565	$ 1,140
Interest expense	(898)	(2,261)	(2,790)

Interest income for 2007 increased by $0.6 million compared to 2006. The increase in interest income was due to higher cash and available-for-sale securities balances during 2007 as compared to 2006. Interest income for 2006 increased by $0.2 million compared to 2005. The increase in interest income was also primarily due to higher cash and available-for-sale securities balances during 2006 as compared to 2005. We expect interest income to increase as we invest a portion of the net proceeds from this offering in available-for-sale securities.

Interest expense for 2007 increased by $0.5 million compared to 2006. The increase was primarily due to higher debt balances during 2007 as compared to 2006 primarily due to the $5.0 million convertible promissory note issued in March 2007. Interest expense for 2006 increased by $1.4 million compared to 2005. The increase was primarily due to higher debt balances from the $13.0 million Loan and Security agreement that was fully drawn by December 2005. We expect interest expense to increase if we draw on the $10.0 million credit line which is available up to July 1, 2008.

Cumulative Effect of Change in Accounting Principle

Upon adoption of FSP 150-5 on July 1, 2005, we reclassified the fair value of warrants to purchase shares of our convertible preferred stock from stockholders' equity to liabilities and recorded a cumulative effect of a change in accounting principle in the amount of $0.6 million during 2005 in the statement of operations.

Liquidity and Capital Resources

Sources of Liquidity

To date, we have principally funded our operations through issuances of convertible preferred stock, which has provided us with aggregate net proceeds of $162.1 million since our inception. As of December 29, 2007, we had $34.1 million of cash and cash equivalents and $6.3 million of available-for-sale securities. As of December 29, 2007, our working capital was $38.8 million, and we had an accumulated deficit of $133.8 million.

From December 2003 through December 2007, we entered into multiple Convertible Note Purchase Agreements with Biomedical Sciences Investment Fund Pte. Ltd., or Biomedical Sciences, an investment arm of the Singapore Economic Development Board, or EDB, pursuant to which we issued convertible notes and received proceeds in the amount of $20.0 million. Principal and interest on the notes is convertible into our Series E convertible preferred stock at the lender's election, at any time, and automatically convert upon the achievement of certain milestones or upon the completion of an initial public offering in which the convertible preferred stock has

converted into common stock. Through December 29, 2007, $15.0 million of these notes had been converted to shares of our Series E convertible preferred stock. As of December 29, 2007, the outstanding principal and accrued interest balance for the Convertible Note Purchase Agreements with Biomedical Sciences was $5.0 million, net of unamortized debt discounts of $0.3 million.

In March 2005, we entered into a loan and security agreement with a lender under which we borrowed $13.0 million to be used for general corporate purposes. We are currently making equal monthly payments of $0.3 million towards the loan which is to be paid off on February 1, 2010. The loan is subject to prepayment penalties if paid off prior to 2010. As of December 29, 2007, the outstanding principal and accrued interest balance for this loan and security agreement was $8.0 million, net of unamortized debt discounts of $31,000. In February 2008, this loan and security agreement was amended to provide us with an additional credit line in the amount of $10.0 million that we can draw upon until July 1, 2008 for general corporate purposes. Amounts drawn down under this additional line of credit plus accrued interest will be repaid in installments through June 2011 and outstanding amounts accrue interest at the rate of 11.5% per year.

In November 2002, we entered into a master security agreement with a lender under which we borrowed $3.6 million to be used for purchases of capital equipment, software and tenant improvements. As of December 29, 2007, the outstanding principal and accrued interest balance for this master security agreement was $1.1 million. The outstanding principal and accrued interest balance for this loan was paid in February 2008. Upon full payment of the debt in February 2008, restricted cash in the amount of $0.5 million was released by the lender.

Each of the security and note agreements above contain covenants, however, no financial covenants exist related to these agreements. As of December 29, 2007, we were in compliance with or had obtained waivers for all of the covenants related to these agreements.

Net Cash Used in Operating Activities

We derive cash flows from operations primarily from cash collected from the sale of our products and related services, collaboration agreements and grants from certain government entities. Our cash flows from operating activities are also significantly influenced by our use of cash for operating expenses to support the growth of our business. We have historically experienced negative cash flows from operating activities as we have expanded our business and built our infrastructure domestically and internationally and we expect this trend to continue for the foreseeable future as our business grows and we continue to expand into new markets.

Net cash used by operating activities was $21.8 million during 2007. Net cash used by operating activities primarily consisted of a net loss of $25.5 million, which was partially offset by non-cash expense items such as depreciation and amortization of our property and equipment in the amount of $1.6 million, amortization of our debt discounts in the amount of $0.5 million, stock-based compensation in the amount of $0.7 million, and changes in our working capital accounts in the amount of $0.5 million.

Net cash used by operating activities was $22.3 million during 2006. Net cash used by operating activities primarily consisted of a net loss of $23.6 million and changes in our working capital accounts in the amount of $1.2 million. The cash used by operating activities for these items was partially offset by non-cash expense items such as depreciation and amortization of our property and equipment in the amount of $1.4 million, amortization of our debt discounts in the amount of $0.1 million, stock-based compensation in the amount of $0.1 million, and the issuance of convertible preferred stock under a license agreement in the amount of $0.6 million.

Net cash used by operating activities was $14.3 million during 2005. Net cash used by operating activities primarily consisted of a net loss of $16.4 million. The cash used by operating activities was partially offset by non-cash expense items such as depreciation and amortization of our property and equipment in the amount of $1.3 million and increases in our working capital accounts in the amount of $1.4 million.

Net Cash Used in Investing Activities

Historically, our primary investing activities have consisted of capital expenditures for laboratory, manufacturing and computer equipment and software to support our expanding infrastructure and work force; restricted cash related to leased space and lending agreements; and purchases, sales and maturities of our available-for-sale

securities. We expect to continue to expand our manufacturing capability, primarily in Singapore, and expect to incur additional costs for capital expenditures related to these efforts in 2008.

We used $6.7 million of cash in investing activities during 2007, primarily for purchases of available-for-sale securities in the amount of $6.3 million and $1.0 million for capital expenditures related to purchases of equipment, including $0.4 million for our Singapore manufacturing facility, partially offset by maturities of available-for-sale securities in the amount of $0.5 million.

We used $2.9 million of cash in investing activities during 2006, primarily for capital expenditures in the amount of $2.9 million related to purchases of equipment, including $1.3 million for our Singapore manufacturing facility.

During 2005, investing activities provided cash of $6.8 million. This cash was generated primarily from sales and maturities of available-for-sale securities in the amount of $8.9 million, partially offset by purchases of available-for-sale securities in the amount of $0.5 million and capital expenditures in the amount of $1.7 million. Our capital expenditures during 2005 consisted of $1.0 million related to purchases of manufacturing equipment for our Singapore facility, which began operations during the year.

Net Cash Provided by Financing Activities

Historically, we have principally funded our operations through issuances of convertible preferred stock.

During 2007, we generated $37.6 million of cash from financing activities primarily due to $35.9 million of net proceeds from sales of our Series E convertible preferred stock and $5.0 million of proceeds from the issuance of convertible promissory notes, partially offset by repayments of our long-term debt in the amount of $3.5 million. During 2006, we generated approximately $31.1 million of cash from financing activities primarily due to $22.0 million of net proceeds from sales of our Series E convertible preferred stock and $13.0 million of proceeds from the issuance of convertible promissory notes, partially offset by repayments of our long-term debt in the amount of $4.0 million. During 2005, we generated approximately $23.0 million of cash from financing activities, primarily due to $10.0 million of net proceeds from sales of our Series D convertible preferred stock and $14.7 million of net proceeds from the issuance of long-term debt, partially offset by repayments of our long-term debt in the amount of $1.7 million.

Capital Resources

We believe our existing cash and cash equivalents, available-for-sale securities, amounts available under current credit lines and the net proceeds from this offering, will be sufficient to meet our working capital and capital expenditure needs for at least the next 18 months. However, we may need to raise substantial additional capital to expand the commercialization of our products, fund our operations, continue our research and development, defend, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights, commercialize new products and acquire companies and in-license products or intellectual property. Our future funding requirements will depend on many factors, including market acceptance of our products, the cost of our research and development activities, the cost of filing and prosecuting patent applications, the cost of defending, in litigation or otherwise, any claims that we infringe third-party patents or violate other intellectual property rights, the cost and timing of regulatory clearances or approvals, if any, the cost and timing of establishing additional sales, marketing and distribution capabilities, the cost and timing of establishing additional technical support capabilities, the effect of competing technological and market developments, and the extent to which we acquire or invest in businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types of transactions. We currently expect to use the proceeds from this offering to expand our sales force, to support the ongoing commercialization of our products, for research and product development activities, to expand our facilities and manufacturing operations, and for working capital and other general corporate purposes. As of the date of this prospectus, we cannot predict with certainty all of the particular uses for the proceeds from this offering or the amounts that we will actually spend on the uses set forth above.

We may require additional funds in the future and we may not be able to obtain such funds on acceptable terms, or at all. If we raise additional funds by issuing equity securities, our stockholders may experience dilution. Debt

financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets, or delay, reduce the scope of or eliminate some or all of our development programs. If we do not have, or are not able to obtain, sufficient funds, we may have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these factors could harm our operating results.

Off-Balance Sheet Arrangements

Since our inception, we have not had any off-balance sheet arrangements as defined in Item 303(a)(4) of the Securities and Exchange Commission's Regulation S-K.

Contractual Obligations and Commitments

The following summarizes our contractual obligations as of December 29, 2007 (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1-3 Years	3-5 Years	Thereafter
Operating lease obligations	$ 4,459	$ 1,436	$ 2,782	$ 241	$ —
Long-term debt	10,908	4,478	6,430	—	—
Convertible promissory notes	5,278	—	5,278	—	—
Purchase obligations	1,015	435	580	—	—
Total	$ 21,660	$ 6,349	$ 15,070	$ 241	$ —

Our operating lease obligations relate to leases for our current headquarters and leases for office space for our foreign subsidiaries. Principal and interest on our convertible promissory notes are convertible into shares of our Series E convertible preferred stock at the lender's election, at any time, or upon our election upon the achievement of certain milestones or automatically upon the completion of this offering. Purchase obligations consist of contractual and legally binding commitments to purchase goods. We have entered into several patent license agreements in which we are obligated to pay annual license maintenance fees, non-refundable license issuance fees and royalties as a percentage of sales for the sale or sublicense of products using the licensed technology.

On March 7, 2003 we entered into a Master Closing Agreement with Oculus Pharmaceuticals, Inc. and the UAB Research Foundation, or UAB, related to certain intellectual property and technology rights licensed by us from UAB. Pursuant to the agreement, we are obligated to issue UAB shares of our common stock with a value equal to $1,500,000 upon the achievement of a certain milestone and based upon the fair market value of our common stock at the time the milestone is achieved. We currently do not anticipate achieving this milestone in the foreseeable future and do not anticipate issuing these shares.

License Agreements: We have entered into several license and patent agreements. Under these agreements, we are obligated to pay annual license maintenance fees, nonrefundable license issuance fees, and royalties as a percentage of net sales for the sale or sublicense of products using the licensed technology. Under our current agreements, we are required to pay aggregate annual fees of $315,000 in 2008 and $270,000 per year thereafter if we maintain the licenses from 2012 to 2027. For a more detailed description of our license agreements, see note 3 to the consolidated financial statements.

Recent Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurement*, or SFAS 157, which defines and establishes a framework for measuring the fair value of assets and liabilities when required or permitted by other

standards within generally accepted accounting principles in the United States but does not require any new fair value measurements. SFAS 157 also expands disclosures about fair value measurements. SFAS 157 is effective for all financial statements issued for fiscal years beginning after November 15, 2007. However, in February 2008 the FASB issued FSP No. 157-2, or FSP 157-2 which delays the effective date of SFAS 157 in accordance with the provisions in FSP 157-2 as of January 1, 2008. The adoption of SFAS 157 is not expected to have a significant impact on our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities*, or SFAS 159, including an amendment of SFAS No. 115, *Accounting for Certain Investments in Debt and Equity Securities*, which allows an entity to choose to measure certain financial instruments and liabilities at fair value. Subsequent measurements for the financial instruments and liabilities an entity elects to measure at fair value will be recognized in earnings. SFAS 159 also establishes additional disclosure requirements. SFAS 159 is effective for fiscal years beginning after November 15, 2007. We adopted SFAS 159 as of January 1, 2008 but chose not to measure the financial instruments and liabilities permitted by the standard at fair value. Therefore, the adoption of SFAS 159 is not expected to have a significant impact on our consolidated financial statements.

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaborative Agreements*, or EITF 07-1, which addresses the accounting for participants in collaborative agreements, defined as contractual arrangements that involve a joint operating activity, that are conducted without the creation of a separate legal entity. EITF 07-1 requires participants in a collaborative agreement to make separate disclosures for each period a statement of operations is presented regarding the nature and purpose of the agreement, the rights and obligations under the agreement, the accounting policy for the agreement, and the classification of and amounts arising from the agreement between participants. These arrangements involve two or more parties who are both active participants in the activity and that are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-1 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods and requires specific additional disclosures. EITF 07-1 is effective for interim and annual reporting periods beginning after December 15, 2008. We are currently assessing the impact the adoption of EITF 07-1 will have on our consolidated financial statements.

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities*, or EITF 07-3. EITF 07-3 provides clarification surrounding the accounting for nonrefundable research and development advance payments, whereby such payments should be recorded as an asset when the advance payment is made and recognized as an expense when the research and development activities are performed. EITF 07-3 is effective for interim and annual reporting periods beginning after December 15, 2007. We do not expect the adoption of EITF 07-3 to have a significant our consolidated financial statements.

Quantitative and Qualitative Disclosures about Market Risk

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in foreign currency exchange rates and interest rates. We do not hold or issue financial instruments for trading purposes.

Foreign Currency Exchange Risk

As we expand internationally our results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. Our revenue is generally denominated in the local currency of the contracting party. Historically, the substantial majority of our revenue has been denominated in U.S. dollars. Our expenses are generally denominated in the currencies in which our operations are located, which is primarily in the United States, with a portion of expenses incurred in Singapore where our other manufacturing facility is located. Our results of operations and cash flows are, therefore, subject to fluctuations due to changes in foreign currency exchange rates. Fluctuations in currency exchange rates could harm our business in the future. However, the effect of a 10% adverse change in exchange rates on foreign denominated receivables and payables as of December 31, 2006 and December 29, 2007 would not have been material. To date, we have not entered into any foreign currency hedging contracts although we may do so in the future.

Interest Rate Sensitivity

We had cash and cash equivalents of $25.0 million and $34.1 million as of December 31, 2006 and December 29, 2007 and available-for-sale securities of $0.5 million and $6.3 million as of December 31, 2006 and December 29, 2007. These amounts were held primarily in cash on deposit with banks, money market funds, commercial paper, corporate notes or notes from government-sponsored agencies, which are short-term. Cash and cash equivalents and available-for-sale securities are held for working capital purposes and restricted cash amounts are held as letters of credit for collateral for a security agreement with a lender and for our facility lease agreements. Due to the short-term nature of these investments, we believe that we do not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Declines in interest rates, however, will reduce future investment income. If overall interest rates had decreased by 10% during 2007, our interest income would not have been materially affected.

At December 31, 2006 and December 29, 2007, the principal amount of our long-term debt outstanding was $12.8 million and $9.4 million and the principal amount of our convertible promissory notes outstanding was $13.1 million and $5.0 million. The interest rates on our long-term debt and convertible promissory notes are largely fixed, however, a small portion of our long-term debt outstanding has interest rates that are variable and adjust periodically based on the prime rate. If overall interest rates had increased by 10% during 2007, our interest expense would not have been materially affected.

Fair Value of Financial Instruments

We do not have material exposure to market risk with respect to investments as our investments consist primarily of highly liquid securities that approximate their fair values due to their short period of time to maturity. We do not use derivative financial instruments for speculative or trading purposes, however, we may adopt specific hedging strategies in the future.

Controls and Procedures

In January 2008, in connection with the audit of our consolidated financial statements for 2005 and 2006, we determined that we had material weaknesses relating to our financial statement close and accrual process and revenue recognition and inventory costing, cost of sales, purchases cut-off and stock-based compensation. A material weakness is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis by the company's internal controls. These material weaknesses were as follows:

- we did not have a sufficient number of personnel in the accounting and finance department with sufficient proficiency and technical accounting expertise;
- we did not have effective controls in place or designed to evaluate the accounting implications of our business transactions during 2005 and 2006 and to determine if such matters had been properly accounted for in a timely manner; and
- we had not designed or maintained effective operating controls over the financial statement close and reporting process in order to ensure the accurate and timely preparation of our financial statements in accordance with generally accepted accounting principles.

These material weaknesses resulted in the recording of numerous audit adjustments for 2005 and 2006. We have taken steps intended to remediate these material weaknesses through:

- the hiring of additional accounting and finance personnel with technical accounting and financial reporting experience, including Vikram Jog, our new Chief Financial Officer, who joined us in February 2008;
- the engagement of a consulting firm to provide further accounting expertise to complement the skills of our existing team;
- the engagement of an accounting firm to advise us on local and international tax planning and compliance;

- the hiring of an experienced finance manager for Fluidigm Singapore Pte. Ltd., who is expected to start in May 2008;
- increased scheduled communication and coordination among our finance teams in the United States and our foreign subsidiaries;
- enhanced coordination among, and training of, accounting, sales, technical support and legal personnel on transactional issues;
- enhancements to our financial statement close process and financial close calendar to help enable processes and procedures to be completed on a timely basis; and
- installation of common accounting software and systems in our U.S. and Singapore offices.

In April 2008, following the audit of our consolidated financial statements for 2007, we reviewed our internal control over financial reporting and concluded that we had certain significant deficiencies, none of which were determined to be material weaknesses. A significant deficiency is defined as a deficiency, or combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of a company's financial reporting. These significant deficiencies were as follows:

- we did not have sufficient controls in place to review consolidation and elimination entries relating to intercompany transfer pricing to detect and eliminate intercompany profits embedded in deferred costs of our Japanese subsidiary; and
- we did not have effective controls in place designed to apply SFAS 123R to option grants with a variety of vesting terms and to validate stock compensation expenses calculated by our option tracking software.

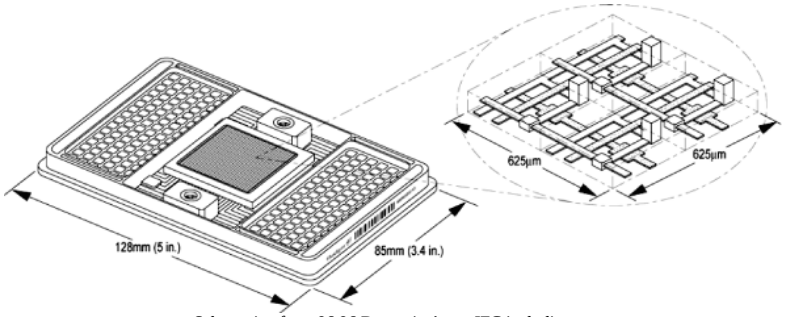
We do not know the specific time frame needed to remediate the significant deficiencies identified. In addition, we expect to incur some incremental costs associated with this remediation. If we fail to enhance our internal control over financial reporting to meet the demands that will be placed upon us as a public company, including the requirements of the Sarbanes-Oxley Act, we may be unable to report our financial results accurately. The actions we plan to take are subject to continued management review supported by confirmation and testing, as well as audit committee oversight. While we expect to remediate these significant deficiencies, we cannot assure you that we will be able to do so in a timely manner, which could impair our ability to report our financial position, results of operations or cash flows accurately and timely.

BUSINESS

Overview

We develop, manufacture and market proprietary Integrated Fluidic Circuit systems that significantly improve productivity in life science research. Our Integrated Fluidic Circuits, or IFCs, integrate a diverse set of critical liquid handling functions on a nanoliter scale. Our IFCs can meter, combine, diffuse, fold, mix, separate or pump nanoliter volumes of fluids, with precise control and reproducibility, many thousands of times — all in parallel on a single chip. This technology enables our customers to perform thousands of sophisticated biochemical measurements on samples smaller than the content of a single cell, with minute volumes of reagents, in half the area of a credit card. We achieved this "integrated circuit for biology" by miniaturizing and integrating liquid handling components on a single microfabricated device. Through innovations in material science and manufacturing, our IFC architectures are highly flexible, and can be designed to support a wide range of applications and assay types. Our IFC systems, consisting of instrumentation, software and single-use IFCs, increase throughput, decrease costs and enhance sensitivity compared to conventional laboratory systems. We have sold our IFCs to over 100 customers, including many leading biotechnology and pharmaceutical companies, academic institutions and life science laboratories worldwide.

We have commercialized IFC systems for a wide range of life science applications, including our BioMark system for gene expression analysis, genotyping and digital PCR, and our Topaz system for protein crystallization. Researchers and clinicians have successfully employed our products to help achieve breakthroughs in a variety of fields, including genetic variation, cellular function and structural biology. These include using our IFC systems to help detect life-threatening mutations in patients' cancer cells, discover indicators of susceptibility to cancer, manage some of the world's most valuable fisheries, analyze the genetic composition of individual stem cells, identify fetal chromosomal abnormalities, analyze the infectiousness of the avian flu virus and assess the quality of agricultural seed products. We believe that the broad applicability of our IFC technology will lead to the development of IFC systems for a wide variety of additional markets and applications, including molecular diagnostics.



Schematic of our 96.96 Dynamic Array IFC including an enlarged section showing four of the IFC's 9,216 test chambers.

The life science industry is currently facing challenges similar to those faced by the information technology industry when computational power was constrained by the inherent limitations of the vacuum tube. Life science research efforts, ranging from large-scale initiatives, such as the Human Genome Project, to more traditional academic and commercial research projects, are continuing to reveal the complex biological and chemical processes that are fundamental to living organisms. Automated, high-precision and large-scale experimentation is increasingly necessary to develop and apply this knowledge. However, the most common forms of life science automation rely on cumbersome robotic systems that are slow, expensive and labor-intensive and, we believe,

fundamentally constrain the pace and productivity of life science research. In much the same way that integrated circuits overcame the limitations of early computers by placing an increasing number of transistors on a single silicon chip, our IFCs overcome many of the limitations of conventional laboratory systems by integrating an increasing number of fluidic components on a single microfabricated IFC.

We believe that much of analytical biology and chemistry can be performed more efficiently and more economically in nanoliter, or one billionth of a liter, volumes than in conventional microliter volume platforms. Moreover, we believe that these advantages can be further enhanced through high levels of integration. Our IFC systems overcome many of the limitations of conventional methods by integrating on a single device the ability to perform thousands of experiments at one time and in nanoliter volumes. Our IFCs consist of an elastomeric, or rubber-like, core bonded to a specialized hard plastic input frame. The input frame is compatible with standard laboratory workflow equipment and facilitates loading the IFC with samples and reagents. Each IFC contains an extensive network of microfluidic components, such as valves, channels, pumps, mixers and other components that deliver samples and reagents to thousands of nanoliter chambers across the IFC where individual tests can be performed. This high level of nanofluidic integration significantly reduces the time and complexity of large-scale experimentation and the volume of costly reagents and scarce patient samples required. In addition, our IFC systems enable users to address problems that would be difficult or impractical to solve using conventional life science tools. We believe that our ongoing research efforts to increase the density and degree of miniaturization of our IFCs will result in further such benefits to our customers.

Our Target Markets

Biotechnology and pharmaceutical companies, academic institutions and life science laboratories collectively spent approximately $35 billion in 2007 for analytical and life science instruments, according to Strategic Directions International, or SDI. Growth in the life science equipment and supplies industry has been driven in part by increased demand for tools that allow researchers to discover how fundamental functional elements of biology such as nucleic acids, proteins, carbohydrates and cells interact within living organisms. This research often entails analyzing or identifying numerous such elements across large sample populations. Conducting and commercializing this research requires equipment that reliably performs experimentation with precision, on a large scale and at an affordable cost. The need for equipment with these capabilities is particularly evident in the areas of genomics, proteomics and molecular diagnostics, which comprise our initial target markets.

Genomics

Genomics is the analysis of nucleic acids, including DNA and RNA, the fundamental building blocks of life. The entire DNA content of an organism is known as its genome and is commonly organized into functional units known as genes. Analysis of variations in genomes, genes and gene activity in and between organisms can provide tremendous insight into its health and functioning. The worldwide demand for genomic analysis instruments and supplies was approximately $4.9 billion in 2005, according to SDI. Of this total, SDI estimated that 56%, or about $2.7 billion, was spent on gene expression analysis, and 20%, or about $1.0 billion, was spent on genotyping. In a 2006 report, SDI projected that the markets for gene expression analysis and genotyping would grow approximately 8% per year from 2005 to 2010.

Gene expression and genotyping today are studied through a combination of various technology platforms that characterize gene function and genetic variation. Gene expression and genotyping are commonly performed using a technique known as polymerase chain reaction, or PCR, and often with a chemistry known as TaqMan. The PCR method is used to replicate a strand of DNA or RNA into millions of copies to facilitate detection in a sample. Real time quantitative PCR, or real time qPCR, is a more advanced form of PCR that makes it possible to identify the number of copies of DNA present in a sample at a certain time. According to Frost and Sullivan, the U.S. market for real time qPCR was approximately $741 million in 2007, growing at approximately 11% per year from 2005 to 2012. Based on our estimates, we believe the global market for real time qPCR was approximately $1.7 billion in 2007. Gene expression, genotyping and digital PCR are three powerful forms of genomic analysis.

- *Gene Expression Analysis.* One of the ways genes control cellular activity is through a process known as gene expression, when a cell transcribes a section of a gene's DNA to create another nucleic acid sequence,

known as messenger RNA. This messenger RNA may then be translated by the cell into a protein. Messenger RNA can be detected and quantified by performing real time qPCR tests, or assays. Gene expression analysis typically entails determining which genes are active by measuring messenger RNA levels in a blood or tissue sample. These results can be correlated with disease activity and clinical outcomes. As multiple genes are involved in most biological processes, gene expression analysis usually requires assaying the expression levels of many genes simultaneously across many samples. We estimate that approximately 80% of the market for real time qPCR involves gene expression analysis.

- *Genotyping.* Genotyping involves the analysis of variations across individual genomes. These variations often take the form of single nucleotide changes, known as single nucleotide polymorphisms, or SNPs, that can determine the characteristics or health of the individual. In SNP genotyping studies, the DNA sequences of a group of individuals are analyzed to determine patterns of SNPs. Statistical analysis is then performed to determine whether a SNP or group of SNPs can be associated with a particular characteristic, such as propensity for a disease. We estimate that approximately 20% of the market for real time qPCR involves genotyping analysis. We believe this percentage share of the real time qPCR market is growing based on technological innovations allowing increasing amounts of genetic content to be analyzed more quickly and cost effectively.
- *Digital PCR.* Digital PCR is a technique that allows researchers to detect nucleic acid sequences that are present in a patient sample in concentrations that are too low to be detected by conventional methods. Digital PCR typically relies on standard PCR techniques, but increases their sensitivity by dividing a sample into hundreds or thousands of smaller samples and performing a PCR assay on each such sample. The ability to actually count the presence or absence of amplification in this assay format provides quantitative measurement capabilities. Digital PCR has the potential to enable early detection of diseases and other conditions, thereby improving prospects for effective treatment. In addition, this technique enhances the precision of single molecule assays and copy number variation. While the digital PCR market is currently nascent, we believe it has the potential to grow significantly as researchers learn how to apply this technique to a broader range of research applications and associated diseases.

Proteomics

Proteomics is the study of the function and structure of proteins. Proteins are produced by all living organisms and directly affect cellular function, the overall health of an organism and, in the case of pathogens, how the organism interacts with its host. Developing drugs to treat a disease often involves identifying molecules that are able to interfere with the activity of a particular protein in the pathway for that disease. One approach to finding such molecules is to first determine the structure of the protein and then look for molecules that bind to the structure and interfere with the activity of the protein. A technique known as protein crystallization is typically used to determine protein structures. Crystallizing a protein can be a time-consuming and labor-intensive process because different proteins will crystallize in the presence of different reagents and under different conditions. As samples of particular proteins are often scarce and expensive, researchers usually conduct only a limited number of experiments, none of which might provide a crystallized protein.

Molecular Diagnostics

Molecular diagnostic tests are used in clinical practice to diagnose, classify or monitor a disease; determine a patient's susceptibility to a disease; or monitor a patient's response to therapy by detecting one or more biomarkers, such as nucleic acids or proteins, in a blood, tissue or other type of patient sample. The advancement of molecular diagnostics is being driven by researchers performing large-scale experiments analyzing the prevalence of SNPs, variations in gene expression levels and patterns of protein production. SNPs, gene expression levels and proteins often directly cause or control diseases. Molecular diagnostic tests based on measuring these biomarkers have the potential to be much more accurate, discriminating and robust than conventional diagnostics. According to Frost and Sullivan, the U.S. market for molecular diagnostics was estimated at $2.0 billion in 2007, growing at a compound annual growth rate of 17% from 2005 to 2012.

The Limitations of Existing Laboratory Systems

Scientists increasingly seek to identify and measure a large number of characteristics across large populations. The most common existing methods of large-scale experimentation require a workflow that is complex, labor-intensive and expensive. In this workflow, biological samples and chemical compounds, usually in solution, are generally dispensed or pipetted into standard microwell plates, which usually consist of 96 or 384 wells each in a standardized format. The plates may then be moved to another station where reagents can be applied to the sample or compound to create a single assay in each microwell. The microwell plates may be moved again to attain ideal reaction temperatures or other conditions. The plates are then generally moved into a reader to detect the results of the experiment in each well. This process of dispensing materials and conveying the plates may include robotically performed steps but generally also requires a significant manual labor component. To accomplish these steps on a large scale typically requires the use of large laboratories equipped with many types of equipment, robotics, conveyor systems and personnel.

Conventional microwell plate workflows have a number of characteristics that inherently limit their effectiveness as tools for large scale experimentation:

- *Complex Workflow.* Pipetting stations may have to perform hundreds of thousands of pipetting steps using hundreds of microwell plates in order to conduct a single set of experiments. These microwell plates must typically be moved among several work stations to complete and measure the results of each assay. Maintaining and overseeing complex workflows involving large numbers of microwell plates requires ongoing attention from trained technicians.
- *Limited Throughput.* Due to the large number of pipetting steps, microwell plates and process steps involved in a conventional microwell workflow, these systems are often unable to perform large-scale experiments in a timely and cost-effective manner.
- *Limited Low Volume Capabilities.* Conventional systems are typically unable to dispense samples and reagents in quantities small enough to conduct certain high sensitivity, low volume techniques, such as digital PCR.
- *Large Sample Requirements and Significant Running Costs.* Biological samples are often available in only very small quantities. As a result, the sample amount that needs to be placed in each well often limits the number of experiments that can be performed. In addition, reagents can be expensive to purchase or produce, and consuming them in microliter or larger quantities results in significant and sometimes prohibitive costs.
- *High Capital Cost.* Because of the limited throughput of conventional systems, multiple pipetting stations, plate handlers and readers may be required to meet the demands of large-scale experimentation, resulting in high capital equipment costs.

Other methods of large-scale experimentation, including microarrays, pre-formatted arrays, bead arrays and mass spectrometer analysis, have been developed to address some of the limitations of conventional microwell plate systems. However, each of these high throughput methods has one or more limitations that reduce its utility for large-scale experimentation.

Microarrays, pre-formatted arrays and bead arrays all lack flexibility because researchers must specify the assays they wish to perform at the time the products are ordered. This in turn limits researchers' ability to refine their assay panel during the course of a study. In addition, if researchers wish to use assay panels other than a manufacturer's standard panels, it may take weeks for a customized product to be produced, and the cost may be significant. Furthermore, it is often difficult or impossible to convert existing validated assays for use with these technologies or with mass spectrometry analysis.

The quality of the data produced by microarrays, pre-formatted arrays and mass spectrometer analysis is insufficient for certain research activities. For genotyping studies, data quality is typically measured by a call rate, which is the percentage of time that a method provides a reading with respect to a particular SNP. Both pre-formatted arrays and mass spectrometer analysis generally have call rates lower than conventional microwell plate systems. For gene expression studies, it is often important to measure expression levels over a broad dynamic range to capture all or most of the variation typically found among subjects. None of microarrays, pre-formatted arrays,

bead arrays or mass spectrometer analysis routinely measure gene expression levels over as broad and dynamic a range as conventional microwell plates.

The workflow for bead arrays and mass spectrometer analysis is complex, time consuming and expensive. For example, standard protocols often require multiple complex operations to be performed over several days by skilled technicians.

These methods can also be very expensive for certain types of large-scale experimentation. For example, a single microarray or bead array is capable of analyzing thousands of genes from a single sample and these devices have been successfully used for surveying the genome to discover basic patterns of gene expression and genotyping. These surveys or "association studies" are commonly performed on tens or hundreds of samples and are intended to identify a subset of genes for further study. However, for validation studies, which typically require the analysis of thousands or tens of thousands of samples, the high per sample cost of microarrays and bead arrays often make them uneconomical. Similarly, the high initial setup costs for mass spectrometry analysis generally make it economical only for very large-scale studies.

A number of companies have attempted to develop more universal "lab-on-a-chip" solutions which could perform large numbers of complex biochemical operations on a single device. These chips typically incorporate a variety of micron-level features, such as channels and wells, but lack robust methods of fluid control such as valves. As a result, the products have been unable to support the complex fluidic manipulation required by large-scale experimentation.

The limitations of existing technologies become even more acute when clinicians attempt to translate scientific research into molecular diagnostics. Given the commercial nature of their operations, clinical laboratories need systems that can test large numbers of patient samples at low cost and with minimal labor requirements. Moreover, many of the most promising research studies rely on measuring each sample across tens or even hundreds of SNPs, gene expression levels or protein concentrations to diagnose or classify a disease. We believe that using standard microwell plate technology to make multiple measurements on a large number of samples is often too complex and expensive for most clinical laboratories. As a result, the molecular diagnostic tests adopted by clinical laboratories have generally been relatively simple or have required specialized machines to perform. Diagnostic approaches that require measuring large numbers of SNPs, gene expression levels or protein concentrations are generally not available or are available only from a diagnostic laboratory that specializes in the particular test.

To achieve and exploit breakthroughs in genomics, proteomics and molecular diagnostics, research and clinical laboratories need robust systems that deliver increased throughput and simpler workflows with decreased costs.

The Fluidigm Solution

Our IFC systems are designed to overcome many of the limitations of conventional methods by empowering researchers and clinicians to rapidly perform a large number of experiments at one time and in nanoliter volumes, significantly increasing throughput, reducing costs associated with reagents and patient samples and reducing the time and number of steps involved. Our IFCs deliver these advantages through integration of sophisticated nanoliter fluid handling in an easy-to-use format. We believe the advantages of our IFC systems can be applied to a wide variety of applications across many fields using standard chemistries.

For each application, we provide a complete IFC system consisting of specially designed single-use IFCs, instrumentation, software and support services. Our IFC systems are designed to be easily incorporated into our customers' laboratory environments and analysis workflow. For example, our IFCs are the same size and shape as standard 384 microwell plates, which facilitate the loading and handling of our IFCs by standard laboratory equipment. Each IFC includes an elastomeric, or rubber-like, core that contains an extensive network of microfluidic components, such as valves, channels, pumps, mixers and other components that deliver samples and reagents to thousands of nanoliter volume chambers where individual assays can be performed. In much the same way that semiconductor technology has enabled tremendous computational power to be placed onto a single silicon chip, the integration of large numbers of miniaturized components on our IFCs enables sophisticated fluid handling at high throughput and low cost.

Our BioMark 48.48 Dynamic Array IFC allows users to individually assay 48 samples against 48 primer-probe sets, generating 2,304 separate real time qPCR reactions on a single device. In December 2007, we completed the development of a prototype 96.96 Dynamic Array IFC, which is configured to run 96 samples against 96 primer-probe sets, generating 9,216 separate reactions. We expect that our 96.96 Dynamic Array will be commercially available in the second half of 2008.

The following table compares the performance of one conventional 384 microwell plate to that of one of our 48.48 Dynamic Array IFCs and one of our 96.96 Dynamic Array IFCs for a genotyping study involving 1,000 samples and 96 SNPs:

	384 Microwell Plate (5 µl/well)	Fluidigm 48.48 Dynamic Array IFC	Fluidigm 96.96 Dynamic Array IFC
Runs for Study	250	42	11
Total reaction volume	480 ml	20 ml	10 ml
Pipetting Steps	192,000	4,032	2,112

The advantages of our IFC systems over existing microwell-based systems include:

- *Reduced Complexity.* Loading our IFC requires orders of magnitude fewer pipetting steps than 384 microwell plates for the same experiment, which reduces the time, cost and potential for error.
- *Improved Throughput.* A single IFC based on our 96.96 format can conduct 9,216 real time qPCR or other assays, or 24 times more assays than a single 384 microwell plate. The improved throughput reduces the time and cost associated with complex experiments and expands the number and range of experiments that may be conducted.
- *Nanoliter Precision.* Our IFC systems allow users to dispense samples and reagents in microliter volumes which are automatically combined and mixed in nanoliter and sub-nanoliter volumes. In addition to cost and workflow benefits, this capability makes it practical for users to conduct certain high sensitivity, low volume techniques, such as digital PCR and single cell analysis.
- *Reduced Sample and Reagent Requirements.* Obtaining patient samples for assays can also be costly, and in many cases the amount of those samples is finite. Our systems typically require between 0.5% and 1.0% of the amount of sample and reagent per reaction as conventional systems, allowing scarce samples and costly reagents to be conserved or tested more extensively.
- *Decreased Capital Cost.* A single BioMark system has the same throughput as the combined throughput of multiple conventional systems. As a result, for high volume users, the cost of purchasing one BioMark system can be much lower than the cost of purchasing the number of competing systems and associated robotic equipment required to provide the same throughput, even though our BioMark system may cost more on a per unit basis.
- *Compatibility with Existing Infrastructure.* Our IFCs incorporate plastic input frames that are the same size as standard microwell plates and are designed to work with the most commonly used laboratory systems, including existing robotic pipetting systems, bar code readers, plate handling systems and other equipment. Our IFCs are also designed to work with standard real time qPCR techniques and TaqMan chemistries. As a result, we believe users are able to quickly introduce our systems into their laboratories and achieve results equal to or better than they were obtaining with conventional systems.

Our IFC systems also have significant advantages over other high-throughput approaches. For example, our BioMark system can detect gene expression levels over a much broader dynamic range than microarrays, pre-formatted arrays, bead arrays or mass spectrometry analysis. For genotyping, our BioMark system has a call rate equal to or better than conventional microwell-based systems. Also, our IFC systems provide researchers with needed flexibility in assay selection and study design. Unlike microarrays, bead arrays and pre-formatted arrays, our IFCs are not limited to detecting certain predetermined genetic markers. Instead, users can perform experiments with our IFCs using assays from their existing libraries, purchased from a wide variety of commercial sources or

developed in their own laboratories. Finally, the efficient workflow of our IFC systems enables users to complete an IFC run in less than three hours.

Our IFC systems address the needs of researchers and clinicians who perform large-scale experimentation in the areas of genomics, proteomics and molecular diagnostics. In particular, for validation studies or projects of a similar scale, our IFC systems substantially reduce cost, simplify workflow and increase throughput as compared to conventional microwell plate systems. Nevertheless, researchers and clinicians may be slow to adopt our IFC systems as they are based on technology that, compared to conventional technology, is new and not yet well-established in the industry. Moreover, many of the existing laboratories have already made substantial capital investments in their existing systems and may be hesitant to abandon that investment. While we believe our systems provide significant cost-savings, the initial price of our systems and the price of our IFCs is higher than conventional systems and standard 384 microwell plates. Our IFC systems are less well suited for smaller scale research initiatives where complexity and workflow issues may be less pressing and conventional systems may be more economical. In addition, for very large-scale association or survey projects, researchers may choose to use microarrays because of the ability of those products to measure thousands of genetic markers with a single device. As life science research continues to evolve and is commercialized, we believe that there will be increasing demand for life science automation solutions that enable experimentation on the scale supported by our IFC systems.

Applications

Our IFC technology has the potential to be applied to a vast range of research and commercial applications. We have commercialized IFC systems for life science research applications such as gene expression analysis, genotyping, digital PCR and protein crystallization. We believe that these applications are relevant to markets beyond life science research, such as the development of molecular diagnostics, and that IFC systems can be developed for numerous other life science applications. We and our academic collaborators have developed non-commercial IFCs for a wide variety of applications in the areas of genomics, proteomics, cellular biology and synthetic chemistry. As illustrated by the examples below, researchers have been able to utilize the advantages of our IFC systems in their laboratories to achieve significant research successes.

Current Commercial Applications

Gene Expression Analysis. Researchers may conduct gene expression studies to measure the activity of tens or hundreds of genes across hundreds or thousands of individuals. For these validation studies, it is often important to know the expression level of a gene, not merely whether the gene is “on” or “off,” as often either high or low activity level is associated with a particular characteristic or disease state. Our IFC systems have been used to deliver high throughput and precise measurements in gene expression analysis applications. For example, researchers at Myriad Genetics have identified panels of genes that could be used to predict cancer progression or select treatment options. However, the cost and complexity of high-throughput real time qPCR using conventional microwell plates significantly limited researchers’ ability to perform the appropriate assays. In response, Myriad Genetics adopted our BioMark system which, together with our Dynamic Array IFCs, has allowed them to significantly reduce their pipetting workload, and therefore pursue research projects that may have been prohibitively cumbersome without our system.

Genotyping. Researchers performing genotyping studies may begin by surveying the genomes of relatively few individuals looking for tens of thousands or even hundreds of thousands of SNPs. Analysis of these studies will often reveal that a relatively small number of SNPs appear to be correlated with the characteristic of interest. In order to validate this analysis, researchers may conduct additional studies involving hundreds or even thousands of individuals focused on tens or hundreds of SNPs. For example, the National Cancer Institute’s Core Genotyping Facility, or the CGF, collaborates with researchers at other government research centers and academic institutions with the goal of developing screens to identify individuals susceptible to particular forms of cancer and guiding the development of targeted therapeutics. One of the CGF’s primary responsibilities in these collaborations is conducting the large-scale experiments necessary to accurately interrogate hundreds of SNPs on many patient samples. In a typical association study, the CGF runs 30 to 300 assays on 1,000 to 10,000 patient samples. Such large-scale studies are difficult and expensive to perform with conventional microwell plate technology. Using our

BioMark system, the CGF continues to perform the same assays previously developed in its existing library of over 5,000 assays.

Genotyping analysis is also used in situations where research has already identified particular genetic profiles of interest and there is a need to test a group of subjects to determine which profile they fit. For example, the Alaska Department of Fish and Game uses our BioMark system to perform genotyping analysis to determine the region of origin of salmon caught in commercial or sport fisheries. By analyzing a large number of salmon, the department can gain an understanding of the effects that fisheries have on populations of salmon and thereby manage the resource more effectively. The department has developed panels for three species which range from 40 to 60 SNPs, and their throughput approaches 100,000 samples per year.

Digital PCR. The widespread use of genetic testing in high-risk pregnancies has created strong interest in rapid and accurate molecular diagnostics for certain common chromosomal abnormalities. However, conventional methods have limitations related to speed, precision and the risks associated with sampling a significant amount of material from the fetus during an invasive procedure such as amniocentesis or chorionic villi sampling. Digital PCR has been identified as a technique for highly sensitive and precise nucleic acid measurement, but performing it with conventional laboratory equipment is so cumbersome that it has not been widely adopted. In an article published by Analytical Chemistry in August 2007, researchers at the laboratory of Professor Stephen Quake, our co-founder, at Stanford University demonstrated that digital PCR can be used for accurate measurement of trisomy 21, or Down syndrome. Using our Digital Array IFC and DNA from human cell lines, Dr. Quake's laboratory was able to precisely measure the number of copies of a DNA sequence from this chromosome and at the same time measure the number of copies of a DNA sequence from another chromosome whose copy number does not vary. For trisomy 21, the ratio of these markers is significantly higher than normal. Similar work in pre-natal genetic testing is being pursued using our IFCs by other customers at leading academic institutions. We believe that with further clinical validation and development, such research could be developed into a diagnostic test that would require significantly less material from the fetus and deliver and answer much more rapidly than current methods. We also believe that digital PCR will enable such diagnostics to ultimately be used in a non-invasive fashion, thus further reducing risk to the fetus.

Similarly, cancer researchers who have identified a particular mutation in chronic myeloid leukemia cells that render those cells resistant to the drug Gleevec. Gleevec is typically used as the initial treatment for this type of leukemia and is often able to put the disease into remission for months or years. However, a significant proportion of these leukemia patients eventually develop mutated leukemia cells that are resistant to Gleevec. These mutated cells are initially very scarce and undetectable using conventional systems, but they eventually multiply and cause the patient to become symptomatic again. Researchers at the Fred Hutchinson Cancer Research Center have used our Digital Array IFC in their laboratory to test patient samples and have been able to detect these mutated cells earlier than with conventional techniques. With additional validation and demonstration of clinical relevance, we believe a test based on digital PCR could be a useful tool for monitoring patients who are diagnosed with chronic myeloid leukemia.

Protein Crystallization. In order to determine how a particular protein interacts with other components of a disease pathway, researchers often attempt to determine its structure using protein crystallization. Because most proteins will crystallize only under very specific conditions, protein crystallization involves performing numerous assays to determine the conditions under which the protein can be crystallized. As described in the April 21, 2006 issue of *Science*, the Scripps Research Institute in La Jolla, California used our Topaz system to understand how the H5N1 Avian Flu virus infects humans. The lab had a very small sample of the protein that the virus uses to attach itself to cells. With the Topaz system, they were able to quickly screen a few microliters of the sample across a wide variety of different conditions and determine the optimum conditions for protein crystallization. With this information, they then created a larger crystal using standard crystallization techniques. Analysis of the structure of the crystallized protein revealed why the current form of the H5N1 virus is less infectious among humans than other flu viruses.

Potential Future Applications

Molecular Diagnostics. Life science research is revealing an increasing number of diseases and conditions that can be diagnosed, evaluated and monitored by measuring panels of gene expression levels, SNPs, proteins or other biomarkers. Validating these research findings and translating them into clinically available tests often requires life science automation systems that are able to efficiently measure multiple biomarkers in a large number of patient samples. Our existing IFC systems are able to measure certain nucleic acid biomarkers that are commonly used in these tests, and we expect that we will be able to develop IFC systems to measure other relevant biomarkers. As described above, researchers have used our IFC systems to detect clinically relevant biomarkers, such as drug resistant leukemia cells and fetal chromosomal abnormalities. We believe that the high throughput, flexibility and simplified workflow of our IFC systems could make them an attractive solution for validating and commercializing a wide range of molecular diagnostic tests being developed by researchers. In addition, we believe that our IFC systems' ability to measure gene expression levels across a broad range and to detect nucleic acid sequences present in very low concentrations will support the development and commercialization of molecular diagnostic tests that would not be practical with conventional systems. Our IFC systems have not been cleared or approved by the U.S. Food and Drug Administration, or FDA, for use in any molecular diagnostic tests and we cannot currently market them for the purpose of performing molecular diagnostic tests. We do not have any current plans to develop products that are regulated by the FDA.

Other Applications. We believe that the inherent design flexibility of our core technology allows us to build IFC systems that can provide significant benefits in a wide range of fields and industries. For example, the architecture of our Dynamic Array is flexible and supports the development of IFCs that create matrixed combinations of a variable number of samples versus a variable number of reagents. In addition, our IFC technology utilizes a variety of microfluidic components, such as pumps, mixers and separation columns, that allow the implementation of sophisticated biochemical processes on our IFCs. While we have not commenced commercial development of IFC systems for these fields, we have developed IFCs for internal research purposes in such diverse fields as:

- immunoassays, which can measure levels of protein expression and other molecules in a highly-parallel, multiplexed format;
- high-throughput drug screening, including the analysis of molecules that inhibit protein-protein and protein-nucleic acid interactions;
- chemical synthesis, including production of radio-labeled sugars which in combination with advanced medical imaging can help diagnose and monitor cancer;
- pharmacogenomics, an emerging field that analyzes how variations in human genomes affect the performance and toxicity of therapeutic agents;
- systems biology, an effort to understand the collective behavior of genes as they collaborate in networks;
- synthetic biology, an emerging field aimed at engineering biological systems to build novel biological functions, systems and perhaps organisms; and
- cellular assays, including stem cells and regenerative medicine, where our IFCs have been used to isolate, cultivate and analyze single cells.

In addition, there have been a variety of publications by independent researchers demonstrating the use of multi-layer soft lithography, or MSL, for applications such as immunoassays based on surface-plasma resonance, cell culturing, and complementary DNA library synthesis from single cells.

Strategy

We intend to become a global leader in providing automated bio-analytical research and molecular diagnostic systems. Our business strategy consists of the following elements:

Establish our IFC Technology as the Leading Solution for a Broad Range of Life Science Applications. Our initial sales and marketing efforts have been focused on establishing our IFC systems as leading solutions

for high throughput life science research applications. We intend to leverage the market awareness and acceptance created by our initial product offerings to market new products and applications to life science researchers and to sell new and existing applications to customers in other markets, such as molecular diagnostics and applied genomics.

Continue to Increase the Throughput and Efficiency of Our IFCs. A primary focus of our research and development efforts is the development of IFCs with increased component density and, therefore, the ability to conduct an increased number of experiments on a single IFC. Increasing density provides value to our customers by increasing throughput, enhancing efficiency, reducing labor costs and reducing reagent and sample volumes. We expect that these increased capacity IFCs will allow us to deliver additional capabilities and cost savings, and further improve our competitive position.

Expand Recurring IFC Revenue Stream Through Product Innovation and System Sales. We intend to drive revenue growth by increasing the number of installed IFC systems, improving the cost per test of our IFCs and developing IFCs and systems for additional applications.

Provide Superior Customer Service. We have a global sales force and support organization that offers technical solutions and customer support through direct relationships with our current and potential customers. Through the direct connection with our customers, we are able to better understand their needs and apprise them of new product offerings and technological advances in our current IFC systems, related instrumentation and software, while maintaining a consistent marketing message and high level of customer service.

Enhance IFC Manufacturing Efficiency. We intend to enhance our manufacturing efficiency through improvements in our existing processes, development of new IFC designs and implementation of new manufacturing methods in order to improve our manufacturing yields and reduce our manufacturing costs. We believe that these improvements will enable us to deliver additional value to our customers and to maintain or enhance our advantages over competing systems.

Continue to Develop our Technology and Intellectual Property Position. Our products are based on a set of related proprietary technologies that we have either developed internally or licensed from third parties. We intend to continue making significant investments in research and development to further expand and deepen our technological base. At the same time, we intend to maintain and strengthen our intellectual property position through the continued filing and prosecution of patents in the United States and internationally and through the in-licensing of third party intellectual property as appropriate.

Products

We currently market two IFC systems, the BioMark system for real time qPCR and the Topaz system for protein crystallization. Each system consists of single-use IFCs, loaders that control the IFCs, readers that detect reactions on the IFCs and software for analyzing, annotating and archiving the data produced by the readers.

The BioMark System for Real Time qPCR

The BioMark system allows users to perform gene expression analysis, genotyping and digital PCR using standard TaqMan chemistry.

BioMark Dynamic Array IFCs

Our BioMark 48.48 Dynamic Array IFC is based on matrix architecture that allows users to individually assay 48 samples against 48 primer-probe sets, generating 2,304 real time qPCR reactions on a single device. One version of this IFC is optimized to perform gene expression analysis and another is optimized for genotyping, each assay in volumes of 10 nanoliters or less.

We commercially introduced our Dynamic Arrays in the fourth quarter of 2006 and, as of March 29, 2008, 23 customers have purchased Dynamic Array IFCs for use in applications, such as SNP association follow-up studies and single stem-cell gene expression profiling. In December 2007, we completed the development of a prototype 96.96 Dynamic Array IFC, which is configured to run 96 samples against 96 primer-probe sets, generating 9,216

reactions. We expect to release evaluation prototypes of this IFC to customers in the second half of 2008 and expect that it will be commercially available in the second half of 2008.

BioMark Digital Array IFCs

The BioMark 12.765 Digital Array IFC is based on partitioning architecture that allows users to divide 12 separate samples into 765 smaller samples and perform a real time qPCR assay against each sample in less than 10 nanoliter volumes. This IFC can be used for digital PCR and to precisely quantify the amount of a particular nucleic acid sequence present in a sample. We have been selling Digital Array IFCs since March 2007 and, as of March 29, 2008, 14 customers have purchased Digital Array IFCs for use in applications, such as characterizing unculturable bacteria and cancer detection.

BioMark Instrumentation and Software

Our NanoFlex IFC Controller for the BioMark system fully automates the setup of IFCs for real time qPCR-based experiments and includes software for implementing and tracking experiments. The instrumentation for our BioMark system controls the real time qPCR process and detects the fluorescent signals generated using a white light source, emission and excitation filters, precision lenses, a licensed thermal cycler and a digital camera. We also offer various software packages that provide data analysis following data collection. Our analysis software shows data as color-coded maps of every position on the IFC, as amplification curves and as numeric tabular data.

The Topaz System for Protein Crystallization

The Topaz system allows users to screen protein samples against a set of reagents in order to determine the optimum conditions for crystallizing a protein. The Topaz system includes IFCs similar to our Dynamic Array architecture that have been optimized for highly efficient protein crystallization screening.

Topaz Screening IFCs and Reagents

Our 1.96, 4.96 and 8.96 Screening IFCs for our Topaz system allow users to test 96 different reagents or reagent concentrations against one, four or eight different protein samples. We estimate that our screening IFCs require only 1% the amount of sample used in standard microwell plate technologies, which is important because protein samples are often extremely scarce or difficult to prepare. The 4.96 and 8.96 IFCs provide greater fluid handling efficiency by enabling the parallel processing of different samples containing a particular protein or different constructs of the same protein on a single IFC. This parallel processing saves pipetting steps and allows the user to determine the best sample or construct to use when scaling up production of a protein to generate diffraction-quality crystals.

We also re-sell third party reagents that we have tested with our Topaz system. Though our customers may purchase or make their own reagents for use with our system, we recommend that they use reagents that we have validated.

We commercially introduced our Topaz systems in the first quarter of 2003 and, as of March 29, 2008, 75 customers have purchased Topaz IFCs for use in applications such as functional studies and structure-based drug design.

Topaz Instrumentation and Software

The NanoFlex IFC controller for the Topaz system fully automates the setup of diffusion-based protein crystallization experiments and includes software for tracking experiments.

The Topaz AutoInspeX II workstation automates the scanning of Topaz IFCs and the identification of reaction chambers where crystallization has occurred. The AutoInspeX II incorporates high-end optical performance and a full suite of software for analyzing and archiving crystallization results. The sophisticated instrumentation and software included in our Topaz system enables users to automatically image and accurately score crystals as small as 10 microns by 20 microns.

Sales and Marketing

We distribute our systems through our direct field sales and support organizations located in North America, Europe and Asia and through distributors or sales agents in several European countries. Our global sales force is able to apprise our current and potential customers of new product offerings and technological advances in our current IFC systems, related instrumentation and software to help drive revenue growth. As our primary point of contact in the marketplace, our sales force ensures a consistent marketing message and high level of customer service, while enhancing our understanding of customer needs. As of December 29, 2007, we had 24 people employed in sales, sales support and marketing, including 9 sales representatives.

Our sales and marketing efforts are targeted at laboratory directors and principal investigators at leading companies and institutions who need reliable, high throughput life science automation solutions to conduct large-scale experimentation. We seek to increase awareness of our products among our target customers through participation in tradeshows and academic conferences including sponsoring scientific lectures by prominent users of our systems. Because our systems are relatively new and require a capital investment, the sales process typically involves numerous interactions and demonstrations with multiple people within an organization. In addition, potential customers will often wish to conduct in-depth evaluations of the system including running identical sets of samples and reagents on both our system and competing systems. As a result of these factors and the budget cycles of our customers, our sales cycle, the time from initial contact with a customer to our receipt of a purchase order, can often be 12 months or longer.

Customers

We have sold our BioMark and Topaz systems to a wide variety of biotechnology and pharmaceutical companies and to academic, governmental and clinical research institutions. As of March 29, 2008, 75 of our Topaz systems have been installed at customer sites and 20 of our BioMark systems have been installed at customer sites. The following is a list of our representative customers in each of the listed markets.

Customer	Market	Application
MedImmune	Gene Expression	Pharmaceutical drug development — real time qPCR for gene expression profiling in research and clinical trials
Myriad Genetics	Gene Expression	Cancer and diagnostics research — real time qPCR for differential gene expression in cancer studies
Merck & Co.	Gene Expression	Gene expression profiling for pharmaceutical drug development
Alaska Department of Fish and Game	Genotyping	Government wild-life resource management — SNP genotyping for identification of salmon species
National Cancer Institute	Genotyping	Academic basic research; clinical diagnostics research — genotyping for cancer research
Chinese University of Hong Kong	Digital PCR	Academic basic research; clinical diagnostics research — digital PCR for early cancer detection
Vertex Pharmaceuticals	Protein crystallization	Pharmaceutical drug discovery

Revenue Concentration. We receive a substantial portion of our revenue from a limited number of customers and grantors. For the year ended December 29, 2007, the Singapore Economic Development Board, or EDB, accounted for 24% of our total revenue. For the year ended December 31, 2006, CTI Molecular Imaging accounted for 16% of our total revenue, Kikotech Co., Ltd. accounted for 14% of our total revenue and EDB accounted for 14% of our total revenue. For the year ended December 31, 2005, Kikotech accounted for 16% of our total revenue and a collaboration agreement accounted for 14% of our total revenue. We anticipate that we will continue to be

dependent on a limited number of customers and grantors for a significant portion of our revenue in the near future. The loss of any of these customers could have a material adverse effect on our results of operations and cash flows.

Competition

We compete with both established and development stage life science companies that design, manufacture and market instruments for gene expression analysis, genotyping, other nucleic acid detection and additional applications using established laboratory techniques. For example, companies such as Affymetrix, Applied Biosystems, BioTrove, Illumina, Roche Diagnostics and Sequenom have products for gene expression and/or genotyping that compete in certain segments of the market in which we sell our BioMark system. In addition, a number of other companies and academic groups are in the process of developing novel technologies for genetic analysis, many of which have also received grants from the National Human Genome Research Institute, a branch of the National Institutes of Health.

The high-throughput life science platforms industry is highly competitive and expected to grow more competitive with the increasing knowledge gained from molecular biology experimentation. Many of our competitors are either publicly-traded or are divisions of publicly-traded companies and enjoy several competitive advantages over us, including:

- significantly greater name recognition;
- greater financial and human resources;
- broader product lines and product packages;
- larger sales forces;
- larger and more geographically dispersed customer support organization;
- substantial intellectual property portfolios;
- established customer bases and relationships; and
- greater experience in research and development, manufacturing and marketing.

We believe that the principal competitive factors in our markets include:

- cost of capital equipment and supplies;
- ease of use;
- accuracy and reproducibility of results; and
- compatibility with existing laboratory processes.

In order to successfully compete with existing products and future technologies, we will need to demonstrate to potential customers that the cost savings and performance of our technologies and products, as well as our customer support capabilities, are superior to those of our competitors.

Technology

Our products are based on a tiered set of related proprietary technologies that we have either developed internally or licensed from third parties.

Multi-Layer Soft Lithography

Our IFCs are manufactured using a technology known as multi-layer soft lithography, or MSL. With MSL, we are able to use standard semiconductor manufacturing techniques, along with certain proprietary processes, to create complex integrated microfluidic devices.

Using MSL technology, we are able to create valves, chambers, channels and other fluidic components on our IFCs at high density. We combine these components in complex arrangements that allow nanoliter quantities of

fluids to be precisely directed to specific positions within the IFC. Unlike most prior microfluidic technologies, our IFCs do not rely on electricity, magnetism or similar approaches to control fluid movement. Rather, our IFCs control fluid flow with valves. The most important components on our IFCs are our NanoFlex valves, which are created by the intersection of two channels. When the valve is open, fluid is able to flow through the lower channel. When the upper or "control" channel is pressurized, the material separating the two channels is deflected into the lower channel, closing the valve and stopping fluid flow. If pressure is removed from the control channel, the channels return to their original form, and the valve is again open. The elastomeric properties of IFC cores allow our NanoFlex valves to form a reliable seal and cycle through millions of openings and closings.

The elastomer we currently use for our commercial products is a form of silicone rubber known as polydimethylsiloxane, or PDMS, but we have researched other materials with different properties for specific purposes. PDMS is transparent, which allows fluid movement to be easily monitored with a variety of existing optical technologies, such as bright field or phase contrast microscopy. In addition, the gas permeability of PDMS allows the reliable metering of fluids with near picoliter precision by eliminating the bubble problems encountered by most other microfluidic technologies. In essence, we are able to pump fluids into closed reaction chambers at sufficient pressure to drive any air out of the chamber directly through the chamber walls. PDMS also supports an environment that is favorable to maintaining cell cultures.

We have developed commercial manufacturing processes to fabricate valves, channels and chambers with dimensions in the 10 to 100 micron range, at high density and with high reliability. For research purposes, we have created devices with both substantially smaller and larger features. Though our manufacturing is based on standard semiconductor manufacturing technologies and techniques, we have also developed novel processes for mold fabrication that enable mass production of high density IFCs with nanoliter volume features.

Integrated Fluidic Circuits

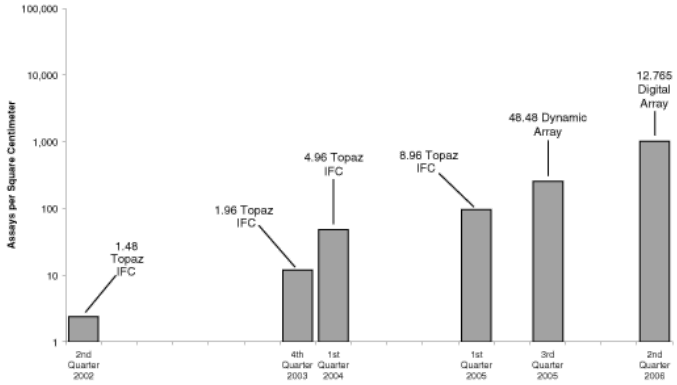
Our IFCs incorporate several different types of technology that together enable us to use MSL to rapidly design and deploy new microfluidic applications.

Microfluidic Components. The first level of our IFC technology is a library of components that perform basic microfluidic functions. We have proven designs for numerous elements, such as pumps, mixers, separation columns, control logic and reaction chambers. These are readily integrated to create circuits capable of performing a wide range of biochemical reactions. Even when it is necessary to integrate multiple elements to perform a particularly complex reaction, the area taken up on a circuit for a single reaction is small compared to a typical overall circuit size of three centimeters by three centimeters. As a result, we are routinely able to develop IFCs that perform thousands of reactions per square centimeter.

Architectures. The second level of our IFC technology comprises the architectures we have designed to exploit our ability to conduct thousands of reactions on a single IFC. The first of these is the Dynamic Array, a matrix architecture that allows multiple different samples and multiple different reagents to be loaded onto a single IFC and then combined so that there is an isolated reaction between each sample and each reagent. The primary advantage of this architecture is that each sample and reagent has to be pipetted only once per IFC rather than once per reaction, as is the case with plate-based technologies. For example, a single 48.48 Dynamic Array IFC can perform a total of 2,304 unique reactions between 48 samples and 48 reagents with only 96 pipetting steps. With conventional microwell plate-based technologies, the same experiment would require about 4,608 pipetting steps and at least six conventional microwell plates. Our Digital Array architecture provides similar benefits with respect to pipetting steps and fluid handling. The Digital Array architecture allows a sample to be split into hundreds or thousands of smaller samples. Separate reactions can then be conducted on each of the smaller samples.

Interface and Handling Frames. The third level of our IFC technology involves the interaction of our IFCs with the actual laboratory environment. The elastomeric blocks at the center of our IFCs sit in specially designed frames that are able to deliver samples and reagents to the block. These frames are the same size as standard 384 microwell plates and have sample and reagent input ports laid out in a standard 384 microwell plate format. As a result, our IFCs can be loaded with standard laboratory pipetting robots and can be used with standard plate handling equipment.

Technological Advances. In the second quarter of 2002, we sold the first prototype of our 1.48 IFC for our Topaz system, which featured 22 valves capable of 2.5 assays per square centimeter. In the second quarter of 2006, we introduced our 12.765 Digital Array IFC, with over 1,000 valves capable of more than 1,000 assays per square centimeter, a 46-fold increase in valve density and a 400-fold increase in assay capability. The chart below illustrates the timing of a number of our technological advances. We expect to ship the first prototype of our 96.96 Dynamic Array IFC in the second half of 2008, which will again increase the number of valves and assays per square centimeter relative to the 48.48 Dynamic Array. In the semiconductor industry, Moore's Law describes the principle that the shrinking of features has allowed for a doubling of transistors on a chip approximately every 18 months. Based on manufacturing processes borrowed from those in the semiconductor industry, Fluidigm has similarly achieved exponential gains in the density and productivity of our IFCs.



Software and Instrumentation

We have developed instrumentation technology to load samples and reagents on to the IFC and to control and monitor reactions within our IFCs. Our NanoFlex controller consists of commercial pneumatic components and both custom and commercial electronics. It uses precise control of multiple pressures to independently move fluid through up to four IFCs simultaneously and can be configured for use with either our BioMark or Topaz systems. Our Topaz Auto-InspeX II workstation consists of a commercial microscope, illumination source, stage and camera system in a single package. Our BioMark system consists of a commercial thermal cycler packaged with a sophisticated fluorescence detection system. All of these instruments are designed to be easily introduced into standard automated lab environments.

We have developed specialized software packages to manage and analyze the unusually large amounts of data produced by our systems. Our BioMark gene expression analysis software automatically identifies individual real time qPCR reactions from fluorescent images and generates amplification threshold crossing values allowing researchers to readily perform complete normalized comparative gene expression analysis across large numbers of samples and assays. Similarly, the BioMark genotyping analysis software automatically clusters fluorescent intensities from individual genotype reactions and makes genotype calls across individual and multiple IFC runs. Our Topaz system software incorporates sophisticated image processing and analysis functionality that enables the automatic detection and classification of protein crystals. Most of our software development uses Microsoft.NET tools to facilitate interaction with typical laboratory information management systems.

Manufacturing

Our manufacturing operations are located in Singapore and South San Francisco. Our Singapore facility fabricates all of our IFCs for commercial sale. IFCs for research and development purposes are fabricated at both

locations. We manufacture instrument systems at both locations, with certain instruments assembled in Singapore and others in South San Francisco.

Our Singapore facility commenced operations in October 2005 and established full process capability for its first product, the Topaz Screening IFC, in June 2006 and for its first Dynamic Array, the 48.48 Dynamic Array in October 2006. Our Singapore facility has been producing components for our Topaz system since October 2006 and components for our BioMark system since December 2007.

We established our manufacturing facility in Singapore to take advantage of the skilled workforce, supplier and partner network, lower operating costs and government support available there. Our IFC manufacturing process includes photolithography and fabrication technologies that are very similar to those used in the fabrication of semiconductor chips. As a result, we are able to hire from a pool of skilled manpower created by the existing semiconductor industry in Singapore. Similarly, the Singapore semiconductor industry has created a broad network of potential suppliers and partners for our manufacturing operations. We are able to locally source a large proportion of the raw materials required in our processes and have been able to collaborate with local engineering companies to develop enabling technologies for IFC fabrication. We have made significant improvements in yields through process improvements at our Singapore facility and IFC production increased three-fold in 2007 compared to 2006.

Our manufacturing operations in Singapore have been supported by grants from the Singapore Economic Development Board which provide partial reimbursement of qualifying costs arising from research and development projects relating to our manufacturing process. Our arrangements with the Singapore Economic Development Board require us to maintain a significant and increasing manufacturing and research and development presence in Singapore.

Our South San Francisco facility began producing Topaz systems in 2002. In 2005, our South San Francisco facility began assembling instrumentation for our BioMark system.

We expect that our existing manufacturing capacity for instrumentation and IFCs is sufficient to meet our needs for at least the next two years. However, we are considering developing additional capacity in order to ensure that all or most of our products are produced by at least two different facilities. We believe that having dual sources for our products would help mitigate the potential impact of a production disruption at any one of our facilities and that such redundancy may be required by our customers in the future. We have not determined the timing or location of any additional manufacturing capacity.

We rely on a limited number of suppliers for certain components and materials used in our systems. While we are in the process of qualifying additional sources of supply, we cannot predict how long that qualification process will last. If we were to lose one or more of our limited source suppliers, it would take significant time and effort to qualify alternative suppliers. Key components in our products that are supplied by sole or limited source suppliers include a thermal cycler customized to our specifications, a specialized polymer from which our IFC cores are fabricated, the plastic carrier that holds the IFC core in certain of our products and the specialized high resolution camera lenses used in the reader for our BioMark system. We are neither a major customer of our suppliers, nor do we have long term supply contracts with most of these suppliers. These suppliers may therefore give other customers' needs higher priority than ours, and we may not be able to obtain adequate supply in a timely manner or on commercially reasonable terms.

Research and Development

We have assembled experienced research and development teams at our South San Francisco and Singapore locations with the scientific, engineering, software and process talent that we believe is required to grow our business.

New Product and Application Development

The largest component of our current research and development effort is in the areas of new product and new application development. In particular, we are focused on extending and supporting the BioMark and Topaz product lines by developing new DNA-based applications, improving the introduction of these products into existing workflows of our customers and increasing the functionality of the products. For example, the addition of multi-

color analysis allows Digital Array users to analyze as many as 36,720 real time qPCR assays in parallel on a single Digital Array.

We are also developing new product lines that leverage our investment in our Dynamic Array and Digital Array architectures. As an example, we have demonstrated Dynamic Array formats that can implement over 1,000 immunoassays in parallel. We also invest in extending the reach of existing chip designs through new chemistries. From time to time, we collaborate with other life science companies, universities and government labs on the development of prototype IFCs for particular purposes.

Process Development

The second component of our research and development effort is process development. We frequently develop new manufacturing processes and test methods to support new IFC designs, drive down manufacturing cost and increase manufacturing throughput. We also invest in manufacturing automation, process changes and design modifications in order to improve yield and lower costs on existing IFCs.

New Technology Development

We have active research and development efforts to increase the density of components on our IFCs and to lower the materials cost of our current production methods. We are evaluating new materials that can increase the functionality of existing products and that would allow our IFCs to be used for a wider variety of biological and chemical reactions. Over the longer term, we are seeking ways to transfer functionality from instrumentation to IFCs to support development of field-based and point-of-care applications.

Our research and development expenses were $11.4 million, $15.6 million and $14.4 million in 2005, 2006 and 2007. As of December 29, 2007, 68 of our employees were engaged in research and development activities.

Scientific Advisory Board

We maintain a scientific advisory board consisting of members with experience and expertise in the field of microfluidic systems and their application, who provide us with consulting services. On March 29, 2008, our scientific advisory board consisted of the following members:

Stephen Quake, Ph.D. is a co-founder of Fluidigm and the chair of our scientific advisory board. He is a co-chair of the bioengineering department at Stanford University and an investigator of the Howard Hughes Medical Institute. Dr. Quake received a B.S. in Physics and a M.S. in Mathematics from Stanford University and a Ph.D. in Physics from Oxford University.

Frances Hamilton Arnold, Ph.D. is the Dick and Barbara Dickinson Professor of chemical engineering and biochemistry at the California Institute of Technology. She is a member of the National Academy of Engineering and a fellow at the American Institute for Medical and Biological Engineering. Dr. Arnold received a B.S. in Mechanical and Aerospace Engineering from Princeton University and a Ph.D. in Chemical Engineering from the University of California, Berkeley.

James M. Berger, Ph.D. is a Professor of Biochemistry and Molecular Biology at the University of California, Berkeley and a member of the Physical Biosciences Division, Lawrence Berkeley National Laboratory. Dr. Berger received a B.S. in Biochemistry from the University of Utah and a Ph.D. in Biochemistry from Harvard University.

Frank McCormick, Ph.D. is the David A. Wood Distinguished Professor of Tumor Biology and the E. Dixon Heise Distinguished Professor in Oncology at the University of California, San Francisco, or UCSF. He is also the director of UCSF's Comprehensive Cancer Center. He is a member of the Institute of Medicine and a fellow of The Royal Society. Dr. McCormick received a B.Sc. in Biochemistry from the University of Birmingham and a Ph.D. in Biochemistry from the University of Cambridge.

Howard M. Shapiro, M.D. is a lecturer on Pathology at Harvard Medical School, a visiting scientist at the Rosenstiel Basic Medical Sciences Research Center at Brandeis University and a research associate in

Medicine and Pathology at Beth Israel Hospital. Dr. Shapiro received a B.A. from Harvard College and an M.D. from New York University School of Medicine.

Richard N. Zare, Ph.D. is the Marguerite Blake Wilbur Professor of Natural Science and chair of the chemistry department at Stanford University. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences and the recipient of the National Medal of Science. Dr. Zare received a B.S. in Chemistry and Physics and a Ph.D. in Chemical Physics from Harvard University.

Intellectual Property Strategy and Position

Fluidigm's core technology originated at the California Institute of Technology, or Caltech, in the laboratory of Professor Stephen Quake, who is a co-founder of Fluidigm. Dr. Quake, his students and their collaborators pioneered the application of multilayer soft lithography in the field of microfluidics. In particular, Dr. Quake's laboratory developed technologies that enabled the production of specialized valves and pumps capable of controlling fluid flow at nanoliter volumes. In a series of transactions, we exclusively licensed from Caltech the relevant patent filings relating to these developments.

Our patent strategy is to seek broad patent protection on new developments in microfluidic technology and then later file patent applications covering new implementations of the technology and new microfluidic circuit architectures utilizing the technology. As these technologies are implemented and tested, we file new patent applications covering scientific methodology enabled by our technology. Additionally, where appropriate, we file new patent applications covering instrumentation and software that are used in conjunction with our IFCs.

In addition to our in-licensed patent portfolio from Caltech, we have also taken co-exclusive licenses to patents and patent applications owned by Harvard University, a non-exclusive, field-limited license to patents and patent applications controlled by Gyros AB and additional patent licenses from other academic institutions and companies.

As of March 29, 2008, we own or have licensed 81 issued US patents and 62 issued international patents. There are 240 pending patent applications, including 116 in the United States, 118 international applications and 6 applications filed under the Patent Cooperation Treaty. The issued patents we have licensed from Caltech expire between 2019 and 2024, and the issued patents owned by us expire between 2018 and 2025.

The patent positions of companies like ours are generally uncertain and involve complex legal and factual questions. Our patents may not enable us to obtain or keep any competitive advantage. Our pending U.S. and foreign patent applications may not issue as patents or may not issue in a form that will be advantageous to us. Any patents we have obtained or do obtain may be challenged by re-examination, opposition or other administrative proceeding, or may be challenged in litigation, and such challenges could result in a determination that the patent is invalid. In addition, competitors may be able to design alternative methods or devices that avoid infringement of our patents. To the extent our intellectual property protection offers inadequate protection, or is found to be invalid, we are exposed to a greater risk of direct competition. If our intellectual property does not provide adequate protection against our competitors' products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent disputes can be time consuming and expensive. Furthermore, the laws of some foreign countries may not protect our intellectual property rights to the same extent as do the laws of the United States.

In addition to pursuing patents on our technology, we have taken steps to protect our intellectual property and proprietary technology by entering into confidentiality agreements and intellectual property assignment agreements with our employees, consultants, corporate partners and, when needed, our advisors. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure. Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate.

Our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. Third parties have asserted and may assert in the future that we are employing their proprietary technology without authorization. Competitors may assert that our products infringe their intellectual property

rights as part of a business strategy to impede our successful entry into those markets. In addition, our competitors and others may have patents or may in the future obtain patents and claim that use of our products infringes these patents. We could incur substantial costs and divert the attention of our management and technical personnel in defending against any of these claims. Parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products, and could result in the award of substantial damages against us. In the event of a successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties, or be prohibited from selling certain products. We may not be able to obtain these licenses at a reasonable cost, if at all.

Employees

As of December 29, 2007, we had 131 employees, of which 68 work in research and development, 18 work in general and administrative, 21 work in manufacturing and 24 work in sales and marketing. None of our employees are represented by a labor union or are the subject of a collective bargaining agreement.

Property

We lease approximately 35,000 square feet of office and laboratory space at our headquarters in South San Francisco, California under leases and subleases that expire in March 2011, and 13,000 square feet of manufacturing and office space at our facility in Singapore under a lease that expires in September 2008. In addition, we lease office space in Tokyo and Osaka, Japan. We are in negotiations to extend and expand our lease relating to our Singapore facility and we believe that our existing office, laboratory and manufacturing space, together with additional space and facilities available on commercially reasonable terms, will be sufficient to meet our needs for at least the next two years.

Legal Proceedings

We are not engaged in any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

Our executive officers and directors, and their ages and positions as of March 29, 2008, are as set forth below:

Name	Age	Position
Gajus V. Worthington	38	President, Chief Executive Officer and Director
Vikram Jog	51	Chief Financial Officer
Robert C. Jones	53	Executive Vice President, Research and Development
William M. Smith	57	Vice President, Legal Affairs and General Counsel, Secretary
Mai Chan (Grace) Yow	49	Vice President, Worldwide Manufacturing and Managing Director of Fluidigm Singapore Pte. Ltd.
Samuel Colella(2),(3)	68	Director
Michael W. Hunkapiller, Ph.D(2)	59	Director
Elaine V. Jones, Ph.D.(1),(3)	53	Director
Kenneth Nussbacher(1),(2)	55	Director
John A. Young(3)	75	Director

(1) Member of the Audit Committee
(2) Member of the Compensation Committee
(3) Member of the Nominating and Governance Committee

Executive Officers

Gajus V. Worthington is a Co-Founder of Fluidigm Corporation and has served as our President and Chief Executive Officer and a Director since our inception in June 1999. From May 1994 to April 1999, Mr. Worthington held various staff and management positions at Actel Corporation, a public semiconductor corporation. Mr. Worthington received a B.S. in Physics and an M.S. in Electrical Engineering from Stanford University.

Vikram Jog has served as our Chief Financial Officer since February 2008. From April 2005 to February 2008, Mr. Jog served as Chief Financial Officer for XDx, Inc., a molecular diagnostics company. From March 2003 to April 2005, Mr. Jog was a Vice President of Applera Corporation and Vice President of Finance for its related businesses, Celera Genomics and Celera Diagnostics. From April 2001 to March 2003, Mr. Jog was Vice President of Finance for Celera Diagnostics and Corporate Controller of Applera Corporation. Mr. Jog holds a Bachelor of Commerce degree from Delhi University and an M.B.A. from Temple University. Mr. Jog is a member of the American Institute of Certified Public Accountants.

Robert C. Jones has served as our Executive Vice President, Research and Development since August 2005. From August 1984 to July 2005, Mr. Jones held various managerial and research and development positions at Applied Biosystems, a laboratory equipment and supplies manufacturer that is a division of Applera Corporation, including: Senior Vice President Research and Development from April 2001 to August 2005, Vice President and General Manager Informatics Division from 1998 to 2001 and Vice President PCR Business Unit from 1994 to 1998. Mr. Jones received a BSEE and an MSEE in Computer Engineering from the University of Washington.

William M. Smith has served as our Vice President, Legal Affairs and General Counsel as well as our Secretary since May 2000 and served as a Director from May 2000 to April 2008. Mr. Smith served as a partner at the law firm of Townsend and Townsend and Crew, LLP from 1985 through April 2008. Mr. Smith received a J.D. and an M.P.A. from the University of Southern California and a B.A. in Biology from the University of California, San Diego.

Mai Chan (Grace) Yow has served as our Vice President, Worldwide Manufacturing, and Managing Director, Fluidigm Singapore Pte. Ltd., our Singapore subsidiary, since March 2006. From June 2005 to March 2006,

Ms. Yow served as General Manager of Fluidigm Singapore Pte. Ltd. From August 2004 to May 2005, Ms. Yow served as Vice President Engineering (Asia) for Kulicke and Soffa, a public semiconductor equipment manufacturer. From March 1991 to July 2004, Ms. Yow served as Director, Assembly Operations, Plant Facilities and EHS, for National Semiconductor Singapore, a semiconductor fabrication subsidiary of National Semiconductor Corporation. Ms. Yow received a BE in Electronic Engineering from Curtin University, a Certificate in Management Studies from the Singapore Institute of Management and a Diploma in Electrical Engineering from Singapore Polytechnic.

Board of Directors

Samuel Colella has served as a member of our Board of Directors since July 2000. Mr. Colella is a managing director of Versant Ventures, a healthcare venture capital firm he co-founded in 1999, and has been a general partner of Institutional Venture Partners since 1984. Mr. Colella is a member of the Board of Directors of Alexza Pharmaceuticals, Inc., Genomic Health, Inc. and Jazz Pharmaceuticals, Inc. Mr. Colella received a B.S. in business and engineering from the University of Pittsburgh and an M.B.A. from Stanford University.

Michael Hunkapiller, Ph.D. has served as a member of our Board of Directors since August 2005. He has been a Partner at Alloy Ventures, a venture capital firm, since February 2004. From July 1983 to August 2004, he served in various managerial and research and development positions at Applied Biosystems, most recently as President, from March 1997 to August 2004. He received a B.S. in Chemistry from Oklahoma Baptist University and a Ph.D. in Chemical Biology from Caltech.

Elaine V. Jones, Ph.D. has been a member of our Board of Directors since October 2001. Since August 2003, she has been a general partner of EuclidSR Associates, L.P., which is the general partner of EuclidSR Partners, L.P., a venture capital fund that focuses on life sciences and information technology companies. Dr. Jones was an investment manager from June 1999 to September 2001, and was a Vice President from September 2001 to August 2003, for S.R. One, Limited, a venture capital subsidiary of SmithKline Beecham. Dr. Jones is a graduate of Juniata College and received a Ph.D. in Microbiology from the University of Pittsburgh.

Kenneth J. Nussbacher has been a member of our Board of Directors since July 2003. He has been an Affymetrix fellow since 2000. From 1995 to 2000, Mr. Nussbacher was Executive Vice President of Affymetrix, Inc., a biotechnology company, and, from 1995 to 1997, he was also Chief Financial Officer of Affymetrix. Prior to joining Affymetrix, Mr. Nussbacher was Executive Vice President for business and legal affairs of Affymax Research Institute. He received a B.S. from Cooper Union and a J.D. from Duke University. Mr. Nussbacher is also a member of the Board of Directors of Symyx Technologies, Inc., a research and development solutions provider, and Xenoport, a biopharmaceutical company.

Gajus V. Worthington is a Co-Founder of Fluidigm Corporation and has served as our President and Chief Executive Officer and a Director since our inception in June 1999.

John A. Young has been a member of our Board of Directors since March 2001. Mr. Young retired as President and Chief Executive Officer of Hewlett-Packard Company, a diversified electronics manufacturer, in October 1992, where he had served as President and Chief Executive Officer since 1978. Mr. Young received a B.S. in Electrical Engineering from Oregon State University and an M.B.A. from Stanford University. Mr. Young serves as a director of Affymetrix, Inc., Vermillion, Inc., a molecular diagnostics company, Perlegen Sciences, Inc., a drug development company, and Nanosys, Inc., a nanotechnology company.

Board Composition

Our Board of Directors is currently composed of six members, five of whom are independent within the meaning of the independent director guidelines of the NASDAQ Stock Market LLC. Immediately prior to this offering, our Board of Directors will be divided into three staggered classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the same class whose terms are then expiring. The terms of the directors will expire upon the election and qualification of successor directors at the Annual Meeting of Stockholders to be held during the years 2009 for the Class I directors, 2010 for the Class II directors and 2011 for the Class III directors.

- Our Class I directors will be and .
- Our Class II directors will be and .
- Our Class III directors will be and .

Our amended and restated certificate of incorporation and bylaws provide that the number of our directors, which is currently six members, shall be fixed from time to time by a resolution of the majority of our Board of Directors. Each officer serves at the discretion of the Board of Directors and holds office until his successor is duly elected and qualified or until his or her earlier resignation or removal. There are no family relationships among any of our directors or executive officers.

The division of our Board of Directors into three classes with staggered three-year terms may delay or prevent a change of our management or a change of control. See "Description of Capital Stock — Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws" for a discussion of other anti-takeover provisions found in our certificate of incorporation.

Board Committees

Our Board has an audit committee, a compensation committee and a nominating and governance committee, each of which has the composition and the responsibilities described below.

Audit Committee. Our audit committee oversees our corporate accounting and financial reporting process and assists the Board in monitoring our financial systems and our legal and regulatory compliance. Our audit committee will also:

- oversee the work of our independent auditors;
- approve the hiring, discharging and compensation of our independent auditors;
- approve engagements of the independent auditors to render any audit or permissible non-audit services;
- review the qualifications and independence of the independent auditors;
- monitor the rotation of partners of the independent auditors on our engagement team as required by law;
- review our financial statements and review our critical accounting policies and estimates;
- review the adequacy and effectiveness of our internal controls; and
- review and discuss with management and the independent auditors the results of our annual audit, our quarterly financial statements, and our publicly filed reports.

The members of our audit committee are Elaine Jones and Kenneth Nussbacher. Mr. Nussbacher is our acting audit committee chairman. We are currently conducting a search for an additional audit committee member who we expect to serve as chairman and as financial expert under the rules of the Securities and Exchange Commission, or SEC, implementing Section 407 of the Sarbanes Oxley Act of 2002. We expect that, prior to the completion of this offering, that the composition of our audit committee will meet the requirements for independence under the current requirements of the NASDAQ Stock Market LLC and SEC rules and regulations. We believe that the functioning of our audit committee complies with the applicable requirements of the NASDAQ Stock Market LLC and SEC rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Compensation Committee. Our compensation committee oversees our corporate compensation programs. The compensation committee will also:

- review and recommend policy relating to compensation and benefits of our officers and employees;
- review and approve corporate goals and objectives relevant to compensation of our Chief Executive Officer and other senior officers;
- evaluate the performance of our officers in light of established goals and objectives;
- recommend compensation of our officers based on its evaluations; and

- administer the issuance of stock options and other awards under our stock plans;

The members of our compensation committee are Samuel Colella, Michael Hunkapiller and Kenneth Nussbacher. Mr. Colella is the chairman of our compensation committee. Our Board of Directors has determined that each member of our compensation committee is independent within the meaning of the independent director guidelines of the NASDAQ Stock Market LLC. We believe that the composition of our compensation committee meets the requirements for independence under, and the functioning of our compensation committee complies with, any applicable requirements of the NASDAQ Stock Market LLC and SEC rules and regulations. We intend to comply with future requirements to the extent they become applicable to us.

Nominating and Governance Committee. Our nominating and governance committee oversees and assists our Board of Directors in reviewing and recommending nominees for election as directors. The nominating and governance committee will also:

- evaluate and make recommendations regarding the organization and governance of the Board and its committees;
- assess the performance of members of the Board and make recommendations regarding committee and chair assignments;
- recommend desired qualifications for Board membership and conduct searches for potential Board members; and
- review and make recommendations with regard to our corporate governance guidelines.

The members of our nominating and governance committee are Elaine Jones, John Young and Samuel Colella. Ms. Jones is the chairman of our nominating and governance committee. Our Board of Directors has determined that each member of our compensation committee is independent within the meaning of the independent director guidelines of the NASDAQ Stock Market LLC.

Our Board of Directors may from time to time establish other committees.

Director Compensation

The following table sets forth information concerning compensation paid or accrued for services rendered to us by members of our Board of Directors for the fiscal year ended December 29, 2007. The table excludes Mr. Worthington and Mr. Smith, who are Named Executive Officers and did not receive any compensation from us in their roles as directors in the fiscal year ended December 29, 2007.

	Fees Earned or Paid in Cash ($)	Stock Awards ($)(1)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)	All Other Compensation ($)	Total ($)
Bruce Burrows		$ —	$ —	$ —		
Samuel D. Colella		$ —	$ —	$ —		
Hingge Hsu		$ —	$ —	$ —		
Michael Hunkapiller		$ —	$ —	$ —		
Elaine V. Jones		$ —	$ —	$ —		
S. Edward Torres		$ —	$ —	$ —		
Kenneth J. Nussbacher(2)		$ —	$ 42,498(3)	$ —	$ 40,000	$ 82,498
John A. Young		$ —	$ —	$ —		

(1) Amounts represent the aggregate compensation expense recognized by us for financial statement reporting purposes in fiscal 2007 related to grants of stock options in 2007, calculated in accordance with Financial Accounting Standards Board Statement of Financial Accounting Standards No. 123 (Revised 2004) ("SFAS No. 123(R)") without regard to estimated forfeitures. See Note 2 of Notes to Consolidated Financial Statements for a discussion of valuation assumptions made in determining the grant date fair value and compensation expense of our stock options.

(2) Mr. Nussbacher was granted an option to purchase 100,000 shares of common stock on December 28, 2007 at an exercise price of $2.40 and was paid fees of $40,000 for services rendered pursuant to a consulting agreement with us.

(3) Our shares of common stock were not publicly traded during the 2007 fiscal year; our Board of Directors in good faith determined the fair market value on the date of grant.

None of our non-employee directors held any stock awards during our fiscal year ended December 29, 2007. The aggregate number of shares subject to stock options outstanding at December 29, 2007 for each director is as follows:

Name	Aggregate Number of Stock Options Outstanding as of December 29, 2007 (#)
Bruce Burrows	50,000
Samuel D. Colella	—
Hingge Hsu	—
Michael Hunkapiller	—
Elaine V. Jones	—
Kenneth J. Nussbacher	200,000
S. Edward Torres	—
John A. Young	—

Our directors do not currently receive any cash compensation for their services as members of our Board of Directors or any committee of our Board of Directors.

Upon consummation of our initial public offering, non-employee directors will receive an annual retainer of $20,000. The chairman of the audit committee will be paid an additional annual retainer of $15,000. The chairman of the compensation committee will be paid an additional annual retainer of $10,000. The chairman of the nominating and governance committee will be paid an additional annual retainer of $5,000.

Our outside director equity compensation policy was adopted by our Board of Directors on January 29, 2008 and will become effective immediately upon the completion of this offering. The policy is intended to formalize the granting of equity compensation to our non-employee directors under the 2008 Equity Incentive Plan. Non-employee directors may receive all types of awards under the 2008 Equity Incentive Plan, except for incentive stock options, including discretionary awards not covered by the policy. The policy provides for automatic and nondiscretionary grants of nonstatutory stock options subject to the terms and conditions of the policy and the 2008 Equity Incentive Plan.

Under the policy, each non-employee director, who first becomes a non-employee director following the effective date of the first registration statement filed by us and declared effective with respect to any class of our securities, will be automatically granted a stock option to purchase 40,000 shares of our common stock on the date such person first becomes a non-employee director. A director who is an employee and who ceases to be an employee, but who remains a director will not receive such an initial award.

In addition, each non-employee director will be automatically granted an annual stock option to purchase 10,000 shares of our common stock on the date of each annual meeting beginning on the date of the first annual meeting that is held at least six months after such non-employee director received his or her initial award. In connection with the closing of this initial public offering, each non-employee director serving on our Board at the time of this offering will be automatically granted an option to purchase 10,000 shares of our common stock at the price per share at which such common stock is sold in this offering.

The exercise price of all stock options granted pursuant to the policy will be equal to the fair market value of our common stock on the date of grant. The term of all stock options will be 10 years. Subject to the adjustment provisions of the 2008 Equity Incentive Plan, initial awards will vest as to 25% of the shares subject to such awards each anniversary of the date of grant, provided such non-employee director continues to serve as a director through each such date. Subject to the adjustment provisions of the 2008 Equity Incentive Plan, the annual awards, including such awards granted in connection with this offering, will vest monthly over a twelve month period following the date of grant, provided such non-employee director continues to serve as a director through such date.

The administrator of the 2008 Equity Incentive Plan in its discretion may change or otherwise revise the terms of awards granted under the outside director equity compensation policy.

In the event of a “change in control,” as defined in our 2008 Equity Incentive Plan, with respect to awards granted under the 2008 Equity Incentive Plan to non-employee directors, the participant non-employee director will

fully vest in and have the right to exercise awards as to all shares underlying such awards and all restrictions on awards will lapse, and all performance goals or other vesting criteria will be deemed achieved at 100% of target level and all other terms and conditions met.

Code of Business Conduct and Ethics

Prior to the completion of this offering, we expect to adopt a code of business conduct and ethics that is applicable to all of our employees, officers and directors.

Compensation Committee Interlocks and Insider Participation

None of the members of our compensation committee is an officer or employee of our company. None of our executive officers currently serves, or in the past year has served, as a member of the Board of Directors or compensation committee of any entity that has one or more executive officers serving on our Board of Directors or compensation committee.

Executive Compensation

Compensation Discussion and Analysis

Overview

We seek to have a compensation program that supports a team ethic among our management, fairly rewards executives for corporate performance and provides incentives for executives to meet or exceed our short and long term goals. The primary components of our compensation program are base salary, an annual incentive bonus plan, option awards and change of control arrangements. In addition, we provide our executive officers a variety of benefits that are available generally to all salaried employees. The compensation committee of our Board of Directors is responsible for evaluating the compensation of our executive officers and making recommendations to the Board of Directors. The independent members of the Board of Directors have final approval authority with respect to executive compensation.

Objectives and Principles of Our Executive Compensation

The primary goal of our executive compensation program is to ensure that we hire and retain talented and experienced executives that are motivated toward achieving or exceeding our short-term and long-term corporate goals. As a starting point, we believe that it is critical that our executive officers work together as a team and look beyond departmental lines to achieve overall corporate goals rather than focusing on individual departmental objectives. Our compensation philosophy is team oriented and our success dependent on what our management team can accomplish together. Therefore, we seek to provide the executive officers listed in the Summary Compensation table below, or our “named executive officers,” with comparable levels of base salary, bonuses and equity awards that are based largely on overall company performance.

For our fiscal year 2007, our named executive officers were Gajus Worthington, President and Chief Executive Officer, Richard DeLateur, our former Chief Financial Officer, Michael Lucero, our former Executive Vice President, Sales and Marketing, William Smith, Vice President, Legal Affairs and General Counsel, Robert Jones, our Executive Vice President, Research and Development, Grace Yow, Vice President, Worldwide Manufacturing and Managing Director, Fluidigm Singapore and Robert Jones, Executive Vice President, Research and Development. Mr. DeLateur resigned as our Chief Financial Officer effective February 29, 2008 and Mr. Lucero resigned as our Executive Vice President, Sales and Marketing on March 14, 2008.

While the compensation level of Mr. Worthington, our Chief Executive Officer, is marginally higher than our other executive officers, his compensation has historically been based on our team-based compensation philosophy rather than on CEO compensation levels reported in market surveys of other companies in the life science industry.

We strongly believe that executive compensation should be directly linked to our performance. Our compensation program is designed so that a significant portion of the potential compensation of all of our executive

officers is contingent on the achievement of our business objectives. In rewarding performance, we seek to reward both short and long term performance. We expect our executive leadership to manage our company so that we achieve our annual goals while at the same time positioning us to achieve our longer term strategic objectives. Short term elements of compensation include annual salary reviews, stock option awards and incentive bonuses that are tied closely to achieving our corporate and, to a lesser extent, on achieving individual performance objectives. Long term elements have historically been limited to stock options with multi-year vesting designed to retain executives and align their long term interests with those of our stockholders.

We believe that hiring and retaining well performing executives is important to our ongoing success. While we review generally available surveys on executive compensation to confirm that our compensation decisions do not result in compensation levels that are dramatically different from other companies in our industry, the compensation committee has not in the past attempted to benchmark our executive compensation against any particular indices or salary surveys. While occasional review of market surveys is considered helpful, the compensation committee has historically placed substantially greater weight on internal considerations than on position-specific pay differences found in the market.

Except as described below, neither the Board of Directors nor the compensation committee has adopted any formal or informal policies or guidelines for allocating compensation between cash and non-cash compensation, among different forms of non-cash compensation or with respect to long and short term performance. The determination of the Board of Directors or compensation committee as to the appropriate use and weight of each component of executive compensation is subjective, based on their view of the relative importance of each component in meeting our overall objectives and factors relevant to the individual executive. Historically, our Board of Directors has focused significantly on the affordability of our compensation arrangements. As a result, when weighting forms of compensation, the Board of Directors and the compensation committee have historically placed greater emphasis on non-cash equity incentive compensation together with base salary. We did not pay any material cash bonuses until 2007, when the Board of Directors determined that our business was of sufficient maturity to permit us to establish a cash bonus plan.

As a publicly held company, we expect to periodically engage the services of a compensation consultant to assist us in further aligning our compensation philosophy with our corporate objectives. In particular, in order to attract and retain key executives, we may be required to modify individual executive compensation levels to remain competitive in the market for such positions.

Compensation Process and Compensation Committee

For 2007 and January 2008, the compensation committee consisted of Messrs. Colella and Nussbacher and Ms. Jones. Since January 29, 2008, the compensation committee has consisted of Messrs. Colella, Nussbacher and Hunkapiller, each of whom is an independent director under the rules of the NASDAQ Stock Market LLC and a “non-employee director” for purposes of Rule 16b-3 under the Securities Exchange Act of 1934, as amended.

The compensation committee makes recommendations to the Board regarding compensation structure, goals and individual compensation levels, which recommendations are considered for approval by the independent members of the Board. The compensation committee makes its compensation recommendations based on input from Mr. Worthington, our Chief Executive Officer, the judgment of its members based on their tenure and experience in our industry, and, starting with compensation levels for 2007, the advice of Compensia, Inc., an independent compensation consultant hired by the compensation committee in April 2007. The compensation committee has the responsibility of formulating, evaluating and recommending to the Board of Directors the compensation of our executive officers. Historically, our annual compensation review process has been initiated by Mr. Worthington who performs a review of the performance of each executive officer in the prior year and formulates proposals regarding the elements of compensation, corporate and individual goals and compensation levels for our executive officers, other than himself. Mr. Worthington’s proposals for compensation structure, goals and individual compensation levels are typically based on discussions with and directions from members of the compensation committee. Mr. Worthington does not prepare proposals or advise the compensation committee on his own compensation.

Compensation levels and mix for Mr. Worthington, our Chief Executive Officer, are recommended by the compensation committee based on the committee's assessment of our overall corporate performance and Mr. Worthington's contribution to that performance. Mr. Worthington does not participate in compensation committee or Board deliberations regarding his own compensation. As with other members of our executive team, the compensation committee determines Mr. Worthington's compensation based on our achievement of corporate objectives and compensation levels of other members of our executive team, rather than attempting to tie Mr. Worthington's compensation to a specific percentile of CEO compensation reported in market compensation surveys.

Subject to any limitations or guidelines that may be adopted by the Board of Directors in the future, the compensation committee does have the authority to approve the grant of stock options or stock purchase rights to individuals eligible for such grants, including officers and directors. The compensation committee met three times during 2007 and we expect that it will meet at least quarterly during 2008.

The compensation committee has the authority under its charter to engage the services of outside advisors, experts and others for assistance. In April 2007, the compensation committee engaged Compensia, Inc., an outside consulting firm, to advise it on developing a principles based executive compensation strategy to help transition us from a privately held to a publicly held company and on matters relating to our equity compensation plans as a whole. The consulting firm reviewed our proposed 2007 compensation philosophy and compensation levels and provided general advice and comments, but did not prepare a formal report or recommend specific compensation levels. In 2008, we expect the compensation committee will engage an outside consulting firm to review more broadly our compensation practices and provide specific recommendations on executive compensation levels.

After setting compensation levels for our executive officers for 2007, but before making its recommendations to the Board, the compensation committee reviewed the 2006 Radford Biotechnology Survey by Aon Consulting and the 2006 Executive Compensation Survey for pre-IPO life science companies by Top Five Data Services, Inc. to confirm that the proposed mix and levels of compensation for our executive officers was not outside of the ranges reported for senior executive officers in general. The compensation committee did not benchmark or tie compensation levels for our executive officers to any particular compensation level provided by the companies included in these surveys.

Corporate and Individual Performance Goals

2007 Corporate Goals. Our corporate and individual performance goals for each year are formulated by the Board of Directors with input from the compensation committee and our Chief Executive Officer. For 2007, two corporate goals were established. The first related to our selling a certain number of IFC systems and reaching certain revenue targets, whether through system sales or collaboration agreements. The second goal related to our equity fund raising activity. The compensation committee believed attaining these goals would take a high level of executive performance and that such goals would be very challenging given the initial lack of market awareness of our products in 2007. The committee did not assign weights to these goals, except to treat them as equally important.

2007 Individual Goals. Individual goals for 2007 were as follows:

Named Executive Officer	2007 Individual Goals
Gajus Worthington, Chief Executive Officer	Achieving target levels of sales of our IFC systems and achieving target revenues, whether through system sales or collaboration agreements. Raising target levels of equity financing.
Richard DeLateur, former Chief Financial Officer	Preparing our finance organization for an initial public offering and public company status.
Michael Lucero, former Executive Vice President, Sales and Marketing	Launching our BioMark product and developing a strategy for new market penetration.
William Smith, Vice President, Legal Affairs and General Counsel	Maintaining and advancing our intellectual property position with respect to existing and new products.
Robert Jones, Executive Vice President, Research and Development	Deliver commercial genotyping applications, digital array applications and finish feasibility phase of additional products.
Grace Yow, Vice President, Worldwide Manufacturing and Managing Director of Fluidigm Singapore	Achieving specified IFC manufacturing yields and output levels.

2008 Corporate Goals. For 2008, the Board, with the participation of the compensation committee and members of management, reassessed our corporate goals in light of the maturation of our business and commercialization of our products. Following this reassessment, the Board approved corporate goals that include achieving specified levels of product sales and product gross margins, completing an initial public offering and keeping expenses and cash outlays within the budget approved by the Board of Directors. The Board believes that the goals are attainable with a very high level of executive performance. The target sales level represents significant growth from 2007 levels and will be achieved only if we are able to increase market awareness of our products and expand our customer base. The targeted gross margin will require significant contributions from both our manufacturing and research and development groups. Given the uncertainty in global financial markets, our ability to complete an initial public offering was also uncertain at the time these corporate goals were established. Achieving our overall corporate goals while staying within our proposed budget will require strong fiscal discipline.

2008 Individual Goals. The goals for our individual executives in 2008 are as follows:

Named Executive Officer	2008 Individual Goals
Gajus Worthington, Chief Executive Officer	Achieving specified levels of product sales and product gross margins, completing an initial public offering and keeping expenses and cash outlays within the budget approved by the Board of Directors.
Vikram Jog, Chief Financial Officer	Ensuring accurate revenue recognition during each quarter, closing our books in an accurate and timely manner, completing our 2005, 2006 and 2007 audits and ensuring compliance with applicable financial and disclosure regulations of the Securities and Exchange Commission.
William Smith, Vice President, Legal Affairs and General Counsel	Maintaining our intellectual property position and supporting our initial public offering.
Robert Jones, Executive Vice President, Research and Development	Completing market-ready 96.96 BioMark IFC, loaders and readers for 96.96 and certain future applications.
Grace Yow, Vice President, Worldwide Manufacturing and Managing Director of Fluidigm Singapore	Achieving overall IFC yields sufficient to achieve our gross margin goals, achieving specified yields on our new 96.96 Dynamic Array IFC, maintaining or improving 2007 quality levels for our IFC systems and ensuring on-time manufacture and delivery of IFCs and IFC systems.

Elements of Executive Compensation

Our executive compensation program consists of four main elements: base salary, an annual incentive bonus plan, option awards and change of control arrangements. The following is a discussion of each element.

Base Salary.

Prior to 2007, the Board and the compensation committee established base salaries based on a number of factors including the scope of responsibility of each individual and a desire to encourage a team ethic. In 2007, the compensation committee and the Board concluded that our company and its stockholders would be better served by placing greater emphasis on creating a team ethic among our executive officers and that a team ethic would be better supported if all executive officers received approximately the same salary. Therefore, in May 2007, the compensation committee recommended and the Board approved a raise in the base annual salaries of Richard DeLateur, Michael Lucero, William Smith and Robert Jones to $265,000 effective February 1, 2007, which represented a 29% increase for Mr. DeLateur, a 2.5% increase for Mr. Lucero, a 16% increase for Mr. Smith and a 17% increase for Mr. Jones, based on their salaries for 2006. This salary increase was based upon the compensation committee's assessment of the life science industry in the San Francisco Bay Area gathered from the active involvement of committee members as investors in such industry and the committee's conclusion that competition for executives in our industry was increasing. Ms. Yow's salary was set at S$307,224, or US$200,000 using the exchange rate at the time such salary was set, to reflect the lower cost of living in Singapore where she is based. In December 2007, the compensation committee reviewed Mr. Worthington's performance and determined that an increase in salary was justified based on his partial achievement of revenue goals for 2007, his full achievement of his fundraising goals for 2007 and the committee's assessment of market conditions as described above. It recommended increasing Mr. Worthington's base salary by 5% to $270,400 effective retroactively as of February 15, 2007 and this increase was approved by the Board and accepted by Mr. Worthington.

In January 2008, the compensation committee reviewed 2008 base salaries in light of general market conditions in the San Francisco Bay Area life science industry. The compensation committee concluded that competition for executive talent remained strong as a result of the solid economic performance of the industry and the region overall, the continued high level of investment by venture capital firms in new and existing life science

companies and the specialized skills and experiences required to manage life science companies. The compensation committee's assessment of general market conditions in the life science industry, and the life science industry in the San Francisco Bay Area in particular, was based on the experience of the committee members who were and are actively involved in venture capital investing in such industry and area. The compensation committee did not rely on any formal compensation survey data in making its assessment. The compensation committee therefore recommended and the Board approved a 4.0% raise for all executive officers other than Messrs. DeLateur and Lucero, who were expected to be leaving our company in early 2008. This 4.0% raise was applied to Ms. Yow's salary in Singapore dollars, resulting in an increase of S$12,289. As a result, the 2008 base salary for Mr. Smith was increased to $275,600, the 2008 base salary for Ms. Yow was increased to S$319,513, or US$232,002 on the date of the increase, and the 2008 salary for Mr. Worthington was increased to $283,920. These salary increases became effective on February 1, 2008.

In January 2008, we entered into an offer letter with Vikram Jog, our Chief Financial Officer that provides for him to receive a base salary of $278,000 per year and a signing bonus of $20,000. The Board approved this departure from our standard base salary and bonus practice for executive officers based on several factors, including his unique qualifications, the need to induce him to leave his existing employment, his base salary at his previous employer and our need to fill the position as soon as possible.

Incentive Bonus Plan.

For 2007, the compensation committee and the Board established a bonus structure for all named executive officers that provided for performance bonuses of up to 35% of base salary. 80% of the performance bonus was payable based upon our reaching our corporate goals described above, with each corporate goal receiving equal weighting and the remaining 20% payable to each executive based on the executive's attainment of his or her individual performance goals described above. Payment of performance bonuses was allocated among corporate and individual goals in this manner in recognition of our compensation philosophy in which the compensation committee sought to incentivize executive officers to look beyond their individual departmental goals and work with other executive officers to achieve our overall corporate goals. The compensation committee and Board concluded that the corporate goals portion of the bonus would not be payable if the goals were less than 80% attained, based on the average percentage completion of all such goals, and would be paid in full if the goals were 100% attained. The compensation committee retained discretion to determine the portion of the bonus that would be paid if the corporate goals were achieved at a level between 80% and 100%. The compensation committee also retained the discretion to change the bonus structure and the bonus payment amounts as it considered appropriate.

In January 2008, the compensation committee concluded that the first 2007 corporate goal described above had been partially met and the second 2007 corporate goal had been fully met, but that taken together the 80% threshold had not been attained. As a result, no 2007 bonuses were paid to our executive officers with respect to achievement of corporate goals.

The compensation committee also considered the achievement of 2007 individual performance goals in January 2008 and concluded that Mr. Smith had achieved his goals by maintaining and advancing our intellectual property position with respect to existing and new products. The Board awarded Mr. Smith 100% of his individual performance bonus of $18,550. The compensation committee concluded that Mr. Jones achieved his 2007 individual goals of delivering a commercial genotyping application and digital array applications and awarded him his maximum individual performance bonus of $18,550. The compensation committee concluded that Ms. Yow had achieved her 2007 individual goals by achieving specified IFC manufacturing yields and output levels in 2007 and the Board awarded Ms. Yow 100% of her individual performance bonus of $14,000. The compensation committee concluded that Mr. Worthington had partially achieved his 2007 individual performance goals of achieving target levels of IFC system sales and revenue and the Board awarded Mr. Worthington a partial bonus of $14,175. No other individual performance bonuses were awarded to our named executive officers for 2007.

For 2008, the compensation committee and Board of Directors have approved the same bonus structure and potential bonus percentages as for 2007.

In making recommendations regarding and approving compensation with respect to 2007, the compensation committee and the Board have not exercised their discretion to either award compensation absent attainment of

relevant performance goals or to reduce the size of an award or payout following the attainment of relevant performance goals. We intend for the bonus plan to provide a significant portion of an executive's potential compensation. It is designed to help ensure that executives are focused on our near-term performance and on working together to achieve key corporate objectives. We expect that corporate and individual goals will be reviewed each year and adjusted to reflect changes in our stage of development, competitive position and corporate objectives.

Option Awards.

We grant options to new executives upon the commencement of their employment and on an annual basis make additional grants to existing executives based on our overall corporate performance, individual performance and the executives' existing option grants and equity holdings. We believe that option awards are an effective means of aligning the interests of executives and stockholders, rewarding executives for our achieving success over the long term and providing executives an incentive to remain with us. Most option grants to our named executive officers provide the holder with the right to exercise options and purchase shares prior to vesting, subject to our right to repurchase unvested shares pursuant to the terms of our restricted stock purchase agreement.

In 2007, the compensation committee redesigned our option granting policy in light of the shift in our compensation philosophy toward team-based compensation. The compensation committee concluded that the number of shares that vest each year for each executive should be relatively consistent and should be comparable to the number of shares that vest for other executives. The committee determined that each executive should vest in approximately 70,000 shares per year over a four year period. For each executive, the exact number of shares that vest in any year would be subject to adjustment either upward or downward by up to 35,000 shares based on the executive's performance relative to the corporate goals and his or her individual performance goals. The compensation committee's selection of 70,000 shares as the target number of shares to vest annually for each executive officer was based on the committee's determination that such number of shares would provide meaningful compensation to our executive officers. The committee did not rely on compensation surveys or other third party sources in arriving at the 70,000 annual vesting target. In addition to this annual vesting target and the possible adjustment of actual vesting amounts by up to 35,000, the compensation committee retained the authority to approve additional option grants to executive officers who demonstrated exceptional performance in a given year.

As a result of our adoption of this new approach to equity compensation, our grants in 2007 were primarily intended to regularize each executive's vesting schedules to approximately 70,000 per year. As a result, certain executives received option grants where shares were immediately vested while others received grants where the vesting occurs largely three or four years from the grant of the date. The number of shares vesting for each such officer in 2007 were 68,332 shares for Mr. Worthington, 187,499 shares for Mr. DeLateur, 104,083 shares for Mr. Lucero, 68,750 for Mr. Smith, 91,667 for Mr. Jones and 97,500 for Ms. Yow, excluding for Mr. Smith and Ms. Yow the discretionary option shares described below. Variations in the number of shares vested in 2007 for these officers was the result of vesting under options granted prior to 2007 rather than intentional variation in 2007 grants on the part of the compensation committee. In the future, once the vesting of existing options are normalized at approximately 70,000 shares per year, we intend for executives to receive additional grants that vest only in the fourth year following the date of their grant. We also expect to reconsider the target share amount each year and may in the future consider granting restricted stock as a form of equity compensation.

As discussed above, the compensation committee retains the discretion to grant additional options to executive officers as a reward for exceptional performance. In addition, the committee may decide to grant options that vest upon the achievement of certain performance goals. Finally, the committee is exploring the desirability of other forms of equity based compensation including restricted stock grants.

In January 2008, the Board approved amendments to our 1999 Stock Option Plan to permit the use of performance based vesting in connection with equity grants under the plan. The amendment provided the Board and compensation committee with the ability to grant options or other equity awards under the plan that vest upon the achievement of specified milestones or goals. These amendments were made to enhance the ability of the Board and compensation committee to closely align equity compensation with the achievement of corporate or individual goals.

Our Board of Directors adopted our 2008 Equity Incentive Plan in January 2008 and we expect our stockholders will approve it prior to the completion of this offering. Subject to stockholder approval, the 2008 Equity Incentive Plan is effective upon its adoption by our Board of Directors, but is not expected to be utilized until after the completion of this offering. Our 2008 Equity Incentive Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants. Our Board and compensation committee are evaluating the costs and benefits of the various forms of equity compensation issuable under the 2008 plan and may elect to use restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares in the future to further align the interests of our management and stockholders and to manage the financial statement impact of such forms of equity compensation.

In January 2008, the compensation committee participated in the negotiation of a compensation package for Vikram Jog, our Chief Financial Officer, in which the compensation committee agreed to grant Mr. Jog compensation that exceeded our standard compensation package for the named executive officers. As indicated above, the compensation committee approved this package based on Mr. Jog's unique qualifications, our need to fill this position and the need to induce Mr. Jog to leave his then current employer. In February 2008, the compensation committee approved the grant of the following options to Mr. Jog in February 2008 under our 1999 Stock Option Plan:

Number of Shares	Standard Vesting	Accelerated Vesting if Milestones Met	Performance Milestones
500,000	25% on first anniversary of the vesting commencement date, and 1/48 per month thereafter	n/a	n/a
50,000	100% on December 31, 2011	100% upon achievement of Milestones prior to December 31, 2008	(1) Revenue recognition - no material changes upon quarterly reviews and annual audit; (2) Accurate and timely closing of books and reporting (timeliness as required by investors and SEC); (3) SEC and Sarbanes-Oxley compliance, as needed; and (4) Produce audited financial statements for 2005, 2006 and 2007 (and the first quarter of 2008, if necessary) to enable the filing of a Form S-1 registration statement.
50,000	25% on first anniversary of the vesting commencement date and 1/48 per month thereafter	100% upon achievement of Milestones prior to December 31, 2008	(1) Achievement of target revenues; (2) Achievement of target margins for 2008; (3) Completion of an initial public offering in 2008; and (4) Compliance with 2008 budget for expenses and cash outflows.

In light of these grants to Mr. Jog and our team-based compensation philosophy, the compensation committee expects to consider and grant additional performance-based options to our other named executive officers that are similar to the two 50,000 share grants made to Mr. Jog, with one such grant subject to accelerated vesting upon achievement of individual performance goals and one such grant subject to accelerated vesting based on achievement of corporate goals.

Employment and Severance Agreements.

In February 2008, we entered into Employment and Severance Agreements with each of our named executive officers that provide for specified payments and benefits if the officer's employment is terminated without cause, or if the officer's employment is terminated without cause or for good reason within 12 months following a change of control. The terms of these agreements are described under "Potential Payments Upon Termination or Change of Control." We adopted these arrangements because we recognize that we will from time to time consider the possibility of an acquisition by another company or other change of control transaction and that such consideration can be a distraction to our executive officers and can cause such officers to consider alternative employment opportunities. Accordingly, the Board concluded that it is in the best interests of our company and its stockholders to provide executives with certain severance benefits upon termination of employment without cause or for good reason following a change of control. Our Board determined to provide such executives with certain severance benefits upon their termination of employment without cause outside of the change of control context in order to provide executives with enhanced financial security and incentive to remain with our company. In addition, we believe that providing for acceleration of options if an officer is terminated following a change of control transaction aligns the executive officer's interest more closely with those of other stockholders when evaluating the transaction rather than putting the officer at risk of losing the benefits of those equity incentives.

In addition, all outstanding options granted to our employees will become fully vested upon a change of control if the options are not assumed by the acquiring company.

In connection with the departure of Mr. Lucero, our former Vice President of Sales and Marketing, on March 22, 2008, we entered into a Settlement Agreement and General Release of Claims with Mr. Lucero that provided for mutual releases of us and Mr. Lucero, our continued payment of Mr. Lucero's salary and health insurance premiums through July 2008 and payment of an additional $90,000 to Mr. Lucero. The amount and timing of payments to Mr. Lucero under this agreement were the result of negotiations between us and Mr. Lucero, with the involvement of the compensation committee. The compensation committee concluded that this agreement was in the best interests of our company in reaching an amicable separation with Mr. Lucero.

In connection with Mr. DeLateur's resignation, we entered into a consulting agreement dated February 29, 2008. Under the consulting agreement, we agreed to pay Mr. DeLateur $200 per hour for performing various consulting services, provided that Mr. DeLateur work no more than five hours per week without our written authorization. We entered into this arrangement to ensure that Mr. DeLateur would be available as needed to ensure an orderly transition to our new Chief Financial Officer, Mr. Jog.

Other Benefits.

Executive officers are eligible to participate in all of our employee benefit plans, such as medical, dental, vision, group life, disability, and accidental death and dismemberment insurance and our 401(k) plan, in each case on the same basis as other employees, subject to applicable law. We also provide vacation and other paid holidays to all employees, including our executive officers, which we believe are comparable to those provided at peer companies.

CEO Loan and Stock Repurchase

On January 20, 2004, we entered into an Employee Loan Agreement, Secured Promissory Note and Stock Pledge Agreement with Mr. Worthington pursuant to which we loaned Mr. Worthington $250,000 at an interest rate of 3.52% per annum. The loan was secured by the pledge of 833,334 shares of our common stock held by Mr. Worthington. On April 10, 2008, Mr. Worthington repaid the loan in full in accordance with Section 2.2(d) of the note by exchanging shares of our common stock held by Mr. Worthington to us at the fair market value of such stock, which was determined by the Board of Directors to be $3.19 per share. The note and Mr. Worthington's loan

were repaid in full and cancelled in exchange for 90,913 shares of our common stock which Mr. Worthington transferred to us pursuant to the terms of a repurchase agreement dated April 10, 2008. This loan repayment and share cancellation transaction were approved by the [compensation committee] based on its determination that we received full and fair consideration for the cancellation of the loan and that the cancellation of the loan was in the best interests of our company and its stockholders.

Accounting and Tax Considerations

Section 162(m) of the Internal Revenue Code of 1986, as amended, or the Code, places a limit of $1,000,000 on the amount of compensation that we may deduct as a business expense in any year with respect to our Chief Executive Officer and certain of our highly paid executive officers. We can, however, preserve the deductibility of certain performance-based compensation in excess of $1,000,000 if the conditions of Code Section 162(m) are met. Under applicable tax guidance for newly-public companies, the deduction limitation generally will not apply to compensation paid pursuant to any plan or agreement that existed before the company became publicly held. In addition, compensation provided by newly-public companies through the first stockholder meeting to elect directors after the close of the third calendar year following the year in which the initial public offering occurs, or earlier upon the occurrence of certain events (e.g., a material modification of the plan or agreement under which the compensation is granted), will not be included in for purposes of the Code Section 162(m) limit provided the arrangement is adequately described in this prospectus. Accordingly, we believe that deductibility of all income recognized by executives pursuant to equity compensation granted by us prior to this offering, as well as any equity compensation granted by us under the 2008 Equity Incentive Plan following this offering through the expiration of the reliance period, will not be limited by Code Section 162(m). While the compensation committee cannot predict how the deductibility limit may impact our compensation program in future years, the compensation committee intends to maintain an approach to executive compensation that strongly links pay to performance. While the compensation committee has not adopted a formal policy regarding tax deductibility of compensation paid to our executive officers, the compensation committee intends to consider tax deductibility under Section 162(m) as a factor in compensation decisions.

Code Section 409A imposes additional taxes on certain non-qualified deferred compensation arrangements that do not comply with its requirements. These requirements regulate an individual's election to defer compensation and the individual's selection of the timing and form of distribution of the deferred compensation. Code Section 409A generally also provides that distributions of deferred compensation only can be made on or following the occurrence of certain events (i.e., the individual's separation from service, a predetermined date, a change in control, or the individual's death or disability). For certain executives, Code Section 409A requires that such individual's distribution commence no earlier than six (6) months after such officer's separation from service. We have and will continue to endeavor to structure our compensation arrangements to comply with Code Section 409A so as to avoid the adverse tax consequences associated therewith.

Summary Compensation Table

The following table presents information concerning the total compensation of our Chief Executive Officer, Chief Financial Officer and three other most highly compensated officers during the last fiscal year (the "Named Executive Officers") for services rendered to us in all capacities for the fiscal year ended December 29, 2007:

Summary Compensation Table

Name and Principal Position	Year	Salary ($)	Option Awards ($)(1)	Non-Equity Incentive Plan Compensation ($)(4)	Total ($)
Gajus V. Worthington President and Chief Executive Officer	2007	$ 283,357	$ 16,227	$ 14,750	$ 313,489
Richard A. DeLateur(2) Former Chief Financial Officer	2007	$ 241,375	$ 75,409	0	$ 312,900
Michael Y. Lucero(3) Former Executive Vice President, Sales and Marketing	2007	$ 264,517	$ 14,605	0	$ 286,142
William M. Smith Vice President, Legal Affairs and General Counsel	2007	$ 261,983	$ 19,223	$ 18,550	$ 310,121
Robert C. Jones Executive Vice President Research and Development	2007	$ 247,502	$ 18,550	$ 4,263	$ 270,315
Grace Yow Vice President, Worldwide Manufacturing and Managing Director of Fluidigm Singapore	2007	$ 204,214	$ 73,630	$ 14,000	$ 293,278

(1) Amounts represent the aggregate expense recognized for financial statement reporting purposes for fiscal 2007 calculated in accordance with SFAS No. 123(R) without regard for estimated forfeitures. See Note 2 of Notes to Consolidated Financial Statements for a discussion of assumptions made in determining the grant date fair value and compensation expense of our stock options.
(2) Mr. DeLateur resigned effective February 29, 2008. From August 16, 2007 to December 31, 2007, Mr. DeLateur worked for us on a part-time basis. Currently Mr. DeLateur serves as a consultant. See "Employment Agreements and Offer Letters."
(3) Mr. Lucero resigned effective March 22, 2008. See "Employment and Severance Agreements."
(4) The amounts in this column represent total performance-based bonuses earned for service rendered during fiscal 2007 under our incentive bonus plan. Under our incentive bonus plan, each executive was eligible to receive a cash bonus of up to 35% of his or her base salary based on achievement of certain corporate goals and certain individual performance goals. Please see "Incentive Bonus Plan" under "Compensation Discussion and Analysis" above for additional information regarding our fiscal 2007 cash bonuses.

Grants of Plan-Based Awards

The following table presents information concerning grants of plan-based awards to each of the Named Executive Officers during the fiscal year ended December 29, 2007.

Grants of Plan-Based Awards

Name	Grant Date	Estimated Payouts Under Non-Equity Incentive Plan Awards Maximum ($)	All Option Awards: Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards ($/Sh)(8)	Grant Date Fair Value of Stock and Option Awards(7)
Gajus V. Worthington	5/8/2007		155,000(1)	$ 1.36	$ 131,533
	4/24/2007	99,225			
Richard DeLateur	5/8/2007		140,000(2)	$ 1.36	$ 115,668
	4/24/2007	92,750			
Michael Y. Lucero	5/8/2007		25,000(3)	$ 1.36	$ 21,753
	4/24/2007	92,750			
William M. Smith	5/8/2007		118,000(4)	$ 1.36	$ 101,114
	4/24/2007	92,750			
Grace Yow	5/8/2007		199,000(5)	$ 1.36	$ 165,250
	4/24/2007	70,000			
Robert C. Jones	5/8/2007		80,000(6)	$ 1.36	$ 69,288
	4/24/2007	$ 92,750			

(1) 10,000 of the shares subject to this grant were vested as of the grant date, 20,000 shares vested on February 1, 2008, 65,000 shares vest on February 1, 2009, and 70,000 shares vest on February 1, 2010.
(2) 70,000 of the shares subject to this grant were vested as of the grant date and 70,000 shares vest on February 1, 2010.
(3) All of the shares subject to this grant vest on February 1, 2010.
(4) 10,000 of the shares subject to this grant vested on February 1, 2008, 38,000 shares vest on February 1, 2009, and 70,000 shares vest on February 1, 2010.
(5) 50,000 of the shares subject to this grant were vested as of the grant date, 50,000 shares vested on February 1, 2008, 40,000 shares vest on February 1, 2009, and 49,000 shares vest on February 1, 2010.
(6) 10,000 of the shares subject to this grant vest on February 1, 2009 and 70,000 shares vest on February 1, 2010.
(7) Amounts represent the aggregate expense recognized for financial statement reporting purposes for fiscal 2007 calculated in accordance with SFAS No. 123(R) without regard for estimated forfeitures. See Note 2 of Notes to Consolidated Financial Statements for a discussion of assumptions made in determining the grant date fair value and compensation expense of our stock options.
(8) Our shares of common stock were not publicly traded during the 2007 fiscal year; our board of directors in good faith determined the fair market value on the date of grant.

Outstanding Equity Awards at Fiscal Year-End

The following table presents certain information concerning equity awards held by the Named Executive Officers at the end of the fiscal year ended December 29, 2007. None of the named executive officers held any stock award at the end of the fiscal year ended December 29, 2007.

Outstanding Equity Awards at Fiscal Year-End

	Option Awards			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable[1]	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Gajus V. Worthington	200,000(2)	0	$ 0.56	01/17/2015
	155,000(3)	0	$ 1.36	05/08/2017
Richard DeLateur	95,000(4)	235,000(6)	$ 0.56	12/20/2015
	140,000(5)	0	$ 1.36	05/08/2017
Michael Y. Lucero	300,000(7)	0	$ 0.30	12/04/2011
	180,000(8)	0	$ 0.40	04/18/2014
	100,000(9)	0	$ 0.30	07/15/2013
	150,000(10)	0	$ 0.56	01/17/2015
	70,000(11)	0	$ 0.83	08/14/2016
	25,000(12)	0	$ 1.36	05/08/2017
William M. Smith	39,000(13)	0	$ 0.30	12/04/2011
	175,000(14)	0	$ 0.30	07/15/2013
	45,000(15)	0	$ 0.40	04/18/2014
	100,000(16)	0	$ 0.56	01/17/2015
	100,000(17)	0	$ 0.83	08/14/2016
	118,000(18)	0	$ 0.83	05/08/2017
Grace Yow	150,000(19)	0	$ 0.56	08/03/2015
	50,000(20)	0	$ 0.83	09/27/2006
	199,000(21)	0	$ 1.36	05/08/2017
Robert C. Jones	400,000(22)	0	$ 0.56	08/03/2015
	80,000(23)	0	$ 1.36	05/08/2017

(1) Unless otherwise noted, all option grants may be exercised pursuant to a restricted stock purchase agreement prior to vesting; any shares purchased prior to vesting are subject to a right of repurchase in our favor in the event the individual ceases to provide services for any reason which lapses in accordance with the vesting schedule of the option.

(2) These stock options were granted on January 18, 2005 and vest over 4 years. 20% of the shares subject to the stock option vest one year after grant. 1.667% of the shares vest at the end of each monthly period during the subsequent year and 2.5% of the shares vest at the end of each monthly period thereafter.

(3) 10,000 of the shares subject to this grant were vested as of May 8, 2007, the grant date, 20,000 shares vested on February 1, 2008, 65,000 shares vest on February 1, 2009, and 70,000 vest on February 1, 2010.

(4) These stock options were granted on December 21, 2005 and vest over 4 years. 25% of the shares vest one year after grant and 2.083% of the shares vest at the end of each monthly period thereafter.

(5) 70,000 of the shares subject to this grant were vested as of May 8, 2007, the grant date, and 70,000 shares vest on February 1, 2010.

(6) This option may not be exercised prior to vesting, as set forth in footnote (1).

(7) These stock options were granted on December 4, 2001 and vest over 4 years. 25% of the shares vest one year after grant and 2.083% of the shares vest at the end of each monthly period thereafter.

(8) These stock options were granted on April 19, 2004 and vest over 4 years at the rate of 2.083% of the shares per month.

(9) These stock options were granted on July 16, 2003 and vest over 4 years at the rate of 2.083% of the shares per month.

(10) These stock options were granted on January 18, 2005 and vest over 4 years. 20% of the shares subject to the stock option vest one year after grant. 1.667% of the shares vest at the end of each monthly period during the subsequent year and 2.5% of the shares vest at the end of each monthly period thereafter.

(11) These stock options were granted on August 15, 2006 vest over 4 years. 1.67% of the shares vest each month for the first two years and 2.5% of the shares vest each month in the final two years.

(12) These stock options were granted on May 8, 2007. All of the shares subject to this grant vest on February 1, 2010.

(13) These stock options were granted on December 4, 2001 and vest over 4 years at the rate of 2.083% of the shares per month.

(14) These stock options were granted on July 16, 2003 and vest over 4 years at the rate of 2.083% of the shares per month.

(15) These stock options were granted on April 19, 2004 and vest over 4 years at the rate of 2.083% of the shares per month.

(16) These stock options were granted on January 18, 2005 and vest over 4 years. 20% of the shares subject to the stock option vest one year after grant. 1.667% of the shares vest at the end of each monthly period during the subsequent year and 2.5% of the shares vest at the end of each monthly period thereafter.

(17) These stock options were granted on August 15, 2006 vest over 4 years. 1.67% of the shares vest each month for the first two years and 2.5% of the shares vest each month in the final two years.

(18) These stock options were granted on May 8, 2007. 10,000 of the shares subject to this grant vested on February 1, 2008, 38,000 shares vest on February 1, 2009, and 70,000 shares vest on February 1, 2010.

(19) These stock options were granted on August 3, 2005 and vest over 4 years. 25% of the shares vest one year after grant and 2.083% of the shares vest at the end of each monthly period thereafter.

(20) These stock options were granted on September 27, 2006. These stock options vest over 4 years in monthly increments. During the first two years, 1.67% of the shares vest each month and during the final two years, 2.5% of the shares vest each month.

(21) 50,000 of the shares subject to this grant were vested as of May 8, 2007, the grant date, 50,000 shares vested on February 1, 2008, 40,000 shares vest on February 1, 2009, and 49,000 shares vest on February 1, 2010.

(22) This option was granted on August 3, 2005 and vests over 4 years. Twenty-five percent of the shares vest one year after grant and 2.083% of the shares vest each month thereafter.

(23) These stock options were granted on May 8, 2007. 10,000 of the shares subject to this grant vest on February 1, 2009, and 70,000 shares subject to this grant vest on February 1, 2010.

Employment Agreements and Offer Letters

Richard A DeLateur. We entered into a consulting agreement dated February 29, 2008 with Richard A. DeLateur, our former Chief Financial Officer. Under the consulting agreement, we agreed to pay Mr. DeLateur $200 per hour for performing various consulting services, provided that Mr. DeLateur shall work no more than five hours per week without our written authorization. The consulting agreement will remain in force until the earlier of: (i) the completion of the services; (ii) the termination of the agreement; or (iii) the expiration of the agreement on May 17, 2008, unless otherwise agreed in writing by both parties.

Michael Y. Lucero. We entered into to a Settlement Agreement and General Release of Claims on March 22, 2008 with Michael Y. Lucero, our former Executive Vice President of Sales and Marketing. Under the settlement agreement, we agreed, in exchange for a general release of all claims and other customary terms and conditions, (i) to pay Mr. Lucero on each pay day through July 15, 2008 an amount equal to what he would have received on that pay day based on an annual base salary of $265,000 and (ii) to reimburse Mr. Lucero for costs of coverage under the Consolidated Omnibus Budget Reconciliation Act of 1985, or COBRA, that are incurred during April, May, June and July of 2008, in an amount no greater than the amount we contributed on Mr. Lucero's behalf for February 2008. We also agreed to make a one time payment to Mr. Lucero of $90,000.

Vikram Jog. We are a party to an offer letter dated January 29, 2008, with Vikram Jog, our Chief Financial Officer. Under the offer letter, we employ Mr. Jog on an at-will basis for no specified term and agreed to pay Mr. Jog an annual base salary of $278,000, which continues to be his base salary. We also agreed to pay Mr. Jog a signing bonus of $20,000 pursuant to his offer letter. Pursuant to the offer letter, we granted Mr. Jog an initial options to purchase a total of 600,000 shares of our common stock.

Potential Payments Upon Termination or Change of Control

In February 2008, we entered into employment and severance agreements with Gajus V. Worthington, William M. Smith, Mai Chan (Grace) Yow, Robert C. Jones and Vikram Jog, which require us to make payments if the named executive officer's employment with us is terminated in certain circumstances.

Pursuant to our employment and severance agreements with our named executive officers, a "change of control" is defined as the occurrence of the following events:

- any "person," as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended, is or becomes the "beneficial owner," as such term is defined in Rule 13d-3 under said Act, directly or indirectly, of our securities representing 50% or more of the total voting power represented by our then outstanding voting securities;
- a change in the composition of our Board occurring within a two-year period, as a result of which fewer than a majority of our directors are "incumbent directors," which term is defined as either (i) our directors as of the execution date of the relevant agreement or (ii) directors who are elected, or nominated for election, to our Board with the affirmative votes of at least a majority of the incumbent directors at the time of such election or nomination (but will not include an individual whose election or nomination is in connection with an actual or threatened proxy contest relating to the election of our directors);
- the date of the consummation of our merger or consolidation with any other corporation that has been approved by the our stockholders, other than a merger or consolidation that would result in our voting securities outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the total voting power represented by our voting securities or such surviving entity outstanding immediately after such merger or consolidation, or our stockholders approve a plan of our complete liquidation; or
- the date of the consummation of the sale or disposition by us of all or substantially all of our assets.

Pursuant to our employment and severance agreements with our named executive officers, "cause" is defined as:

- an act of dishonesty in connection with a named executive officer's responsibilities as an employee;
- a conviction of, or plea of *nolo contendere* to, a felony or any crime involving fraud, embezzlement or any other act of moral turpitude;
- gross misconduct;
- an unauthorized use or disclosure of any of our proprietary information or of any other party to whom he or she owes an obligation of nondisclosure as a result of his or her relationship with us;
- a willful breach of any obligations under any written agreement or covenant with us; or
- a named executive officer's continued failure to perform his or her employment duties after he or she has received a written demand of performance from us and has failed to cure such non-performance to our satisfaction within 10 business days after receiving such notice.

Pursuant to our employment and severance agreements with Gajus V. Worthington, William M. Smith, Robert C. Jones and Vikram Jog, "good reason" means the occurrence of one or more of the following events effected without the named executive officer's prior consent, provided that he or she terminates his or her employment within one year thereafter:

- the assignment to the named executive officer of any duties or a reduction of the named executive officer's duties, either of which significantly reduces his or her responsibilities; provided that the continuance of his or her responsibilities at the subsidiary or divisional level following a change of control, rather than at the parent, combined or surviving company level following such change of control shall not be deemed "good reason" within the meaning of this clause;
- a material reduction of the named executive officer's base salary;
- the relocation of the named executive officer to a facility or a location greater than 50 miles from his or her present location;
- a material breach by us of any material provision of the employment and severance agreement.

However, no act or omission by us shall constitute "good reason" if we fully cure that act or omission within 30 days of receiving notice of receiving notice from the named executive officer.

Pursuant to our employment and severance agreement with Mai Chan (Grace) Yow, "good reason" means the occurrence of one or more of the following events effected without her consent, provided that she terminates her employment within one year thereafter:

- the assignment to Ms. Yow of any duties or a reduction of her duties, either of which significantly reduces her responsibilities; provided that the continuance of her responsibilities at the subsidiary or divisional level following a change of control, rather than at the parent, combined or surviving company level following such change of control shall not be deemed "good reason" within the meaning of this clause;
- a material reduction of Ms. Yow's base salary;
- the relocation of Ms. Yow to a facility or a location outside the country of Singapore;
- a material breach by us of any material provision of the employment and severance agreement.

However, no act or omission by us shall constitute "good reason" if we fully cure that act or omission within 30 days of receiving notice of receiving notice from the named executive officer.

The employment and severance agreements provide that in the event the named executive officer's employment is terminated by us or our successor without "cause" prior to a "change of control" or after 12 months following a "change of control" and the named executive officer executes a standard release of claims with us, the named executive officer is entitled to receive, in addition to such officer's salary payable through the date of termination of employment and any other benefits earned and owed through the date of termination, the following cash payments:

- an amount, payable in accordance with our customary payroll practices, equal to six months of the named executive officer's base salary in effect immediately prior to the time of termination; and
- reimbursement of costs and expenses incurred by the executive officer and his or her eligible dependents for coverage under group health plans, policies or arrangements sponsored by us for a period of up to six months, provided that such coverage is timely elected under COBRA or similar applicable state statute.

The employment and severance agreements further provide that in the event the named executive officer's employment is terminated by (i) us or our successor without "cause" and within 12 months following a "change of control" or (ii) by the executive officer for "good reason" and within 12 months following a "change of control", and in each case the named executive officer executes a standard release of claims with us, the executive officer is entitled to receive, in addition to such officer's salary payable through the date of termination of employment and any other benefits earned and owed through the date of termination, the following cash payments and benefits:

- an amount, payable in a lump sum, equal to the greater of (i) six months of the named executive officer's base salary in effect immediately prior to the change in control or (ii) six months of the named executive's officer's base salary in effect immediately prior to the time of termination;
- all outstanding unvested stock options, equity appreciation rights or similar equity awards then held by the named executive officer as of the date of termination will immediately vest and become exercisable as to all shares underlying such options;
- any shares of restricted stock, restricted stock units and similar equity awards then held by the named executive officer will immediately vest and any of our rights of repurchase or reacquisition with respect to such shares will lapse as to all shares; and
- reimbursement of costs and expenses incurred by the executive officer and his or her eligible dependents for coverage under group health plans, policies or arrangements sponsored by us for a period of up to six months, provided that such coverage is timely elected under COBRA or similar applicable state statute.

The following table describes the payments and benefits that each of our named executive officers would be entitled to receive pursuant to the employment and severance agreements, assuming that each of the following

triggers occurred in December 29, 2007: their employment was terminated without "cause" prior to or after 12 months following a "change of control" and (ii) their employment was terminated without "cause" or for "good reason" within 12 months following a "change of control".

Name and Principal Position	Employment Terminated without Cause Prior to or After 12 Months Following Change of Control(1)		Employment Terminated within 12 Months Following Change of Control(2)		
	Severance Payments ($)(3)	Health Care Benefits ($)	Equity Acceleration ($)(4)	Severance Payments ($)(3)	Health Care Benefits ($)(5)
Gajus V. Worthington President and Chief Executive Officer	$ 135,200	$ 9,213	$	$ 135,200	$ 9,213
William M. Smith Vice President, Legal Affairs and General Counsel	$ 132,500	$ 8,056	$	$ 132,500	$ 8,056
Mai Chan (Grace) Yow Vice President, Worldwide Manufacturing and Managing Director of Fluidigm Singapore	$ 100,000	$ 525(6)	$	$ 100,000	$ 525(6)
Robert C. Jones Executive Vice President, Research and Development	$ 132,500	$ 9,213	$	$ 132,500	$ 9,213
Vikram Jog Chief Financial Officer	$ 139,000	$ 10,142	$	$ 139,000	$ 10,142

(1) The change of control severance agreements we entered into with our named executive officers do not provide for equity acceleration in connection with a termination other than a termination without cause that occurs prior to or within 12 months following a change of control.
(2) Includes involuntary termination other than for cause, death or disability, and voluntary termination for good reason.
(3) The amounts shown in this column are equal to 6 months of the named executive officer's base salary as of December 29, 2007.
(4) The amounts shown in this column are equal to the spread value between (i) the unvested portion of all outstanding stock options, equity appreciation rights or similar equity awards held by the named executive officer on December 29, 2007 and (ii) the initial public offering price of our common stock, which we have assumed to be the midpoint of the price range set forth on the cover page of this prospectus.
(5) The amounts shown in this column are equal to the cost of covering the named executive officer and his or her eligible dependents coverage under our benefit plans for a period of six months, assuming that such coverage is timely elected under COBRA.
(6) Amount shown has been converted from Singapore dollars to U.S. dollars based on the interbank exchange rate for December 29, 2007 of 1 Singapore dollar = 0.6909 U.S. dollars.

In addition to the benefits described above, our 2008 Equity Incentive Plan and 1999 Stock Option Plan provide for the acceleration of vesting of awards in certain circumstances in connection with or following a change of control of our company. See "Employee Benefit Plans" below.

Employee Benefit Plans

2008 Equity Incentive Plan.

Our Board of Directors adopted our 2008 Equity Incentive Plan on January 29, 2008 and we expect our stockholders will approve it prior to the completion of this offer. Subject to stockholder approval, the 2008 Equity Incentive Plan is effective upon its adoption by our Board of Directors, but is not expected to be utilized until after the completion of this offering. Our 2008 Equity Incentive Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to our employees, directors and consultants and our parent and subsidiary corporations' employees and consultants.

A total of shares of our common stock are reserved for issuance pursuant to the 2008 Equity Incentive Plan, of which no options were issued and outstanding. In addition, the shares reserved for issuance under our 2008 Equity Incentive Plan will also include (a) those shares reserved but unissued under the 1999 Stock Option Plan as of the effective date of the first registration statement filed by us and declared effective with respect to any

class of our securities and (b) shares returned to the 1999 Stock Option Plan as the result of expiration or termination of options (provided that the maximum number of shares that may be added to the 2008 Equity Incentive Plan pursuant to (a) and (b) is shares). The number of shares available for issuance under the 2008 Equity Incentive Plan will also include an annual increase on the first day of each fiscal year beginning in , equal to the lesser of:

- shares;
- 4% of the outstanding shares of common stock as of the last day of our immediately preceding fiscal year; or
- such other amount as our Board of Directors may determine.

Our Board of Directors or a committee appointed by our Board administers our 2008 Equity Incentive Plan. Our compensation committee will administer our 2008 Equity Incentive Plan after the completion of the offering. In the case of options intended to qualify as "performance-based compensation" within the meaning of Section 162(m) of the Internal Revenue Code, the committee will consist of two or more "outside directors" within the meaning of Section 162(m).

Subject to the provisions of our 2008 Equity Incentive Plan, the administrator has the power to determine the terms of the awards, including the exercise price, the number of shares subject to each such award, the exercisability of the awards and the form of consideration, if any, payable upon exercise. The administrator also has the authority to amend existing awards to reduce their exercise price, to allow participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator and to institute an exchange program by which outstanding awards may be surrendered in exchange for awards with a higher or lower exercise price.

The exercise price of options granted under our 2008 Equity Incentive Plan must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed 10 years, except that with respect to any participant who owns 10% of the voting power of all classes of our outstanding stock, the term must not exceed 5 years and the exercise price must equal at least 110% of the fair market value on the grant date. Subject to the provisions of our 2008 Equity Incentive Plan, the administrator determines the term of all other options.

After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option will generally remain exercisable for three months following the termination of service. However, in no event may an option be exercised later than the expiration of its term.

Stock appreciation rights may be granted under our 2008 Equity Incentive Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of our common stock between the exercise date and the date of grant. Subject to the provisions of our 2008 Equity Incentive Plan, the administrator determines the terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of our common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Restricted stock may be granted under our 2008 Equity Incentive Plan. Restricted stock awards are grants of shares of our common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to any employee, director or consultant. The administrator may impose whatever conditions to vesting it determines to be appropriate (for example, the administrator may set restrictions based on the achievement of specific performance goals or continued service to us); provided, however, that the administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture.

Restricted stock units may be granted under our 2008 Equity Incentive Plan. Restricted stock units are bookkeeping entries representing an amount equal to the fair market value of one share of our common stock. The

administrator determines the terms and conditions of restricted stock units including the vesting criteria (which may include accomplishing specified performance criteria or continued service to us) and the form and timing of payment. Notwithstanding the foregoing, the administrator, in its sole discretion may accelerate the time at which any restrictions will lapse or be removed.

Performance units and performance shares may be granted under our 2008 Equity Incentive Plan. Performance units and performance shares are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. The administrator will establish organizational or individual performance goals in its discretion, which, depending on the extent to which they are met, will determine the number and/or the value of performance units and performance shares to be paid out to participants. After the grant of a performance unit or performance share, the administrator, in its sole discretion, may reduce or waive any performance objectives or other vesting provisions for such performance units or performance shares. Performance units shall have an initial dollar value established by the administrator prior to the grant date. Performance shares shall have an initial value equal to the fair market value of our common stock on the grant date. The administrator, in its sole discretion, may pay earned performance units or performance shares in the form of cash, in shares or in some combination thereof.

Our 2008 Equity Incentive Plan provides that all non-employee directors will be eligible to receive all types of awards (except for incentive stock options) under the 2008 Equity Incentive Plan. Please see the description of our Outside Director Equity Compensation Policy below.

Unless the administrator provides otherwise, our 2008 Equity Incentive Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

Our 2008 Equity Incentive Plan provides that in the event of a merger or “change in control,” as defined in the 2008 Equity Incentive Plan, each outstanding award will be treated as the administrator determines, including that the successor corporation or its parent or subsidiary will assume or substitute an equivalent award for each outstanding award. The administrator is not required to treat all awards similarly. If there is no assumption or substitution of outstanding awards, the awards will fully vest, all restrictions will lapse, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels and the awards will become fully exercisable. The administrator will provide notice to the recipient that he or she has the right to exercise the option and stock appreciation right as to all of the shares subject to the award, all restrictions on restricted stock will lapse, and all performance goals or other vesting requirements

1999 Stock Option Plan, as amended

Our 1999 Stock Option Plan was adopted by our Board of Directors and approved by our stockholders on May 12, 1999. Our 1999 Stock Option Plan was most recently amended on January 29, 2008. Our 1999 Stock Option Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code, to our employees and any parent and subsidiary corporations’ employees, and for the grant of nonstatutory stock options to our employees, directors and consultants and our parent and subsidiary corporations’ employees and consultants. Our Board of Directors has decided not to grant any additional options under our 1999 Stock Option Plan following the completion of this offering. However, our 1999 Stock Option Plan will continue to govern the terms and conditions of the outstanding stock options previously granted thereunder.

Subject to the provisions of our 1999 Stock Option Plan, the maximum aggregate number of shares which may be subject to option and sold under our 1999 Stock Option Plan is 12,800,000 shares. As of December 29, 2007, options to purchase 7,467,230 shares of our common stock were outstanding and 1,197,154 shares were available for future grant under the 1999 Stock Option Plan.

Our compensation committee appointed by our Board of Directors currently administers our 1999 Stock Option Plan. Under our 1999 Stock Option Plan, the administrator has the power to determine the terms of the stock options, including the employees, directors and consultants who will receive stock options, the number of shares subject to each stock option, the vesting schedule, any vesting acceleration, and the exercisability of stock options. The administrator also has the authority to initiate an option exchange program whereby stock options are exchanged for stock options with a lower exercise price. The administrator may also reduce the exercise price of any

option to the then current fair market value if the fair market value of our common stock has declined since the date the option was granted.

The exercise price of options granted under our 1999 Stock Option Plan must at least be equal to the fair market value of our common stock on the date of grant. The term of an incentive stock option may not exceed 10 years, except that with respect to any optionee who owns 10% of the voting power of all classes of our outstanding stock as of the grant date, the term must not exceed 5 years and the exercise price must equal at least 110% of the fair market value on the grant date. Subject to the provisions of our 1999 Stock Option Plan, the administrator determines the terms of all other options in its discretion.

After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option will generally remain exercisable for three months following the termination of service. In some cases, options issued to consultants pursuant to our 1999 Stock Option Plan provide that they may be exercised at anytime prior to the expiration of the ten year term of the option. However, in no event may an option be exercised later than the expiration of its term.

Unless the administrator provides otherwise, our 1999 Stock Option Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

Our 1999 Stock Option Plan provides that in the event of a merger of our company or a sale of substantially all of our assets, each outstanding stock option will be assumed or an equivalent option or right substituted by the successor corporation. If there is no assumption or substitution of outstanding options (or portions thereof), the options (or portions thereof) will fully vest and become fully exercisable. In such case, the administrator will provide notice to the optionee that he or she has the right to exercise the option as to all of the shares subject to the option for a period of at least 15 days. The option will terminate upon the expiration of the period of time the administrator provides in the notice.

Our Board of Directors has the authority to amend, suspend or terminate the 1999 Stock Option Plan provided such action does not impair the rights of any optionee without his or her written consent.

Retirement Plans

401(k) Plan. We maintain a tax-qualified retirement plan that provides eligible employees with an opportunity to save for retirement on a tax advantaged basis. Eligible employees are able to participate in the 401(k) plan as of the first day of the month on or following the date they begin employment and participants are able to defer up to 60% of their eligible compensation subject to applicable annual Internal Revenue Code limits. All participants' interests in their deferrals are 100% vested when contributed. [The 401(k) plan permits us to make matching contributions and profit sharing contributions to eligible participants, although we have not made any such contributions to date.] Pre-tax contributions are allocated to each participant's individual account and are then invested in selected investment alternatives according to the participants' directions. The 401(k) plan is intended to qualify under Sections 401(a) and 501(a) of the Internal Revenue Code. As a tax-qualified retirement plan, contributions to the 401(k) plan and earnings on those contributions are not taxable to the employees until distributed from the 401(k) plan and all contributions are deductible by us when made.

Limitation on Liability and Indemnification Matters

Our amended and restated certificate of incorporation and bylaws that will become effective upon the completion of this offering contain provisions that limit the personal liability of our directors for monetary damages to the fullest extent permitted by Delaware law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for:

- Any breach of the director's duty of loyalty to us or our stockholders;
- Any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- Unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or

- Any transaction from which the director derived an improper personal benefit.

Our amended and restated certificate of incorporation that will become effective upon the completion of this offering, provides that we indemnify our directors to the fullest extent permitted by Delaware law. In addition, our amended and restated bylaws, that will become effective upon the completion of this offering, provides that we indemnify our directors and officers to the fullest extent permitted by Delaware law. Our amended and restated bylaws, that will become effective upon the completion of this offering, also provide that we shall advance expenses incurred by a director or officer in advance of the final disposition of any action or proceeding, and permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in that capacity, regardless of whether we would otherwise be permitted to indemnify him or her under the provisions of Delaware law. We have entered and expect to continue to enter into agreements to indemnify our directors, executive officers and other employees as determined by the Board of Directors. With certain exceptions, these agreements provide for indemnification for related expenses including, among others, attorneys' fees, judgments, fines and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our amended and restated certificate of incorporation and bylaws, that will become effective upon the completion of this offering, may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty of care. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers. At present, there is no pending litigation or proceeding involving any of our directors, officers or employees for which indemnification is sought, and we are not aware of any threatened litigation that may result in claims for indemnification.

CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

In addition to the director and executive compensation arrangements discussed above in "Management", we have been a party to the following transactions since January 1, 2005, in which the amount involved exceeded or will exceed $120,000 and in which any director, executive officer or holder of more than 5% of any class of our voting stock, or any member of the immediate family of or entities affiliated with any of them, had or will have a material interest.

Sales of Series E Preferred Stock

In June 2006, December 2006, March 2007, October 2007 and December 2007, we sold an aggregate of 14,810,444 shares of our Series E Preferred stock at a price of $4.00 per share for aggregate consideration of $59,241,776. In connection with these sales, we granted the purchasers certain registration rights with respect to their securities. See "Description of Capital Stock — Registration Rights." The purchasers of the Series E Preferred stock included, among others, the following 5% stockholders and directors and their affiliates:

Purchasers	Shares of Series E Preferred Stock	Aggregate Purchase Price
5% Stockholders:		
Entities affiliated with Versant Ventures(1)	250,000	$ 1,000,000
Entities affiliated with EuclidSR Partners(2)	211,750	$ 847,000
Entities affiliated with Alloy Ventures(3)	161,250	$ 645,000
Entities affiliated with Lehman Brothers Holdings, Inc.(4)	159,749	$ 638,996
Lilly Ventures(5)	89,750	$ 359,000
Bruce Burrows(6)	394,750	$ 1,579,000
Total	1,267,249	$ 5,068,996

(1) Consists of 5,000 shares purchased by Versant Affiliates Fund 1-A, L.P., 10,500 shares purchased by Versant Affiliates Fund 1-B, L.P., 4,500 shares purchased by Versant Side Fund I, L.P. and 230,000 shares purchased by Versant Venture Capital I, L.P. Sam Colella, an affiliate of Versant Ventures, is a member of our Board of Directors.
(2) Consists of 105,875 shares purchased EuclidSR Biotechnology Partners, L.P. and 105,875 shares purchased by EuclidSR Partners, L.P. Elaine Jones, an affiliate of Euclid SR Partners, is a member of our Board of Directors.
(3) Consists of 2,120 shares purchased by Alloy Partners 2002, L.P., 78,505 shares purchased by Alloy Ventures 2002, L.P. and 80,625 shares purchased by Alloy Ventures 2005, L.P. Michael Hunkapiller, an affiliate of Alloy Ventures, is a member of our Board of Directors.
(4) Consists of 39,937 shares purchased by Lehman Brothers Healthcare Venture Capital L.P., 8,932 shares purchased by Lehman Brothers Offshore Partnership Account 2000/2001, L.P., 76,440 shares purchased by Lehman Brothers P.A., LLC, and 34,440 purchased by Lehman Brothers Partnership Account 2001/2001, L.P. Hingge Hsu, an affiliate of Lehman Brothers Holdings, Inc., served as a member of our Board of Directors at the time of the financing.
(5) Ed Torres, an affiliate of Lilly Ventures, served as a member of our Board of Directors at the time of the financing.
(6) Bruce Burrows served as member of our Board of Directors at the time of the financing.

Transactions with the Singapore Economic Development Board

In December 2003, we entered into a convertible note purchase agreement with Biomedical Sciences Investment Fund Pte Ltd, or BSIF, an investment arm of the Singapore Economic Development Board. Under the terms of the agreement, BSIF was obligated to purchase up to two convertible promissory notes with an aggregate principal amount of $5 million. The principal and interest on these notes was convertible into our Series D Preferred Stock at a price of $2.80 per share at any time at the option of BSIF and automatically upon our attaining certain milestones. The first note, with a principal amount of $2 million, was sold concurrently with the execution of the agreement, and the second note was to be sold, at our option, after the conversion of the first note. In December 2004, we and BSIF entered into an amendment of this agreement which provided that under certain conditions the second note could be sold in two tranches of $1.5 million each. These conditions were not met. The first note was

converted into stock in December 2005. The second note was sold in June 2006 and was converted into stock in June 2007.

In August 2006, we entered into a second convertible note purchase agreement with BSIF pursuant to which BSIF was obligated, at our option, to purchase up to three convertible promissory notes each with a principal amount of $5 million upon the occurrence of certain events. The principal and interest on these notes was convertible into our Series E Preferred Stock at a price of $3.60 per share at any time at the option of BSIF and automatically upon our attaining certain milestones. In November 2006, the terms of the second and third notes were amended to change conditions under which they would automatically convert. We sold the first note in August 2006 and it was converted into stock in March 2007. We sold the second note in November 2006 and it was converted into stock in March 2007. The third note was sold in April 2007 and will automatically convert upon the closing of this offering.

In October 2005, our Singapore subsidiary received a grant in the amount of approximately S$10 million (approximately US$6.5 million at current exchange rates) from the Singapore Economic Development Board. The grant provides for reimbursement of certain qualifying expenses incurred by the subsidiary between August 2005 and December 2010. Receipt of funds under the grant is conditioned upon our subsidiary conducting certain research and development activities and achieving certain levels of employment in Singapore during that period.

In February 2007, our Singapore subsidiary received an additional grant in the amount of approximately S$3.7 million (approximately US$2.4 million at current exchange rates) from the Singapore Economic Development Board. The grant provides for reimbursement of certain qualifying expenses incurred by the subsidiary between June 2006 and May 2011. Receipt of funds under the grant is conditioned upon our subsidiary conducting certain research, development and manufacturing activities and achieving certain levels of employment in Singapore during that period and our raising a certain amount of additional capital by December 2008.

BSIF is the owner of more than 5% of our outstanding Preferred Stock.

Loan to Gajus Worthington

On January 20, 2004, we entered into an Employee Loan Agreement, Secured Promissory Note and Stock Pledge Agreement with Mr. Worthington pursuant to which we loaned Mr. Worthington $250,000 at an interest rate of 3.52% per annum and the principal and interest were not due and payable until 7 years after the date of the loan or upon the earlier occurrence of certain events. The loan was secured by the pledge of 833,334 shares of our common stock held by Mr. Worthington and was otherwise non-recourse. On April 10, 2008, Mr. Worthington repaid the loan in full in accordance with Section 2.2(d) of the note by selling shares of our common stock held by Mr. Worthington to us at the fair market value of such stock on the date of such sale, which was determined by the Board of Directors to be $3.19 per share. The note and Mr. Worthington's loan were repaid in full and cancelled in exchange for 90,913 shares of our common stock which Mr. Worthington transferred to us pursuant to the terms of a repurchase agreement dated April 10, 2008. This loan repayment and share cancellation transaction were approved by the compensation committee based on its determination that we received full and fair consideration for the cancellation of the loan and that the cancellation of the loan was in the best interests of our company and its stockholders.

Consulting Agreement with Stephen Quake

In May 2006, we entered into an agreement with Stephen Quake pursuant to which it has agreed to pay Dr. Quake $8,333 per month for providing various consulting services to Fluidigm including serving on our Scientific Advisory Board. The agreement has a term of 10 years and is terminable by Fluidigm only for cause. At approximately the same time, we repurchased from Dr. Quake 123,974 shares of our Common Stock for aggregate consideration of $69,425. Dr. Quake served as a director of Fluidigm from its inception until December 2005 and, at the time of these transactions, was the holder of more than 5% of our outstanding Common Stock.

Engagement of Townsend and Townsend and Crew LLP

Since before 2005, the law firm of Townsend and Townsend and Crew LLP, or Townsend, has served as our primary outside patent counsel. William Smith, our Vice President, Legal Affairs and General Counsel as well as our Secretary since May 2000 and a director from May 2000 until April 7, 2008, was a partner at Townsend from

1985 to April 7, 2008. We incurred legal fees and expenses with Townsend of $901,312, $861,920, $624,208 in 2005, 2006 and 2007 respectively.

Registration Rights Agreement

Holders of our preferred stock and our co-founders are entitled to certain registration rights with respect to the common stock issued or issuable upon conversion of the preferred stock. See “Registration Rights” under “Description of Capital Stock” below for additional information.

Stock Option Grants

Certain stock option grants to our directors and executive officers and related option grant policies are described above in this prospectus under the caption “Management.”

Employment Arrangements and Indemnification Agreements

We have entered into employment arrangements with certain of our executive officers. See “Management — Employment Agreements and Offer Letters” above.

We have also entered into indemnification agreements with each of our directors and executive officers. The indemnification agreements and our certificate of incorporation and bylaws require us to indemnify our directors and executive officers to the fullest extent permitted by Delaware law. See “Management — Limitations on Liability and Indemnification Matters” above.

Related Party Transaction Policy

We expect to adopt a related party transactions policy in April 2008. Pursuant to this policy, the audit committee will be required to review and approve all related party transactions for which such approval is required by applicable law or the rules of the NASDAQ Stock Market LLC. Material transactions must be presented to the full Board of Directors for review and approval.

PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our common stock at December 29, 2007, as adjusted to reflect the sale of common stock offered by us in this offering, for:

- each person who we know beneficially owns more than five percent of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

We have determined beneficial ownership in accordance with SEC rules. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership is based on 66,572,205 shares of common stock outstanding at December 29, 2007. For purposes of the table below, we have assumed that shares of common stock will be outstanding upon completion of this offering, based upon an assumed initial public offering price of $ per share. In computing the number of shares of common stock beneficially owned by a person and the percentage ownership of that person, we deemed to be outstanding all shares of common stock subject to options, warrants or other convertible securities held by that person or entity that are currently exercisable or exercisable within 60 days of December 29, 2007. We did not deem these shares outstanding, however, for the purpose of computing the percentage ownership of any other person. Beneficial ownership representing less than one percent is denoted with an "*."

Unless otherwise indicated, the address of each beneficial owner listed in the table below is c/o Fluidigm Corporation, 7000 Shoreline Court, Suite 100, South San Francisco, California 94080.

	Beneficial Ownership Prior to the Offering		Beneficial Ownership After the Offering	
Name of Beneficial Owner	Shares	Percentage	Shares	Percentage
5% Stockholders:				
Entities affiliated with Alloy Funds(1)	3,732,679	5.60%		
Entities affiliated with EuclidSR Funds(2)	4,898,996	7.35%		
Entities affiliated with EDB Funds(3)	8,989,496	13.49%		
Entities affiliated with Fidelity Funds(4)	6,250,000	9.38%		
Entities affiliated with Interwest Funds(5)	3,776,885	5.67%		
Entities affiliated with Lehman Funds(6)	3,693,907	5.54%		
SMALLCAP World Fund, Inc.(8)	4,378,695	6.57%		
Entities affiliated with Versant Funds(9)	5,879,980	8.83%		
Directors and Named Executive Officers:				
Gajus V. Worthington(10)	2,787,000	4.16%		
Richard DeLateur(11)	394,583	*		
Hingge Hsu(6)	3,693,907	5.54%		
Robert C. Jones(12)	480,000	*		
Michael Y. Lucero(13)	825,000	1.22%		
William M. Smith(14)	877,000	1.31%		
S. Edward Torres(7)	2,077,715	3.12%		
Mai Chan (Grace) Yow(15)	264,166	*		
Samuel Colella(9)	5,879,980	8.83%		
Michael Hunkapiller(1)	3,732,679	5.60%		
Elaine V. Jones(2)	4,898,996	7.35%		
Kenneth Nussbacher(16)	131,250	*		
John Young(17)	—	—		
Bruce Burrows(18)	3,647,339	5.47%		
All directors and executive officers as a group (14 persons)(20)	29,689,615	42.69%		

(footnotes appear on following page)

(*) Less than one percent.

(1) Consists of 1,866,340 shares held of record by Alloy Ventures 2005, L.P., 1817,272 shares held of record by Alloy Ventures 2002, L.P., and 49,067 shares held of record by Alloy Partners 2002, L.P. Michael Hunkapiller, a member of our Board of Directors is a Managing Member of Alloy Ventures 2005, LLC, the General Partner of Alloy Ventures 2005, L.P. Alloy Ventures 2002, LLC is the General Partner of Alloy Ventures 2002, L.P. and Alloy Partners 2002, L.P. The Managing Members of Alloy Ventures 2002, LLC are Craig C. Taylor, John F. Shoch, Douglas E. Kelly, Daniel I. Rubin and Tony Di Bona. Each of the Managing Members of Alloy Ventures 2002, LLC is also a Managing Member of Alloy Ventures 2005, LLC. Each Managing Member disclaims beneficial ownership of the shares except to extent of their pecuniary interest therein. The address of the entities affiliated with Alloy Ventures is 400 Hamilton Avenue, Fourth Floor, Palo Alto, CA 94301.

(2) Consists of 2,449,498 shares held of record by EuclidSR Partners, L.P. and 2,449,498 shares held of record by EuclidSR Biotechnology Partners, L.P. Elaine V. Jones, a member of our Board of Directors shares voting and investment power with Graham D.S. Anderson, Raymond J. Whitaker, Milton J. Pappas and Stephen K. Reidy, each of whom are General Partners of EuclidSR Associates, L.P., the General Partner of EuclidSR Partners and EuclidSR Biotechnology Associates, L.P., the General Partner of EuclidSR Biotechnology Partners. Each General Partner of EuclidSR Associates, L.P. and EuclidSR Biotechnology Associates, L.P. disclaims beneficial ownership of the shares except to the extent of their pecuniary interest therein. The address of the entities affiliated with EuclidSR Associates, L.P. and EuclidSR Biotechnology Associates, L.P. is 45 Rockefeller Plaza, Suite 3240, New York, NY 10111.

(3) Consists of 6,729,828 shares held of record by Biomedical Sciences Fund Pte. Ltd., which includes 1,484,474 shares issued upon conversion of a convertible promissory note, and 775,194 shares held of record by Singapore Bio-Innovations Pte. Ltd. EDB Investments Pte. Ltd. (“EDB Investments”), the parent entity of Biomedical Sciences Investment Fund Pte. Ltd. and Singapore Bio-Innovations Pte. Ltd., and the Economic Development Board of Singapore (“EDB”), the ultimate parent entity of EDB Investments, may be deemed to have voting and dispositive power over the shares owned beneficially and of record by Biomedical Sciences Investment Fund Pte. Ltd. and Singapore Bio-Innovations Pte. Ltd. The address associated with entities affiliated with EDB is 20 Biopolis Way, #09-01 Centros, Singapore 138668.

(4) Consists of 481,170 shares held of record by Fidelity Contrafund: Fidelity new Advisor New Insights Fund, 4,389,865 shares held of record by Fidelity Contrafund: Fidelity Contrafund and 1,378,965 shares held of record by Variable Insurance Products Fund II: Contrafund Portfolio. Each of these entities is a registered investment fund (the “Fund”) advised by Fidelity Management & Research Company (“FMR Co.”), a registered investment adviser under the Investment Advisers Act of 1940, as amended. The address of FMR Co., a wholly-owned subsidiary of FMR Corp. and an investment adviser registered under Section 203 of the Investment Advisers Act of 1940 is 82 Devonshire Street, Boston Massachusetts 02109. Edward C. Johnson 3d, FMR Corp., through its control of FMR Co., and the Fund each has sole power to dispose of the securities owned by the Fund. Neither FMR Corp. nor Edward C. Johnson 3d, Chairman of FMR Corp., has sole power to vote or direct the voting of the shares owned directly by the Fund, which power resides with the Fund’s Board of Trustees. The Fund is an affiliate of a broker-dealer. The Fund purchased the securities in the ordinary course of business and, at the time of the purchase of the securities to be resold, the Fund did not have any agreements or understandings, directly or indirectly, with any person to distribute the securities. The Fund does not intend to sell, transfer, assign, pledge or hypothecate or otherwise enter into any hedging, short sale, derivative, put or call transaction that would result in the effective economic disposition of the securities through an affiliated broker-dealer.

(5) Consists of 172,602 shares held of record by InterWest Investors VII, L.P. and 3,604,283 shares held of record by InterWest Partners VII, L.P. InterWest Management Partners VII, L.L.C. has sole voting and investment control over the shares owned by InterWest Partners VII, L.P. and InterWest Investors VII, L.P. Harvey B. Cash, Philip T. Gianos, W. Scott Hedrick, W. Stephen Holmes, Gilbert H. Kliman, Thomas L. Rosch and Arnold L. Oronsky each Managing Directors of InterWest Management Partners VII, LLC have shared voting and investment control over the shares owned by InterWest Partners VII, L.P. and InterWest Investors VII, L.P. Stephen C. Bowsher, Alan W. Crites, Rodney A. Ferguson and Karen A. Wilson are Members of InterWest Management Partners VII, L.L.C. All Managing Directors and Members disclaim beneficial ownership of the shares owned by InterWest Partners VII, LP and InterWest Investor VII, LP except to the extent of their pro rata partnership interests in such shares. The address of the entities affiliated with InterWest is 2710 Sand Hill Road, Second Floor, Menlo Park, CA 94025.

(6) Consists of 923,476 shares held of record by Lehman Brothers Healthcare Venture Capital, L.P., 206,536 shares held of record by Lehman Brothers Offshore Partnership Account 2000/2001, L.P., 1,767,535 shares held of record by Lehman Brothers P.A., LLC and 796,360 shares held of record by Lehman Brothers Partnership Account 2000/2001, L.P. Hingge Hsu, a former member of our Board of Directors, was formerly employed by Lehman Brothers Inc., and now serves as a consultant of Lehman Brothers Inc. In each of the limited partnerships referenced above, Lehman Brothers Inc. controls the general partner of the fund. In the limited liability company, Lehman Brothers controls the manager of that fund. In all instances, the general partner or the manager has voting and dispositive control of the shares held by that particular fund, and thus may be attributed to Lehman Brothers. In all four funds listed above, Lehman Brothers Holdings Inc. ultimately controls the manager and the general partners of the funds. Employees of Lehman Brothers Inc., a subsidiary of Lehman Brothers Holdings Inc. manages each of the funds. No one person controls Lehman Brothers Holdings Inc. The address of the entities affiliated with Lehman Brothers is 399 Park Avenue, 11th Floor, New York, NY 10022. (Calling Lehman to get further clarification for the footnote)

(7) Consists of 2,077,715 shares held of record by Lilly Bio Ventures, Eli Lilly and Company. S. Edward Torres, was a member of our Board of Directors serves as Managing Director of Lilly Bio Ventures. The Executive Director of New Ventures, Eli Lilly and Company or the Senior Vice President of Corporate Strategy and Business Development. Eli Lilly and Company has the authority to vote and dispose of the shares held by Lilly Bio Ventures, Eli Lilly and Company. The address for Lilly Bio Ventures, Eli Lilly and Company is Lilly Corporate Center, Indianapolis, IN 46285.

(8) Consists of 4,378,695 shares held of record by SMALLCAP World Fund, Inc (“SMALLCAP”). SMALLCAP is an investment company registered under the Investment Company Act of 1940. Capital Research and Management Company, or CRMC, an investment adviser registered under the Investment Advisers Act of 1940, is the investment adviser to SMALLCAP. In that capacity, CRMC may be deemed to be the beneficial owner of the shares held by SMALLCAP. CRMC, however, disclaims such beneficial ownership. The address of the SMALLCAP is The Capital Group Companies, 333, South Hope Street, Los Angeles, California 90071.

(9) Consists of 5,378,019 shares held of record by Versant Venture Capital I, L.P., 98,662 shares held of record by Versant Affiliates Fund I-A, L.P., 291,146 shares held of record by Versant Affiliates Fund I-B, L.P. and 112,153 shares held of record by Versant Side Fund I, L.P. Voting and investment power over the shares directly held by Versant Venture Capital I, L.P., Versant Affiliates Fund I-A, L.P., Versant Affiliates Fund I-B, L.P., and Versant Side Fund I, L.P. is held by Versant Ventures I, LLC, their sole General Partner. Samuel D. Colella, a member of our Board of Directors is a Managing Member of Versant Ventures I, LLC but he disclaims beneficial ownership of these shares,

except to the extent of his pecuniary interest in such shares. The individual Managing Members of Versant Ventures I, LLC are Brian G. Atwood, Samuel D. Colella, Ross A. Jaffe, William J. Link, Barbara N. Lubash, Donald B. Milder, and Rebecca B. Robertson, all of whom share voting and dispositive control. Each respective individual General Partner disclaims beneficial ownership of these shares, except to the extent of their pecuniary interest in such shares. The address of the entities affiliated with Versant Ventures is 3000 Sand Hill Road, Building Four, Suite 210, Menlo Park, CA 94025.

(10) Consists of 2,432,000 shares held of record by Gajus Worthington and Jami A. Worthington as TTEES of the Worthington Family Trust dtd 3-6-07 and options to purchase 355,000 shares of Common Stock that are exercisable within 60 days of December 29, 2007, 164,999 shares of which are vested as of February 27, 2008.

(11) Consists of 140,000 shares held of record by Richard A. DeLateur and options to purchase 254,583 shares of Common Stock that are exercisable within 60 days of December 29, 2007, 184,582 of which are vested as of February 27, 2008.

(12) Consists of options to purchase 480,000 shares of Common Stock that are exercisable within 60 days of December 29, 2007, 249,999 of which are vested as of February 27, 2008.

(13) Consists of options to purchase 825,000 shares of Common Stock that are exercisable within 60 days of December 29, 2007, 716,750 of which are vested as of February 27, 2008.

(14) Consists of 300,000 shares held of record by William M. Smith and options to purchase 577,000 shares of Common Stock that are exercisable within 60 days of December 29, 2007, 381,500 of which are vested as of February 27, 2008.

(15) Consists of options to purchase 264,166 shares of Common Stock that are exercisable within 60 days of December 29, 2007, 214,166 of which are vested as of February 27, 2008.

(16) Consists of options to purchase 131,250 shares of Common Stock that are exercisable within 60 days of December 29, 2007, all of which are vested as of February 27, 2008

(17) Mr. Young disclaims beneficial ownership of 270,000 shares as all of the shares were subsequently transferred to his children, Diana Young, Gregory Young and John Peter Young. As of February 27, 2008 29,167 shares of Common Stock are subject to a right of repurchase at cost. The right of repurchase lapses at a rate of approximately 2,083 shares of Common Stock per month.

(18) Consists of 3,597,339 shares held of record and options to purchase 50,000 shares of Common Stock that are exercisable within 60 days of December 29, 2007, all of which are vested.

DESCRIPTION OF CAPITAL STOCK

General

The following is a summary of the rights of our common stock and preferred stock and of certain provisions of our restated certificate of incorporation and bylaws, as they will be in effect upon the completion of this offering. For more detailed information, please see our restated certificate of incorporation and bylaws, which are filed as exhibits to the registration statement of which this prospectus is part.

Immediately following the completion of this offering, our authorized capital stock will consist of 320,000,000 shares, all with a par value of $0.001 per share, of which:

- 300,000,000 shares are designated as common stock; and
- 20,000,000 shares are designated as preferred stock.

As of December 29, 2007, we had outstanding 66,572,205 shares of common stock held of record by 247 stockholders, assuming the automatic conversion of all outstanding shares of our preferred stock into 56,670,894 shares of common stock. In addition, as of December 29, 2007, 7,467,230 shares of our common stock were subject to outstanding options and 698,720 shares of our capital stock were subject to outstanding warrants, neither of which will expire upon the completion of this offering. For more information on our capitalization see “Capitalization” above.

Common Stock

The holders of our common stock are entitled to one vote per share on all matters to be voted on by our stockholders. Subject to preferences that may be applicable to any outstanding shares of preferred stock, holders of common stock are entitled to receive ratably such dividends as may be declared by our Board of Directors out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, the holders of common stock are entitled to share ratably in all assets remaining after the payment of liabilities, subject to the prior distribution rights of preferred stock then outstanding. Holders of common stock have no preemptive, conversion or subscription rights. There are no redemption or sinking fund provisions applicable to the common stock.

Preferred Stock

Immediately after the completion of this offering, no shares of preferred stock will be outstanding (assuming the automatic conversion of all outstanding shares of our preferred stock into 56,670,894 shares of common stock immediately prior to the completion of this offering). Though we currently have no plans to issue any shares of preferred stock, upon the closing of this offering and the filing of our restated certificate of incorporation, our Board of Directors will have the authority, without further action by our stockholders, to designate and issue up to 20,000,000 shares of preferred stock in one or more series. Our Board of Directors may also designate the rights, preferences and privileges of the holders of each such series of preferred stock, any or all of which may be greater than or senior to those granted to the holders of common stock. Though the actual effect of any such issuance on the rights of the holders of common stock will not be known until our Board of Directors determines the specific rights of the holders of preferred stock, the potential effects of such an issuance include:

- diluting the voting power of the holders of common stock;
- reducing the likelihood that holders of common stock will receive dividend payments;
- reducing the likelihood that holders of common stock will receive payments in the event of our liquidation, dissolution, or winding up; and
- delaying, deterring or preventing a change-in-control or other corporate takeover.

Warrants

As of December 29, 2007, we had outstanding warrants to purchase an aggregate of 698,720 shares of our preferred stock, all of which will be converted into warrants to purchase an equal number of shares of our common

stock at exercise prices ranging from $1.78 per share to $2.80 per share. These warrants will expire at various times between May 2008 and March 2012. In the event of a distribution of dividends, a stock split, a reorganization, a reclassification, a consolidation, or a similar event, each warrant provides for adjustment of the exercise price and the number of shares issuable upon exercise.

Potential Issuance of Common Stock

On March 7, 2003, we entered into a Master Closing Agreement with Oculus Pharmaceuticals, Inc. and The UAB Research Foundation, or UAB, related to certain intellectual property and technology rights licensed by us from UAB. Pursuant to the agreement, we are obligated to issue UAB shares of our common stock with a value equal to approximately $1,500,000 upon the achievement of a certain milestone and based upon the fair market value of our common stock at the time the milestone is achieved. We currently do not anticipate achieving this milestone in the foreseeable future and do not anticipate issuing these shares.

Registration Rights

As of December 29, 2007, the holders of an aggregate of 58,854,088 shares of our common stock, which includes 56,670,894 shares of common stock issued on conversion of outstanding preferred stock, 698,720 shares of common stock issuable upon the exercise of warrants and conversion of preferred stock underlying such warrants and 1,466,210 shares of common stock issuable upon the conversion of convertible promissory notes and the shares of preferred stock underlying such notes, are entitled to the following rights with respect to the registration of such shares for public resale under the Securities Act, pursuant to an investor rights agreement by and among us and certain of our stockholders. In addition, the holders of an additional 4,858,878 shares of common stock are also entitled to the rights described below, in the section titled “Piggyback Registration Rights.” We refer to these shares collectively as “registrable securities.”

The registration of shares of common stock as a result of the following rights being exercised would enable the holders to trade these shares without restriction under the Securities Act when the applicable registration statement is declared effective. Ordinarily, we will be required to pay all expenses, other than underwriting discounts and commissions, related to any registration effected pursuant to the exercise of these registration rights.

The registration rights terminate upon the earlier of five years after completion of this offering, or, with respect to the registration rights of an individual holder, when the holder of one percent or less of our outstanding common stock can sell all of such holder’s registrable securities in any three-month period without registration, in compliance with Rule 144 of the Securities Act or another similar exemption.

Demand Registration Rights

If at any time after this offering the holders of at least a majority of the registrable securities request in writing that we effect a registration that has a reasonably anticipated aggregate price to the public in excess of $20,000,000, we may be required to register their shares. At most, we are obligated to effect two registrations for the holders of registrable securities in response to these demand registration rights. Depending on certain conditions, however, we may defer such registration for up to 90 days. If the holders requesting registration intend to distribute their shares by means of an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

Piggyback Registration Rights

If at any time after this offering we propose to register any shares of our common stock under the Securities Act, subject to certain exceptions, the holders of registrable securities will be entitled to notice of the registration and to include their shares of registrable securities in the registration. If our proposed registration involves an underwriting, the managing underwriter of such offering will have the right to limit the number of shares to be underwritten for reasons related to the marketing of the shares.

Form S-3 Registration Rights

If at any time after we become entitled under the Securities Act to register our shares on Form S-3 a holder of registrable securities requests in writing that we register their shares for public resale on Form S-3 and the reasonably anticipated price to the public of the offering exceeds $2,000,000, we will be required to use our best efforts to effect such registration; provided, however, that if such registration would be seriously detrimental to us or our stockholders, we may defer the registration for up to 90 days.

Voting Rights

Under the provisions of our amended and restated certificate of incorporation to become effective upon completion of this offering, holders of our common stock are entitled to one vote for each share of common stock held by such holder on any matter submitted to a vote at a meeting of stockholders. In addition, our amended and restated certificate of incorporation provides that certain corporate actions require the approval of our stockholders. These actions, and the vote required, are as follows:

- the removal of a director requires the vote of a majority of the voting power of our issued and outstanding capital stock entitled to vote in the election of directors; and
- the amendment of provisions of our amended and restated certificate of incorporation relating to blank check preferred stock, the classification of our directors, the removal of directors, the filling of vacancies on our Board of Directors, cumulative voting, annual and special meetings of our stockholders and the amendment of certain provisions of our restated certificate of incorporation require the vote of 66 2/3% of our then outstanding voting securities.

Anti Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Certain provisions of Delaware law and our restated certificate of incorporation and bylaws that will become effective upon completion of this offering contain provisions that could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our Board of Directors. We believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Certificate of Incorporation and Bylaws

Our amended and restated certificate of incorporation and bylaws to become effective upon completion of this offering include provisions that:

- authorize our Board of Directors to issue, without further action by the stockholders, up to 20,000,000 shares of undesignated preferred stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our Board of Directors;
- provide that directors may be removed only for cause;
- provide that vacancies on our Board of Directors may be filled only by a majority of directors then in office, even though less than a quorum;

- establish that our Board of Directors is divided into three classes, Class I, Class II, and Class III, with each class serving staggered terms;
- specify that no stockholder is permitted to cumulate votes at any election of the Board of Directors; and
- require a super-majority of votes to amend certain of the above-mentioned provisions.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under certain circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, the Board of Directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding, but not for determining the outstanding voting stock owned by the interested stockholder, (1) shares owned by persons who are directors and also officers, and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to the date of the transaction, the business combination is approved by the Board of Directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least $66^{2}/_{3}\%$ of the outstanding voting stock which is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting stock. We expect the existence of this provision to have an anti-takeover effect with respect to transactions our Board of Directors does not approve in advance. We also anticipate that Section 203 may discourage business combinations or other attempts that might result in a premium over the market price for the shares of common stock held by our stockholders.

The provisions of Delaware law and our restated certificate of incorporation and bylaws to become effective upon completion of this offering could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is , and its telephone number is .

Nasdaq Global Market Listing

We expect to apply to have our common stock listed on the Nasdaq Global Market under the symbol "FLDM."

SHARES ELIGIBLE FOR FUTURE SALE

Before this offering, there has not been a public market for shares of our common stock. Future sales of substantial amounts of shares of our common stock, including shares issued upon the exercise of outstanding options, in the public market after this offering, or the possibility of these sales occurring, could cause the prevailing market price for our common stock to fall or impair our ability to raise equity capital in the future.

Upon the completion of this offering, a total of shares of common stock will be outstanding, assuming that there are no exercises of options or warrants after December 29, 2007. Of these shares, all shares of common stock sold in this offering by us, plus any shares sold upon exercise of the underwriters' over-allotment option, will be freely tradable in the public market without restriction or further registration under the Securities Act, unless these shares are held by "affiliates," as that term is defined in Rule 144 under the Securities Act.

The remaining 66,572,205 shares of common stock will be "restricted securities," as that term is defined in Rule 144 under the Securities Act. These restricted securities are eligible for public sale only if they are registered under the Securities Act or if they qualify for an exemption from registration under Rules 144 or 701 under the Securities Act, which are summarized below.

Subject to the lock up agreements described below and the provisions of Rules 144 and 701 under the Securities Act, these restricted securities will be available for sale in the public market as follows:

Date	Number of Shares
On the date of this prospectus	0
Between 90 and 180 days after the date of this prospectus	0
At various times beginning more than 180 days after the date of this prospectus	66,617,499

In addition, of the 7,467,230 shares of our common stock that were subject to stock options outstanding as of December 29, 2007, options to purchase 4,307,131 shares of common stock were vested as of December 29, 2007 and will be eligible for sale 180 days following the effective date of this offering.

Rule 144

In general, under Rule 144 as currently in effect, once we have been subject to public company reporting requirements for at least 90 days, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such a person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person is entitled to sell those shares without complying with any of the requirements of Rule 144.

In general, under Rule 144, as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon expiration of the lock-up agreements described above, within any three-month period beginning 90 days after the date of this prospectus, a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal approximately shares immediately after this offering; or
- the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to that sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

Rule 701

In general, under Rule 701 as currently in effect, any of our employees, consultants or advisors who purchase shares from us in connection with a compensatory stock or option plan or other written agreement in a transaction before the effective date of this offering that was completed in reliance on Rule 701 and complied with the requirements of Rule 701 will, subject to the lock up restrictions described below, be eligible to resell such shares 90 days after the effective date of this offering in reliance on Rule 144, but without compliance with certain restrictions, including the holding period, contained in Rule 144.

Lock Up Agreements

We and all of our directors and officers, as well as the other holders of substantially all shares of common stock outstanding immediately prior to this offering, have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock or any securities convertible into or exercisable or exchangeable for shares of our common stock;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock,

whether any transaction described above is to be settled by delivery of shares of our common stock or such other securities, in cash or otherwise. This agreement is subject to certain exceptions, and is also subject to extension for up to an additional days, as set forth in “Underwriters.”

Registration Rights

Upon completion of this offering, the holders of 63,712,966 shares of common stock or their transferees will be entitled to various rights with respect to the registration of these shares under the Securities Act. Registration of these shares under the Securities Act would result in these shares becoming fully tradable without restriction under the Securities Act immediately upon the effectiveness of the registration, except for shares purchased by affiliates. See “Description of Capital Stock — Registration Rights” for additional information.

Registration Statements

We intend to file a registration statement on Form S-8 under the Securities Act covering all of the shares of common stock subject to options outstanding or reserved for issuance under our stock plans. We expect to file this registration statement as soon as practicable after this offering. In addition, we intend to file a registration statement on Form S-8 under the Securities Act for the resale of shares of common stock issued upon the exercise of options that were not granted under Rule 701. We expect to file this registration statement as soon as practicable after this offering. However, none of the shares registered on Form S-8 will be eligible for resale until the expiration of the lock up agreements to which they are subject.

MATERIAL U. S. FEDERAL INCOME AND ESTATE TAX CONSEQUENCES TO NON-U. S. HOLDERS

The following is a general discussion of certain material United States federal income and estate tax considerations with respect to the acquisition, ownership and disposition of shares of our common stock applicable to non-U.S. holders. In general, a "non-U.S. holder" is any holder other than:

- an individual who is a citizen or resident of the United States for United States federal income tax purposes;
- a corporation (or other entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate, the income of which is includible in gross income for United States federal income tax purposes regardless of its source; or
- a trust if (a) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more United States persons have the authority to control all substantial decisions of the trust or (b) it has a valid election in effect under applicable Treasury regulations to be treated as a United States person.

This discussion is based on current provisions of the Internal Revenue Code, final, temporary or proposed Treasury regulations promulgated thereunder, judicial opinions, published positions of the Internal Revenue Service and all other applicable authorities, all of which are subject to change (possibly with retroactive effect). We assume in this discussion that a non-U.S. holder holds shares of our common stock as a capital asset (generally property held for investment).

This discussion does not address all aspects of United States federal income and estate taxation that may be important to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances, nor does it address any aspects of United States state or local taxes or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder subject to special treatment under the United States federal income tax laws, including, without limitation:

- banks, insurance companies or other financial institutions;
- partnerships or other pass-through entities or persons that hold shares of our common stock through such entities;
- tax-exempt organizations;
- tax-qualified retirement plans;
- dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- United States expatriates; and
- persons that will hold common stock as a position in a hedging transaction, "straddle" or "conversion transaction" for tax purposes.

Accordingly, we urge prospective investors to consult with their own tax advisors regarding the United States federal, state and local income and non-U.S. income and other tax considerations of acquiring, holding and disposing of shares of our common stock.

If a partnership or other pass-through entity holds shares of our common stock, the tax treatment of a partner in such partnership or an owner of such other pass-through entity will generally depend upon the status of such partner or other owner and the activities of such partnership or other entity. Any partnership or other pass-through entity that holds shares of our common stock or any partner in such partnership or owner of such other entity should consult its own tax advisors.

Dividends

If we make cash or other property distributions on our common stock, such distributions will constitute dividends for United States federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under United States federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, such excess will constitute a return of capital and will first reduce the non-U.S. holder's adjusted tax basis in our common stock, but not below zero. Any remaining excess will be treated as gain from the sale or other disposition of shares of our common stock (as described under "— Gain on Sale or Other Disposition of Common Stock" below).

In general, dividends we pay, if any, to a non-U.S. holder will be subject to United States withholding tax at a rate of 30% of the gross amount. The withholding tax might not apply or might apply at a reduced rate under the terms of an applicable income tax treaty between the United States and the non-U.S. holder's country of residence. A non-U.S. holder must demonstrate its entitlement to treaty benefits by certifying, among other things, its nonresident status. A non-U.S. holder generally can meet this certification requirement by providing an Internal Revenue Service Form W-8BEN or appropriate substitute form to us or our paying agent. Also, special rules apply if the dividends are effectively connected with a trade or business carried on by the non-U.S. holder within the United States and, if a treaty applies, are attributable to a permanent establishment of the non-U.S. holder within the United States. Dividends effectively connected with this United States trade or business, and, if a treaty applies, attributable to such a permanent establishment of a non-U.S. holder, generally will not be subject to United States withholding tax if the non-U.S. holder files certain forms, including Internal Revenue Service Form W-8ECI (or any successor form), with the payor of the dividend, and generally will be subject to United States federal income tax on a net income basis, in the same manner as if the non-U.S. holder were a resident of the United States. A non-U.S. holder that is a corporation may be subject to an additional "branch profits tax" at a rate of 30% (or a reduced rate as may be specified by an applicable income tax treaty) on the repatriation from the United States of its "effectively connected earnings and profits," subject to certain adjustments. A non-U.S. holder of shares of our common stock eligible for a reduced rate of United States withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the Internal Revenue Service.

Gain on Sale or Other Disposition of Common Stock

In general, a non-U.S. holder will not be subject to United States federal income tax on any gain realized upon the sale or other disposition of the holder's shares of our common stock unless:

- the gain is effectively connected with a trade or business carried on by the non-U.S. holder within the United States and, if required by an applicable income tax treaty as a condition to subjecting a non-U.S. holder to United States income tax on a net basis, the gain is attributable to a permanent establishment of the non-U.S. holder maintained in the United States, in which case a non-U.S. holder will be subject to United States federal income tax on any gain realized upon the sale or other disposition on a net income basis, in the same manner as if the non-U.S. holder were a resident of the United States. Furthermore, the branch profits tax discussed above may also apply if the non-U.S. holder is a corporation;
- the non-U.S. holder is an individual and is present in the United States for 183 days or more in the taxable year of disposition and certain other tests are met, in which case a non-U.S. holder will be subject to a flat 30% tax on any gain realized upon the sale or other disposition, which tax may be offset by United States source capital losses (even though the individual is not considered a resident of the United States); or
- we are or have been a United States real property holding corporation (a USRPHC) for United States federal income tax purposes at any time within the shorter of the five-year period preceding the disposition and the non-U.S. holder's holding period. We do not believe that we are or have been a USRPHC, and we do not anticipate becoming a USRPHC. If we have been in the past or were to become a USRPHC at any time during this period, generally gains realized upon a disposition of shares of our common stock by a non-U.S. holder that did not directly or indirectly own more than 5% of our common stock during this period would not be subject to United States federal income tax, provided that our common stock is "regularly traded on an established securities market" (within the meaning of Section 897(c)(3) of the Internal Revenue Code). Our common stock will be treated as regularly traded on an established securities market during any period in which it is listed on a registered national securities exchange or any over-the-counter market.

United States Federal Estate Tax

Shares of our common stock that are owned or treated as owned by an individual who is not a citizen or resident (as defined for United States federal estate tax purposes) of the United States at the time of death will be includible in the individual's gross estate for United States federal estate tax purposes, unless an applicable estate tax treaty provides otherwise, and therefore may be subject to United States federal estate tax.

Backup Withholding, Information Reporting and Other Reporting Requirements

Generally, we must report annually to the Internal Revenue Service and to each non-U.S. holder the amount of dividends paid to, and the tax withheld with respect to, each non-U.S. holder. These reporting requirements apply regardless of whether withholding was reduced or eliminated by an applicable tax treaty. Copies of this information also may be made available under the provisions of a specific treaty or agreement with the tax authorities in the country in which the non-U.S. holder resides or is established.

United States backup withholding tax is imposed (at a current rate of 28%) on certain payments to persons that fail to furnish the information required under the United States information reporting requirements. A non-U.S. holder of shares of our common stock will be subject to this backup withholding tax on dividends we pay unless the holder certifies, under penalties of perjury, among other things, its status as a non-U.S. holder (and we or our paying agent do not have actual knowledge or reason to know the holder is a United States person) or otherwise establishes an exemption.

Under the Treasury regulations, the payment of proceeds from the disposition of shares of our common stock by a non-U.S. holder made to or through a United States office of a broker generally will be subject to information reporting and backup withholding unless the beneficial owner certifies, under penalties of perjury, among other things, its status as a non-U.S. holder (and we or our paying agent do not have actual knowledge or reason to know the holder is a United States person) or otherwise establishes an exemption. The payment of proceeds from the disposition of shares of our common stock by a non-U.S. holder made to or through a non-U.S. office of a broker generally will not be subject to backup withholding and information reporting, except as noted below. In the case of proceeds from a disposition of shares of our common stock by a non-U.S. holder made to or through a non-U.S. office of a broker that is:

- a United States person;
- a "controlled foreign corporation" for United States federal income tax purposes;
- a foreign person 50% or more of whose gross income from certain periods is effectively connected with a United States trade or business; or
- a foreign partnership if at any time during its tax year (a) one or more of its partners are United States persons who, in the aggregate, hold more than 50% of the income or capital interests of the partnership or (b) the foreign partnership is engaged in a United States trade or business;

information reporting (but not backup withholding) will apply unless the broker has documentary evidence in its files that the owner is a non-U.S. holder and certain other conditions are satisfied, or the beneficial owner otherwise establishes an exemption (and the broker has no actual knowledge or reason to know to the contrary).

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder may generally be refunded or credited against the non-U.S. holder's United States federal income tax liability, if any, provided that the required information is furnished to the Internal Revenue Service in a timely manner.

THE FOREGOING DISCUSSION OF CERTAIN MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS IS FOR GENERAL INFORMATION ONLY AND IS NOT TAX ADVICE. ACCORDINGLY, EACH PROSPECTIVE HOLDER OF SHARES OF OUR COMMON STOCK SHOULD CONSULT HIS, HER OR ITS OWN TAX ADVISOR WITH RESPECT TO THE UNITED STATES FEDERAL, STATE AND LOCAL TAX CONSEQUENCES AND NON-U.S. TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK.

UNDERWRITERS

Under the terms and subject to the conditions contained in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. Incorporated is acting as the representative, have severally agreed to purchase, and we have agreed to sell to them, severally, the number of shares indicated in the table below:

Name	Number of Shares
Morgan Stanley & Co. Incorporated	
UBS Securities LLC	
Leerink Swann LLC	
Total	

The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers at a price that represents a concession not in excess of $ per share under the public offering price. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representative.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to an aggregate of additional shares of common stock at the public offering price set forth on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase approximately the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional shares of common stock.

	Per Share	No exercise	Full Exercise
Public offering price	$	$	$
Underwriting discounts and commissions			
Proceeds, before expenses, to us			

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions are approximately $.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed five percent of the total number of shares of common stock offered by them.

We intend to apply to have the common stock listed on the NASDAQ Global Market under the symbol "FLDM."

We and all directors, officers and substantially all of our other security holders have agreed that, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, we and they will not, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock; or
- in our case only, file or cause to be filed a registration statement, including any amendments with respect to the registration statement of any shares of common stock or securities convertible, exercisable or exchangeable into our common stock or any other securities of the company (other than any registration statement on Form S-8),

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, each such person agrees that, without the prior written consent of Morgan Stanley & Co. Incorporated on behalf of the underwriters, they will not, during the period ending 180 days after the date of this prospectus, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

Subject to certain restrictions, the restrictions described in the immediately preceding paragraph do not apply to:

- the sale of shares to the underwriters;
- transactions relating to shares of common stock or other securities acquired in open market transactions after the completion of this offering, provided that no filing under Section 16(a) of the Securities Exchange Act of 1934, as amended, shall be required or shall be voluntarily made in connection with subsequent sales of common stock or other securities acquired in such open market transactions;
- the exercise of any options to acquire common stock or conversion of any convertible security into common stock;
- transfers of shares of common stock or any security convertible into common stock as a bona fide gift;
- distributions of shares of common stock or any security convertible into common stock to limited partners, members or stockholders of the undersigned;
- transfers of shares of common stock or any security convertible into common stock by will or intestacy to the undersigned’s immediate family or to a trust, the beneficiaries of which are members of the transferor’s immediate family; or
- the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, provided that such plan does not provide for the transfer of common stock during the restricted period.

The 180-day restricted period described in the preceding paragraph will be extended if:

- during the last 17 days of the 180-day restricted period, we issue a release regarding earnings or regarding material news or events relating to us; or
- prior to the expiration of the 180-day restricted period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 180-day period,

in which case, the restrictions described in the preceding paragraph will continue to apply until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event, unless such extension is waived, in writing, by Morgan Stanley & Co. Incorporated on behalf of the underwriters.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the over-allotment option. The underwriters may also sell shares in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in the offering. As an additional means of facilitating the offering, the underwriters may bid for, and purchase, shares of common stock in the open market. Finally, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the common stock in the offering, if the syndicate repurchases previously distributed common stock to cover syndicate short positions or to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities, and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters participating in this offering. Other than the prospectus in electronic format, the information on the underwriters' websites is not part of this prospectus. The underwriters may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet distributions will be allocated by Morgan Stanley & Co. Incorporated to underwriters that may make Internet distributions on the same basis as other allocations.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Member State it has not made and will not make an offer of the common stock to the public in that Member State, except that it may, with effect from and including such date, make an offer of the common stock to the public in that Member State:

- at any time to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- at any time to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts; or
- at any time in any other circumstances which do not require the publication by us of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of the above, the expression an "offer of the common stock to the public" in relation to any shares of common stock in any Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the common stock to be offered so as to enable an investor to decide to purchase or subscribe shares of common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in that Member State.

United Kingdom

Each underwriter has represented and agreed that it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000) in connection with the issue or sale of shares of common stock in circumstances in which Section 21(1) of such Act does not apply to us and it has complied and will comply with all applicable provisions of such Act with respect to anything done by it in relation to any shares of common stock in, from or otherwise involving the United Kingdom.

Other Relationships

Morgan Stanley & Co. Incorporated has provided, and the underwriters may in the future provide, investment banking services to us for which they would receive customary compensation. In addition, as described under "Certain Relationships and Related Party Transactions," in October 2007 we sold shares of our Series E Preferred Stock in a private placement transaction. Leerink Swann LLC acted as the placement agent for this offering and entities affiliated with Leerink Swann LLC purchased shares of Series E Preferred Stock in connection with such offering.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price will be determined by negotiations between us and the underwriters. Among the factors to be considered in determining the initial public offering price are:

- our future prospects and those of our industry in general;
- our sales, earnings and certain other financial and operating information in recent periods; and
- the price-earnings ratios, price-sales ratios and market prices of securities and certain financial and operating information of companies engaged in activities similar to ours.

An active trading market for the shares may not develop. It is also possible that after the offering the shares will not trade in the public market at or above the initial public offering price.

LEGAL MATTERS

The validity of the shares of common stock offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Palo Alto, California. Latham & Watkins LLP, Costa Mesa, California is acting as counsel to the underwriters. Members of Wilson Sonsini Goodrich & Rosati, Professional Corporation and investment funds associated with that firm hold 160,956 shares of our common stock.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements at December 31, 2006 and December 29, 2007, and for each of the three years in the period ended December 29, 2007, as set forth in their report. We have included our consolidated financial statements in the prospectus and elsewhere in the registration statement in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock offered hereby. This prospectus, which constitutes a part of the registration statement, does not contain all of the information set forth in the registration statement or the exhibits and schedules filed therewith. For further information about us and the common stock offered hereby, we refer you to the registration statement and the exhibits and schedules filed thereto. Statements contained in this prospectus regarding the contents of any contract or any other document that is filed as an exhibit to the registration statement are not necessarily complete, and each such statement is qualified in all respects by reference to the full text of such contract or other document filed as an exhibit to the registration statement. Upon completion of this offering, we will be required to file periodic reports, proxy statements, and other information with the SEC pursuant to the Securities Exchange Act of 1934. You may read and copy this information at the Public Reference Room of the SEC, 100 F. Street, N.E., Room 1580, Washington, D.C. 20549. You may obtain information on the operation of the public reference rooms by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy statements and other information about issuers, like us, that file electronically with the SEC. The address of that site is www.sec.gov.

We intend to provide our stockholders with annual reports containing financial statements that have been audited by an independent registered public accounting firm, and to file with the SEC quarterly reports containing unaudited financial data for the first three quarters of each year.

FLUIDIGM CORPORATION

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Fluidigm Corporation

We have audited the accompanying consolidated balance sheets of Fluidigm Corporation as of December 31, 2006 and December 29, 2007, and the related consolidated statements of operations, convertible preferred stock and stockholders' equity (deficit), and cash flows for each of the three fiscal years in the period ended December 29, 2007. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Fluidigm Corporation at December 31, 2006 and December 29, 2007, and the consolidated results of its operations and its cash flows for each of the three fiscal years in the period ended December 29, 2007, in conformity with U.S. generally accepted accounting principles.

As discussed in Note 2 to the consolidated financial statements, Fluidigm Corporation changed its method of accounting for preferred stock warrants as of July 1, 2005, its method of accounting for stock-based compensation as of January 1, 2006, and its method of accounting for uncertain tax positions as of January 1, 2007.

/s/ Ernst & Young LLP

Palo Alto, California
April 12, 2008

FLUIDIGM CORPORATION

Consolidated Balance Sheets

(in thousands, except per share amounts)

	December 31, 2006	December 29, 2007
Assets		
Current assets:		
Cash and cash equivalents	$ 25,018	$ 34,077
Available-for-sale securities	500	6,286
Accounts receivable (net of allowances $3 in 2006 and $0 in 2007)	1,765	1,900
Inventories	3,038	5,498
Prepaid expenses and other current assets	768	2,068
Restricted cash	—	500
Total current assets	31,089	50,329
Restricted cash	900	381
Property and equipment, net	4,068	3,378
Other assets	436	688
Total assets	$ 36,493	$ 54,776
Liabilities, Convertible Preferred Stock and Stockholders' Equity (Deficit)		
Current liabilities:		
Accounts payable	$ 1,188	$ 2,725
Accrued compensation and related benefits	397	898
Other accrued liabilities	856	998
Deferred revenue, current portion	1,010	2,652
Long-term debt, current portion	3,476	3,834
Convertible preferred stock warrant liabilities	223	468
Total current liabilities	7,150	11,575
Deferred revenue, net of current portion	786	762
Long-term debt, net of current portion	9,362	5,528
Convertible promissory notes	13,072	4,997
Other liabilities	—	163
Total liabilities	30,370	23,025
Commitments and contingencies (Note 6)		
Convertible preferred stock issuable in series, $0.001 par value: 52,438 and 61,798 shares authorized, 43,284 and 56,671 shares issued and outstanding as of December 31, 2006 and December 29, 2007, respectively; aggregate liquidation preference of $165,169 as of December 29, 2007	112,295	162,082
Stockholders' equity (deficit):		
Common stock, $0.001 par value: 77,857 and 87,386 shares authorized, 9,498 and 9,901 shares issued and outstanding as of December 31, 2006 and December 29, 2007, respectively	9	10
Additional paid-in capital	2,108	3,592
Accumulated other comprehensive loss	(17)	(135)
Accumulated deficit	(108,272)	(133,798)
Total stockholders' equity (deficit)	(106,172)	(130,331)
Total liabilities, convertible preferred stock and stockholders' equity (deficit)	$ 36,493	$ 54,776

See accompanying notes.

FLUIDIGM CORPORATION

Consolidated Statements of Operations

(in thousands, except per share amounts)

	Year Ended		
	December 31, 2005	December 31, 2006	December 29, 2007
Revenue:			
Product revenue	$ 6,076	$ 3,959	$ 4,451
Collaboration revenue	1,568	1,376	460
Grant revenue	30	1,063	2,364
Total revenue	7,674	6,398	7,275
Costs and expenses:			
Cost of product revenue	4,764	2,773	3,514
Research and development	11,449	15,589	14,389
Selling, general and administrative	7,955	9,699	12,898
Total costs and expenses	24,168	28,061	30,801
Loss from operations	(16,494)	(21,663)	(23,526)
Interest expense	(898)	(2,261)	(2,790)
Interest income	340	565	1,140
Other income (expense), net	30	(194)	(170)
Loss before provision for income taxes and cumulative effect of change in accounting principle	(17,022)	(23,553)	(25,346)
Provision for income taxes	—	—	(105)
Loss before cumulative effect of change in accounting principle	(17,022)	(23,553)	(25,451)
Cumulative effect of change in accounting principle	637	—	—
Net loss	$ (16,385)	$ (23,553)	$ (25,451)
Net loss per share of common stock before cumulative effect of change in accounting principle, basic and diluted	$ (1.89)	$ (2.53)	$ (2.63)
Cumulative effect of change in accounting principle, basic and diluted	0.07	—	—
Net loss per share of common stock, basic and diluted	$ (1.82)	$ (2.53)	$ (2.63)
Shares used in computing net loss per share of common stock, basic and diluted	9,018	9,316	9,671

See accompanying notes.

FLUIDIGM CORPORATION

Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)

(in thousands, except per share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount				
Balance as of January 1, 2005	32,845	$ 76,596	8,929	$ 9	$ 2,870	$ (16)	$ (68,334)	$ (65,471)
Issuance of common stock upon exercise of stock options for cash and for vesting of stock options that were exercised early	—	—	170	—	46	—	—	46
Issuance of Series D convertible preferred stock for cash at $2.80 per share, net of issuance costs of $11	3,589	10,042	—	—	—	—	—	—
Issuance of common stock for services	—	—	80	—	34	—	—	34
Stock-based compensation expense	—	—	—	—	5	—	—	5
Issuance of convertible preferred stock warrants in connection with financing activities	—	—	—	—	54	—	—	54
Issuance of Series D convertible preferred stock upon conversion of promissory note at $2.80 per share	833	2,328	—	—	—	—	—	—
Reclassification of convertible preferred stock warrants to liabilities upon adoption of FSP 150-5	—	—	—	—	(1,473)	—	—	(1,473)
Comprehensive loss:								
Foreign currency translation adjustment	—	—	—	—	—	15	—	15
Unrealized gain on available-for-sale securities	—	—	—	—	—	21	—	21
Net loss	—	—	—	—	—	—	(16,385)	(16,385)
Total comprehensive loss								(16,349)
Balance as of December 31, 2005	37,267	88,966	9,179	9	1,536	20	(84,719)	(83,154)
Issuance of common stock upon exercise of stock options for cash and for vesting of stock options that were exercised early	—	—	443	—	190	—	—	190
Repurchase of common stock	—	—	(124)	—	(69)	—	—	(69)
Issuance of Series D convertible preferred stock at $2.80 per share upon exercise of warrants	268	729	—	—	—	—	—	—
Issuance of Series E convertible preferred stock for cash at $4.00 per share, net of issuance costs of $133	5,535	22,003	—	—	—	—	—	—
Issuance of Series D convertible preferred stock at $2.80 per share under license agreement, net of issuance costs of $3	214	597	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	145	—	—	145
Beneficial conversion feature for convertible promissory notes	—	—	—	—	306	—	—	306
Comprehensive loss:								
Foreign currency translation adjustment	—	—	—	—	—	(36)	—	(36)
Unrealized loss on available-for-sale securities	—	—	—	—	—	(1)	—	(1)
Net loss	—	—	—	—	—	—	(23,553)	(23,553)
Total comprehensive loss								(23,590)
Balance as of December 31, 2006	43,284	112,295	9,498	9	2,108	(17)	(108,272)	(106,172)
Cumulative effect of change in accounting principle	—	—	—	—	—	—	(75)	(75)
Issuance of common stock upon exercise of stock options for cash and for vesting of stock options that were exercised early	—	—	297	1	146	—	—	147
Issuance of Series E convertible preferred stock for cash at $4.00 per share, net of issuance costs of $1,189	9,276	35,911	—	—	—	—	—	—
Issuance of common stock for services	—	—	106	—	145	—	—	145
Stock-based compensation expense	—	—	—	—	708	—	—	708
Issuance of Series D convertible preferred stock upon conversion of promissory note at $2.80 per share	1,157	3,240	—	—	—	—	—	—
Issuance of Series E convertible preferred stock upon conversion of promissory notes at $3.60 per share	2,954	10,636	—	—	—	—	—	—
Beneficial conversion feature for convertible promissory notes	—	—	—	—	485	—	—	485
Comprehensive loss:								—
Foreign currency translation adjustment	—	—	—	—	—	(107)	—	(107)
Unrealized loss on available-for-sale securities	—	—	—	—	—	(11)	—	(11)
Net loss	—	—	—	—	—	—	(25,451)	(25,451)
Total comprehensive loss								(25,569)
Balance as of December 29, 2007	56,671	$ 162,082	9,901	$ 10	$ 3,592	$ (135)	$ (133,798)	$ (130,331)

See accompanying notes.

FLUIDIGM CORPORATION

Consolidated Statements of Cash Flows

(in thousands)

	Year Ended		
	December 31, 2005	December 31, 2006	December 29, 2007
Operating activities			
Net loss	$ (16,385)	$ (23,553)	$ (25,451)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	1,309	1,379	1,643
Stock-based compensation expense	5	145	708
Adjustment to fair value of convertible preferred stock warrants	(72)	138	245
Loss on retirement of property and equipment	—	111	20
Amortization of debt discount	9	80	495
Issuance of common stock for services	34	—	145
Issuance of convertible preferred stock under license agreement	—	597	—
Cumulative effect of change in accounting principle	(637)	—	(75)
Changes in assets and liabilities:			
Accounts receivable	(287)	(400)	(135)
Inventories	152	(955)	(2,460)
Prepaid expenses and other assets	(75)	(78)	(1,552)
Accounts payable	773	(575)	1,537
Deferred revenue	1,202	533	1,618
Other liabilities	(320)	272	1,503
Net cash used in operating activities	(14,292)	(22,306)	(21,759)
Investing activities			
Purchases of available-for-sale securities	(500)	(1,990)	(6,273)
Maturities of available-for-sale securities	6,249	1,987	487
Sales of available-for-sale securities	2,650	—	—
Restricted cash	95	(8)	19
Purchase of property and equipment	(1,656)	(2,932)	(973)
Net cash provided by (used in) investing activities	6,838	(2,943)	(6,740)
Financing activities			
Proceeds from long-term debt	14,651	—	—
Repayment of long-term debt	(1,745)	(4,000)	(3,503)
Proceeds from exercise of stock options	46	190	147
Proceeds from issuance of convertible preferred stock, net of issuance costs	10,042	22,003	35,911
Proceeds from issuance of convertible promissory notes	—	13,000	5,000
Repurchase of common stock	—	(69)	—
Net cash provided by financing activities	22,994	31,124	37,555
Effect of exchange rate changes on cash and cash equivalents	(2)	(19)	3
Net increase in cash and cash equivalents	15,538	5,856	9,059
Cash and cash equivalents as of beginning of year	3,624	19,162	25,018
Cash and cash equivalents as of end of year	$ 19,162	$ 25,018	$ 34,077
Supplemental disclosures of cash flow information			
Cash paid for interest	$ 589	$ 1,826	$ 1,523
Conversion of convertible promissory notes into convertible preferred stock	$ 2,328	$ —	$ 13,876
Cashless net exercise of convertible preferred stock warrants	$ —	$ 729	$ —
Issuance of warrants in connection with long-term debt	$ 744	$ —	$ —
Issuance of convertible preferred stock under license agreement	$ —	$ 597	$ —

See accompanying notes.

FLUIDIGM CORPORATION

Notes to Consolidated Financial Statements

1. Description of Business

Fluidigm Corporation (the Company) was incorporated in the state of California on May 19, 1999, to commercialize microfluidic technology initially developed at the California Institute of Technology (Caltech). In July 2007, the Company was reincorporated in Delaware. The Company's headquarters are located in South San Francisco, California.

The Company develops, manufactures and markets proprietary Integrated Fluidic Circuit systems that significantly improve the productivity of life science research. The Company's Integrated Fluidic Circuits, or IFCs, enable the simultaneous performance of thousands of biochemical measurements in extremely minute volumes. The Company created this "integrated circuit for biology" by achieving unprecedented miniaturization, integration and automation of sophisticated liquid handling processes on a single microfabricated device. The Company's customers include many leading biotechnology and pharmaceutical companies, academic institutions, and life science laboratories worldwide.

For the year ended December 29, 2007, the Company incurred a net loss of approximately $25.5 million and used approximately $21.8 million of cash in operating activities. As of December 29, 2007, the Company had an accumulated deficit of approximately $133.8 million and cash, cash equivalents and available-for-sale securities of approximately $40.4 million. The Company expects to incur significant expenses to fund operations to develop new products and to support existing product sales. Failure to generate sufficient revenues, achieve planned gross margins, control operating costs, or to raise sufficient additional funds may require the Company to modify, delay, or abandon some of its future expansion or expenditures, which could have a material adverse effect on the Company's business, operating results, financial condition, and ability to achieve its intended business objectives.

2. Summary of Significant Accounting Policies

Basis of Presentation and Consolidation

The consolidated financial statements of the Company have been prepared in conformity with U.S. generally accepted accounting principles and include the accounts of the Company and its wholly owned subsidiaries. The Company has wholly owned subsidiaries in Singapore, the Netherlands, Japan, and France. All subsidiaries, except for Singapore, use their local currency as their functional currency. The Singapore subsidiary uses the U.S. dollar as its functional currency. All intercompany transactions and balances have been eliminated in consolidation.

Fiscal Year

During 2007, the Company adopted a 52 or 53 week year convention for its fiscal years and, therefore, fiscal years for 2007 and future years will end on the last Saturday in December of each respective year. Prior to 2007, the Company used a calendar year. The fiscal years presented in these consolidated financial statements ended on December 31, 2005, December 31, 2006 and December 29, 2007.

Use of Estimates

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. The Company regularly assesses these estimates which affect the fair value of undelivered elements for revenue recognition purposes, the valuation of accounts receivable, the valuation of inventories, accrued liabilities, the fair value of the Company's convertible preferred stock and common stock, warrants, stock-based compensation, beneficial conversion features, and valuation allowances associated with deferred tax assets. The Company bases its estimates on historical experience and on various other assumptions believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results could differ materially from these estimates.

Foreign Currency

Assets and liabilities of non-U.S. subsidiaries that use the local currency as their functional currency are translated into U.S. dollars at exchange rates in effect at the balance sheet date, with the resulting translation adjustments recorded to a separate component of accumulated other comprehensive income (loss) within stockholders' equity. Income and expense accounts are translated at average exchange rates during the year. Foreign currency transaction gains and losses for non-U.S. subsidiaries that use the U.S. dollar as their functional currency are recognized in other income (expense), net. The Company had net foreign currency transaction losses of $27,000 and $70,000 during 2005 and 2006, respectively, and a net foreign currency transaction gain of $72,000 during 2007.

Cash and Cash Equivalents

The Company considers all highly liquid financial instruments with maturities at the time of purchase of three months or less to be cash equivalents. Cash and cash equivalents consist of cash on deposit with banks, money market funds, commercial paper, corporate notes, and notes from government-sponsored agencies.

Available-for-Sale Securities

Available-for-sale securities are comprised of corporate notes and notes from government-sponsored agencies. Investments classified as "available-for-sale" and are recorded at estimated fair value, as determined by quoted market rates, on the consolidated balance sheets with any unrealized gains and losses reported in stockholders' equity as a component of accumulated other comprehensive income (loss). Realized gains and losses and declines in the fair value of available-for-sale securities below their cost that are deemed to be "other than temporary" are reflected in interest income. No "other than temporary" unrealized losses have been incurred to date and realized gains and losses were immaterial during the years presented. The cost of securities sold is based on the specific-identification method.

Restricted Cash

The Company had restricted cash balances of $900,000 and $881,000 as of December 31, 2006 and December 29, 2007, respectively. Included in current restricted cash is a $500,000 amount that collateralizes a letter of credit that the Company maintains under the terms of a master security agreement with a lender (see Note 5). The Company also had non-current restricted cash amounts that collateralize the Company's standby letters of credit issued under operating lease agreements for office facilities that it currently occupies.

Fair Value of Financial Instruments

As of December 31, 2006 and December 29, 2007, the respective carrying values of the Company's financial instruments, including accounts receivable, restricted cash, and accounts payable, approximated their fair values due to their short period of time to maturity or repayment. Based on borrowing rates currently available to the Company for loans with similar terms, the carrying value of long-term debt and convertible promissory notes approximated their fair values.

Accounts Receivable

Trade accounts receivable are recorded at net invoice value. The Company considers receivables past due based on the contractual payment terms. The Company reviews its exposure to accounts receivable and reserves specific amounts if collectibility is no longer reasonably assured based on historical experience and specific customer collection issues. The Company reevaluates such reserves on a regular basis and adjusts its reserves as needed. Write-offs of accounts receivable were insignificant during 2005, 2006 and 2007.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to credit risk consist of cash, cash equivalents, available-for-sale securities, and accounts receivable. The Company maintains cash, cash equivalents, and available-for-sale securities with major financial institutions. The Company's cash, cash equivalents, and available-for-sale securities consist of deposits held with banks, commercial paper, money market funds, and other highly liquid investments that, at times, exceed federally insured limits. The Company performs periodic evaluations of its investments and the relative credit standing of these financial institutions and limits the amount of credit exposure with any one institution.

The Company does not require collateral to support credit sales. To reduce credit risk, the Company performs periodic credit evaluations of its customers. The Company has had no credit losses to date. Customers with revenues of 10% or greater of total revenues for 2005, 2006 and 2007 are as follows:

	Percentage of Total Revenue		
Customers:	2005	2006	2007
A	*	14%	24%
B	16%	14%	*
C	14%	16%	*

* Represents less than 10% of total revenues.

The Company's products include components that are currently available from a single source or a limited number of sources. The Company believes that other vendors would be able to provide similar components; however, the qualification of such vendors may require start-up time. In order to mitigate any adverse impacts from a disruption of supply, the Company attempts to maintain an adequate supply of critical limited-sourced components.

Inventories

Inventories are stated at the lower of cost (which approximates actual cost on a first-in, first-out method) or market. Inventories include raw materials, work-in-process, and finished goods that may be used in the research and development process, and such items are expensed when they are designated for use in research and development. Provisions for slow moving, excess, and obsolete inventories are recorded based on product life cycle, development plans, product expiration, and quality issues.

Property and Equipment

Property and equipment, including leasehold improvements, are stated at cost less accumulated depreciation, which is calculated using the straight-line method over the estimated useful lives of the assets, which range from three to five years. Leasehold improvements are amortized using the straight-line method over the estimated useful lives of the assets or the remaining term of the lease, whichever is shorter.

In accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, if indicators of impairment exist, the Company assesses the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through undiscounted future operating cash flows. If impairment is indicated, the Company measures the future discounted cash flows associated with the use of the asset and adjusts the value of the asset accordingly. While the Company's current and historical operating and cash flow losses are indicators of impairment, the Company believes the future cash flows to be received from the long-lived assets recorded as of December 29, 2007 will exceed the assets' carrying value, and, accordingly, the Company has not recognized any impairment losses through December 29, 2007.

Reserve for Product Warranties

The Company generally provides a one-year warranty on instruments. The Company reviews its exposure to estimated warranty expenses associated with instrument sales and establishes an accrual based on historical product failure rates and actual warranty costs incurred. This expense is recorded as a component of cost of product revenue in the consolidated statements of operations. Warranty accruals and expenses were immaterial for all periods presented.

Revenue Recognition

The Company generates revenue from sales of its products and services. The Company's products consist of single-use IFCs, various instruments, software, and reagents. The Company's services include instrument installation, training, and customer support services. The Company has also entered into a number of research and development agreements and received government grants to conduct research and development activities.

The Company records revenue in accordance with the guidelines established by the Securities and Exchange Commission (SEC) Staff Accounting Bulletin No. 104, *Revenue Recognition* (SAB 104). In addition, the Company has concluded that pursuant to AICPA Statement of Position 97-2, *Software Revenue Recognition* (SOP 97-2), software included with certain of its instruments is more than incidental to their functionality. Accordingly, the Company applies SOP 97-2 to sales of such instruments and related deliverables. Revenue is recognized when all of the following criteria are met: persuasive evidence of an arrangement exists, delivery has occurred or services rendered, the seller's price to the buyer is fixed or determinable, and collectibility is reasonably assured.

Product Revenue

The Company sells instruments in arrangements that may include related installation and training, customer support services and software and may also include single-use IFCs. If the arrangement includes IFCs, the Company uses the separation criteria in EITF Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*, to separate revenues related to IFCs, which are non-software related deliverables, from software related deliverables. IFC revenue is recognized upon delivery. Revenue from software related deliverables is recognized in accordance with SOP 97-2 and related pronouncements. Under SOP 97-2, the Company recognizes revenue for delivered elements only when it determines that undelivered elements are not essential to the functionality of the delivered elements and the vendor-specific objective evidence (VSOE) of fair values of undelivered elements are known. Installation is deemed essential to the functionality of certain instruments; for those instruments recognition of revenue begins after installation has been completed. Fair value of undelivered elements is established by reference to VSOE which is based on stand-alone sales of such elements. If any undelivered element does not have VSOE of fair value, revenue is deferred until all of such elements are delivered, or until VSOE of fair value can objectively be determined for any remaining undelivered elements. However, if the only undelivered element is post-contract customer support services, such as those included in the Company's maintenance agreements, revenue on the software related deliverables is recognized ratably over the service period. When revenues are deferred, the corresponding costs of products sold are also deferred in other assets in the consolidated financial statements and recognized over the same period. If VSOE of fair value exists for all undelivered elements, but does not exist for the delivered elements in the arrangement, revenue is allocated to the undelivered elements based on their VSOE of fair values, with the residual amount allocated to the delivered elements and recognized upon their delivery.

During 2005, 2006 and 2007, the Company did not have VSOE of fair value for software support services. Therefore, revenue and the corresponding costs of software-related deliverables is deferred and recognized over the customer support period ranging from one to three years. All revenue from these arrangements has been classified as product revenue in the statements of operations, as the amount attributed to services was immaterial.

In 2007, no right of return existed for the Company's products. In prior years, if there was a right of return, the entire revenue from the arrangement was deferred until the right had lapsed. The Company has not experienced any significant returns of its products. Accruals are provided for anticipated warranty expenses at the time the associated revenue is recognized. Amounts received in advance of when revenue recognition criteria are met are recorded as deferred revenue on the consolidated balance sheets.

The Company sells its products to third-party resellers located in certain international markets. From time to time, these arrangements may be subject to contingencies such as completion of the instrument delivery to or installation at the end customer. The Company recognizes revenue on sales of products to the resellers if all revenue recognition criteria have been met and any contingency provisions related to the sale have been satisfied.

Collaboration Revenue

The Company has entered into agreements with third parties, including government entities, to provide research and development services. Fixed-fee research and development agreements generally provide the Company with up-front and periodic milestone fees. Variable-fee research and development agreements generally provide the Company with fees based upon agreed-upon rates for time incurred by research staff. Under EITF 00-21, the Company evaluates whether these arrangements contain multiple units of accounting by evaluating whether delivered elements have value on a stand-alone basis and whether there is objective and reliable evidence of fair value of the undelivered items. During 2005, 2006 and 2007, the Company concluded that these arrangements consisted of a single unit of accounting, namely, research and development services. Accordingly, the Company recognizes the fees under these arrangements over the period the Company performs these services. Costs associated with the research and development agreements are included in research and development expense.

Grant Revenue

Government grants provide the Company with cost reimbursement for certain types of research and development activities performed over a contractually defined period. Revenue from government grants is recognized during the period during which the related costs are incurred, provided that the conditions under which the government grants were provided have been met and the Company has only perfunctory obligations outstanding. Amounts received in advance of when revenue recognition criteria are met are recorded as deferred revenue on the consolidated balance sheets. Costs associated with the grants are included in research and development expense.

Shipping and Handling Costs

Shipping and handling costs incurred for product shipments are included within cost of product revenue in the consolidated statements of operations.

Research and Development

The Company expenses research and development expenditures in the period incurred. Research and development expense consists of personnel costs, independent contractor costs, prototype expenses, and allocated facilities and information technology expenses. These costs include direct and research-related overhead expenses.

Advertising Costs

The Company expenses advertising costs as incurred. The Company incurred advertising costs of $237,000, $324,000 and $701,000 during 2005, 2006 and 2007, respectively.

Income Taxes

The Company uses the liability method to account for income taxes, whereby deferred income taxes reflect the impact of temporary differences for items recognized for financial reporting purposes over different periods than

for income tax purposes. Valuation allowances are provided when the expected realization of deferred tax assets does not meet a "more likely than not" criterion.

The Company adopted Financial Accounting Standards Board (FASB) Interpretation No. 48, *Accounting for Uncertainties in Income Taxes — an interpretation of FASB Statement No. 109* (FIN 48), effective January 1, 2007. FIN 48 requires that the Company recognize the financial statement effects of a tax position when it is more likely than not, based on the technical merits, that the position will be sustained upon examination. Upon adoption, the Company recorded a charge of $75,000 as a cumulative effect of a change in accounting principle in the accumulated deficit during 2007.

Stock-Based Compensation

Prior to January 1, 2006, the Company accounted for its employee stock option plans using the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25), which required the Company to recognize the difference between the exercise price of an employee option and the fair value of the underlying common stock as of the grant date. The resulting stock-based compensation expense, if any, was recorded on the date of the grant in stockholders' equity as deferred compensation and amortized to expense over the vesting period of the grant, which was generally four years.

In December 2004, the FASB issued SFAS No. 123 (revised 2004), *Share-Based Payment* (SFAS 123(R)), that addresses the accounting for stock-based payment transactions in which a company receives services in exchange for equity instruments, including stock options. The Company adopted SFAS 123(R) beginning January 1, 2006 using the prospective-transition method, as options granted prior to January 1, 2006 were measured using the minimum value method for the pro forma disclosures previously required by SFAS No. 123, *Accounting for Stock-Based Compensation* (SFAS 123). Under the prospective-transition method, the Company continues to apply APB 25 to employee equity awards outstanding at the date of the Company's adoption of SFAS 123(R). Any compensation costs recognized from January 1, 2006 onward consists of: (a) compensation cost for all stock-based awards granted prior to, but not vested as of, December 31, 2005 based on the intrinsic value determined in accordance with the provisions of APB 25; and (b) compensation cost for all stock-based awards granted or modified subsequent to December 31, 2005, net of estimated forfeitures, based on the grant date fair value estimated in accordance with the provisions of SFAS 123(R). The Company recognizes stock-based compensation expense on a straight-line basis over the vesting period of the respective grants. In accordance with the prospective-transition method, results for prior periods have not been restated.

The Company applies SFAS 123(R) and EITF Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services* (EITF 96-18), to options and other stock-based awards issued to nonemployees. In accordance with SFAS 123(R) and EITF 96-18, the Company uses the Black-Scholes option-pricing model to measure the fair value of the options at the measurement dates. The nonemployee options are subject to periodic reevaluation over their vesting terms.

Comprehensive Loss

Comprehensive loss is comprised of net loss and other comprehensive income (loss). Other comprehensive income (loss) includes unrealized holding gains and losses on the Company's available-for-sale securities and foreign currency translation adjustments. Total comprehensive loss for all periods presented has been disclosed in the consolidated statements of convertible preferred stock and stockholders' equity (deficit).

Accumulated other comprehensive income (loss) consists of the following (in thousands):

	December 31, 2005	December 31, 2006	December 29, 2007
Unrealized loss on available-for-sale securities	$ —	$ (1)	$ (12)
Foreign currency translation adjustment	20	(16)	(123)
	$ 20	$ (17)	$ (135)

Convertible Preferred Stock Warrants

Freestanding warrants related to shares that may be redeemable are accounted for in accordance with FASB Staff Position (FSP) No. 150-5, *Issuer's Accounting Under FASB Statement No. 150 for Freestanding Warrants and Other Similar Instruments on Shares That Are Redeemable* (FSP 150-5), an interpretation of SFAS No. 150, *Accounting for Certain Financial Instruments with Characteristics of Both Liabilities and Equity*. Under FSP 150-5, freestanding warrants to purchase the Company's convertible preferred stock are classified as liabilities on the consolidated balance sheets and carried at fair value because the warrants may conditionally obligate the Company to transfer assets at some point in the future. The warrants are subject to remeasurement at each balance sheet date, and any change in fair value is recognized as a component of other income (expense), net in the consolidated statements of operations. The Company will continue to adjust the liability for changes in fair value until the earlier of the exercise or expiration of the warrants, the completion of a deemed liquidation event, conversion of preferred stock into common stock, or until the convertible preferred stockholders can no longer trigger a deemed liquidation event. At that time, the convertible preferred stock warrant liabilities will be reclassified to convertible preferred stock or additional paid-in capital.

FSP 150-5 is effective for all periods beginning after June 30, 2005, and accordingly, it was adopted by the Company on July 1, 2005. Upon adoption, the Company reclassified the fair value of its warrants to purchase shares of its convertible preferred stock as of the adoption date from additional paid-in capital to liabilities and recorded a gain of $637,000 as the cumulative effect of a change in an accounting principle in the consolidated statement of operations during 2005.

Net Loss per Share of Common Stock

The Company's basic net loss per share of common stock is calculated by dividing the net loss by the weighted-average number of shares of common stock outstanding for the period. The weighted-average number of shares of common stock excludes those shares subject to repurchase related to stock options that were exercised prior to vesting as they are not deemed to be issued for accounting purposes until they vest. The diluted net loss per share of common stock is computed by dividing the net loss by the weighted-average number of common stock equivalents outstanding for the period determined using the treasury-stock method. For purposes of this calculation, convertible preferred stock, options to purchase common stock, common stock subject to repurchase, warrants to purchase convertible preferred stock, and shares of convertible preferred stock subject to conversion of the Company's convertible promissory notes are considered to be common stock equivalents but have been excluded from the calculation of diluted net loss per share of common stock as their effect is anti-dilutive.

FLUIDIGM CORPORATION

Notes to Consolidated Financial Statements — (Continued)

The following table sets forth the computation of net loss per share of common stock (in thousands, except per share amounts):

	2005	2006	2007
Historical			
Numerator:			
Loss before cumulative effect of change in accounting principle	$ (17,022)	$ 23,553	$ 25,451
Cumulative effect of change in accounting principle	637	—	—
Net loss	$ (16,385)	$ (23,553)	$ (25,451)
Denominator:			
Shares used in computing net loss per share of common stock, basic and diluted	9,018	9,316	9,671
Net loss per share of common stock, basic and diluted:			
Net loss per share of common stock before cumulative effect of change in accounting principle, basic and diluted	$ (1.89)	$ (2.53)	$ (2.63)
Cumulative effect of change in accounting principle, basic and diluted	0.07	—	—
Net loss per share of common stock, basic and diluted	$ (1.82)	$ (2.53)	$ (2.63)

The following outstanding shares of common stock equivalents were excluded from the computation of diluted net loss per share of common stock for the periods presented because including them would have been anti-dilutive.

	2005	2006	2007
Convertible preferred stock	37,267	43,284	56,671
Options to purchase common stock	6,094	6,050	7,467
Common stock subject to repurchase	44	65	33
Warrants to purchase convertible preferred stock	1,211	704	699
Convertible promissory notes convertible into shares of convertible preferred stock	—	3,952	1,466

Recent Accounting Pronouncements

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurement* (SFAS 157), which establishes a framework for measuring the fair value of assets and liabilities when required or permitted by other standards within generally accepted accounting principles in the United States but does not require any new fair value measurements. SFAS 157 also expands disclosures about fair value measurements. SFAS 157 is effective for all financial statements issued for fiscal years beginning after November 15, 2007. However, in February 2008 the FASB issued FSP No. 157-2 (FSP 157-2) which allows companies to delay the effective date of SFAS 157 for all nonfinancial assets and liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis, until fiscal years beginning after November 15, 2008. Generally, the provisions of this statement should be applied prospectively as of the beginning of the fiscal year in which this statement is initially applied. The Company adopted SFAS 157 in accordance with the provisions in FSP 157-2 as of December 30, 2007. The adoption of SFAS 157 is not expected to have a significant impact on the Company's consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (SFAS 159), including an amendment of SFAS No. 115, A*ccounting for Certain Investments in Debt and Equity Securities*, which allows an entity to choose to measure certain financial instruments and liabilities at fair value. Subsequent measurements for the financial instruments and liabilities an entity elects to measure at fair value will be recognized in earnings. SFAS 159 also establishes additional disclosure requirements. SFAS 159 is effective for fiscal years beginning after November 15, 2007. The Company adopted SFAS 159 as of January 1, 2008 but chose not to measure the financial instruments and liabilities permitted by the standard at fair value. Therefore, the adoption of SFAS 159 is not expected to have a significant impact on the Company's consolidated financial statements.

In December 2007, the FASB ratified EITF Issue No. 07-1, *Accounting for Collaborative Agreements* (EITF 07-1), which addresses the accounting for participants in collaborative agreements, defined as contractual arrangements that involve a joint operating activity, that are conducted without the creation of a separate legal entity. EITF 07-1 requires participants in a collaborative agreement to make separate disclosures for each period a statement of operations is presented regarding the nature and purpose of the agreement, the rights and obligations under the agreement, the accounting policy for the agreement, and the classification of and amounts arising from the agreement between participants. These arrangements involve two or more parties who are both active participants in the activity and are exposed to significant risks and rewards dependent on the commercial success of the activity. EITF 07-1 provides that a company should report the effects of adoption as a change in accounting principle through retrospective application to all periods and requires specific additional disclosures. EITF 07-1 is effective for interim and annual reporting periods beginning after December 15, 2008. The Company is currently assessing the impact of the adoption of EITF 07-1 on the Company's consolidated financial statements.

In June 2007, the FASB ratified EITF Issue No. 07-3, *Accounting for Nonrefundable Advance Payments for Goods or Services to Be Used in Future Research and Development Activities* (EITF 07-3). EITF 07-3 provides clarification surrounding the accounting for nonrefundable research and development advance payments, whereby such payments should be recorded as an asset when the advance payment is made and recognized as an expense when the research and development activities are performed. EITF 07-3 is effective for interim and annual reporting periods beginning after December 15, 2007. The Company is currently assessing the impact of the adoption of EITF 07-3 on the Company's consolidated financial statements.

3. License, Development, Collaboration and Grant Agreements

License Agreements

In March 2003, the Company entered into a license agreement to obtain an exclusive worldwide license for certain technology regarding nanovolume crystallization arrays. The Company may, in its sole discretion, cancel the license agreement with a 30-day notice; otherwise, the license terminates at the end of the life of the last patent to expire. Under the terms of the agreement, the Company is obligated to issue up to $2,100,000 of shares of the Company's common or convertible preferred stock if the Company achieves certain milestones. As a result of achieving one of these milestones during 2006, the Company issued 214,285 shares of Series D convertible preferred stock at $2.80 per share for an aggregate value of $597,000, net of issuance costs. During 2003, the Company also entered into a separate research sponsorship agreement under which the Company agreed to pay a total of $900,000 over 5 years in 20 quarterly installments of $45,000 to sponsor certain research. As of December 29, 2007, $855,000 of this amount had been paid and the remaining amount of $45,000 was paid during the first quarter of 2008, upon which the agreement terminated.

In December 2003, the Company entered into a license agreement to obtain a nonexclusive worldwide license for certain technology regarding submicroliter protein crystallization. The Company may, in its sole discretion, cancel the agreement with a 30-day notice; otherwise, the license terminates at the end of the life of the last licensed patent to expire. Pursuant to the agreement, the Company made four payments for annual nonrefundable license fees, each in the amount of $250,000, beginning in January 2004 with subsequent payments made in January 2005,

2006 and 2007. Also pursuant to the agreement, the Company began making quarterly payments in the amount of $25,000 starting in the first quarter of 2007. These quarterly payments, which are scheduled to continue until the agreement is terminated, could increase in future periods if the Company meets certain sales volumes. The annual nonrefundable license fee payments were recorded as expense during the year in which they were paid.

Development Agreements

In June 2004, the Company entered into a development agreement to evaluate two application areas of interest. Under the agreement, the Company performed research and development services, manufactured prototypes, and licensed certain nonexclusive rights. In addition, the Company issued a fully vested warrant to purchase 507,407 shares of Series D convertible preferred stock at $2.80 per share (see Note 8). As consideration, the Company received payments totaling $1,500,000 during 2004 and 2005. The Company determined that the license, research and development services, and prototypes should be accounted for as a combined unit of accounting and recognized the revenues ratably over the 12-month project period. The fair value of the warrant issued was estimated to be $750,000, as determined using the Black-Scholes option-pricing model, and was recognized as a reduction to the collaboration revenue. The Company recognized collaboration revenue of $366,000 and $384,000 related to this agreement during 2004 and 2005, respectively. The agreement terminated during 2005.

In June 2005, the Company entered into another development agreement to develop another application area of interest. Under the agreement, the Company performed research and development services and manufactured prototype instruments. The agreement provided for payments to the Company in the amount of $942,000, to be paid in installments over the 30-month life of the agreement. The Company determined that the research and development services and the manufacturing of prototype instruments should be accounted for as a combined unit of accounting and revenue was therefore recognized ratably over the estimated project period. The Company recognized revenue of $94,000, $377,000 and $377,000 related to this agreement during 2005, 2006 and 2007, respectively. The agreement terminated during the first quarter of 2008.

Collaboration Agreement

In January 2005, the Company entered into a collaborative agreement to develop and commercialize radiopharmaceutical manufacturing products for use in the positron emission tomography field. As consideration, the Company received an up-front fee of $1,000,000, which the Company deferred and recognized over the obligation period of approximately two years, with $458,000 and $542,000 recognized as revenue during 2005 and 2006, respectively. Also, the Company recognized additional revenue of $635,000 and $500,000 during 2005 and 2006, respectively, related to payments for research and development activities under the agreement based on agreed-upon rates for time incurred by the research staff. The agreement terminated on December 31, 2006.

Grants

National Institutes of Health

In June 2006, the Company was awarded a government grant from the National Institutes of Health (NIH) in the amount of $1,048,000 to be earned over a two-year period. Under the grant, the Company performs research and development activities to design a diffraction capable Topaz screening chip. The agreement provides for quarterly reimbursement of the eligible research and development expenses, including salaries, equipment, scientific consumables, and certain third-party costs. The grant revenue is recognized as the related services are performed and costs associated with this grant are reported as research and development expense in the period incurred. The Company recognized revenue of $184,000 and $606,000 during 2006 and 2007, respectively, under this grant. This agreement terminates in June 2008.

Singapore Economic Development Board

The Company has entered into two research and development grant agreements with the Singapore Economic Development Board (EDB) for the reimbursement of eligible research and development expenses relating to IFCs and BioMark instruments. Under the EDB grants, the Company is to perform research and development activities and establish a research facility in Singapore. For both agreements, eligible costs include salaries, equipment, scientific consumables, and certain third-party costs. Reimbursement for these costs under the grants is subject to the satisfaction of certain conditions by the Company, including completion of the development center within a specified timeline, spending specified amounts on the project, the completion of other development milestones, and the maintenance of specified levels of employment. Subject to agreed-upon audit rights by the EDB, eligible costs are reimbursed upon application of the submitted claims. The first grant agreement with the EDB was executed during 2006 and provided for the reimbursement of eligible research and development expenses, as submitted by the Company on a quarterly basis, up to an amount of 9,926,000 Singapore dollars (approximately $6,900,000 in U.S. dollars) over a five-year period beginning in January 2006. The second grant agreement with the EDB was executed during 2007 and provided for the reimbursement of eligible research and development expenses, as submitted by the Company on a quarterly basis, up to an amount of 3,715,000 Singapore dollars (approximately $2,600,000 in U.S. dollars) through May 2011.

The Company recognized revenue of $879,000 and $1,758,000 related to the EDB grants during 2006 and 2007, respectively. As of December 31, 2006 and December 29, 2007, the Company had deferred revenue of $720,000 and $635,000, respectively, related to equipment reimbursements for the EDB grant, which is being recognized ratably over the estimated useful life of the equipment of four years.

FLUIDIGM CORPORATION

Notes to Consolidated Financial Statements — (Continued)

4. Balance Sheet Data

Cash Equivalents and Available-for-Sale Securities

The following are summaries of cash equivalents and available-for-sale securities (in thousands):

	Amortized Cost	Unrealized Gain	Unrealized Loss	Estimated Fair Value
As of December 31, 2006:				
Money market funds	$ 95	$ —	$ —	$ 95
Commercial paper	1,997	2	—	1,999
Corporate notes	503	—	(3)	500
	$ 2,595	$ 2	$ (3)	$ 2,594
Reported as:				
Cash equivalents				$ 2,094
Available-for-sale securities				500
				$ 2,594
As of December 29, 2007:				
Money market funds	$ 2,787	$ —	$ —	$ 2,787
Commercial paper	2,287	—	—	2,287
Corporate notes	3,002	—	(3)	2,999
Notes from government-sponsored agencies	28,207	5	(14)	28,198
	$ 36,283	$ 5	$ (17)	$ 36,271
Reported as:				
Cash equivalents				$ 29,985
Available-for-sale securities				6,286
				$ 36,271

As of December 31, 2006 and December 29, 2007, the contractual maturities of the Company's available-for-sale securities were less than one year.

Inventories

Inventories consist of the following (in thousands):

	December 31, 2006	December 29, 2007
Raw materials	$ 803	$ 2,551
Work-in-process	11	291
Finished goods and demonstration units	2,224	2,656
	$ 3,038	$ 5,498

Property and Equipment

Property and equipment consists of the following (in thousands):

	December 31, 2006	December 29, 2007
Computer equipment and software	$ 1,285	$ 1,328
Lab and manufacturing equipment	7,707	8,207
Leasehold improvements	577	582
Office furniture and fixtures	347	372
	9,916	10,489
Less accumulated depreciation and amortization	(5,885)	(7,177)
Construction-in-progress	37	66
Property and equipment, net	$ 4,068	$ 3,378

Depreciation and amortization expense was $1,309,000, $1,379,000 and $1,643,000 for 2005, 2006 and 2007, respectively. During 2005, 2006 and 2007, the Company recognized a loss on retirement of property and equipment of $0, $111,000 and $20,000, respectively.

5. Long-Term Debt

In November 2002, the Company entered into a master security agreement with a lender. Per the terms of the agreement, the Company could draw up to $4,000,000 for purchases of capital equipment, software, and tenant improvements. A second master security agreement entered into in March 2004 increased the amount of the allowable draw for the Company to $11,000,000. The draw down period expired on December 31, 2005, at which time the Company had drawn down $3,584,000 under the agreement. The loan, which was secured by the underlying equipment and a letter of credit, carried an interest rate between 8.0% and 10.5% per annum, and each draw under the agreement was to be repaid in 42 varying monthly installments, which was originally scheduled to end on July 1, 2009. In connection with the execution of the second agreement in 2004, the Company issued a warrant to purchase 37,500 shares of Series D convertible preferred stock at $2.80 per share (see Note 8) which was recorded on the consolidated balance sheet at fair value of $90,000 as a debt discount that was amortized to interest expense over two years. As of December 31, 2006 and December 29, 2007, the outstanding principal balance of this loan was $2,267,000 and $1,130,000, respectively. In February 2008, prior to the due date, the Company paid off the outstanding principal and accrued interest balance and paid a prepayment fee in the amount of $41,000 to the lender. Accordingly, the entire outstanding principal balance for this loan as of December 29, 2007 was classified as a current liability on the consolidated balance sheet. Upon full payment of this debt, restricted cash in the amount of $500,000 was released by the lender and thus has been classified as a current asset as of December 29, 2007.

In March 2005, the Company entered into a loan and security agreement with another lender. Under this agreement the Company borrowed $13,000,000 during 2005 for general corporate purposes. This loan is secured by the Company’s assets except for intellectual property; however, the security interest does include proceeds from sales of the intellectual property. The loan was originally scheduled to be repaid by 2009; however, the agreement was amended in August 2006 to extend the final repayment date to February 1, 2010. The agreement carried a variable interest rate of prime plus 2.5% through March 2006. Thereafter, the agreement carried a fixed interest rate of 10.0% through July 2006 and a fixed interest rate of 9.75% following the amendment to the agreement in August 2006. In August 2006, the Company began making monthly payments in the amount of $310,000 for principal and interest under the agreement. The agreement also requires payment of fees in March 2009 in the amount of $1,612,500. The fees are accreted as interest expense over the term of the loan. The agreement restricts the Company’s ability to pay dividends. The Company is subject to a prepayment fee in the amount of 1% of the

outstanding principal amount being prepaid if paid during 2008 or 2009. In connection with the execution of this loan and security agreement, the Company issued a warrant to purchase 185,714 shares of Series D convertible preferred stock at $2.80 per share (see Note 8) which was recorded on the consolidated balance sheet at fair value of $54,000 as a debt discount. In connection with the final draw down of this loan, the Company issued another warrant to purchase 185,714 shares of Series D convertible preferred stock at $2.80 per share (see Note 8) which was recorded on the consolidated balance sheet at fair value of $50,000 as a debt discount. The debt discounts are amortized to interest expense over the life of the agreement. As of December 31, 2006 and December 29, 2007, the outstanding principal balance of this loan was $10,570,000 and $8,232,000, respectively, net of the unamortized debt discounts of $58,000 and $31,000, respectively.

The amortization of the debt discounts for the Company's long-term debt agreements was recorded as interest expense in the consolidated statements of operations in the amounts of $9,000, $37,000 and $27,000 during 2005, 2006 and 2007, respectively. As of December 29, 2007, the Company was either in compliance with all loan covenants or had obtained waivers from the respective lenders.

The following table does not include principal payments for the master security agreement with a principal balance of $1,130,000 as of December 29, 2007 that was paid off in February 2008. The scheduled principal payments of the Company's other long-term debt, net of the debt discounts, are as follows (in thousands):

Years:	
2008	$ 2,724
2009	4,929
2010	609
Total principal payments due in future periods	8,262
Less: debt discounts	(31)
	$ 8,231

6. Commitments and Contingencies

Operating Leases

The Company leases its headquarters in South San Francisco, California, under multiple noncancelable lease agreements that expire in February 2011. These agreements include renewal options which provide the Company with the ability to extend the lease terms for an additional three years. The Company also leases office and manufacturing space under noncancelable leases in Singapore that expire in September 2008. The Company's other operating leases are for office space in the Netherlands, Japan, and France and are on a month-to-month basis. As of December 29, 2007, future minimum lease payments under noncancelable operating leases were as follows (in thousands):

Years:	
2008	$ 1,436
2009	1,374
2010	1,408
2011	241
Total minimum payments	$ 4,459

The Company's lease payments are recognized as an expense on a straight-line basis over the life of the lease. Rental expense under operating leases for 2005, 2006 and 2007 totaled $1,468,000, $1,494,000 and $1,574,000, respectively.

Contingencies

The Company is party to various claims arising in the ordinary course of business. These claims relate to intellectual property rights and employment matters. While there is no assurance that an adverse determination of any of such matters will not occur, management does not believe, based upon information known to it, that a potential resolution of any of these matters will have a material adverse effect upon the Company's financial position, results of operations, or cash flows.

Indemnifications

From time to time, the Company has entered into indemnification provisions under certain of its agreements with other companies in the ordinary course of business, typically with business partners, customers, and suppliers. Pursuant to these agreements, the Company may indemnify, hold harmless, and agree to reimburse the indemnified parties on a case by case basis for losses suffered or incurred by the indemnified parties in connection with any patent or other intellectual property infringement claim by any third-party with respect to its products. The term of these indemnification provisions is generally perpetual from the time of the execution of the agreement. The maximum potential amount of future payments the Company could be required to make under these indemnification provisions is typically not limited to a specific amount. In addition, the Company has entered into indemnification agreements with its officers and directors. The Company has not incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. As of December 29, 2007, the Company had not accrued a liability for these indemnification provisions because the likelihood of incurring a payment obligation was remote.

7. Convertible Promissory Notes

In December 2003, the Company entered into a convertible note purchase agreement with the Biomedical Sciences Investment Fund Pte. Ltd. (Biomedical Sciences), an investment arm of the EDB. Under this agreement Biomedical Sciences agreed to provide a $2,000,000 credit facility to be used for general corporate purposes. In December 2003, the Company issued a $2,000,000 convertible promissory note to Biomedical Sciences. The note, which was unsecured, carried an interest rate of 8% per year. Per the agreement, principal and interest were convertible into the Company's Series D convertible preferred stock at $2.80 per share at the lender's election, at any time, or upon the election of the Company upon the achievement of certain milestones by the Company. In June 2005, the agreement was amended to allow the Company to issue additional convertible promissory notes in the amount of $3,000,000 if the Company achieved certain milestones. In December 2005, upon the successful completion of specified milestones, the $2,000,000 convertible promissory note and interest of $331,000 converted into 832,635 shares of Series D convertible preferred stock at $2.80 per share as settlement of the outstanding balance on the date of the conversion. In June 2006, the Company issued a $3,000,000 convertible promissory note, which was also unsecured, that carried an interest rate of 8% per year. Principal and interest are also convertible into the Company's Series D convertible preferred stock at $2.80 per share at the lender's election, at any time, or upon the election of the Company upon the achievement of certain milestones by the Company or upon the completion of an initial public offering in which the convertible preferred stock has converted into common stock. As of December 31, 2006, the outstanding principal and accrued interest balance for the convertible promissory note was $3,128,000. In July 2007, upon the successful completion of specified milestones, the principal balance in the amount of $3,000,000 for the convertible promissory note and accrued interest of $240,000 converted into 1,157,142 shares of Series D convertible preferred stock at $2.80 per share.

FLUIDIGM CORPORATION

Notes to Consolidated Financial Statements — (Continued)

In August 2006, the Company entered into another convertible note purchase agreement with Biomedical Sciences. Under this agreement, Biomedical Sciences agreed to provide a $15,000,000 credit facility, to be issued in three separate $5,000,000 tranches, and to be used for general corporate purposes. The Company issued two $5,000,000 convertible promissory notes against equal amounts of borrowings under this facility, each unsecured and carrying an interest rate of 8% per year, in August and November 2006. In March 2007, Biomedical Sciences exercised the conversion provision of the convertible note purchase agreement and the Company issued 2,954,337 shares of Series E convertible preferred stock at $3.60 per share as settlement of the outstanding principal and accrued interest balance on the date of the conversion in the amount of $10,636,000. Upon conversion of these convertible promissory notes, the Company issued the third and final $5,000,000 convertible promissory note against an equal amount of borrowing under this facility with an interest rate of 8% per year in April 2007.

The outstanding principal and accrued interest under the credit facility are convertible into the Company's Series E convertible preferred stock at $3.60 per share at the lender's election, at any time, or upon the election of the Company either: (i) upon the achievement of certain milestones by the Company or (ii) upon the completion of an initial public offering in which the convertible preferred stock has converted into common stock. In order for the Company to be able to elect conversion of the remaining convertible promissory note outstanding upon achievement of certain milestones, the milestones are required to be achieved by April 30, 2008. If the milestones are not met, the principal and interest are due two years from the date of borrowing. The conversion feature embedded in the convertible note purchase agreements does not allow net settlement; accordingly, it does not represent a derivative within the scope of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*.

For the convertible note purchase agreements in which the repayment either was or can be in the form of Series E convertible preferred stock, the conversion price of $3.60 per share was a discount to the estimated fair values of $3.71 and $4.00 per share for the Series E convertible preferred stock at the times of the borrowings. The intrinsic value of the embedded beneficial conversion option associated with each borrowing of convertible promissory notes under the arrangement is measured as the difference between the conversion price and the fair value of Series E convertible preferred stock on the commitment date and the resulting debt discount is being amortized to interest expense over the two year contractual term of the debt. Upon conversion of the notes to convertible preferred stock, any remaining unamortized debt discount is immediately recognized as interest expense.

During 2006 and 2007, the Company recognized debt discounts of $306,000 and $485,000, respectively, related to the beneficial conversion feature of the notes. Amortization of the debt discounts for the convertible note purchase agreements was recorded as interest expense in the consolidated statements of operations in the amount of $43,000 and $468,000 during 2006 and 2007, respectively.

As of December 31, 2006 and December 29, 2007, the outstanding principal and accrued interest balance for the convertible note purchase agreements with Biomedical Sciences was $9,944,000 and $4,997,000, respectively, net of the unamortized debt discounts of $263,000 and $280,000, respectively.

The Company's ability to pay the amounts that may arise under the convertible promissory notes is limited by a Subordination Agreement between Biomedical Sciences and one of the Company's current lenders in which the Company entered into a loan and security agreement with in March 2005 (see Note 5).

8. Convertible Preferred Stock Warrant Liabilities

The Company issued warrants to purchase 1,211,203 shares of the Company's convertible preferred stock at various times between 2001 and 2005. The Company did not issue any warrants to purchase convertible preferred stock during 2006 or 2007. The convertible preferred stock warrants are generally exercisable immediately and can only be exercised for cash or net share settled. Changes in the fair value of the underlying stock do not affect the settlement amounts of the warrants, therefore, the maximum amount of shares to be issued upon the settlement of these warrants is noted in the table below. As of December 29, 2007, the following warrants were issued and outstanding:

Issue Date	Reason for Grant	Warrant to Purchase Convertible Preferred Stock	Shares	Exercise Price per Share	Expiration
May 2001	Debt financing	Series C	41,284	$ 2.58	Earlier of (i) the closing of an acquisition of the Company or (ii) May 14, 2008
March 2002	Debt financing	Series C	17,500	$ 2.58	Earlier of (i) the closing of an acquisition of the Company or (ii) March 27, 2012
November 2002	Debt financing	Series C	31,008	$ 2.58	Earlier of (i) the closing of an acquisition of the Company or (ii) December 16, 2012
September 2003	Collaboration agreement	Series C	200,000	$ 2.58	December 31, 2007
March 2004	Debt financing	Series D	37,500	$ 2.80	Earlier of (i) the closing of an acquisition of the Company or (ii) March 18, 2012
March 2005	Debt financing	Series D	185,714	$ 2.80	Earlier of (i) the closing of an acquisition of the Company or (ii) March 29, 2012
December 2005	Debt financing	Series D	185,714	$ 2.80	Earlier of (i) the closing of an acquisition of the Company or (ii) March 29, 2012
			698,720		

The following is a summary of the warrants to purchase convertible preferred stock outstanding and their fair values as of December 31, 2006 and December 29, 2007:

Outstanding Warrants to Purchase	Shares as of December 31, 2006	Shares as of December 29, 2007	Fair Value as of December 31, 2006	Fair Value as of December 29, 2007
Series C	294,868	289,792	$ 29,000	$ 61,000
Series D	408,928	408,928	194,000	407,000
	703,796	698,720	$ 223,000	$ 468,000

During 2007, warrants to purchase 5,076 shares of Series C convertible preferred stock expired. Upon expiration, the related warrant liability was eliminated and reflected as other income (expense), net. During 2006, warrants, issued in connection with a collaboration agreement (see Note 3), to purchase 507,407 shares of the

Series D convertible preferred stock were exercised utilizing a cashless exercise option that allowed the holder to receive 267,857 shares of convertible preferred stock. The fair value of the warrants and the shares of convertible preferred stock issued upon the cashless exercise was $729,000 on the exercise date, calculated as the fair value of the shares of convertible preferred stock issued. Subsequent to the Company's year end on December 29, 2007, warrants to purchase 200,000 shares of the Company's Series C convertible preferred stock expired unexercised on December 31, 2007.

The fair values of the outstanding convertible preferred stock warrants were measured using the Black-Scholes option-pricing model with the following weighted-average assumptions:

	December 31, 2006	December 29, 2007
Expected volatility	63.6%	49.7%
Expected life (equals the remaining contractual term)	3.7 years	2.8 years
Risk-free interest rate	4.8%	3.2%
Dividend yield	0%	0%

A decrease in fair value of the convertible preferred stock warrant liabilities in the amount of $72,000 during 2005, and increases in fair value in the amounts of $138,000 and $245,000 during 2006 and 2007, respectively, were recognized as other income (expense), net in the consolidated statements of operations. Upon adoption of FSP 150-5 on July 1, 2005, the Company recorded a gain of $637,000 as a cumulative effect of a change in accounting principle in the consolidated statement of operations during 2005.

9. Convertible Preferred Stock

As of December 31, 2006 and December 29, 2007, convertible preferred stock was comprised of the following (in thousands):

	December 31, 2006			December 29, 2007			
	Shares Designated	Shares Issued and Outstanding	Net Proceeds	Shares Designated	Shares Issued and Outstanding	Net Proceeds	Aggregate Liquidation Value
Series A	2,727	2,727	$ 2,989	2,727	2,727	$ 2,989	$ 3,000
Series B	6,461	6,461	11,479	6,461	6,461	11,479	11,500
Series C	17,000	16,365	42,030	17,000	16,365	42,030	42,221
Series D	15,500	12,196	33,794	15,500	13,353	37,034	37,388
Series E	10,750	5,535	22,003	20,110	17,765	68,550	71,060
	52,438	43,284	$ 112,295	61,798	56,671	$ 162,082	$ 165,169

The Company's convertible preferred stock had been classified as temporary equity on the consolidated balance sheet instead of in stockholders' equity (deficit) in accordance with EITF Abstracts Topic No. D-98, *Classification and Measurement of Redeemable Securities*. Upon certain change in control events that are outside of the control of the Company, including liquidation, sale or transfer of control of the Company, holders of the convertible preferred stock can cause its redemption. Accordingly, these shares are considered contingently redeemable. The Company has not adjusted the carrying values of the convertible preferred stock to their redemption values since it is uncertain whether or when a redemption event will occur. Subsequent adjustments

to increase the carrying values to the redemption values would be made if it becomes probable that such redemption will occur. The significant rights, privileges, and preferences of the convertible preferred stock are as follows:

Conversion

Each share of convertible preferred stock is convertible, at any time at the option of the holder, into common stock based upon a conversion rate of one share of common stock for each share of convertible preferred stock regardless of the series.

Conversion is automatic upon: (i) the closing of an underwritten initial public offering of the Company's common stock at an offering price of not less that $5.69 per share (appropriately adjusted for any stock splits, stock dividends, recapitalization, or similar events) and with aggregate gross proceeds of not less than $25,000,000, (ii) the closing of an underwritten initial public offering of the Company's common stock at an offering price of less than $5.69 per share (appropriately adjusted for any stock splits, stock dividends, recapitalization, or similar events) or with aggregate gross proceeds of less than $25,000,000 and written consent of the holders of two-thirds of all shares of convertible preferred stock voting together for such automatic conversion, or (iii) the written consent of the holders of two-thirds of all shares of convertible preferred stock voting together, except that the written consent of the holders of greater than two-thirds of all shares of Series E convertible preferred stock voting separately is required for Series E convertible preferred stock to convert if such conversion is not in connection with the closing of an underwritten initial public offering of the Company's common stock.

Dividends

Holders of Series A, B, C, D, and E convertible preferred stock are entitled to noncumulative dividends of $0.11, $0.18, $0.26, $0.30, and $0.43 per share, respectively, if and when declared by the Board of Directors (adjusted for any stock splits, stock dividends, recapitalization, or similar events) and subject to the preferences described below. Holders of Series D and E convertible preferred stock shall be entitled to receive dividends, when and if declared, in preference and priority to any declaration or payment of dividends to holders of Series A, B, or C convertible preferred stock or common stock, other than for dividends payable in only common stock. Payments of any dividends to the holders of Series D and E convertible preferred stock shall be on a pro rata, pari passu basis in proportion to the entitled dividend rates for these respective series, as applicable. Holders of Series C convertible preferred stock shall be entitled to receive dividends, when and if declared, in preference and priority to any declaration or payment of dividends to holders of Series A and B convertible preferred stock or common stock, other than for dividends payable in only common stock. Holders of Series A and B convertible preferred stock shall be entitled to receive dividends, when and if declared, in preference and priority to any declaration or payment of dividends to holders of common stock, other than for dividends payable in only common stock. Payments of any dividends to the holders of Series A and B convertible preferred stock shall be on a pro rata, pari passu basis in proportion to the entitled dividend rates for these respective series, as applicable. No dividends have been declared or paid through December 29, 2007.

Liquidation Preferences

In the event of a liquidation, dissolution, or winding up of the Company, holders of Series E convertible preferred stock shall be entitled to receive a liquidation preference of $4.00 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A, B, C, or D convertible preferred stock or common stock.

After payment to the holders of Series E convertible preferred stock, holders of Series D convertible preferred stock shall be entitled to receive a liquidation preference of $2.80 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A, B, or C convertible preferred stock or common stock.

After payment to the holders of Series D convertible preferred stock, holders of Series C convertible preferred stock shall be entitled to receive a liquidation preference of $2.58 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A or B convertible preferred stock or common stock.

After payment to the holders of Series C convertible preferred stock, holders of Series B convertible preferred stock shall be entitled to receive a liquidation preference of $1.78 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of Series A convertible preferred stock or common stock.

After payment to the holders of Series B convertible preferred stock, holders of Series A convertible preferred stock shall be entitled to receive a liquidation preference of $1.10 per share, together with any declared but unpaid dividends, prior to any payment or distribution to holders of common stock.

After the payment to the holders of convertible preferred stock or their respective liquidation preferences, the entire remaining assets of the Company shall be distributed on a pro rata basis to the holders of common stock. A change of control or a sale, transfer, or lease of all or substantially all of the assets of the Company is considered to be a liquidation event.

Voting Rights

Holders of convertible preferred stock are entitled to the number of votes they would have upon conversion of their convertible preferred stock into common stock on the applicable record date. So long as 2,000,000 shares of Series D convertible preferred stock remain outstanding, the holders of Series D convertible preferred stock are entitled to elect two members to the Company's Board of Directors, and so long as 2,000,000 shares of Series C convertible preferred stock remain outstanding, the holders of Series C convertible preferred stock are entitled to elect three members to the Board of Directors. The holders of Series A, B, and E convertible preferred stock and the holders of common stock, voting together as a single class, are entitled to elect any additional members to the Board of Directors.

10. Stock Option Activity

1999 Stock Option Plan

On May 12, 1999, the Board of Directors adopted the 1999 Stock Option Plan (the Stock Plan) under which incentive stock options and nonstatutory stock options may be granted to employees, officers, and directors of, or consultants to, the Company.

Options granted under the Stock Plan expire no later than ten years from the date of grant. The exercise price of each incentive stock option granted to an employee shall be at least 110% of the fair market value of the underlying common stock on the date of grant if, on the grant date, the employee owns stock representing more than 10% of the voting power of all classes of the Company's capital stock; otherwise, the exercise price shall be at least 100% of the fair market value of the underlying common stock on the date of grant. The exercise price for each nonstatutory stock option granted to a service provider shall be at least 110% of the fair market value of the underlying common stock on the date of grant if, on the grant date, the service provider owns stock representing more than 10% of the voting power of all classes of the Company's capital stock; otherwise, the exercise price shall be at least 85% of the fair market value of the underlying common stock on the date of grant. The fair market value of the underlying common stock shall be determined by the Board of Directors until such time as the Company's common stock is listed on any established stock exchange or national market system. Options may be granted with different vesting terms from time to time, but the vesting terms may not exceed five years from the date of grant. Generally, outstanding options are immediately exercisable and vest at a rate of 25% on the first anniversary of the option grant date and $^{1}/_{48}$ of the total grant each month thereafter.

FLUIDIGM CORPORATION

Notes to Consolidated Financial Statements — (Continued)

As of December 29, 2007, the Stock Plan is the Company's only stock-based compensation plan and a total of 12,800,000 shares of common stock have been authorized for issuance under the Stock Plan.

Activity under the Stock Plan is as follows (in thousands, except per share amounts):

		Outstanding Options	
	Shares Available for Grant	Number of Shares	Weighted-Average Exercise Price per Share
Balance as of January 1, 2005	1,183	3,858	$ 0.37
Additional shares authorized	2,500	—	
Options granted	(2,559)	2,559	0.56
Options exercised	—	(170)	0.31
Options canceled	153	(153)	0.47
Balance as of December 31, 2005	1,277	6,094	0.45
Options granted	(1,216)	1,216	0.83
Options exercised	—	(443)	0.41
Options canceled	817	(817)	0.52
Balance as of December 31, 2006	878	6,050	0.52
Additional shares authorized	2,000	—	
Options granted	(2,042)	2,042	1.53
Options exercised	—	(264)	0.49
Options canceled	361	(361)	0.66
Balance as of December 29, 2007	1,197	7,467	0.79

Options exercised during 2005, 2006 and 2007 exclude options that are exercised prior to vesting. These shares generally vest over a four-year period. Unvested shares, which amount to 65,000 and 33,334 as of December 31, 2006 and December 29, 2007, respectively, are subject to a repurchase option held by the Company at the original exercise price and are not deemed to be issued for accounting purposes until those shares vest.

Effective January 1, 2006, the Company adopted the provisions of SFAS 123(R). The fair value of each new option awarded was estimated on the grant date using the Black-Scholes option-pricing model using the following weighted-average assumptions:

	2006	2007
Expected volatility	72.8%	63.0%
Expected life	6.1 years	6.0 years
Risk-free interest rate	4.8%	4.4%
Dividend yield	0%	0%
Weighted-average fair value of options granted	$0.55	$0.92

Expected volatility is derived from historical volatilities of several unrelated public companies within the biomedical instrument and system industry. Each company's historical volatility is weighted based on certain qualitative factors and combined to produce a single volatility factor used by the Company. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant for zero coupon U.S. Treasury notes with maturities approximately equal to the option's expected life. Given the limited history to accurately estimate expected lives of options granted to the various employee groups, the Company used the "simplified" method as provided by the

SEC Staff Accounting Bulletin No. 107, *Share Based Payment* (SAB 107). The "simplified" method is calculated as the average of the time-to-vesting and the contractual life of the options. The Company estimates its forfeiture rate based on an analysis of its actual forfeitures and will continue to evaluate the adequacy of the forfeiture rate based on actual forfeiture experience, analysis of employee turnover behavior, and other factors. The impact from a forfeiture rate adjustment will be recognized in full in the period of adjustment, and if the actual number of future forfeitures differs from that estimated by the Company, the Company may be required to record adjustments to stock-based compensation expense in future periods. Adjustments to the forfeiture rates have not had a significant impact on any of the periods presented. Each of these inputs is subjective and generally requires significant judgment to determine.

The absence of an active market for the Company's common stock required the Company's Board of Directors, with input from management, to estimate the fair value of the common stock for purposes of granting options and for determining stock-based compensation expense for the periods presented. In response to these requirements, the Company's Board of Directors estimated the fair value of the common stock at each meeting at which options were granted based on factors such as the price of the most recent convertible preferred stock sales to investors, the preferences held by the convertible preferred stock classes in favor of common stock, the valuations of comparable companies, the hiring of key personnel, the status of the Company's development and sales efforts, revenue growth and additional objective, and subjective factors relating to the Company's business. The Company has historically granted stock options at not less than the fair value of the underlying common stock as determined at the time of grant by the Company's Board of Directors.

Information regarding the Company's stock option grants, including the grant date; the number of stock options issued with each grant; and the exercise price, which equals the grant date fair value of the underlying common stock for each grant of stock options during 2007, is summarized as follows (in thousands, except per share amounts):

Grant Date	Number of Options Granted	Exercise Price and Fair Value per Share of Common Stock
May 8, 2007	1,613	$ 1.36
September 20, 2007	101	$ 1.38
December 28, 2007	328	$ 2.40

FLUIDIGM CORPORATION

Notes to Consolidated Financial Statements — (Continued)

Additional information regarding the Company's stock options outstanding and exercisable as of December 29, 2007 is summarized in the following table:

	Options Outstanding		Options Exercisable(1)
Exercise Price	Number of Shares (in thousands)	Weighted-Average Remaining Contractual Life (in years)	Shares Subject to Options (in thousands)
$0.15	73	2.5	73
0.30	1,719	4.8	1,651
0.40	342	6.2	342
0.56	2,296	7.4	2,057
0.83	1,025	8.5	912
1.36	1,587	9.4	1,240
1.38	97	9.7	47
2.40	328	10.0	217
	7,467	7.4	6,539

(1) Certain options under the Stock Plan may be exercised prior to vesting but are subject to repurchase at the original exercise price in the event the optionees' employment is terminated.

Options exercisable as of December 29, 2007 had a weighted-average remaining contractual life of 7.4 years, a weighted-average exercise price per share of $0.74, and an aggregate intrinsic value of $3,662,000.

Options outstanding that have vested and are expected to vest as of December 29, 2007 are summarized as follows:

	Number of Shares (in thousands)	Weighted-Average Exercise Price per Share	Weighted-Average Remaining Contractual Life (in years)	Aggregate Intrinsic Value(1) (in thousands)
Vested	4,307	$ 0.52	6.4	$ 8,097
Expected to vest	3,049	1.16	8.9	3,781
Total vested and expected to vest	7,356	0.79	7.4	$ 11,878

(1) The aggregate intrinsic value was calculated as the difference between the exercise price of the underlying options and the fair value of the Company's common stock in the amount of $2.40 per share as of December 29, 2007.

The total intrinsic value of options exercised during 2006 and 2007 was $167,000 and $259,000, respectively.

There were no stock-based compensation tax benefits during 2005, 2006 or 2007. Capitalized stock-based compensation costs were insignificant during 2005, 2006 and 2007.

The Company recognized stock-based compensation expense of $5,000, $145,000 and $708,000 during 2005, 2006 and 2007. Included in these amounts was employee stock-based compensation expense of zero, $86,000 and $526,000 and nonemployee stock-based compensation expense of $5,000, $59,000 and $182,000 during 2005, 2006 and 2007, respectively. As of December 29, 2007, there was $1,698,000 of total unrecognized compensation

costs related to stock-based compensation arrangements granted under the Stock Plan, which is expected to be recognized over an average period of 2.9 years.

Stock Options Granted to Nonemployees

The Company accounts for options granted to nonemployees under the fair value method in accordance with SFAS 123(R) and EITF 96-18. The fair value of these options was estimated using the Black-Scholes option-pricing model with the following assumptions for 2005, 2006 and 2007: risk-free interest rates of 4.1% to 5.0%, dividend yield of 0%, expected volatility of 63.0% to 82.9%, and an expected life of the options equal to the remaining contractual terms of one to ten years. In accordance with EITF 96-18, options granted to nonemployees are remeasured at each accounting period-end until the award is vested.

The Company granted options to nonemployees to purchase 17,050, 88,250 and 116,000 shares of common stock during 2005, 2006 and 2007, respectively. As of December 29, 2007, there were 52,184 shares subject to unvested options held by nonemployees with a weighted-average exercise price of $1.63 and an average remaining vesting period of 2.7 years.

11. Shares Reserved for Issuance

As of December 29, 2007, the Company has reserved shares of common stock for future issuance as follows (in thousands):

Options outstanding	7,467
Options available for grant	1,197
Conversion of outstanding convertible preferred stock	56,671
Conversion of convertible preferred stock upon exercise of warrants	699
	66,034

The above table does not include shares of common stock reserved for potential conversions of the convertible promissory notes (see Note 7) into shares of convertible preferred stock. The outstanding principal and accrued interest related to the convertible promissory notes as of December 29, 2007 in the amount of $5,278,000 is potentially convertible into 1,466,210 shares of Series E convertible preferred stock.

12. Income Taxes

The Company's net loss before the provision for income taxes is as follows (in thousands):

	2005	2006	2007
Domestic	$ (15,181)	$ (21,816)	$ (23,372)
International	1,204	(1,737)	(2,079)
Net loss before provision for income taxes	$ (16,385)	$ (23,553)	$ (25,451)

FLUIDIGM CORPORATION

Notes to Consolidated Financial Statements — (Continued)

Significant components of the Company's provision for income taxes are as follows (in thousands):

	2005	2006	2007
Current:			
Federal	$ —	$ —	$ —
State	—	—	—
Foreign	—	—	105
Total current provision	$ —	$ —	$ 105
Deferred:			
Federal	$ —	$ —	$ —
State	—	—	—
Foreign	—	—	—
Total deferred provision	—	—	—
Total provision for income taxes	$ —	$ —	$ 105

Reconciliation of the benefits for income taxes at the statutory rate to the provision for income taxes is as follows:

	2005	2006	2007
Tax benefit at federal statutory rate	34.0%	34.0%	34.0%
State income taxes (net of federal benefit)	0.0	0.0	0.0
Foreign	0.0	0.0	(3.0)
Change in valuation allowance	(34.0)	(34.0)	(31.4)
Effective tax rate	0.0%	0.0%	(0.4)%

Significant components of the Company's deferred tax assets and liabilities are as follows (in thousands):

	December 31, 2006	December 29, 2007
Deferred tax assets:		
Reserves and accruals	$ 485	$ 866
Depreciation and amortization	1,685	478
Tax credit carryforwards	3,450	3,936
Net operating loss carryforwards	37,557	47,467
Total deferred tax assets	43,177	52,747
Valuation allowance	(43,177)	(52,747)
Net deferred tax assets	$ —	$ —

Recognition of deferred tax assets is appropriate when realization of these assets is more likely than not. The Company has incurred losses since its inception; accordingly, the net deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $5,954,000, $8,534,000 and $9,570,000 during 2005, 2006 and 2007, respectively.

As of December 29, 2007, the Company had net operating loss carryforwards for federal income tax purposes of $121,531,000 which expire in the years 2019 through 2026 and federal research and development tax credits of $2,749,000 which expire in the years 2008 through 2016. As of December 29, 2007, the Company had net operating

loss carryforwards for state income tax purposes of $119,340,000 which expire in the years 2012 through 2016 and state research and development tax credits of $2,722,000 which do not expire. As of December 29, 2007, the Company had foreign net operating loss carryforwards of $4,768,000. A significant portion of the foreign net operating losses relate to activity in Singapore that has an indefinite carryforward period.

Utilization of the net operating loss carryforwards and credits may be subject to a substantial annual limitation due to the ownership change limitations provided by the Internal Revenue Code of 1986, as amended, and similar state provisions. The annual limitation may result in the expiration of net operating losses and credits before utilization. If an ownership change has occurred at different dates or in addition to the dates preliminarily identified, the utilization of net operation loss and credit carryforwards could be significantly reduced.

The Company has not provided for U.S. federal and state income taxes on all of the non U.S. subsidiaries' undistributed earnings as of December 29, 2007, because such earnings are intended to be indefinitely reinvested under APB 23. Upon distribution of those earnings in the form of dividends or otherwise, the Company would be subject to applicable U.S. federal and state income taxes.

Uncertain Tax Positions

Effective January 1, 2007, the Company adopted the provisions of FIN 48. As a result, the Company recorded a liability for net unrecognized tax benefits of $75,000, and recognized a cumulative effect of a change in accounting principle that resulted in a charge to the accumulated deficit. The liability for unrecognized tax benefits is classified as non-current.

The aggregate changes in the balance of the Company's gross unrecognized tax benefits during 2007 were as follows (in thousands):

January 1, 2007	$ 1,157
Increases in balances related to tax provisions taken during current periods	765
December 29, 2007	$ 1,922

Accrued interest and penalties related to unrecognized tax benefits are classified as income tax expense and were immaterial. As of December 29, 2007, unrecognized tax benefits of $162,000, if recognized, would affect the Company's effective tax rate. The remaining unrecognized tax benefits were netted against deferred tax assets with a full valuation allowance, and if recognized, would not affect the Company's effective tax rate. The Company does not anticipate that the amount of existing unrecognized tax benefits will significantly increase or decrease within the next 12 months. The Company files income tax returns in the United States, various states and certain foreign jurisdictions. The tax years 1999 through 2007 remain open in most jurisdictions.

13. Employee Benefit Plans

The Company sponsors a 401(k) plan that stipulates that eligible employees can elect to contribute to the plan, subject to certain limitations, up to the lesser of 60% of eligible compensation or the maximum amount allowed by the IRS on a pretax basis annually. The Company has not made contributions to this plan since its inception.

14. Related-Party Transaction

In January 2004, the Company loaned an officer of the Company $250,000 in connection with the purchase of a new home, which is secured by 833,334 shares of the Company's common stock held by the officer. The loan carried an interest rate of 3.52% per annum. The outstanding balance of this loan, including accrued interest, was $277,000 and $287,000 as of December 31, 2006 and December 29, 2007, respectively. On April 10, 2008, the

principal amount of this note and all accrued interest was settled with shares held by the officer at fair value of the common stock, which was determined by the Board of Directors to be $3.19 per share.

Dr. Stephen Quake, who is a professor of bioengineering at Stanford University, is one of the Company's founding stockholders and as such held 2,326,000 shares of common stock as of December 29, 2007. In June 2006, the Company repurchased 124,000 shares of the Company's common stock held by Dr. Quake for $0.56 per share.

Dr. Quake also serves as a consultant to the Company and is a member of the Company's Scientific Advisory Board. The Company paid consulting fees of $45,000, $97,000 and $67,000 to Dr. Quake during 2005, 2006 and 2007, respectively, and accrued amounts payable to Dr. Quake related to these payments were $0 and $33,000 as of December 31, 2006 and December 29, 2007, respectively. The Company recognized $205,000, $241,000 and $15,000 in revenue related to products and services sold to Stanford University during 2005, 2006 and 2007, respectively, and had accounts receivable balances related to these sales of $0 and $11,000 as of December 31, 2006 and December 29, 2007, respectively.

The Company's general counsel is also a member of a law firm whose services are utilized by the Company. Amounts paid to the law firm for services and direct patent fees were $880,000, $960,000 and $576,000 for 2005, 2006 and 2007, respectively, and accrued amounts payable to the law firm were $174,000 and $257,000 as of December 31, 2006 and December 29, 2007, respectively.

15. Information about Geographic Areas

SFAS No. 131, *Disclosures about Segments of an Enterprise and Related Information*, establishes standards for reporting information about operating segments. Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by a company's chief operating decision maker, or decision making group, in deciding how to allocate resources and in assessing performance. The chief operating decision maker for the Company is the Chief Executive Officer. The Chief Executive Officer reviews financial information presented on a consolidated basis, accompanied by information about revenue by geographic region, for purposes of allocating resources and evaluating financial performance. The Company has one business activity and there are no segment managers who are held accountable for operations, operating results or plans for levels or components below the consolidated unit level. Accordingly, the Company has determined that it has a single reporting segment and operating unit structure which is the development, manufacturing and commercialization of IFCs and complementary laboratory instruments.

Revenue by geography is based on the billing address of the customer. The following tables set forth revenue and long-lived assets by geographic area (in thousands):

Revenue

	2005	2006	2007
North America	$ 4,185	$ 3,932	$ 3,526
Europe	545	189	735
Asia	2,944	2,277	3,014
Total	$ 7,674	$ 6,398	$ 7,275

Long-lived Assets

	December 31, 2006	December 29, 2007
North America	$ 2,158	$ 1,626
All other	1,910	1,751
Total	$ 4,068	$ 3,378

16. Subsequent Events

In February 2008, the Company amended a loan and security agreement with one of its current lenders that was originally executed in March 2005 and allowed the Company to borrow $13,000,000 during 2005. The agreement was amended to provide the Company with an additional credit line in the amount of $10,000,000 that the Company can draw upon until July 1, 2008 for general corporate purposes. In connection with the amendment of this loan and security agreement, the Company issued a warrant to purchase 100,000 shares of Series E convertible preferred stock at $4.00 per share. As of the date of these financial statements, the Company had not utilized any of this facility. If the Company does borrow from this credit line, the borrowing will bear interest at 11.5% per annum and will be repaid in installments through June 2011. In addition, the Company could be required to issue additional warrants to purchase up to 200,000 shares of Series E convertible preferred stock depending on the amounts of draws on the facility, if any.

In April 2008, the Company's Board of Directors approved the filing of a registration statement with the Securities and Exchange Commission for an initial public offering of the Company's common stock.

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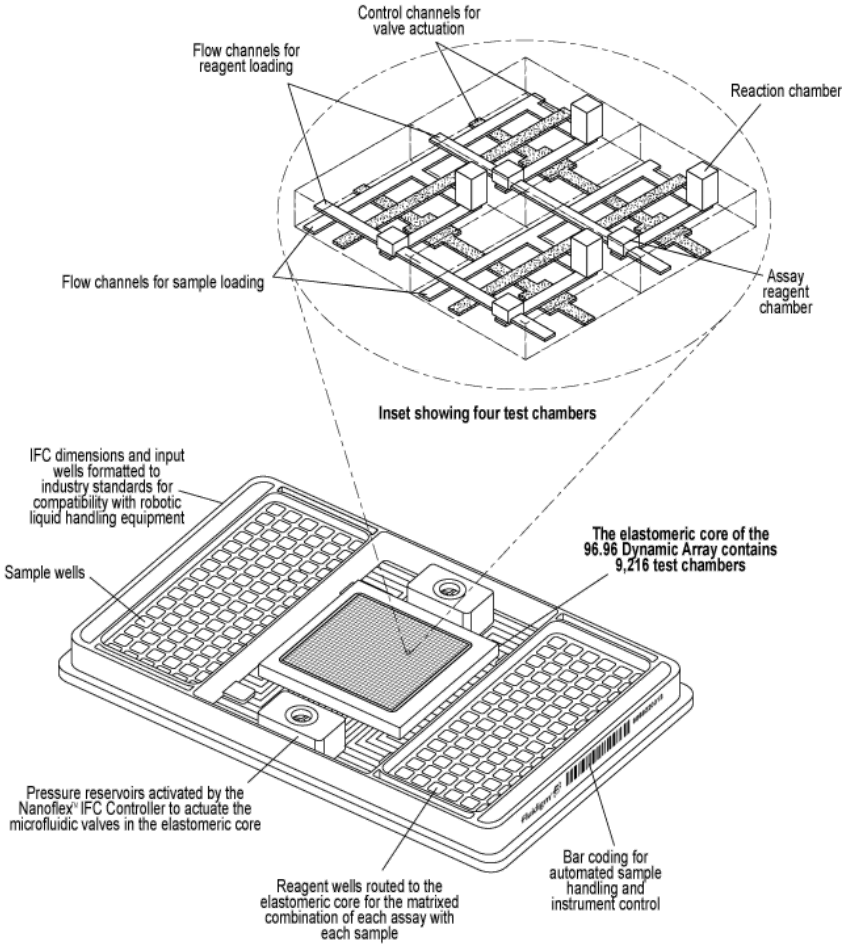

Dynamic Array Schematic

Fluidigm®

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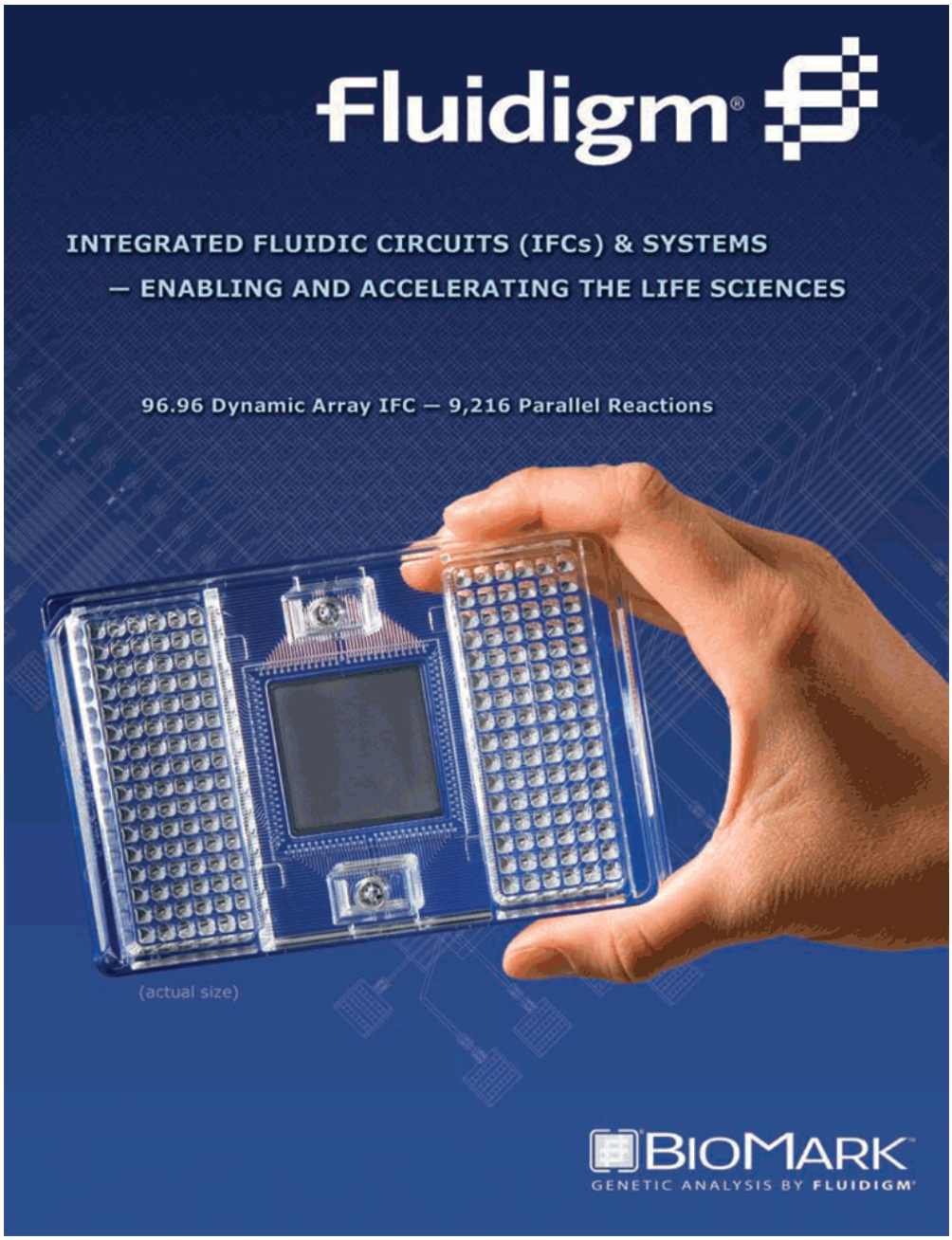


Fluidigm®

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. ***Other Expenses of Issuance and Distribution.***

The following table sets forth all expenses to be paid by the registrant, other than estimated underwriting discounts and commissions, in connection with this offering. All amounts shown are estimates except for the SEC registration fee, the NASD filing fee and the Nasdaq Global Market listing fee.

SEC registration fee	$ 3,390
NASD filing fee	9,125
Nasdaq Global Market listing fee	*
Printing and engraving	*
Legal fees and expenses	*
Accounting fees and expenses	*
Blue sky fees and expenses (including legal fees)	*
Transfer agent and registrar fees	*
Miscellaneous	*
Total	*

* To be provided by amendment.

Item 14. ***Indemnification of Directors and Officers.***

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

As permitted by Section 102(b)(7) of the Delaware General Corporation Law, the registrant's certificate of incorporation includes provisions that eliminate the personal liability of its directors and officers for monetary damages for breach of their fiduciary duty as directors and officers.

In addition, as permitted by Section 145 of the Delaware General Corporation Law, the bylaws of the registrant provide that:

- The registrant shall indemnify its directors and officers for serving the registrant in those capacities or for serving other business enterprises at the registrant's request, to the fullest extent permitted by Delaware law. Delaware law provides that a corporation may indemnify such person if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the registrant and, with respect to any criminal proceeding, had no reasonable cause to believe such person's conduct was unlawful.
- The registrant may, in its discretion, indemnify employees and agents in those circumstances where indemnification is not required by law.
- The registrant is required to advance expenses, as incurred, to its directors and officers in connection with defending a proceeding, except that such director or officer shall undertake to repay such advances if it is ultimately determined that such person is not entitled to indemnification.
- The registrant will not be obligated pursuant to the bylaws to indemnify a person with respect to proceedings initiated by that person, except with respect to proceedings authorized by the registrant's Board of Directors or brought to enforce a right to indemnification.
- The rights conferred in the bylaws are not exclusive, and the registrant is authorized to enter into indemnification agreements with its directors, officers, employees and agents and to obtain insurance to indemnify such persons.

- The registrant may not retroactively amend the bylaw provisions to reduce its indemnification obligations to directors, officers, employees and agents.

The registrant's policy is to enter into separate indemnification agreements with each of its directors and officers that provide the maximum indemnity allowed to directors and executive officers by Section 145 of the Delaware General Corporation Law and also provides for certain additional procedural protections. The registrant also maintains directors and officers insurance to insure such persons against certain liabilities.

These indemnification provisions and the indemnification agreements entered into between the registrant and its officers and directors may be sufficiently broad to permit indemnification of the registrant's officers and directors for liabilities (including reimbursement of expenses incurred) arising under the Securities Act.

The underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters of the registrant and its officers and directors for certain liabilities arising under the Securities Act and otherwise.

Item 15. ***Recent Sales of Unregistered Securities.***

In the three years prior to the filing of this registration statement, the registrant has issued the following unregistered securities:

(a) From March 2005 through July 17, 2007, Fluidigm Corporation, a California corporation, issued and sold an aggregate of 470,965 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, at exercise prices ranging from $0.30 to $0.83, for aggregate consideration of $188,442. From July 18, 2007 through April 11, 2008, the registrant issued and sold an aggregate of 250,720 shares of its common stock upon the exercise of options issued to certain employees, directors and consultants under the registrant's 1999 Stock Plan, as amended, at exercise prices ranging from $0.30 to $1.36 per share, for aggregate consideration of $123,346.

(b) From March 2005 through July 17, 2007, Fluidigm Corporation, a California corporation, granted to certain of its employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 4,753,044 shares of its common stock at exercise prices ranging from $0.30 to $1.36 per share. From September 20, 2007 through April 11, 2008, the registrant granted to certain of its employees, directors and consultants under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 552,200 shares of the registrant's common stock at exercise prices ranging from $1.38 to $2.40 per share.

(c) In March 2005, Fluidigm Corporation, a California corporation, pursuant to a loan and security agreement, issued and sold a warrant to purchase 371,428 shares of its Series D Preferred Stock to one accredited investor at an exercise price of $2.80 per share. In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the warrant was converted into a warrant to purchase an equal number of shares of the registrant's Series D Preferred Stock.

(d) In November 2005, Fluidigm Corporation, a California corporation, issued and sold 70,000 shares of its common stock to one accredited investor at an issuance price of $0.56 per share for aggregate monetary consideration of $39,200, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(e) In December 2005, Fluidigm Corporation, a California corporation, issued 832,635 shares of its Series D Preferred Stock to one accredited investor in connection with the conversion of a convertible promissory note at a conversion price per share of $2.80.

(f) In June 2006, Fluidigm Corporation, a California corporation, issued to one accredited investor a convertible promissory notes in an aggregate principal amount of $3,000,000 convertible into shares of its Series D Preferred Stock. In July 2007, the notes were converted into 1,157,142 shares of Series D Preferred Stock at a conversion price per share of $2.80.

(g) In June 2006, Fluidigm Corporation, a California corporation, issued 214,285 shares of its Series D Preferred Stock to one accredited investor at an issuance price of $2.80 per share, for aggregate monetary consideration of $599,998, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(h) In June 2006, Fluidigm Corporation, a California corporation, issued 267,858 shares of its Series D Preferred Stock to one accredited investor in connection with the exercise of a warrant to purchase shares of its Series D Preferred Stock at an exercise price per share of $2.80.

(i) From August 2006 through April 2007, Fluidigm Corporation, a California corporation, issued three convertible promissory notes to one accredited investor in an aggregate principal amount of $15,000,000, all of which were convertible into shares of its Series E Preferred Stock. In March 2007, two of the notes were converted into an aggregate of 2,954,337 shares of the Series E Preferred Stock of Fluidigm Corporation, a California corporation. In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the remaining outstanding convertible promissory note was made convertible into shares of the registrant's Series E Preferred Stock.

(j) In March 2007, Fluidigm Corporation, a California corporation, issued 100,000 shares of its common stock to one accredited investor at an issuance price of $0.83 per share, for aggregate monetary consideration of $83,000, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(k) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 9,695,998 shares of common stock to a total of 128 stockholders in exchange for the outstanding shares of common stock Fluidigm Corporation, a California corporation.

(l) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 2,727,273 shares of the registrant's Series A Preferred Stock to a total of 41 investors in exchange for the outstanding shares of Series A Preferred Stock of Fluidigm Corporation, a California corporation.

(m) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 6,460,675 shares of the registrant's Series B Preferred Stock to a total of 35 investors in exchange for the outstanding shares of Series B Preferred Stock of Fluidigm Corporation, a California corporation.

(n) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 16,364,832 shares of the registrant's Series C Preferred Stock to a total of 62 investors in exchange for the outstanding shares of Series C Preferred Stock of Fluidigm Corporation, a California corporation.

(o) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 12,196,191 shares of the registrant's Series D Preferred Stock to a total of 52 investors in exchange for the outstanding shares of Series D Preferred Stock of Fluidigm Corporation, a California corporation.

(p) In connection with the registrant's reincorporation into the State of Delaware on July 18, 2007, the registrant issued an aggregate of 8,969,836 shares of the registrant's Series E Preferred Stock to a total of 35 investors in exchange for the outstanding shares of Series E Preferred Stock of Fluidigm Corporation, a California corporation.

(q) From October 2007 through December 2007, the registrant issued and sold an aggregate of 8,794,945 shares of Series E Preferred Stock to a total of seven investors at $4.00 per share, for aggregate proceeds of $35,179,780.

(r) In December 2007, the registrant issued 6,000 shares of its common stock to one accredited investor at an issuance price of $1.36 per share for aggregate monetary consideration of $8,160, which amount was deemed paid by the transfer of certain rights granted to registrant pursuant to the terms of a licensing agreement.

(s) In February 2008, the registrant issued a warrant to purchase 100,000 shares of the registrant's Series E Preferred Stock to one accredited investor at an exercise price of $4.00 per share.

(t) In February 2008, the registrant granted to one of its executive officers under the registrant's 1999 Stock Option Plan, as amended, options to purchase an aggregate of 600,000 shares of the registrant's common stock at an exercise price of $2.40 per share.

None of the foregoing transactions involved any underwriters, underwriting discounts or commissions, or any public offering, and the registrant believes that each transaction was exempt from the registration requirements of the Securities Act in reliance on the following exemptions:

- with respect to the transactions described in paragraphs (a) and (b), Rule 701 promulgated under the Securities Act as transactions pursuant to a compensatory benefit plan approved by the registrant's Board of Directors; and
- with respect to the transactions described in paragraphs (c) through (t), Section 4(2) of the Securities Act, or Rule 506 of Regulation D promulgated thereunder, as a transaction by an issuer not involving a public offering. Each recipient of the securities in this transaction represented his or her intention to acquire the securities for investment only and not with a view to, or for resale in connection with, any distribution thereof, and appropriate legends were affixed to the share certificates issued in each such transaction. In each case, the recipient received adequate information about the registrant or had adequate access, through his or her relationship with the registrant, to information about the registrant.

Item 16. ***Exhibits and Financial Statement Schedules.***

(a) *Exhibits.* The following exhibits are included herein or incorporated herein by reference:

Exhibit Number	Description
1.1*	Form of Underwriting Agreement.
3.1	Certificate of Incorporation of the Registrant, as currently in effect.
3.2*	Form of Restated Certificate of Incorporation of the Registrant, to be in effect upon the completion of this offering.
3.3	Bylaws of the Registrant.
3.4*	Form of Amended and Restated Bylaws of the Registrant, to be in effect upon completion of this offering.
4.1*	Specimen Common Stock Certificate of the Registrant.
4.2	Series E Preferred Stock Purchase Agreement dated June 13, 2006 through October 26, 2007 between the Registrant and the Purchasers set forth therein, as amended.
4.3	Eighth Amended and Restated Investor Rights Agreement between the Registrant and certain holders of the Registrant's common stock named therein, including amendments No. 1 and No. 2.
4.4†	Loan and Security Agreement No. 4561 between the Registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005, including amendments Nos. 1 through 4.
4.4A	Preferred Stock Purchase Warrant issued to Lighthouse Capital Partners V, L.P. effective March 29, 2005.
4.4B	Negative Pledge Agreement by and between the Registrant and Lighthouse Capital Partners V, L.P. dated March 29, 2005.
4.5	Convertible Note Purchase Agreement by and between Biomedical Sciences Investment Fund Pte. Ltd. and the Registrant dated August 7, 2006.
4.5A†	Convertible Promissory Note issued to Biomedical Sciences Investment Fund Pte. Ltd. dated April 19, 2007, as amended.
5.1*	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation.
10.1	Form of Indemnification Agreement between the Registrant and its directors and officers.
10.2	1999 Stock Plan of the Registrant, as amended.
10.2A	Forms of agreements under the 1999 Stock Plan.
10.3*	2008 Equity Incentive Plan.
10.3A*	Forms of agreements under the 2008 Equity Incentive Plan.

Exhibit Number	Description
10.4†	Second Amended and Restated License Agreement by and between California Institute of Technology and the Registrant effective as of May 1, 2004.
10.4A†	First Addendum, effective as of March 29, 2007, to Second Amended and Restated License Agreement by and between California Institute of Technology and the Registrant effective as of May 1, 2004.
10.5†	Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.5A†	First Amendment to Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.6†	Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.7†	Co-Exclusive License Agreement between President and Fellows of Harvard College and the Registrant effective as of October 15, 2000.
10.8†	Patent License Agreement by and between Gyros AB and the Registrant dated January 9, 2003.
10.8A†	Amendment No. 1 dated January 9, 2005 to Patent License Agreement by and between Gyros AB and the Registrant dated January 9, 2003.
10.9†	Master Closing Agreement by and between UAB Research Foundation, Oculus Pharmaceuticals, Inc. and the Registrant dated March 7, 2003.
10.9A†	License Agreement by and between UAB Research Foundation and the Registrant dated March 7, 2003.
10.10†	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated October 7, 2005), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.10A†	Supplement Dated January 11, 2006 to Letter Agreement Relating to Application for Incentives under the Research Incentive Scheme for Companies (RISC), dated October 7, 2005 between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.11†	Amended and Restated Letter Agreement Regarding Application for Incentives Under the Research Incentive Scheme for Companies (RISC) dated March 27, 2008 (originally dated February 12, 2007), by and between Singapore Economic Development Board and Fluidigm Singapore Pte. Ltd.
10.12†	Distribution Agreement by and between Eppendorf AG and the Registrant effective as of April 1, 2005.
10.13*	Form of Employment and Severance Agreement between the Registrant and each of its executive officers.
10.14	Consulting Agreement by and between the Registrant and Richard DeLateur dated February 29, 2008.
10.15	Employee Loan Agreement with Gajus Worthington dated January 20, 2004.
10.15A	Stock Repurchase Agreement between the Registrant and Gajus V. Worthington dated April 10, 2008.
10.16	Offer Letter to Vikram Jog dated January 29, 2008.
10.17	Settlement Agreement and General Release of all Claims by and between Michael Ybarra Lucero and the Registrant dated March 20, 2008.
21.1	List of subsidiaries of Registrant.
23.1	Consent of Independent Registered Public Accounting Firm.
23.2*	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1	Power of Attorney (see page II-7 to this registration statement on Form S-1).

* To be filed by amendment.
† Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(b) *Financial Statement Schedules.*

All schedules have been omitted because the information required to be presented in them is not applicable or is shown in the consolidated financial statements or related notes.

Item 17. ***Undertakings.***

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Fremont, State of California, on the 14th day of April 2008.

FLUIDIGM CORPORATION

By: /s/ Gajus V. Worthington
Gajus V. Worthington
President and Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Gajus V. Worthington and Vikram Jog, and each of them, as his true and lawful attorney in fact and agent with full power of substitution, for him in any and all capacities, to sign any and all amendments to this registration statement (including post effective amendments or any abbreviated registration statement and any amendments thereto filed pursuant to Rule 462(b) increasing the number of securities for which registration is sought), and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney in fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorney in fact and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities indicated on the 14th day of April 2008.

Signature	Title	Date
/s/ Gajus V. Worthington Gajus V. Worthington	President, Chief Executive Officer and Director (Principal Executive Officer)	April 14, 2008
/s/ Vikram Jog Vikram Jog	Chief Financial Officer (Principal Accounting and Financial Officer)	April 14, 2008
/s/ Samuel Colella Samuel Colella	Director	April 14, 2008
/s/ Michael W. Hunkapiller Michael W. Hunkapiller	Director	April 14, 2008
/s/ Elaine V. Jones Elaine V. Jones	Director	April 14, 2008
/s/ Kenneth Nussbacher Kenneth Nussbacher	Director	April 14, 2008
/s/ John A. Young John A. Young	Director	April 14, 2008

EXHIBIT INDEX

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3.3	Bylaws of the Registrant.
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4.2	Series E Preferred Stock Purchase Agreement dated June 13, 2006 through October 26, 2007 between the Registrant and the Purchasers set forth therein, as amended.
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Exhibit Number	Description
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23.2*	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in Exhibit 5.1).
24.1	Power of Attorney (see page II-7 to this registration statement on Form S-1).

* To be filed by amendment.
† Confidential treatment has been requested with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

Exhibit 3.1

State of Delaware
Secretary of State
Divisions of Corporations
Delivered 07:02 PM 07/16/2007
Filed 05:02 PM 07/16/2007
SRV 070818529 — 4292717 File

AMENDED AND RESTATED

CERTIFICATE OF INCORPORATION OF

FLUIDIGM CORPORATION

Fluidigm Corporation, a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), certifies that:

A. The name of the Corporation is Fluidigm Corporation. The Corporation's original Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on March 29, 2007.

B. This Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 242 and 245 of the General Corporation Law of the State of Delaware, and restates, integrates and further amends the provisions of the Corporation's Certificate of Incorporation.

C. The text of the Certificate of Incorporation is amended and restated to read as set forth in EXHIBIT A attached hereto.

IN WITNESS WHEREOF, Fluidigm Corporation has caused this Amended and Restated Certificate of Incorporation to be signed by Gajus V. Worthington, a duly authorized officer of the Corporation, on July 16, 2007.

/s/ Gajus V. Worthington
Gajus V. Worthington
President & Chief Executive Officer

EXHIBIT A

ARTICLE I

The name of this corporation is Fluidigm Corporation.

ARTICLE II

The purpose of the Corporation is to engage in any lawful act or activity for which a corporation may be organized under the General Corporation Law of Delaware.

ARTICLE III

The address of the Corporation's registered office in the State of Delaware is Corporation Trust Center, 1209 Orange Street, Wilmington, New Castle County, Delaware, 19801. The name of its registered agent at such address is The Corporation Trust Company.

ARTICLE IV

The total number of shares of stock that the Corporation shall have authority to issue is 130,295,092, $0.001 par value, consisting of 77,857,144 shares of Common Stock, $0.001 par value per share ("Common") and 52,437,948 shares of Preferred Stock, $0.001 par value per share ("Preferred"). The Preferred shall be divided into series. The first series shall consist of 2,727,273 shares and shall be designated Series A Preferred Stock ("Series A Preferred Stock"). The second series shall consist of 6,460,675 shares and shall be designated Series B Preferred Stock ("Series B Preferred Stock"). The third series shall consist of 17,000,000 shares and shall be designated Series C Preferred Stock ("Series C Preferred Stock"). The fourth series shall consist of 15,500,000 shares and shall be designated Series D Preferred Stock ("Series D Preferred Stock"). The fifth series shall consist of 10,750,000 shares and shall be designated Series E Preferred Stock ("Series E Preferred Stock").

The terms and provisions of the Common Stock and Preferred Stock are as follows:

1. Definitions. For purposes of this Article IV, the following definitions shall apply:

(a) "Conversion Price" shall mean $1.10 per share for the Series A Preferred Stock, $1.78 per share for the Series B Preferred Stock, $2.58 per share for the Series C Preferred Stock, $2.80 per share for the Series D Preferred Stock, and $4.00 for the Series E Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(b) "Convertible Securities" shall mean any evidences of indebtedness, shares or other securities (other than shares of Common Stock) convertible into or exchangeable for Common Stock.

(c) "Corporation" shall mean Fluidigm Corporation.

(d) "Dividend Rate" shall mean an annual rate of $0.11 per share for the Series A Preferred Stock, an annual rate of $0.18 for the Series B Preferred Stock, an annual rate of $0.26 per share for the Series C Preferred Stock, an annual rate of $0.30 per share for the Series D Preferred Stock, and an annual rate of $0.43 per share for the Series E Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(e) "Liquidation Preference" shall mean $1.10 per share for the Series A Preferred Stock, $1.78 per share for the Series B Preferred Stock, $2.58 per share for the Series C Preferred Stock, $2.80 per share for the Series D Preferred Stock, and $4.00 per share for the Series E Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(f) "Options" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(g) "Original Issue Price" shall mean $1.10 per share for the Series A Preferred Stock, $1.78 for the Series B Preferred Stock, $2.58 per share for the Series C Preferred Stock, $2.80 per share for the Series D Preferred Stock, and $4.00 per share for the Series E Preferred Stock (each subject to adjustment from time to time as set forth elsewhere herein).

(h) "Preferred Stock" shall mean the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock, the Series D Preferred Stock, and the Series E Preferred Stock.

2. Dividends.

(a) Series D and Series E Preferred Stock. The holders of outstanding shares of Series D Preferred Stock and the holders of outstanding shares of Series E Preferred Stock shall be entitled to receive dividends, when and as declared by the Board of Directors, out of any assets at the time legally available therefor, at the Dividend Rates specified for such shares of Preferred Stock, payable in preference and priority to any declaration or payment of any distribution on Series A Preferred Stock, Series B Preferred Stock, Series C Preferred Stock or Common Stock (collectively, the "**Junior Stock**") of the Corporation other than a dividend payable solely in Common Stock. No distributions shall be made with respect to the Junior Stock during any fiscal year of the Corporation, other than dividends on the Common Stock payable solely in Common Stock, until all dividends at the applicable Dividend Rate on the Series E Preferred Stock and Series D Preferred Stock have been declared and paid or set apart for payment to the holders of Series E Preferred Stock and the holders of Series D Preferred Stock. Payment of any dividends to the holders of the Series E Preferred Stock and the Series D Preferred Stock shall be on a pro rata, pari passu basis in proportion to the Dividend Rates for the Series E Preferred Stock and Series D Preferred Stock, as applicable. The right to receive dividends on shares of Series E Preferred Stock and Series D Preferred Stock shall not be cumulative, and no right to such dividends shall accrue to holders of Series E Preferred Stock and Series D Preferred Stock by reason of the fact that dividends on said shares are not declared or paid in any year.

(b) Series C Preferred Stock. The holders of outstanding shares of Series C Preferred Stock shall be entitled to receive dividends, when and as declared by the Board of Directors, out of any assets at the time legally available therefor, at the Dividend Rate specified for such shares of Preferred Stock payable in preference and priority to any declaration or payment of any distribution on Series A Preferred Stock, Series B Preferred Stock or Common Stock of the Corporation other than a dividend payable solely in Common Stock. No distributions shall be made with respect to the Series A Preferred Stock, Series B Preferred Stock or Common Stock during any fiscal year of the Corporation, other than dividends on the Common Stock payable solely in Common Stock, until all dividends at the applicable Dividend Rate on the Series C Preferred Stock have been declared and paid or set apart for payment to the holders of Series C Preferred Stock. The right to receive dividends on shares of Series C Preferred Stock shall not be cumulative, and no right to such dividends shall accrue to holders of Series C Preferred Stock by reason of the fact that dividends on said shares are not declared or paid in any year.

(c) Series A Preferred Stock and Series B Preferred Stock. The holders of outstanding shares of Series A Preferred Stock and the holders of outstanding shares of Series B Preferred Stock shall be entitled to receive dividends, when and as declared by the Board of Directors, out of any assets at the time legally available therefor, at the Dividend Rate specified for such shares of Preferred Stock payable in preference and priority to any declaration or payment of any distribution on Common Stock of the Corporation other than a dividend payable solely in Common Stock. No distributions shall be made with respect to the Common Stock, other than dividends payable solely in Common Stock, until all dividends at the applicable Dividend Rate on the Preferred Stock have been declared and paid or set apart for payment to the Preferred Stock holders. Payment of any dividends to the holders of the Series A Preferred Stock and Series B Preferred Stock shall be on a pro rata, pari passu basis in proportion to the Dividend Rates for the Series A Preferred Stock and Series B Preferred Stock, as applicable. The right to receive dividends on shares of Series A Preferred Stock and Series B Preferred Stock shall not be cumulative, and no right to such dividends shall accrue to holders of Series A Preferred Stock or Series B Preferred Stock by reason of the fact that dividends on said shares are not declared or paid in any year.

(d) Distribution. For purposes of this Section 2, unless the context otherwise requires, a "**distribution**" shall mean the transfer of cash or other property without consideration whether by way of dividend or otherwise, payable other than in Common Stock, or the purchase or redemption of shares of the Corporation other than (i) repurchase of shares of Common Stock issued to or held by employees, consultants, officers and directors of the Corporation or its subsidiaries upon termination of their employment or services pursuant to agreements providing for the right of said repurchase and at the original purchase price paid by such employees, consultants, officers and directors; and (ii) repurchase of Common Stock issued to or held by employees, officers, directors or consultants of the Corporation or its subsidiaries pursuant to rights of first refusal contained in agreements providing for such rights, provided that such repurchase is unanimously approved by the Board of Directors; and (iii) any other repurchase or redemption of capital stock of the corporation unanimously approved by the Board of Directors and approved by the holders of the majority of the Common Stock and the holders of more than two-thirds ($^2/_3$) of the outstanding shares of the Preferred Stock, voting as separate classes.

(e) Common Stock. Dividends may be paid on the Common Stock as and when declared by the Board of Directors, subject to the prior dividend rights of the Preferred Stock and Section 6 below.

(f) Non-Cash Distributions. Whenever a distribution provided for in this Section 2 shall be payable in property other than cash, the value of such distribution shall be deemed to be the fair market value of such property as determined in good faith by the Board of Directors.

(g) Consent to Certain Repurchases. If Sections 502 and 503 of the California Corporations Code are determined to apply to the Corporation, as authorized by Section 402.5(c) of the California Corporations Code, Sections 502 and 503 of the California Corporations Code shall not apply with respect to payments made by the Corporation in connection with (i) repurchase of shares of Common Stock issued to or held by employees, consultants, officers and directors of the Corporation or its subsidiaries upon termination of their employment or services pursuant to agreements providing for the right of said repurchase and at the original purchase price paid by such employees, consultants, officers and directors, and (ii) repurchase of Common Stock issued to or held by employees, officers, directors and consultants of the Corporation or its subsidiaries pursuant to rights of first refusal contained in agreements providing for such rights, provided that such repurchase is unanimously approved by the Board of Directors, and (iii) any other repurchase or redemption of Common Stock unanimously approved by the Board of Directors and approved by the holders of more than two-thirds (2/3) of the outstanding shares of Preferred Stock voting together as a single class.

3. Liquidation Rights.

In the event of any liquidation, dissolution or winding up of the Corporation, either voluntary or involuntary, distribution of the assets of the Corporation legally available for distribution to the Corporation's stockholders shall be made in the following manner:

(a) Series E Liquidation Preference. The holders of the Series E Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of the Common Stock, the Series A Preferred Stock, the Series B Preferred Stock, the Series C Preferred Stock, or the Series D Preferred Stock, by reason of their ownership of such stock, an amount per share for each share of Series E Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such shares and (ii) all declared and unpaid dividends on such share of Series E Preferred Stock. If the assets of the Corporation legally available for distribution to the holders of the Series E Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 3(a), then the entire assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series E Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 3(a).

(b) Series D Liquidation Preference. After payment to the holders of Series E Preferred Stock of the full amounts specified in Section 3(a) above, the holders of the Series D Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of the Common Stock, the Series A Preferred Stock, the Series B Preferred Stock or the Series C Preferred Stock by reason of their ownership of such stock, an amount per share for each share of Series D Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such shares and (ii) all declared and unpaid dividends on such share of Series D Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of Series D Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 3(b), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series D Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 3(b).

(c) Series C Liquidation Preference. After payment to the holders of Series E Preferred Stock and to the holders of Series D Preferred Stock of the full amounts specified in Sections 3(a) and 3(b) above, the holders of the Series C Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the assets of the Corporation to the holders of the Common Stock, the Series A Preferred Stock or the Series B Preferred Stock by reason of their ownership of such stock, an amount per share for each share of Series C Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such shares and (ii) all declared and unpaid dividends on such share of Series C Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of the Series C Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 3(c), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series C Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 3(c).

(d) Series B Liquidation Preference. After the payment to the holders of Series E Preferred Stock, the holders of Series D Preferred Stock, and the holders of Series C Preferred Stock of the full amounts specified in Sections 3(a), 3(b), and 3(c) above, the holders of the Series B Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the remaining assets of the Corporation to the holders of the Common Stock or Series A Preferred Stock by reason of their ownership of such stock, an amount per share for each share of Series B Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such shares and (ii) all declared and unpaid dividends on such share of Series B Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of the Series B Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 3(d), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series B Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 3(d).

(e) Series A Liquidation Preference. After the payment to the holders of Series E Preferred Stock, the holders of Series D Preferred Stock, the holders of Series C Preferred Stock, and the holders of Series B Preferred Stock of the full amounts specified in Sections 3(a), 3(b), 3(c) and 3(d) above, the holders of the Series A Preferred Stock shall be entitled to receive, prior and in preference to any distribution of any of the remaining assets of the Corporation to the holders of the Common Stock by reason of their ownership of such stock, an amount per share for each share of Series A Preferred Stock held by them equal to the sum of (i) the Liquidation Preference for such shares and (ii) all declared and unpaid dividends on such share of Series A Preferred Stock. If the remaining assets of the Corporation legally available for distribution to the holders of the Series A Preferred Stock are insufficient to permit the payment to such holders of the full amounts specified in this Section 3(e), then the entire remaining assets of the Corporation legally available for distribution shall be distributed with equal priority and pro rata among the holders of the Series A Preferred Stock in proportion to the full amounts they would otherwise be entitled to receive pursuant to this Section 3(e).

(f) Remaining Assets. After the payment to the holders of Preferred Stock of the full amounts specified in Sections 3(a), 3(b), 3(c), 3(d) and 3(e) above, the entire remaining assets of the Corporation legally available for distribution shall be distributed pro rata to holders of the Common Stock of the Corporation in proportion to the number of shares of Common Stock held by them.

(g) Shares Not Treated as Both Preferred Stock and Common Stock in Any Distribution. Shares of Preferred Stock shall not be entitled to be converted into shares of Common Stock in order to participate in any distribution, or series of distributions, as shares of Common Stock, without first foregoing participation in the distribution, or series of distributions, as shares of Preferred Stock.

(h) Reorganization. For purposes of this Section 3, a liquidation, dissolution or winding up of the Corporation shall be deemed to be occasioned by, or to include, (i) the acquisition of the Corporation by another entity by means of any transaction or series of related transactions (including, without limitation, any stock acquisition, reorganization, merger or consolidation but excluding any merger effected exclusively for the purpose of changing the domicile of the Corporation) other than a transaction or series of transactions in which the holders of the voting securities of the Corporation outstanding immediately prior to such transaction or series of transactions continue to retain (either by such voting securities remaining outstanding or by such voting securities being converted into voting securities of the surviving entity), as a result of shares in the Corporation held by such holders prior to such transaction, at least fifty percent (50%) of the total voting power represented by the voting securities of the Corporation or such surviving entity outstanding immediately after such transaction or series of transactions; or (ii) a sale, transfer, lease or other conveyance of all or substantially all of the assets of the Corporation.

(i) Valuation of Non-Cash Consideration. If any assets of the Corporation distributed to stockholders in connection with any liquidation, dissolution, or winding up of the Corporation are other than cash, then the value of such assets shall be their fair market value as determined in good faith by the Board of Directors, except that any securities to be distributed to stockholders in a liquidation, dissolution, or winding up of the Corporation shall be valued as follows:

(i) If the securities are then traded on a national securities exchange or the Nasdaq Stock Market System (or a similar national quotation system), then the value of the securities shall be deemed to be to the average of the closing prices of the securities on such exchange or system over the ten (10) trading day period ending five (5) trading days prior to the distribution;

(ii) if the securities are actively traded over-the-counter, then the value of the securities shall be deemed to be the average of the closing bid prices of the securities over the ten (10) trading day period ending five (5) trading days prior to the distribution; or

(iii) if there is no active public market for the securities, then the value of the securities shall be deemed to be the fair market value thereof as determined in good faith by the Board of Directors which determination shall include consideration of the illiquidity of the securities.

In the event of a merger or other acquisition of the Corporation by another entity, the distribution date shall be deemed to the date such transaction closes.

For the purposes of this Section 3(i), "**trading day**" shall mean any day on which the exchange or system on which the securities to be distributed are traded is open, and "closing prices" or "closing bid prices" shall be deemed to be: (i) for securities traded primarily on the New York Stock Exchange, the American Stock Exchange or Nasdaq, the last reported trade price or sale price, as the case may be, at 4:00 p.m., New York time, on that day and (ii) for securities listed or traded on other exchanges, markets and systems, the market price as of the end of the "regular hours" trading period that is generally accepted as such for such exchange, market or system. If, after the date hereof, the benchmark times generally accepted in the securities industry for determining the market price of a stock as of a given trading day shall change from those set forth above, the fair market value shall be determined as of such other generally accepted benchmark times.

4. Conversion. The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

(a) Right to Convert. Subject to Section 4(c), each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time after the date of issuance of such share at the office of the Corporation or any transfer agent for the Preferred Stock, into that number of fully-paid, nonassessable shares of Common Stock determined by dividing the Original Issue Price for the relevant series by the Conversion Price for such series. (The number of shares of Common Stock into which each share of Preferred Stock of a series may be converted is hereinafter referred to as the "**Conversion Rate**" for each such series.) Upon any decrease or increase in the Conversion Price for any series of Preferred Stock, as described in this Section 4, the Conversion Rate for such series shall be appropriately increased or decreased.

(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into fully-paid, non-assessable shares of Common Stock at the then effective Conversion Rate for such share (i) immediately prior to the closing of a firm commitment underwritten initial public offering on Form S-1 (or successor form) filed under the Securities Act of 1933, as amended (the "**Securities Act**"), covering the offer and sale of the Corporation's Common Stock, provided

that the offering price per share is not less than $5.69 (as adjusted for subdivisions and combinations of the Common Stock and changes in the Common Stock as set forth in Sections 4(e) and 4(g)) and the aggregate gross proceeds to the Corporation are not less than $25,000,000, or (ii) upon the receipt by the Corporation of a written consent or request for such conversion from the holders of two-thirds of the shares of Preferred Stock then outstanding, or, if later, the effective date for conversion specified in such requests (each of the events referred to in (i) and (ii) being hereinafter referred to as an "**Automatic Conversion Event**").

(c) Mechanics of Conversion. No fractional shares of Common Stock shall be issued upon conversion of Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the then fair market value of a share of Common Stock as determined by the Board of Directors. For such purpose, all shares of Preferred Stock held by each holder of Preferred Stock shall be aggregated, and any resulting fractional share of Common Stock shall be paid in cash. Before any holder of Preferred Stock shall be entitled to convert the same into full shares of Common Stock, and to receive certificates therefor, he shall either surrender the certificate or certificates therefor, duly endorsed, at the office of the Corporation or of any transfer agent for the Preferred Stock, or notify the Corporation or its transfer agent that such certificate or certificates have been lost, stolen or destroyed and execute an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificate or certificates, and shall give written notice to the Corporation at such office that he elects to convert the same; provided, however, that on the date of an Automatic Conversion Event, the outstanding shares of Preferred Stock shall be converted automatically without any further action by the holders of such shares and whether or not the certificates representing such shares are surrendered to the Corporation or its transfer agent; provided further, however, that the Corporation shall not be obligated to issue certificates evidencing the shares of Common Stock issuable upon such Automatic Conversion Event unless either the certificates evidencing such shares of Preferred Stock are delivered to the Corporation or its transfer agent as provided above, or the holder notifies the Corporation or its transfer agent that such certificates have been lost, stolen or destroyed and executes an agreement satisfactory to the Corporation to indemnify the Corporation from any loss incurred by it in connection with such certificates. On the date of the occurrence of an Automatic Conversion Event, each holder of record of shares of Preferred Stock shall be deemed to be the holder of record of the Common Stock issuable upon such conversion, notwithstanding that the certificates representing such shares of Preferred Stock shall not have been surrendered at the office of the Corporation, that notice from the Corporation shall not have been received by any holder of record of shares of Preferred Stock, or that the certificates evidencing such shares of Common Stock shall not then be actually delivered to such holder.

The Corporation shall, as soon as practicable after such delivery, or after such agreement and indemnification, issue and deliver at such office to such holder of Preferred Stock, a certificate or certificates for the number of shares of Common Stock to which he shall be entitled as aforesaid and a check payable to the holder in the amount of any cash amounts payable as the result of a conversion into fractional shares of Common Stock, plus any declared and unpaid dividends on the converted Preferred Stock. Such conversion shall be deemed to have been made immediately prior to the close of business on the date of such surrender of the shares of Preferred Stock to be converted, and the person or persons entitled to receive the shares of Common Stock issuable upon such conversion shall be treated for all purposes as the record holder or holders of such shares of

Common Stock on such date; provided, however, that if the conversion is in connection with an underwritten offer of securities registered pursuant to the Securities Act the conversion may, at the option of any holder tendering Preferred Stock for conversion, be conditioned upon the closing of the sale of securities pursuant to such offering, in which event the person(s) entitled to receive the Common Stock issuable upon such conversion of the Preferred Stock shall not be deemed to have converted such Preferred Stock until immediately prior to the closing of the sale of such securities.

(d) Adjustments to Conversion Price for Diluting Issues.

(i) Special Definition. For purposes of this Section 4(d), "**Additional Shares of Common**" shall mean all shares of Common Stock issued (or, pursuant to Section 4(d)(iii), deemed to be issued) by the Corporation after the filing of this Certificate of Incorporation, other than:

(1) [omitted];

(2) shares of Common Stock issued or issuable to officers, directors and employees of, or consultants and other service providers to, the Corporation pursuant to stock grants, option plans, purchase plans or other employee stock incentive programs or arrangements approved by the Board of Directors or upon exercise of options or warrants granted to such parties pursuant to any such plan, program or arrangement;

(3) shares of Common Stock issued upon the exercise or conversion of Options or Convertible Securities outstanding as of the date of the filing of this Certificate of Incorporation;

(4) shares of Common Stock issued or issuable as a dividend or distribution on Preferred Stock or pursuant to any event for which adjustment is made pursuant to Section 4(e), 4(f) or 4(g) hereof;

(5) shares of Common Stock issued in a registered public offering under the Securities Act pursuant to which all outstanding shares of Preferred Stock are automatically converted into Common Stock pursuant to an Automatic Conversion Event;

(6) shares of Common Stock issued or issuable pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided, that such issuances are unanimously approved by the Board of Directors;

(7) shares of Common Stock issued or issuable to banks, equipment lessors or other financial institutions pursuant to a commercial leasing or debt financing transaction approved by the Board of Directors;

(8) shares of Common Stock issued or issuable in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements, or strategic partnerships or relationships, if the issuance is approved by the Board of Directors; and

(9) shares of Common Stock issued or issuable upon conversion of convertible promissory notes issued or issuable to Biomedical Sciences Investment Fund Pte Ltd. or its affiliates ("BMSIF") pursuant to that certain Convertible Note Purchase Agreement, dated as of August 7, 2006, between the Company and BMSIF, as amended by the Letter Agreement dated November 15, 2006 (as amended, the "Note Purchase Agreement") (as such Note Purchase Agreement may be further amended from time to time after the date hereof) or upon any failure of the milestones to be satisfied under such convertible promissory notes; and shares of Common Stock issued or issuable upon conversion of up to $3 million in aggregate principal amount (plus interest) of convertible promissory notes originally issued or issuable to BMSIF pursuant to that certain Convertible Note Purchase Agreement, dated as of December 18, 2003, between the Company and BMSIF.

(ii) No Adjustment of Conversion Price. No adjustment in the Conversion Price of a particular series of Preferred Stock shall be made in respect of the issuance of Additional Shares of Common unless the consideration per share (as determined pursuant to Section 4(d)(vii)) for an Additional Share of Common issued or deemed to be issued by the Corporation is less than the Conversion Price in effect on the date of, and immediately prior to such issue, for such series of Preferred Stock.

(iii) Deemed Issue of Additional Shares of Common. In the event the Corporation at any time or from time to time after the date of the filing of this Certificate of Incorporation shall issue any Options or Convertible Securities or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares (as set forth in the instrument relating thereto without regard to any provisions contained therein for a subsequent adjustment of such number) of Common Stock issuable upon the exercise of such Options or, in the case of Convertible Securities, the conversion or exchange of such Convertible Securities or, in the case of Options for Convertible Securities, the exercise of such Options and the conversion or exchange of the underlying securities, shall be deemed to have been issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date, provided that in any such case in which shares are deemed to be issued:

(1) no further adjustment in the Conversion Price of the Preferred Stock shall be made upon the subsequent issue of Convertible Securities or shares of Common Stock in connection with the exercise of such Options or conversion or exchange of such Convertible Securities pursuant to the terms of such Options or Convertible Securities;

(2) if no adjustment in the Conversion Price of the Preferred Stock was made upon the original issue of (or upon the occurrence of a record date with respect to) such Options or Convertible Securities and such Options or Convertible Securities are revised to provide, or by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or any increase or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, then such Options or Convertible Securities as so revised (and the Additional Shares of Common subject thereto) shall be deemed to have been issued effective upon such increase or decrease becoming effective;

(3) if such Options or Convertible Securities are revised to provide, or by their terms provide, with the passage of time or otherwise, for any increase or decrease in the consideration payable to the Corporation, or any increase or decrease in the number of shares of Common Stock issuable, upon the exercise, conversion or exchange thereof, the Conversion Price of the Preferred Stock computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto), and any subsequent adjustments based thereon, shall, upon any such increase or decrease becoming effective, be recomputed to reflect such increase or decrease insofar as it affects such Options or the rights of conversion or exchange under such Convertible Securities;

(4) no readjustment pursuant to clause (3) above shall have the effect of increasing the Conversion Price of the Preferred Stock to an amount which exceeds the lower of (i) the Conversion Price of the Preferred Stock on the original adjustment date, or (ii) the Conversion Price of the Preferred Stock that would have resulted from any issuance of Additional Shares of Common between the original adjustment date and such readjustment date;

(5) upon the expiration of any such Options or any rights of conversion or exchange under such Convertible Securities which shall not have been exercised, the Conversion Price computed upon the original issue thereof (or upon the occurrence of a record date with respect thereto) and any subsequent adjustments based thereon shall, upon such expiration, be recomputed as if:

(A) in the case of Convertible Securities or Options for Common Stock, the only Additional Shares of Common issued were the shares of Common Stock, if any, actually issued upon the exercise of such Options or the conversion or exchange of such Convertible Securities and the consideration received therefor was the consideration actually received by the Corporation for the issue of such exercised Options plus the consideration actually received by the Corporation upon such exercise or for the issue of all such Convertible Securities which were actually converted or exchanged, plus the additional consideration, if any, actually received by the Corporation upon such conversion or exchange, and

(B) in the case of Options for Convertible Securities, only the Convertible Securities, if any, actually issued upon the exercise thereof were issued at the time of issue of such Options, and the consideration received by the Corporation for the Additional Shares of Common deemed to have been then issued was the consideration actually received by the Corporation for the issue of such exercised Options, plus the consideration deemed to have been received by the Corporation (determined pursuant to Section 4(d)(vii)) upon the issue of the Convertible Securities with respect to which such Options were actually exercised; and

(6) if such record date shall have been fixed and such Options or Convertible Securities are not issued on the date fixed therefor, the adjustment previously made in the Conversion Price which became effective on such record date shall be canceled as of the close of business on such record date, and thereafter the Conversion Price shall be adjusted pursuant to this Section 4(d)(iii) as of the actual date of their issuance.

(iv) Adjustment of Conversion Price of Series E Preferred Stock Upon Issuance of Additional Shares of Common.

(1) For so long as the Conversion Price of the Series E Preferred Stock is greater than $2.58 (as adjusted for subdivisions and combinations of the Common Stock and changes in the Common Stock as set forth in Sections 4(e) and 4(g)) (the "**Series D/E Ratchet Amount**"), in the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) for a consideration per share less than the applicable Conversion Price of the Series E Preferred Stock in effect on the date of and immediately prior to such issue, but for a consideration per share equal to or greater than the Series D/E Ratchet Amount, then the Conversion Price of the Series E Preferred Stock shall be reduced concurrently with such issue to a price (calculated to the nearest cent) equal to the per share price of the Additional Shares of Common.

(2) In the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) without consideration or for a consideration per share less than the Series D/E Ratchet Amount, then the Conversion Price of the Series E Preferred Stock immediately prior to such issue shall be deemed to be equal to the Series D/E Ratchet Amount (the "**Series E Adjusted Conversion Price**"), and such Series E Adjusted Conversion Price shall be further reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Series E Adjusted Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Adjusted Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 4(d)(iv)(2), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 4(d)(iii) hereof, shall be deemed to be outstanding. Section 4(d)(iv)(3) shall govern adjustments to the Conversion Price of the Series E Preferred Stock after the first adjustment to the Conversion Price of the Series E Preferred Stock pursuant to this Section 4(d)(iv)(2).

(3) After any adjustment to the Conversion Price of the Series E Preferred Stock pursuant to Section 4(d)(iv)(2), in the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) without consideration or for a consideration per share less than Conversion Price of the Series E Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series E Preferred Stock shall be reduced concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 4(d)(iv)(3), all shares of Common

Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 4(d)(iii) hereof, shall be deemed to be outstanding.

(v) Adjustment of Conversion Price of Series D Preferred Stock Upon Issuance of Additional Shares of Common.

(1) For so long as the Conversion Price of the Series D Preferred Stock is greater than the Series D/E Ratchet Amount, in the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) for a consideration per share less than the applicable Conversion Price of the Series D Preferred Stock in effect on the date of and immediately prior to such issue, but for a consideration per share equal to or greater than the Series D/E Ratchet Amount, then the Conversion Price of the Series D Preferred Stock shall be reduced concurrently with such issue to a price (calculated to the nearest cent) equal to the per share price of the Additional Shares of Common.

(2) In the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) without consideration or for a consideration per share less than the Series D/E Ratchet Amount, then the Conversion Price of the Series D Preferred Stock immediately prior to such issue shall be deemed to be equal to the Series D/E Ratchet Amount (the "**Series D Adjusted Conversion Price**"), and such Series D Adjusted Conversion Price shall be further reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Series D Adjusted Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Series D Adjusted Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 4(d)(v)(2), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 4(d)(iii) hereof, shall be deemed to be outstanding. Section 4(d)(v)(3) shall govern adjustments to the Conversion Price of the Series D Preferred Stock after the first adjustment to the Conversion Price of the Series D Preferred Stock pursuant to this Section 4(d)(v)(2).

(3) After any adjustment to the Conversion Price of the Series D Preferred Stock pursuant to Section 4(d)(v)(2), in the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) without consideration or for a consideration per share less than Conversion Price of the Series D Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series D Preferred Stock shall be reduced concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of

Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 4(d)(v)(3), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 4(d)(iii) hereof, shall be deemed to be outstanding.

(vi) Adjustment of Conversion Price of Series A, B and C Preferred Stock. In the event this Corporation shall issue Additional Shares of Common (including Additional Shares of Common deemed to be issued pursuant to Section 4(d)(iii)) without consideration or for a consideration per share less than the applicable Conversion Price of the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock in effect on the date of and immediately prior to such issue, then, the Conversion Price of the Series A Preferred Stock, Series B Preferred Stock or Series C Preferred Stock (if affected) shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such Conversion Price by a fraction, the numerator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of shares of Common Stock which the aggregate consideration received by the Corporation for the total number of Additional Shares of Common so issued would purchase at such Conversion Price, and the denominator of which shall be the number of shares of Common Stock outstanding immediately prior to such issue plus the number of such Additional Shares of Common so issued. For the purposes of this Section 4(d)(vi), all shares of Common Stock issuable upon exercise of outstanding Options or the conversion of outstanding Convertible Securities and shares of Preferred Stock, and all Additional Shares of Common deemed issued pursuant to Section 4(d)(iii) hereof, shall be deemed to be outstanding.

(vii) Determination of Consideration. For purposes of this Section 4(d), the consideration received by the Corporation for the issue (or deemed issue) of any Additional Shares of Common shall be computed as follows:

(1) Cash and Property. Such consideration shall:

(A) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation before deducting reasonable discounts, commissions or other expenses allowed, paid or incurred by the Corporation for any underwriting or otherwise in connection with such issue (or deemed issue);

(B) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors; and

(C) in the event Additional Shares of Common are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (A) and (B) above, as reasonably determined in good faith by the Board of Directors.

(2) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common deemed to have been issued pursuant to Section 4(d)(iii) shall be determined by dividing

(X) the total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities by

(Y) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities.

(e) Adjustments for Subdivisions or Combinations of Common Stock. In the event the outstanding shares of Common Stock shall be subdivided (by stock split, by payment of a stock dividend or otherwise), into a greater number of shares of Common Stock, the Conversion Price of each series of Preferred Stock in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. In the event the outstanding shares of Common Stock shall be combined (by reclassification or otherwise) into a lesser number of shares of Common Stock, the Conversion Prices in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(f) Adjustments for Subdivisions or Combinations of Preferred Stock. In the event the outstanding shares of Preferred Stock or a series of Preferred Stock shall be subdivided (by stock split, by payment of a stock dividend or otherwise), into a greater number of shares of Preferred Stock, the Dividend Rate, Original Issue Price and Liquidation Preference of the affected series of Preferred Stock in effect immediately prior to such subdivision shall, concurrently with the effectiveness of such subdivision, be proportionately decreased. In the event the outstanding shares of Preferred Stock or a series of Preferred Stock shall be combined (by reclassification or otherwise) into a lesser number of shares of Preferred Stock, the Dividend Rate, Original Issue Price and Liquidation Preference of the affected series of Preferred Stock in effect immediately prior to such combination shall, concurrently with the effectiveness of such combination, be proportionately increased.

(g) Adjustments for Reclassification, Exchange and Substitution. Subject to Section 3 above ("**Liquidation Rights**"), if the Common Stock issuable upon conversion of the Preferred Stock shall be changed into the same or a different number of shares of any other class or classes of stock, whether by capital reorganization, reclassification or otherwise (other than a subdivision or combination of shares provided for above), then, in any such event, in lieu of the number of shares of Common Stock which the holders would otherwise have been entitled to receive, each holder of such Preferred Stock shall have the right thereafter to convert such shares of

Preferred Stock into a number of shares of such other class or classes of stock which a holder of the number of shares of Common Stock deliverable upon conversion of such series of Preferred Stock immediately before that change would have been entitled to receive in such reorganization or reclassification, all subject to further adjustment as provided herein with respect to such other shares.

(h) No Impairment. The Corporation will not through any reorganization, transfer of assets, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms to be observed or performed hereunder by the Corporation but will at all times in good faith assist in the carrying out of all the provisions of this Section 4 and in the taking of all such action as may be necessary or appropriate in order to protect the Conversion Rights of the holders of Preferred Stock against impairment. Notwithstanding the foregoing, nothing in this Section 4(h) shall prohibit the Corporation from amending its Certificate of Incorporation with the requisite consent of its stockholders and the board of directors.

(i) Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of the Conversion Price pursuant to this Section 4, the Corporation at its expense shall promptly compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of Preferred Stock a certificate setting forth such adjustment or readjustment and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, upon the written request at any time of any holder of Preferred Stock, furnish or cause to be furnished to such holder a like certificate setting forth (i) such adjustments and readjustments, (ii) the Conversion Price at the time in effect and (iii) the number of shares of Common Stock and the amount, if any, of other property which at the time would be received upon the conversion of Preferred Stock.

(j) Notices of Record Date. In the event that this Corporation shall propose at any time:

(i) to declare any dividend or distribution upon its Common Stock, whether in cash, property, stock or other securities, whether or not a regular cash dividend and whether or not out of earnings or earned surplus;

(ii) to effect any reclassification or recapitalization of its Common Stock outstanding involving a change in the Common Stock; or

(iii) to voluntarily liquidate or dissolve or to enter into any transaction deemed to be a liquidation, dissolution or winding up of the corporation pursuant to Section 3(h);

then, in connection with each such event, this Corporation shall send to the holders of the Preferred Stock at least 14 days' prior written notice of the date on which a record shall be taken for such dividend or distribution (and specifying the date on which the holders of Common Stock shall be entitled thereto) or for determining rights to vote in respect of the matters referred to in (ii) and (iii) above.

Each such written notice shall be given by first class mail, postage prepaid, addressed to the holders of Preferred Stock at the address for each such holder as shown on the books of this Corporation.

The right of the holders of the Preferred Stock to notice hereunder may be waived by the holders of more than two-thirds (⅔) of the outstanding shares of the Preferred Stock voting together as a single class.

(k) Reservation of Stock Issuable Upon Conversion. The Corporation shall at all times reserve and keep available out of its authorized but unissued shares of Common Stock solely for the purpose of effecting the conversion of the shares of the Preferred Stock, such number of its shares of Common Stock as shall from time to time be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation will take such corporate action as may, in the opinion of its counsel, be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purpose.

(l) Waiver of Adjustment of Conversion Price. Notwithstanding anything herein to the contrary, any downward adjustment of the Conversion Price of any series of Preferred Stock may be waived by the consent or vote of the holders of more than two-thirds (⅔) of the outstanding shares of such series. Any such waiver shall bind all future holders of shares of such series of Preferred Stock.

5. Voting.

(a) Restricted Class Voting. Except as otherwise expressly provided herein or as required by law, the holders of Preferred Stock and the holders of Common Stock shall vote together and not as separate classes.

(b) No Series Voting. Other than as provided herein or required by law, there shall be no series voting.

(c) Preferred Stock. Each holder of Preferred Stock shall be entitled to the number of votes equal to the number of shares of Common Stock into which the shares of Preferred Stock held by such holder could be converted as of the record date. The holders of shares of the Preferred Stock shall be entitled to vote on all matters on which the Common Stock shall be entitled to vote. Holders of Preferred Stock shall be entitled to notice of any stockholders' meeting in accordance with the Bylaws of the Corporation. Fractional votes shall not, however, be permitted and any fractional voting rights resulting from the above formula (after aggregating all shares into which shares of Preferred Stock held by each holder could be converted), shall be disregarded.

(d) Common Stock. Each holder of shares of Common Stock shall be entitled to one vote for each share thereof held.

(e) Adjustment in Authorized Common Stock. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares of Common Stock then outstanding) by an affirmative vote of the holders of a majority of the outstanding Common Stock and Preferred Stock, voting together as a single class.

(f) Election of Directors. So long as at least 2,000,000 shares of Series D Preferred Stock (as adjusted for stock splits, subdivisions, combinations or stock dividends with respect to such shares) remain outstanding, the holders of the Series D Preferred Stock, voting as a separate class, shall be entitled to elect two (2) members of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. So long as at least 2,000,000 shares of Series C Preferred Stock (as adjusted for stock splits, subdivisions, combinations or stock dividends with respect to such shares) remain outstanding, the holders of Series C Preferred Stock, voting as a separate class, shall be entitled to elect three (3) members of the Corporation's Board of Directors at each meeting or pursuant to each consent of the Corporation's stockholders for the election of directors. Any additional members of the Corporation's Board of Directors shall be elected by the holders of Common Stock, Series A Preferred Stock, Series B Preferred Stock, and Series E Preferred Stock, voting together as a single class.

6. Amendments and Changes Requiring Approval of Preferred Stock. As long as any of the Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least two-thirds ($^2/_3$) of the outstanding shares of the Preferred Stock voting together as a single class:

(a) amend, alter or repeal any provision of the Certificate of Incorporation or By-laws of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Preferred Stock or any series thereof;

(b) enter into any transaction or series of related transactions deemed to be a liquidation, dissolution or winding up of the Corporation pursuant to Section 3(h) above;

(c) voluntarily liquidate or dissolve;

(d) declare or pay any distribution (as defined in Section 2(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock of the Corporation;

(e) permit any subsidiary of the Corporation to sell securities to a third party (other than directors' qualifying shares in the case of subsidiaries outside the United States);

(f) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Preferred Stock;

(g) authorize or create (by reclassification or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, liquidation, redemption, conversion or other rights senior to or on a parity with any series of Preferred Stock or with respect to voting senior to any series of Preferred Stock;

(h) increase or decrease the authorized number of directors of the Corporation; or

(i) amend this Section 6.

7. Amendments and Changes Requiring the Approval of the Series E Preferred Stock.

(a) As long as any of the Series E Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least 60% of the outstanding shares of the Series E Preferred Stock:

(i) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series E Preferred Stock in a manner different from any other series of Preferred Stock; or

(ii) amend this Section 7(a).

(b) As long as any of the Series E Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least a majority of the outstanding shares of the Series E Preferred Stock:

(i) declare or pay any distribution (as defined in Section 2(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock or Preferred Stock of the Corporation; or

(ii) amend this Section 7(b).

(c) As long as any of the Series E Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least 66 2/3% of the outstanding shares of the Series D Preferred Stock and Series E Preferred Stock voting together as a single class on an as converted to Common Stock basis:

(i) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series E Preferred Stock;

(ii) authorize or create (by reclassification or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, payments upon liquidation or other rights senior to or on a parity with the Series E Preferred Stock or with respect to voting senior to the Series E Preferred Stock; or

(iii) amend this Section 7(c).

8. Amendments and Changes Requiring the Approval of the Series D Preferred Stock.

(a) As long as any of the Series D Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least 60% of the outstanding shares of the Series D Preferred Stock:

(i) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series D Preferred Stock in a manner different from any other series of Preferred Stock; or

(ii) amend this Section 8(a).

(b) As long as any of the Series D Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least a majority of the outstanding shares of the Series D Preferred Stock:

(i) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series D Preferred Stock;

(ii) authorize or create (by reclassification or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, payments upon liquidation or other rights senior to or on a parity with the Series D Preferred Stock or with respect to voting senior to the Series D Preferred Stock;

(iii) declare or pay any distribution (as defined in Section 2(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock or Preferred Stock of the Corporation;

(iv) increase the authorized number of directors of the Corporation above eleven (11); or

(v) amend this Section 8(b).

9. Amendments and Changes Requiring the Approval of the Series C Preferred Stock. As long as any of the Series C Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least two-thirds (2/3) of the outstanding shares of the Series C Preferred Stock:

(a) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series C Preferred Stock in a manner different from any other series of Preferred Stock;

(b) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series C Preferred Stock;

(c) authorize or create (by reclassification or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, payments upon liquidation or other rights senior to or on a parity with the Series C Preferred Stock or with respect to voting senior to the Series C Preferred Stock;

(d) declare or pay any distribution (as defined in Section 2(d) except for distributions upon a liquidation or dissolution) with respect to the Common Stock or Preferred Stock of the Corporation;

(e) increase the authorized number of directors of the Corporation above eleven (11); or

(f) amend this Section 9.

10. Amendments and Changes Requiring the Approval of the Series B Preferred Stock. As long as any of the Series B Preferred Stock shall be issued and outstanding, the Corporation shall not, without first obtaining the approval (by vote or written consent as provided by law) of the holders of at least two-thirds of the outstanding shares of the Series B Preferred Stock:

(a) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series B Preferred Stock in a manner different from any other series of Preferred Stock;

(b) increase or decrease (other than for decreases resulting from conversion of the Preferred Stock) the authorized number of shares of Series B Preferred Stock; or

(c) amend this Section 10.

11. Status of Converted Stock. In the event any shares of Preferred Stock shall be converted pursuant to Article 4 hereof, then the shares so converted shall be cancelled and shall not be issuable by the Corporation. The Certificate of Incorporation shall be appropriately amended to effect the corresponding reduction in the Corporation's authorized capital stock.

12. Notices. Any notice required by the provisions of this Article IV to be given to the holders of Preferred Stock shall be deemed given if deposited in the United States mail, postage prepaid, and addressed to each holder of record at such holder's address appearing on the books of the Corporation.

ARTICLE V

The Corporation reserves the right to amend, alter, change, or repeal any provision contained in this Certificate of Incorporation, in the manner now or hereafter prescribed by statute, and all rights conferred upon the stockholders herein are granted subject to this right.

ARTICLE VI

The Corporation is to have perpetual existence.

ARTICLE VII

Elections of directors need not be by written ballot unless a stockholder demands election by written ballot at the meeting and before voting begins or unless the Bylaws of the Corporation shall so provide.

ARTICLE VIII

Unless otherwise set forth herein, the number of directors which constitute the Board of Directors of the Corporation shall be designated in the Bylaws of the Corporation .

ARTICLE IX

In furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, alter, amend or repeal the Bylaws of the Corporation.

ARTICLE X

1. Limitation of Directors' Liability. To the fullest extent permitted by the General Corporation Law of the State of Delaware as the same exists or as may hereafter be amended, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director.

2. Indemnification. The Corporation may indemnify to the fullest extent permitted by law any person made or threatened to be made a party to an action or proceeding, whether criminal, civil, administrative or investigative, by reason of the fact that such person or his or her testator or intestate is or was a director, officer or employee of the Corporation, or any predecessor of the Corporation, or serves or served at any other enterprise as a director, officer or employee at the request of the Corporation or any predecessor to the Corporation.

3. Amendments. Neither any amendment nor repeal of this Article VII, nor the adoption of any provision of the Corporation's Certificate of Incorporation inconsistent with this Article VII, shall eliminate or reduce the effect of this Article VII, in respect of any matter occurring, or any action or proceeding accruing or arising or that, but for this Article VII, would accrue or arise, prior to such amendment, repeal, or adoption of an inconsistent provision.

ARTICLE XI

Meetings of the stockholders may be held within or without the State of Delaware, as the Bylaws may provide. The books of the Corporation may be kept (subject to any provision contained in the statutes) outside of the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

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State of Delaware
Secretary of State
Divisions of Corporations
Delivered 09:37 AM 10/10/2007
Filed 09:30 AM 10/10/2007
SRV 071099475 — 4292717 File

CERTIFICATE OF AMENDMENT

TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF FLUIDIGM CORPORATION

Fluidigm Corporation, a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

A. The name of the corporation is Fluidigm Corporation. The original Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on March 29, 2007.

B. This Certificate of Amendment to Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware by the Board of Directors and the stockholders of the Corporation.

C. Pursuant to Section 242 of the General Corporation Law of the State of Delaware, this Certificate of Amendment to Amended and Restated Certificate of Incorporation amends the provisions of this Corporation's Amended and Restated Certificate of Incorporation as set forth herein.

D. The first paragraph of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"The total number of shares of stock that the Corporation shall have authority to issue is 143,193,229, $0.001 par value, consisting of 85,232,144 shares of Common Stock, $0.001 par value per share ("Common") and 57,961,085 shares of Preferred Stock, $0.001 par value per share ("Preferred"). The Preferred shall be divided into series. The first series shall consist of 2,727,273 shares and shall be designated Series A Preferred Stock ("Series A Preferred Stock"). The second series shall consist of 6,460,675 shares and shall be designated Series B Preferred Stock ("Series B Preferred Stock"). The third series shall consist of 16,854,624 shares and shall be designated Series C Preferred Stock ("Series C Preferred Stock"). The fourth series shall consist of 13,962,261 shares and shall be designated Series D Preferred Stock ("Series D Preferred Stock"). The fifth series shall consist of 17,956,252 shares and shall be designated Series E Preferred Stock ("Series E Preferred Stock")."

E. Subsection (b) of Section 4 of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"(b) Automatic Conversion. Each share of Preferred Stock shall automatically be converted into fully-paid, non-assessable shares of Common Stock at the then effective Conversion Rate for such share (i) immediately prior to the closing of a firm commitment underwritten initial public offering on Form S 1 (or successor form) filed under the Securities Act of 1933, as amended (the "Securities Act"), covering the offer and sale of the Corporation's Common Stock, provided that the offering price per share is not less than $5.69 (as adjusted for subdivisions and combinations of the Common Stock and changes in the Common Stock as set forth in Sections 4(e) and 4(g)) and the aggregate gross proceeds to the Corporation are not less than $25,000,000, or (ii) upon the receipt by the Corporation of a written consent or request for such conversion from the holders of two-thirds of the shares of Preferred Stock then outstanding, or, if later, the effective date for conversion specified in such requests (each of the events referred to in (i) and (ii) being hereinafter referred to as an "Automatic Conversion Event"). Notwithstanding the foregoing, the Series E Preferred Stock shall not be subject to an Automatic Conversion Event unless either (x) such Automatic Conversion Event is approved by the written consent of holders of more than two-thirds of the shares of Series E Preferred Stock then outstanding, or (y) such Automatic Conversion Event is the closing of a firm commitment underwritten initial public offering on Form S-1 (or successor form) filed under the Securities Act and the requirements of Section 4(b)(i) or 4(b)(ii) are met."

F. The last paragraph of Subsection (j) of Section 4 of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"The right of the holders of the Preferred Stock to notice hereunder may be waived by the holders of more than two-thirds (2/3) of the outstanding shares of the Preferred Stock voting together as a single class. Notwithstanding the foregoing, no waiver of notice under this Section 4(j) shall constitute a waiver of notice with respect to the Series E Preferred Stock unless such waiver shall have been approved by the written consent of holders of more than two-thirds (2/3) of the shares of Series E Preferred Stock then outstanding."

G. Subsection (a) of Section 6 of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"(a) amend, alter or repeal any provision of the Certificate of Incorporation or By-laws of the Corporation (including pursuant to a merger) if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Preferred Stock or any series thereof;"

H. Subsection (g) of Section 6 of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"(g) authorize or create (by reclassification, merger or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, liquidation, redemption, conversion or other rights senior to or on a parity with any series of Preferred Stock or with respect to voting senior to any series of Preferred Stock;"

I. Subsection (a)(i) of Section 7 of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"(i) amend, alter or repeal any provision of the Certificate of Incorporation of the Corporation (including pursuant to a merger) if such action would adversely alter the rights, preferences, privileges or powers of, or restrictions provided for the benefit of the Series E Preferred Stock in a manner different from any other series of Preferred Stock; or"

J. Subsection (c)(ii) of Section 7 of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"(ii) authorize or create (by reclassification, merger or otherwise) any new class or series of capital stock having rights, preferences or privileges with respect to dividends, payments upon liquidation or other rights senior to or on a parity with the Series E Preferred Stock or with respect to voting senior to the Series E Preferred Stock; or"

IN WITNESS WHEREOF, Fluidigm Corporation has caused this Certificate of Amendment to Amended and Restated Certificate of Incorporation to be signed by Gajus V. Worthington, a duly authorized officer of the Corporation, on October 9, 2007.

/s/ Gajus Worthington
Gajus V. Worthington
President & Chief Executive Officer

State of Delaware
Secretary of State
Divisions of Corporations
Delivered 09:08 AM 10/26/2007
Filed 08:56 AM 10/26/2007
SRV 071157559 — 4292717 File

CERTIFICATE OF AMENDMENT

TO AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

OF FLUIDIGM CORPORATION

Fluidigm Corporation, a corporation organized and existing under the laws of the State of Delaware (the "Corporation"), hereby certifies as follows:

A. The name of the corporation is Fluidigm Corporation. The original Certificate of Incorporation of the Corporation was filed with the Secretary of State of the State of Delaware on March 29, 2007. An Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on July 16, 2007, and a Certificate of Amendment to Amended and Restated Certificate of Incorporation was filed with the Secretary of State of the State of Delaware on October 10, 2007.

B. This Certificate of Amendment to Amended and Restated Certificate of Incorporation was duly adopted in accordance with Sections 228 and 242 of the General Corporation Law of the State of Delaware by the Board of Directors and the stockholders of the Corporation.

C. Pursuant to Section 242 of the General Corporation Law of the State of Delaware, this Certificate of Amendment to Amended and Restated Certificate of Incorporation amends the provisions of this Corporation's Amended and Restated Certificate of Incorporation as set forth herein.

D. The first paragraph of Article IV of the Amended and Restated Certificate of Incorporation is hereby amended to read in its entirety as follows:

"The total number of shares of stock that the Corporation shall have authority to issue is 147,500,619, $0.001 par value, consisting of 87,385,839 shares of Common Stock, $0.001 par value per share ("Common") and 60,114,780 shares of Preferred Stock, $0.001 par value per share ("Preferred"). The Preferred shall be divided into series. The first series shall consist of 2,727,273 shares and shall be designated Series A Preferred Stock ("Series A Preferred Stock"). The second series shall consist of 6,460,675 shares and shall be designated Series B Preferred Stock ("Series B Preferred Stock"). The third series shall consist of 16,854,624 shares and shall be designated Series C Preferred Stock ("Series C Preferred Stock"). The fourth series shall consist of 13,962,261 shares and shall be designated Series D Preferred Stock ("Series D Preferred Stock"). The fifth series shall consist of 20,109,947 shares and shall be designated Series E Preferred Stock ("Series E Preferred Stock")."

IN WITNESS WHEREOF, Fluidigm Corporation has caused this Certificate of Amendment to Amended and Restated Certificate of Incorporation to be signed by Gajus V. Worthington, a duly authorized officer of the Corporation, on October 24, 2007.

/s/ Gajus V. Worthington
Gajus V. Worthington
President & Chief Executive Officer

Exhibit 3.3

BYLAWS OF

FLUIDIGM CORPORATION

(a Delaware corporation)

As Adopted by the Sole Incorporator on March 29, 2007
As Ratified by the Sole Director on April 30, 2007

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BYLAWS

ARTICLE I — MEETINGS OF STOCKHOLDERS

1.1 ***Place of Meetings***. Meetings of stockholders of Fluidigm Corporation (the "**Company**") shall be held at any place, within or outside the State of Delaware, determined by the Company's board of directors (the "**Board**"). The Board may, in its sole discretion, determine that a meeting of stockholders shall not be held at any place, but may instead be held solely by means of remote communication as authorized by Section 211(a)(2) of the Delaware General Corporation Law (the "**DGCL**"). In the absence of any such designation or determination, stockholders' meetings shall be held at the Company's principal executive office.

1.2 ***Annual Meeting***. An annual meeting of stockholders shall be held for the election of directors at such date and time as may be designated by resolution of the Board from time to time. Any other proper business may be transacted at the annual meeting. The Company shall not be required to hold an annual meeting of stockholders, *provided* that (i) the stockholders are permitted to act by written consent under the Company's certificate of incorporation and these bylaws, (ii) the stockholders take action by written consent to elect directors and (iii) the stockholders unanimously consent to such action or, if such consent is less than unanimous, all of the directorships to which directors could be elected at an annual meeting held at the effective time of such action are vacant and are filled by such action.

1.3 ***Special Meeting***. A special meeting of the stockholders may be called at any time by the Board, Chairperson of the Board, Chief Executive Officer or President (in the absence of a Chief Executive Officer) or by one or more stockholders holding shares in the aggregate entitled to cast not less than 10% of the votes at that meeting.

If any person(s) other than the Board calls a special meeting, the request shall:

(i) be in writing;

(ii) specify the time of such meeting and the general nature of the business proposed to be transacted; and

(iii) be delivered personally or sent by registered mail or by facsimile transmission to the Chairperson of the Board, the Chief Executive Officer, the President (in the absence of a Chief Executive Officer) or the Secretary of the Company.

The officer(s) receiving the request shall cause notice to be promptly given to the stockholders entitled to vote at such meeting, in accordance with these bylaws, that a meeting will be held at the time requested by the person or persons calling the meeting. No business may be transacted at such special meeting other than the business specified in such notice to stockholders. Nothing contained in this paragraph of this **section 1.3** shall be construed as limiting, fixing, or affecting the time when a meeting of stockholders called by action of the Board may be held.

1.4 ***Notice of Stockholders' Meetings***. Whenever stockholders are required or permitted to take any action at a meeting, a written notice of the meeting shall be given which shall state the place, if any, date and hour of the meeting, the means of remote communication, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such meeting, and, in the case of a special meeting, the purpose or purposes for which the meeting is called. Except as otherwise provided in the DGCL, the certificate of incorporation or these bylaws, the written notice of any meeting of stockholders shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting.

1.5 ***Quorum***. Except as otherwise provided by law, the certificate of incorporation or these bylaws, at each meeting of stockholders the presence in person or by proxy of the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote at the meeting shall be necessary and sufficient to constitute a quorum. If, however, such quorum is not present or represented at any meeting of the stockholders, then either (i) the chairperson of the meeting, or (ii) the stockholders entitled to vote at the meeting, present in person or represented by proxy, shall have the power to adjourn the meeting from time to time, in the manner provided in **section 1.6**, until a quorum is present or represented.

1.6 ***Adjourned Meeting; Notice***. Any meeting of stockholders, annual or special, may adjourn from time to time to reconvene at the same or some other place, and notice need not be given of the adjourned meeting if the time, place, if any, thereof, and the means of remote communications, if any, by which stockholders and proxy holders may be deemed to be present in person and vote at such adjourned meeting are announced at the meeting at which the adjournment is taken. At the adjourned meeting, the Company may transact any business which might have been transacted at the original meeting. If the adjournment is for more than 30 days, or if after the adjournment a new record date is fixed for the adjourned meeting, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

1.7 ***Conduct of Business***. Meetings of stockholders shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by the Chief Executive Officer, or in the absence of the foregoing persons by the President, or in the absence of the foregoing persons by a Vice President, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting. The chairperson of any meeting of stockholders shall determine the order of business and the procedure at the meeting, including such regulation of the manner of voting and the conduct of business.

1.8 ***Voting***. The stockholders entitled to vote at any meeting of stockholders shall be determined in accordance with the provisions of **section 1.10** of these bylaws, subject to Section 217 (relating to voting rights of fiduciaries, pledgors and joint owners of stock) and Section 218 (relating to voting trusts and other voting agreements) of the DGCL.

Except as may be otherwise provided in the certificate of incorporation, each stockholder entitled to vote at any meeting of stockholders shall be entitled to one vote for each share of capital stock held by such stockholder which has voting power upon the matter in question. Voting at meetings of stockholders need not be by written ballot and, unless otherwise required by law, need not be conducted by inspectors of election unless so determined by the holders of shares of stock having a majority of the votes which could be cast by the holders of all outstanding shares of stock entitled to vote thereon which are present in person or by proxy at such meeting. If authorized by the Board, such requirement of a written ballot shall be satisfied by a ballot submitted by electronic transmission (as defined in **section 7.2** of these bylaws), *provided* that any such electronic transmission must either set forth or be submitted with information from which it can be determined that the electronic transmission was authorized by the stockholder or proxy holder.

Except as otherwise required by law, the certificate of incorporation or these bylaws, in all matters other than the election of directors, the affirmative vote of a majority of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the subject matter shall be the act of the stockholders. Except as otherwise required by law, the certificate of incorporation or these bylaws, directors shall be elected by a plurality of the voting power of the shares present in person or represented by proxy at the meeting and entitled to vote on the election of directors.

1.9 ***Stockholder Action by Written Consent Without a Meeting***. Unless otherwise provided in the certificate of incorporation, any action required by the DGCL to be taken at any annual or special meeting of stockholders of a corporation, or any action which may be taken at any annual or special meeting of such stockholders, may be taken without a meeting, without prior notice, and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted.

An electronic transmission (as defined in **section 7.2**) consenting to an action to be taken and transmitted by a stockholder or proxy holder, or by a person or persons authorized to act for a stockholder or proxy holder, shall be deemed to be written, signed and dated for purposes of this section, *provided* that any such electronic transmission sets forth or is delivered with information from which the Company can determine (i) that the electronic transmission was transmitted by the stockholder or proxy holder or by a person or persons authorized to act for the stockholder or proxy holder and (ii) the date on which such stockholder or proxy holder or authorized person or persons transmitted such electronic transmission.

In the event that the Board shall have instructed the officers of the Company to solicit the vote or written consent of the stockholders of the Company, an electronic transmission of a stockholder written consent given pursuant to such solicitation may be delivered to the Secretary or the President of the Company or to a person designated by the Secretary or the President. The Secretary or the President of the Company or a designee of the Secretary or the President shall cause any such written consent by electronic transmission to be reproduced in paper form and inserted into the corporate records.

Prompt notice of the taking of the corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the Company as provided in Section 228 of the DGCL. In the event that the action which is consented to is such as would have required the filing of a certificate under any provision of the DGCL, if such action had been voted on by stockholders at a meeting thereof, the certificate filed under such provision shall state, in lieu of any statement required by such provision concerning any vote of stockholders, that written consent has been given in accordance with Section 228 of the DGCL.

1.10 ***Record Date for Stockholder Notice; Voting; Giving Consents***. In order that the Company may determine the stockholders entitled to notice of or to vote at any meeting of stockholders or any adjournment thereof, or entitled to express consent to corporate action in writing without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights, or entitled to exercise any rights in respect of any change, conversion or exchange of stock or for the purpose of any other lawful action, the Board may fix a record date, which record date shall not precede the date upon which the resolution fixing the record date is adopted by the Board and which record date:

(i) in the case of determination of stockholders entitled to notice of or to vote at any meeting of stockholders or adjournment thereof, shall, unless otherwise required by law, not be more than sixty nor less than ten days before the date of such meeting;

(ii) in the case of determination of stockholders entitled to express consent to corporate action in writing without a meeting, shall not be more than ten days after the date upon which the resolution fixing the record date is adopted by the Board; and

(iii) in the case of determination of stockholders for any other action, shall not be more than 60 days prior to such other action.

If no record date is fixed by the Board:

(i) the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day next preceding the day on which notice is given, or, if notice is waived, at the close of business on the day next preceding the day on which the meeting is held;

(ii) the record date for determining stockholders entitled to express consent to corporate action in writing without a meeting when no prior action of the Board is required by law, shall be the first date on which a signed written consent setting forth the action taken or proposed to be taken is delivered to the Company in accordance with applicable law, or, if prior action by the Board is required by law, shall be at the close of business on the day on which the Board adopts the resolution taking such prior action; and

(iii) the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board adopts the resolution relating thereto.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting, *provided* that the Board may fix a new record date for the adjourned meeting.

1.11 ***Proxies***. Each stockholder entitled to vote at a meeting of stockholders or to express consent or dissent to corporate action in writing without a meeting may authorize another person or persons to act for such stockholder by proxy authorized by an instrument in writing or by a transmission permitted by law filed in accordance with the procedure established for the meeting, but no such proxy shall be voted or acted upon after three years from its date, unless the proxy provides for a longer period. The revocability of a proxy that states on its face that it is irrevocable shall be governed by the provisions of Section 212 of the DGCL.

1.12 ***List of Stockholders Entitled to Vote***. The officer who has charge of the stock ledger of the Company shall prepare and make, at least ten days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. The Company shall not be required to include electronic mail addresses or other electronic contact information on such list. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting for a period of at least ten days prior to the meeting: (i) on a reasonably accessible electronic network, *provided* that the information required to gain access to such list is provided with the notice of the meeting, or (ii) during ordinary business hours, at the Company's principal place of business. In the event that the Company determines to make the list available on an electronic network, the Company may take reasonable steps to ensure that such information is available only to stockholders of the Company. If the meeting is to be held at a place, then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be inspected by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting.

ARTICLE II — DIRECTORS

2.1 ***Powers***. The business and affairs of the Company shall be managed by or under the direction of the Board, except as may be otherwise provided in the DGCL or the certificate of incorporation.

2.2 ***Number of Directors***. The number of directors of the Company shall be not less than seven (7) nor more than thirteen (13). The exact number of directors shall be twelve (12) until changed, within the limits specified above, by a bylaw amending this Section 2.2, duly adopted by the Board or by the stockholders. The indefinite number of directors may be changed, or a definite number may be fixed

without provision for an indefinite number, by a duly adopted amendment to the certificate of incorporation or by an amendment to this bylaw duly adopted by the vote or written consent of holders of a majority of the outstanding shares entitled to vote; provided, however, that an amendment reducing the fixed number or the minimum number of directors to a number less than seven (7) cannot be adopted if the votes cast against its adoption at a meeting, or the shares not consenting in the case of an action by written consent, are equal to more than sixteen and two-thirds percent (16-2/3%) of the outstanding shares entitled to vote thereon. No amendment may change the stated maximum number of authorized directors to a number greater than two (2) times the stated minimum number of directors minus one (1).

No reduction of the authorized number of directors shall have the effect of removing any director before that director's term of office expires.

2.3 ***Election, Qualification and Term of Office of Directors***. Except as provided in **section 2.4** of these bylaws, and subject to **sections 1.2** and **1.9** of these bylaws, directors shall be elected at each annual meeting of stockholders. Directors need not be stockholders unless so required by the certificate of incorporation or these bylaws. The certificate of incorporation or these bylaws may prescribe other qualifications for directors. Each director shall hold office until such director's successor is elected and qualified or until such director's earlier death, resignation or removal.

2.4 ***Resignation and Vacancies***. Any director may resign at any time upon notice given in writing or by electronic transmission to the Company. A resignation is effective when the resignation is delivered unless the resignation specifies a later effective date or an effective date determined upon the happening of an event or events. A resignation which is conditioned upon the director failing to receive a specified vote for reelection as a director may provide that it is irrevocable. Unless otherwise provided in the certificate of incorporation or these bylaws, when one or more directors resign from the Board, effective at a future date, a majority of the directors then in office, including those who have so resigned, shall have power to fill such vacancy or vacancies, the vote thereon to take effect when such resignation or resignations shall become effective.

Unless otherwise provided in the certificate of incorporation or these bylaws:

(i) Vacancies and newly created directorships resulting from any increase in the authorized number of directors elected by all of the stockholders having the right to vote as a single class may be filled by a majority of the directors then in office, although less than a quorum, or by a sole remaining director.

(ii) Whenever the holders of any class or classes of stock or series thereof are entitled to elect one or more directors by the provisions of the certificate of incorporation, vacancies and newly created directorships of such class or classes or series may be filled by a majority of the directors elected by such class or classes or series thereof then in office, or by a sole remaining director so elected.

If at any time, by reason of death or resignation or other cause, the Company should have no directors in office, then any officer or any stockholder or an executor, administrator, trustee or guardian of a stockholder, or other fiduciary entrusted with like responsibility for the person or estate of a

stockholder, may call a special meeting of stockholders in accordance with the provisions of the certificate of incorporation or these bylaws, or may apply to the Court of Chancery for a decree summarily ordering an election as provided in Section 211 of the DGCL.

If, at the time of filling any vacancy or any newly created directorship, the directors then in office constitute less than a majority of the whole Board (as constituted immediately prior to any such increase), the Court of Chancery may, upon application of any stockholder or stockholders holding at least 10% of the voting stock at the time outstanding having the right to vote for such directors, summarily order an election to be held to fill any such vacancies or newly created directorships, or to replace the directors chosen by the directors then in office as aforesaid, which election shall be governed by the provisions of Section 211 of the DGCL as far as applicable.

A director elected to fill a vacancy shall be elected for the unexpired term of his or her predecessor in office and until such director's successor is elected and qualified, or until such director's earlier death, resignation or removal.

2.5 ***Place of Meetings; Meetings by Telephone***. The Board may hold meetings, both regular and special, either within or outside the State of Delaware.

Unless otherwise restricted by the certificate of incorporation or these bylaws, members of the Board, or any committee designated by the Board, may participate in a meeting of the Board, or any committee, by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and such participation in a meeting shall constitute presence in person at the meeting.

2.6 ***Conduct of Business***. Meetings of the Board shall be presided over by the Chairperson of the Board, if any, or in his or her absence by the Vice Chairperson of the Board, if any, or in the absence of the foregoing persons by a chairperson designated by the Board, or in the absence of such designation by a chairperson chosen at the meeting. The Secretary shall act as secretary of the meeting, but in his or her absence the chairperson of the meeting may appoint any person to act as secretary of the meeting.

2.7 ***Regular Meetings***. Regular meetings of the Board may be held without notice at such time and at such place as shall from time to time be determined by the Board.

2.8 ***Special Meetings; Notice***. Special meetings of the Board for any purpose or purposes may be called at any time by the Chairperson of the Board, the Chief Executive Officer, the President, the Secretary or any two directors.

Notice of the time and place of special meetings shall be:

(i) delivered personally by hand, by courier or by telephone;

(ii) sent by United States first-class mail, postage prepaid;

(iii) sent by facsimile; or

(iv) sent by electronic mail,

directed to each director at that director's address, telephone number, facsimile number or electronic mail address, as the case may be, as shown on the Company's records.

If the notice is (i) delivered personally by hand, by courier or by telephone, (ii) sent by facsimile or (iii) sent by electronic mail, it shall be delivered or sent at least 24 hours before the time of the holding of the meeting. If the notice is sent by United States mail, it shall be deposited in the United States mail at least four days before the time of the holding of the meeting. Any oral notice may be communicated to the director. The notice need not specify the place of the meeting (if the meeting is to be held at the Company's principal executive office) nor the purpose of the meeting.

2.9 ***Quorum; Voting***. At all meetings of the Board, a majority of the total authorized number of directors shall constitute a quorum for the transaction of business. If a quorum is not present at any meeting of the Board, then the directors present thereat may adjourn the meeting from time to time, without notice other than announcement at the meeting, until a quorum is present. A meeting at which a quorum is initially present may continue to transact business notwithstanding the withdrawal of directors, if any action taken is approved by at least a majority of the required quorum for that meeting.

The vote of a majority of the directors present at any meeting at which a quorum is present shall be the act of the Board, except as may be otherwise specifically provided by statute, the certificate of incorporation or these bylaws.

If the certificate of incorporation provides that one or more directors shall have more or less than one vote per director on any matter, every reference in these bylaws to a majority or other proportion of the directors shall refer to a majority or other proportion of the votes of the directors.

2.10 ***Board Action by Written Consent Without a Meeting***. Unless otherwise restricted by the certificate of incorporation or these bylaws, any action required or permitted to be taken at any meeting of the Board, or of any committee thereof, may be taken without a meeting if all members of the Board or committee, as the case may be, consent thereto in writing or by electronic transmission and the writing or writings or electronic transmission or transmissions are filed with the minutes of proceedings of the Board or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

2.11 ***Fees and Compensation of Directors***. Unless otherwise restricted by the certificate of incorporation or these bylaws, the Board shall have the authority to fix the compensation of directors.

2.12 ***Removal of Directors***. Unless otherwise restricted by statute, the certificate of incorporation or these bylaws, any director or the entire Board may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors.

No reduction of the authorized number of directors shall have the effect of removing any director prior to the expiration of such director's term of office.

ARTICLE III — COMMITTEES

3.1 ***Committees of Directors***. The Board may designate one or more committees, each committee to consist of one or more of the directors of the Company. The Board may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members thereof present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board or in these bylaws, shall have and may exercise all the powers and authority of the Board in the management of the business and affairs of the Company, and may authorize the seal of the Company to be affixed to all papers that may require it; but no such committee shall have the power or authority to (i) approve or adopt, or recommend to the stockholders, any action or matter (other than the election or removal of directors) expressly required by the DGCL to be submitted to stockholders for approval, or (ii) adopt, amend or repeal any bylaw of the Company.

3.2 ***Committee Minutes***. Each committee shall keep regular minutes of its meetings and report the same to the Board when required.

3.3 ***Meetings and Actions of Committees***. Meetings and actions of committees shall be governed by, and held and taken in accordance with, the provisions of:

(i) **section 2.5** (Place of Meetings; Meetings by Telephone);

(ii) **section 2.7** (Regular Meetings);

(iii) **section 2.8** (Special Meetings; Notice);

(iv) **section 2.9** (Quorum; Voting);

(v) **section 2.10** (Board Action by Written Consent Without a Meeting); and

(vi) **section 7.5** (Waiver of Notice)

with such changes in the context of those bylaws as are necessary to substitute the committee and its members for the Board and its members. *However*:

(i) the time of regular meetings of committees may be determined either by resolution of the Board or by resolution of the committee;

(ii) special meetings of committees may also be called by resolution of the Board; and

(iii) notice of special meetings of committees shall also be given to all alternate members, who shall have the right to attend all meetings of the committee. The Board may adopt rules for the government of any committee not inconsistent with the provisions of these bylaws.

3.4 ***Subcommittees***. Unless otherwise provided in the certificate of incorporation, these bylaws or the resolutions of the Board designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

ARTICLE IV — OFFICERS

4.1 ***Officers***. The officers of the Company shall be a President and a Secretary. The Company may also have, at the discretion of the Board, a Chairperson of the Board, a Vice Chairperson of the Board, a Chief Executive Officer, one or more Vice Presidents, a Chief Financial Officer, a Treasurer, one or more Assistant Treasurers, one or more Assistant Secretaries, and any such other officers as may be appointed in accordance with the provisions of these bylaws. Any number of offices may be held by the same person.

4.2 ***Appointment of Officers***. The Board shall appoint the officers of the Company, except such officers as may be appointed in accordance with the provisions of **section 4.3** of these bylaws.

4.3 ***Subordinate Officers***. The Board may appoint, or empower the Chief Executive Officer or, in the absence of a Chief Executive Officer, the President, to appoint, such other officers and agents as the business of the Company may require. Each of such officers and agents shall hold office for such period, have such authority, and perform such duties as are provided in these bylaws or as the Board may from time to time determine.

4.4 ***Removal and Resignation of Officers***. Any officer may be removed, either with or without cause, by an affirmative vote of the majority of the Board at any regular or special meeting of the Board or, except in the case of an officer chosen by the Board, by any officer upon whom such power of removal may be conferred by the Board.

Any officer may resign at any time by giving written notice to the Company. Any resignation shall take effect at the date of the receipt of that notice or at any later time specified in that notice. Unless otherwise specified in the notice of resignation, the acceptance of the resignation shall not be necessary to make it effective. Any resignation is without prejudice to the rights, if any, of the Company under any contract to which the officer is a party.

4.5 ***Vacancies in Offices***. Any vacancy occurring in any office of the Company shall be filled by the Board or as provided in **section 4.3**.

4.6 ***Representation of Shares of Other Corporations***. Unless otherwise directed by the Board, the President or any other person authorized by the Board or the President is authorized to vote, represent and exercise on behalf of the Company all rights incident to any and all shares of any other

corporation or corporations standing in the name of the Company. The authority granted herein may be exercised either by such person directly or by any other person authorized to do so by proxy or power of attorney duly executed by such person having the authority.

4.7 ***Authority and Duties of Officers***. Except as otherwise provided in these bylaws, the officers of the Company shall have such powers and duties in the management of the Company as may be designated from time to time by the Board and, to the extent not so provided, as generally pertain to their respective offices, subject to the control of the Board.

ARTICLE V — INDEMNIFICATION

5.1 ***Indemnification of Directors and Officers in Third Party Proceedings***. Subject to the other provisions of this **Article V**, the Company shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**") (other than an action by or in the right of the Company) by reason of the fact that such person is or was a director or officer of the Company, or is or was a director or officer of the Company serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such Proceeding if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe such person's conduct was unlawful. The termination of any Proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which such person reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that such person's conduct was unlawful.

5.2 ***Indemnification of Directors and Officers in Actions by or in the Right of the Company***. Subject to the other provisions of this **Article V**, the Company shall indemnify, to the fullest extent permitted by the DGCL, as now or hereinafter in effect, any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the Company to procure a judgment in its favor by reason of the fact that such person is or was a director or officer of the Company, or is or was a director or officer of the Company serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit if such person acted in good faith and in a manner such person reasonably believed to be in or not opposed to the best interests of the Company; except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the Company unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such

person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

5.3 ***Successful Defense***. To the extent that a present or former director or officer of the Company has been successful on the merits or otherwise in defense of any action, suit or proceeding described in **section 5.1** or **section 5.2**, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith.

5.4 ***Indemnification of Others***. Subject to the other provisions of this **Article V**, the Company shall have power to indemnify its employees and agents to the extent not prohibited by the DGCL or other applicable law. The Board shall have the power to delegate to such person or persons the determination of whether employees or agents shall be indemnified.

5.5 ***Advanced Payment of Expenses***. Expenses (including attorneys' fees) incurred by an officer or director of the Company in defending any Proceeding shall be paid by the Company in advance of the final disposition of such Proceeding upon receipt of an undertaking by or on behalf of the person to repay such amounts if it shall ultimately be determined that the person is not entitled to be indemnified under this **Article V** or the DGCL. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents may be so paid upon such terms and conditions, if any, as the Company deems appropriate.

5.6 ***Limitation on Indemnification and Advancement of Expenses***. Subject to the requirements in **section 5.3** and the DGCL, the Company shall not be required to provide indemnification or, with respect to clauses (i), (iii) and (iv) below, advance expenses to any person pursuant to this **Article V**:

(i) in connection with any Proceeding (or part thereof) initiated by such person except (i) as otherwise required by law, (ii) in specific cases if the Proceeding was authorized by the Board, or (iii) as is required to be made under **section 5.7**;

(ii) in connection with any Proceeding (or part thereof) against such person providing for an accounting or disgorgement of profits pursuant to the provisions of Section 16(b) of the Securities Exchange Act of 1934, as amended, or similar provisions of any federal, state or local statutory law or common law;

(iii) for amounts for which payment has actually been made to or on behalf of such person under any statute, insurance policy or indemnity provision, except with respect to any excess beyond the amount paid; or

(iv) if prohibited by applicable law.

5.7 ***Determination; Claim***. If a claim for indemnification or advancement of expenses under this **Article V** is not paid in full within 60 days after a written claim therefor has been received by the Company, the claimant may file suit to recover the unpaid amount of such claim and, if successful in

whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such suit, the Company shall have the burden of proving that the claimant was not entitled to the requested indemnification or advancement of expenses under applicable law.

5.8 ***Non-Exclusivity of Rights***. The indemnification and advancement of expenses provided by, or granted pursuant to, this **Article V** shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under the certificate of incorporation or any statute, bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. The Company is specifically authorized to enter into individual contracts with any or all of its directors, officers, employees or agents respecting indemnification and advancement of expenses, to the fullest extent not prohibited by the DGCL or other applicable law.

5.9 ***Insurance***. The Company may purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the Company, or is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the Company would have the power to indemnify such person against such liability under the provisions of the DGCL.

5.10 ***Survival***. The rights to indemnification and advancement of expenses conferred by this **Article V** shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

5.11 ***Effect of Repeal or Modification***. Any repeal or modification of this **Article V** shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification.

5.12 ***Certain Definitions***. For purposes of this **Article V**, references to the "**Company**" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under the provisions of this **Article V** with respect to the resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued. For purposes of this **Article V**, references to "**other enterprises**" shall include employee benefit plans; references to "**fines**" shall include any excise taxes assessed on a person with respect to an employee benefit plan; and references to "**serving at the request of the Company**" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of

the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner "**not opposed to the best interests of the Company**" as referred to in this **Article V**.

ARTICLE VI — STOCK

6.1 ***Stock Certificates; Partly Paid Shares***. The shares of the Company shall be represented by certificates, *provided* that the Board may provide by resolution or resolutions that some or all of any or all classes or series of its stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the Company. Every holder of stock represented by certificates shall be entitled to have a certificate signed by, or in the name of the Company by the Chairperson of the Board or Vice-Chairperson of the Board, or the President or a Vice-President, and by the Treasurer or an Assistant Treasurer, or the Secretary or an Assistant Secretary of the Company representing the number of shares registered in certificate form. Any or all of the signatures on the certificate may be a facsimile. In case any officer, transfer agent or registrar who has signed or whose facsimile signature has been placed upon a certificate has ceased to be such officer, transfer agent or registrar before such certificate is issued, it may be issued by the Company with the same effect as if such person were such officer, transfer agent or registrar at the date of issue. The Company shall not have power to issue a certificate in bearer form.

The Company may issue the whole or any part of its shares as partly paid and subject to call for the remainder of the consideration to be paid therefor. Upon the face or back of each stock certificate issued to represent any such partly paid shares, or upon the books and records of the Company in the case of uncertificated partly paid shares, the total amount of the consideration to be paid therefor and the amount paid thereon shall be stated. Upon the declaration of any dividend on fully paid shares, the Company shall declare a dividend upon partly paid shares of the same class, but only upon the basis of the percentage of the consideration actually paid thereon.

6.2 ***Special Designation on Certificates***. If the Company is authorized to issue more than one class of stock or more than one series of any class, then the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of the certificate that the Company shall issue to represent such class or series of stock; *provided* that, except as otherwise provided in Section 202 of the DGCL, in lieu of the foregoing requirements there may be set forth on the face or back of the certificate that the Company shall issue to represent such class or series of stock a statement that the Company will furnish without charge to each stockholder who so requests the powers, the designations, the preferences, and the relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

6.3 ***Lost Certificates***. Except as provided in this **section 6.3**, no new certificates for shares shall be issued to replace a previously issued certificate unless the latter is surrendered to the Company and cancelled at the same time. The Company may issue a new certificate of stock or uncertificated shares in the place of any certificate theretofore issued by it, alleged to have been lost, stolen or

destroyed, and the Company may require the owner of the lost, stolen or destroyed certificate, or such owner's legal representative, to give the Company a bond sufficient to indemnify it against any claim that may be made against it on account of the alleged loss, theft or destruction of any such certificate or the issuance of such new certificate or uncertificated shares.

6.4 ***Dividends***. The Board, subject to any restrictions contained in the certificate of incorporation or applicable law, may declare and pay dividends upon the shares of the Company's capital stock. Dividends may be paid in cash, in property, or in shares of the Company's capital stock, subject to the provisions of the certificate of incorporation.

The Board may set apart out of any of the funds of the Company available for dividends a reserve or reserves for any proper purpose and may abolish any such reserve.

6.5 ***Stock Transfer Agreements***. The Company shall have power to enter into and perform any agreement with any number of stockholders of any one or more classes of stock of the Company to restrict the transfer of shares of stock of the Company of any one or more classes owned by such stockholders in any manner not prohibited by the DGCL.

6.6 ***Registered Stockholders***. The Company:

(i) shall be entitled to recognize the exclusive right of a person registered on its books as the owner of shares to receive dividends and to vote as such owner;

(ii) shall be entitled to hold liable for calls and assessments the person registered on its books as the owner of shares; and

(iii) shall not be bound to recognize any equitable or other claim to or interest in such share or shares on the part of another person, whether or not it shall have express or other notice thereof, except as otherwise provided by the laws of Delaware.

6.7 ***Transfers***. Transfers of record of shares of stock of the Company shall be made only upon its books by the holders thereof, in person or by an attorney duly authorized, and upon the surrender of a certificate or certificates for a like number of shares, properly endorsed.

ARTICLE VII — MANNER OF GIVING NOTICE AND WAIVER

7.1 ***Notice of Stockholder Meetings***. Notice of any meeting of stockholders, if mailed, is given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder's address as it appears on the Company's records. An affidavit of the Secretary or an Assistant Secretary of the Company or of the transfer agent or other agent of the Company that the notice has been given shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

7.2 ***Notice by Electronic Transmission***. Without limiting the manner by which notice otherwise may be given effectively to stockholders pursuant to the DGCL, the certificate of

incorporation or these bylaws, any notice to stockholders given by the Company under any provision of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a form of electronic transmission consented to by the stockholder to whom the notice is given. Any such consent shall be revocable by the stockholder by written notice to the Company. Any such consent shall be deemed revoked if:

(i) the Company is unable to deliver by electronic transmission two consecutive notices given by the Company in accordance with such consent; and

(ii) such inability becomes known to the Secretary or an Assistant Secretary of the Company or to the transfer agent, or other person responsible for the giving of notice.

However, the inadvertent failure to treat such inability as a revocation shall not invalidate any meeting or other action.

Any notice given pursuant to the preceding paragraph shall be deemed given:

(i) if by facsimile telecommunication, when directed to a number at which the stockholder has consented to receive notice;

(ii) if by electronic mail, when directed to an electronic mail address at which the stockholder has consented to receive notice;

(iii) if by a posting on an electronic network together with separate notice to the stockholder of such specific posting, upon the later of (A) such posting and (B) the giving of such separate notice; and

(iv) if by any other form of electronic transmission, when directed to the stockholder.

An affidavit of the Secretary or an Assistant Secretary or of the transfer agent or other agent of the Company that the notice has been given by a form of electronic transmission shall, in the absence of fraud, be *prima facie* evidence of the facts stated therein.

An "**electronic transmission**" means any form of communication, not directly involving the physical transmission of paper, that creates a record that may be retained, retrieved, and reviewed by a recipient thereof, and that may be directly reproduced in paper form by such a recipient through an automated process.

Notice by a form of electronic transmission shall not apply to Sections 164, 296, 311, 312 or 324 of the DGCL.

7.3 ***Notice to Stockholders Sharing an Address***. Except as otherwise prohibited under the DGCL, without limiting the manner by which notice otherwise may be given effectively to stockholders, any notice to stockholders given by the Company under the provisions of the DGCL, the certificate of incorporation or these bylaws shall be effective if given by a single written notice to stockholders who

share an address if consented to by the stockholders at that address to whom such notice is given. Any such consent shall be revocable by the stockholder by written notice to the Company. Any stockholder who fails to object in writing to the Company, within 60 days of having been given written notice by the Company of its intention to send the single notice, shall be deemed to have consented to receiving such single written notice.

7.4 ***Notice to Person with Whom Communication is Unlawful***. Whenever notice is required to be given, under the DGCL, the certificate of incorporation or these bylaws, to any person with whom communication is unlawful, the giving of such notice to such person shall not be required and there shall be no duty to apply to any governmental authority or agency for a license or permit to give such notice to such person. Any action or meeting which shall be taken or held without notice to any such person with whom communication is unlawful shall have the same force and effect as if such notice had been duly given. In the event that the action taken by the Company is such as to require the filing of a certificate under the DGCL, the certificate shall state, if such is the fact and if notice is required, that notice was given to all persons entitled to receive notice except such persons with whom communication is unlawful.

7.5 ***Waiver of Notice***. Whenever notice is required to be given under any provision of the DGCL, the certificate of incorporation or these bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether before or after the time of the event for which notice is to be given, shall be deemed equivalent to notice. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened. Neither the business to be transacted at, nor the purpose of, any regular or special meeting of the stockholders need be specified in any written waiver of notice or any waiver by electronic transmission unless so required by the certificate of incorporation or these bylaws.

ARTICLE VIII — GENERAL MATTERS

8.1 ***Fiscal Year***. The fiscal year of the Company shall be fixed by resolution of the Board and may be changed by the Board.

8.2 ***Seal***. The Company may adopt a corporate seal, which shall be in such form as may be approved from time to time by the Board. The Company may use the corporate seal by causing it or a facsimile thereof to be impressed or affixed or in any other manner reproduced.

8.3 ***Annual Report***. The Company shall cause an annual report to be sent to the stockholders of the Company to the extent required by applicable law. If and so long as there are fewer than 100 holders of record of the Company's shares, the requirement of sending an annual report to the stockholders of the Company is expressly waived (to the extent permitted under applicable law).

8.4 ***Construction; Definitions***. Unless the context requires otherwise, the general provisions, rules of construction, and definitions in the DGCL shall govern the construction of these bylaws. Without limiting the generality of this provision, the singular number includes the plural, the plural number includes the singular, and the term “person” includes both a corporation and a natural person.

ARTICLE IX — AMENDMENTS

These bylaws may be adopted, amended or repealed by the stockholders entitled to vote. However, the Company may, in its certificate of incorporation, confer the power to adopt, amend or repeal bylaws upon the directors. The fact that such power has been so conferred upon the directors shall not divest the stockholders of the power, nor limit their power to adopt, amend or repeal bylaws.

A bylaw amendment adopted by stockholders which specifies the votes that shall be necessary for the election of directors shall not be further amended or repealed by the Board.

FLUIDIGM CORPORATION

CERTIFICATE OF ADOPTION OF BYLAWS

The undersigned hereby certifies that he or she is the duly elected, qualified and acting Secretary of Fluidigm Corporation, a Delaware corporation (the "**Company**"), and that the foregoing bylaws, comprising eighteen (18) pages, were adopted as the bylaws of the Company on March 29, 2007.

The undersigned has executed this certificate as of April 30, 2007.

/s/ Richard A. DeLateur
(*signature*)

Richard A. DeLateur
(*print name*)

Secretary
(*title*)

FLUIDIGM CORPORATION

CERTIFICATE OF AMENDMENT OF BYLAWS

The undersigned hereby certifies that he or she is the duly elected, qualified, and acting Secretary or Assistant Secretary of Fluidigm Corporation, a Delaware corporation (the "**Company**"), and that the foregoing bylaws, were amended and restated on _____ by the Company's board of directors.

The undersigned has executed this certificate as of _____.

_____
(*signature*)

_____
(*print name*)

_____
(*title*)

Exhibit 4.2

FLUIDIGM CORPORATION

SERIES E PREFERRED STOCK PURCHASE AGREEMENT

First Closing: June 13, 2006
Second Closing: December 22, 2006
Third Closing: March 30, 2007
Fourth Extended Closing: October 10, 2007
Fifth Extended Closing: October 26, 2007
Sixth Extended Closing: December 31, 2007

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SERIES E PREFERRED STOCK PURCHASE AGREEMENT

THIS SERIES E PREFERRED STOCK PURCHASE AGREEMENT is made as of June 13, 2006, by and among Fluidigm Corporation, a California corporation (the "**Company**"), and the purchasers listed on the Schedule of Purchasers attached hereto as EXHIBIT A (the "**Schedule of Purchasers**"). The persons or entities listed thereon are hereinafter referred to collectively as the "**Purchasers**" and individually as a "**Purchaser**."

THE PARTIES HEREBY AGREE AS FOLLOWS:

1. Purchase and Sale of Preferred Stock.

1.1 Authorization of the Shares. The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 5,000,000 shares (the "**Shares**") of its Series E Preferred Stock (the "**Series E Preferred**"), having the rights, preferences and privileges as set forth in the Amended and Restated Articles of Incorporation attached hereto as EXHIBIT B (the "**Restated Articles**").

1.2 Purchase and Sale of the Shares. Subject to the terms and conditions hereof and in reliance upon the representations, warranties and agreements contained herein, the Company will issue and sell to each Purchaser, severally and not jointly, and each Purchaser will purchase from the Company, severally and not jointly, at the Closing, the number of Shares set forth opposite the Purchaser's name on the Schedule of Purchasers, at a purchase price of Four Dollars ($4.00) per Share. The Company shall be entitled to sell any unpurchased Shares to any Purchaser or to a person who is not a Purchaser and to amend the Schedule of Purchasers to include the information relating to such sales, and such purchasers shall be considered "Purchasers" and parties to this Agreement; provided that (i) such sales are made pursuant to this Agreement or an agreement identical to this one except for the Closing Date and exhibits, and (ii) such sales are completed within 120 days of the Initial Closing (as defined below). The Company's agreement with each Purchaser is a separate agreement, and the sale of the Shares to each Purchaser is a separate sale.

1.3 Closing Date. The first closing of the purchase and sale of the Shares hereunder (the "**Initial Closing**") shall be held at the offices of Wilson Sonsini Goodrich & Rosati, 650 Page Mill Road, Palo Alto, California 94304 on June 13, 2006 (the "**Closing Date**") or such other date as the Company and a majority-in-interest of the Purchasers may agree. Subject to Section 1.2 above, subsequent closings under this Agreement may be held from time to time after the Initial Closing at such time and place as the Company and the relevant Purchasers agree ("**Subsequent Closings**"). For the purposes of this Agreement, the term "**Closing**" and "**Closing Date**" unless otherwise indicated, refers to the closing or date of closing of the purchase and sale of the Shares with respect to a particular Purchaser or group of Purchasers, whether such closing occurs at the Initial Closing or at a Subsequent Closing.

1.4 Delivery. At Closing, the Company shall deliver to each Purchaser a certificate, in such denomination and registered in Purchaser's name as set forth on the Schedule of Purchasers, representing the number of Shares which Purchaser is purchasing from the Company

against delivery to the Company of a check or wire transfer payable to the order of the Company in the amount of the purchase price of the Shares to be purchased by such Purchaser.

2. Representations and Warranties of the Company. The Company hereby represents and warrants to Purchaser that, except as set forth in the Schedule of Exceptions attached hereto as EXHIBIT C (the "**Schedule of Exceptions**"), which has been delivered to each Purchaser prior to Purchaser's execution hereof, each of the representations, warranties and statements contained in this Section 2 is true and correct as of the date of this Agreement and will be true and correct on and as of the Closing Date. For all purposes of this Agreement, the statements contained in the Schedule of Exceptions shall also be deemed to be representations and warranties made and given by Company under this Agreement.

2.1 Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of California and has all requisite corporate power and authority to carry on its business as currently conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify, individually or in the aggregate, would have a material adverse effect on its business (as now conducted), properties, or financial condition.

2.2 Corporate Power. The Company will have at the Closing all requisite legal and corporate power and authority to (i) execute and deliver this Agreement; (ii) sell and issue the Shares hereunder; (iii) issue the Common Stock issuable upon conversion of the Shares (the "**Conversion Shares**"); and (iv) carry out and perform its obligations under the terms of this Agreement.

2.3 Subsidiaries. The Company does not presently own or control, directly or indirectly, any interest in any other corporation, association, or other business entity.

2.4 Capitalization. The authorized capital stock of the Company consists, or immediately prior to the Initial Closing will consist, of 77,857,144 shares of Common Stock ("**Common Stock**"), of which 9,274,356 shares are issued and outstanding immediately prior to the Initial Closing and 51,687,948 shares of Preferred Stock ("**Preferred Stock**"), 2,727,273 of which are designated Series A Preferred Stock of which 2,727,273 are outstanding immediately prior to the Initial Closing; 6,460,675 of which are designated Series B Preferred Stock of which 6,460,675 are outstanding immediately prior to the Initial Closing; 17,000,000 of which are designated Series C Preferred Stock, 16,364,832 of which are issued and outstanding immediately prior to the Initial Closing; and 15,500,000 of which are designated Series D Preferred Stock, 11,714,048 of which are issued and outstanding immediately prior to the Initial Closing; and 10,000,000 of which are designated Series E Preferred Stock, none of which will be outstanding immediately prior to the Initial Closing. All such issued and outstanding shares have been duly authorized and validly issued in compliance with applicable laws, and are fully paid and nonassessable.

The Company has reserved: (i) 5,000,000 shares of Series E Preferred for issuance hereunder and 5,000,000 shares of Common Stock for issuance upon conversion of such shares of Series E Preferred; (ii) 11,714,048 shares of Common Stock for issuance upon conversion of the outstanding

shares of Series D Preferred; (iii) 916,335 shares of Series D Preferred for issuance upon exercise of outstanding warrants and 916,335 shares of Common Stock for issuance upon conversion of such Series D Preferred; (iv) 16,364,832 shares of Common Stock for issuance upon conversion of the outstanding shares of Series C Preferred Stock; (v) 294,868 shares of Series C Preferred Stock for issuance upon exercise of outstanding warrants and 294,868 shares of Common Stock for issuance upon conversion of such Series C Preferred Stock; (vi) 6,460,675 shares of Common Stock for issuance upon conversion of the outstanding Series B Preferred Stock; (vii) 2,727,273 shares of Common Stock for issuance upon conversion of the outstanding Series A Preferred Stock; and (viii) an aggregate of 10,800,000 shares of Common Stock for issuance to employees and consultants of the Company pursuant to the Company's 1999 Stock Option Plan, pursuant to which options to purchase 5,597,763 shares are granted and outstanding and 1,554,643 shares are available for future grant. Other than with respect to the shares reserved for issuance in the preceding sentence, or as set forth in the Ancillary Agreements (as defined below), there are no outstanding rights, options, warrants, conversion rights, preemptive rights, rights of first refusal or similar rights for the purchase or acquisition from the Company of any securities of the Company. There are no outstanding obligations of the Company to repurchase or redeem any of its securities.

Except as contemplated in the Investor Rights Agreement (as defined below), the Company has not granted or agreed to grant any registration rights, including piggyback rights, to any person or entity. Except as contemplated in the Second Amended and Restated Voting Agreement dated as of August 16, 2005, the Company is not a party or subject to any agreement or understanding, and to the Company's knowledge, there is no agreement or understanding between any person or entities, which relates to the voting or the giving of written consents with respect to any security of the Company or by a director of the Company.

2.5 Authorization. All corporate action on the part of the Company, its officers, directors and shareholders necessary for the authorization, execution and delivery of this Agreement, the Eighth Amended and Restated Investor Rights Agreement in the form attached hereto as EXHIBIT D (the "**Investor Rights Agreement**"), the performance of all obligations of the Company under this Agreement and the Investor Rights Agreement (other than those registration obligations contained in Section 1 of the Investor Rights Agreement), and any other agreements to which the Company is a party, the execution and delivery of which is a contemplated hereby (the "**Ancillary Agreements**") and the authorization, issuance (or reservation for issuance), sale and delivery of the Shares and the Conversion Shares has been taken or will be taken prior to the Closing. This Agreement and the Investor Rights Agreement constitute valid and legally binding obligations of the Company, enforceable against the Company in accordance with their respective terms, subject to: (i) judicial principles limiting the availability of specific performance, injunctive relief, and other equitable remedies; (ii) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights; and (iii) limitations on the enforceability of the indemnification provisions of the Investor Rights Agreement.

2.6 Valid Issuance of Preferred and Common Stock. The Shares that are being purchased by the Purchasers hereunder, when issued, sold and delivered in accordance with the

terms of this Agreement for the consideration expressed herein, will be duly and validly issued, fully paid, and nonassessable, and will be free of restrictions on transfer other than restrictions on transfer under this Agreement and the Investor Rights Agreement and under applicable state and federal securities laws. The Conversion Shares have been duly and validly reserved for issuance, and, upon issuance in accordance with the terms of the Restated Articles, will be duly and validly issued, fully paid, and nonassessable and will be free of restrictions on transfer other than restrictions on transfer under this Agreement and the Investor Rights Agreement and under applicable state and federal securities laws. The Conversion Shares may be issued without any registration or qualification under state and federal securities laws as such laws are currently in effect.

2.7 Governmental Consents. No consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority on the part of the Company is required in connection with the offer, sale or issuance of the Shares or the Conversion Shares or the consummation of any other transaction contemplated hereby, except for (a) the filing of the Restated Articles with the Secretary of State of the State of California prior to the Closing and (b) filings required pursuant to applicable federal and state securities laws and blue sky laws, which filings, the Company covenants to complete within the required statutory period.

2.8 Litigation. There is no action, suit, proceeding or investigation pending or, to the Company's knowledge, currently threatened against the Company before any court, administrative agency or other governmental body which questions the validity of this Agreement or the Investor Rights Agreement or the right of the Company to enter into any of them, or to consummate the transactions contemplated hereby or thereby, or which could result, either individually or in the aggregate, in any material adverse change in the condition (financial or otherwise), business, property, assets or liabilities of the Company, nor is the Company aware that there is any basis for the foregoing. The Company is not a party or subject to, and none of its assets is bound by, the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by or involving the Company currently pending or that the Company intends to initiate.

2.9 Employees. Each employee of the Company has executed a proprietary information and invention assignment agreement substantially in the form or forms made available to the Purchasers. To the Company's knowledge, no officer or key employee is in violation of any prior employee contract or proprietary information agreement. No employees of the Company are represented by any labor union or covered by any collective bargaining agreement. There is no pending or, to the Company's knowledge, threatened labor dispute involving the Company and any group of its employees. The Company is not aware that any officer or key employee intends to terminate his or her employment with the Company within the six months after Closing. The Company does not have a present intention to terminate the employment of any officer or key employee. Each officer and key employee is devoting 100% of his or her business time to the conduct of the business of the Company. The Company is not aware that any officer or key employee intends to work less than full time during the six months after Closing. Subject to general

principles related to wrongful termination of employees, the employment of each officer and employee of the Company is terminable at will.

2.10 Patents and Other Intangible Assets.

(a) The Company owns, or is licensed or otherwise has the legally enforceable right to use, all copyrights, domain names, maskworks, applications for the issuance or registration of any of the foregoing, trade secrets, confidential or proprietary know-how, data and information, ideas, inventions, designs, developments, algorithms, processes, schematics, techniques, computer programs, applications and other software, works of authorship, creative effort and, to the Company's knowledge after such investigation as the Company deemed reasonable, patents, patent applications, trademarks (including service marks and design marks) and applications therefor, tradenames (all of the foregoing generically, "**Intellectual Property Rights**") utilized in, or necessary for, its business as now conducted (collectively, the "**Company Intellectual Property**") without infringing upon the right of any person, corporation or other entity.

(b) Section 2.10 of the Schedule of Exceptions lists (i) all patents and patent applications and all registered and unregistered trademarks, trade names, copyrights and maskworks and registered domain names included in the Company Intellectual Property, including the jurisdictions in which each such intellectual property right has been issued or registered or in which any application for such issuance or registration has been filed, (ii) all licenses, sublicenses, collaborations and other agreements (or options for any of the foregoing) to which the Company is a party and pursuant to which any person, corporation or other entity is authorized to use any of the Company Intellectual Property, and (iii) all licenses, sublicenses, collaborations and other agreements (or options for any of the foregoing) to which the Company is a party and pursuant to which the Company is authorized to use any Intellectual Property Right of any third party (other than standard licenses for commercially available software). Each of the agreements in (ii) and (iii) above remain in full force and effect and, to the Company's knowledge, no party to any such agreement is in material breach or default under such agreement, and the Company is not aware of any act or failure to act by a party which would constitute a material breach or default under any such agreement, give rise to a right of the licensor to terminate any such agreement or otherwise result in termination of, or suspension or loss of exclusive rights under, any such agreement.

(c) To the Company's knowledge, the Company has not infringed or misappropriated any Intellectual Property Right of any other person, corporation or other entity. The Company has not received any communication or otherwise received any information alleging any such conduct by the Company or asserting a claim by any third party to the ownership of, or right to use, any of the Company Intellectual Property, and the Company does not know of any basis for any such claim. The Company is not aware of any action, suit, proceeding or investigation pending or currently threatened against the Company (or any third party owner or licensor of rights to the Company of any of the Company Intellectual Property) which would have a material impact on the Company's ownership of or exclusive or co-exclusive rights to use, the Company Intellectual Property.

(d) The Company is not aware that any of its employees is obligated under any agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with his or her ability to fully and freely perform their duties to the Company or that would conflict with the Company's business. To the Company's knowledge, neither the filing of the Restated Articles nor the execution and delivery of this Agreement or the Investor Rights Agreement, nor the carrying on of the Company's business by the employees of the Company, will conflict with or result in a material breach of the terms, conditions, or provisions of, or constitute a default under, any agreement under which any such employee is now obligated. The Company does not utilize, and will not be required to utilize, any invention, development or work of authorship of any of its employees (or persons it currently intends to hire) made prior to their employment by the Company.

(e) Except as described in Schedule 2.10, (i) the Company is not obligated, or under any liability whatsoever to make any payments by way of royalties, fees or otherwise, to any owner or licensor of, or other claimant to, any Company Intellectual Property, and (ii) the Company is not a party to any agreement concerning the Company Intellectual Property or any other Intellectual Property Right used or to be used by the Company in its business as conducted. No founder, director, officer or employee of the Company, or, to the Company's knowledge, no shareholder of the Company has any interest in the Company Intellectual Property.

(f) Except with respect to any rights granted under the agreements described in Schedule 2.10, the Company owns exclusively all rights arising from or associated with the research and development efforts of the Company, its founders, employees and independent contractors relating to the Company's business as now conducted, and all such rights form part of the Company Intellectual Property. The Company has secured valid written assignments from all employees and independent contractors who contributed to the creation or development of any of the Company Intellectual Property of the rights to such contributions that the Company does not already own by operation of law. The Company has not received notice of any claim being asserted by any current or former employee, independent contractor or other third party to the ownership, of or right to use, any of the Company Intellectual Property, or challenging or questioning the validity of any of the Company Intellectual Property, and the Company is not aware of any basis for any such claim.

(g) The Company has taken reasonable steps to protect and preserve the confidentiality of all material trade secrets included in Company Intellectual Property not otherwise protected by patents or copyright ("**Confidential Information**"). All disclosure of Confidential Information to a third party has been pursuant to the terms of a written confidentiality or non-disclosure agreement between the Company and such third party.

(h) The Company hereby represents and warrants that the data, written and oral reports and other representations and information that the Company provided to its investors (or their counsel) pertaining to the Company Intellectual Property, when taken as a whole, were truthful and, to the Company's knowledge, accurate in all material respects, and there was no omission therefrom which made such information misleading, or incomplete in any material way**.**

2.11 Compliance with Other Instruments. The Company is not in violation or default of any provision of its Articles of Incorporation or Bylaws, each as amended and in effect on and as of the Closing. The Company is not in violation or default of any material provision of any instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation to which it is a party or by which it or any of its properties or assets are bound or, to the best of its knowledge, of any provision of any federal, state or local statute, rule or governmental regulation. The execution, delivery and performance of and compliance with this Agreement and the Investor Rights Agreement, and the issuance and sale of the Shares, will not result in any such violation, be in conflict with or constitute, with or without the passage of time or giving of notice, a default under any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation; or require any consent or waiver under any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation (other than any consents or waivers that have been obtained); or result in the creation of any mortgage, pledge, lien, encumbrance or charge upon any of the properties or assets of the Company pursuant to any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation.

2.12 Permits. The Company has all franchises, permits, licenses, and any similar authority necessary for the conduct of its business as now being conducted by it. The Company is not in default in any material respect under any of such franchises, permits, licenses, or other similar authority.

2.13 Environmental and Safety Laws. To its knowledge, the Company is not in violation of any applicable statute, law, or regulation relating to the environment or occupational health and safety, and to its knowledge, no material expenditures by the Company are or will be required in order to comply with any such existing statute, law, or regulation.

2.14 Title to Property and Assets. The Company has good and marketable title to all of its properties and assets free and clear of all pledges, mortgages, liens security interests, charges and encumbrances, except liens for current taxes and assessments not yet due and possible minor liens and encumbrances which do not, in any case, individually or in the aggregate, materially detract from the value of the property subject thereto or materially impair the ownership or use of said property or assets, or the operations of the Company. With respect to the property and assets it leases, the Company is in compliance with such leases and, to the best of its knowledge, holds a valid leasehold interest free of all liens, claims or encumbrances. The Company's properties and assets are in good condition and repair in all material respects.

2.15 Agreements; Action.

(a) Except for agreements contemplated by this Agreement, there are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, affiliates, or any affiliate thereof other than standard option grants and stock purchase agreements entered into prior to the date of this Agreement.

(b) There are no agreements, understandings, instruments, contracts, proposed transactions, judgments, orders, writs or decrees to which the Company is a party or by which it is bound that may involve (i) obligations (contingent or otherwise) of, or payments by the Company in excess of, $100,000, other than in the ordinary course of business, (ii) the license of any patent, copyright, trade secret or other proprietary right to or from the Company other than standard commercial software licenses, (iii) provisions restricting or adversely affecting the development, manufacture or distribution of the Company's products or services, or (iv) indemnification by the Company with respect to infringements of proprietary rights other than indemnifications entered into in the ordinary course of business.

(c) For the purposes of subsection (b) above, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same person or entity (including persons or entities the Company has reason to believe are affiliated therewith) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(d) The Company is not a party to and is not bound by any contract, agreement or instrument, or subject to any restriction under its Restated Articles or its Bylaws that adversely affects its business as now conducted, its properties or its financial condition.

(e) The Company is not a guarantor or indemnitor of any indebtedness of any other person or entity.

(f) The Company has not engaged in the past three months in any discussion (i) with any representative of any entity or entities regarding the merger of the Company with or into any such entity or entities or any affiliate thereof, (ii) with any representative of any entity or any individual regarding the sale, conveyance or disposition of all or substantially all of the assets of the Company or a transaction or series of related transactions in which more than fifty percent (50%) of the voting power of the Company would be disposed of, or (iii) regarding any other form of liquidation, dissolution or winding up of the Company.

2.16 Financial Statements. The Company has made available to each Purchaser its unaudited balance sheet dated as of December 31, 2005 and the unaudited statement of operations for the fiscal year then ended, its unaudited balance sheet as of March 31, 2006, and its unaudited statement of operations and cash flow statement covering the three month period then ended (collectively, the "**Financial Statements**"). The Financial Statements are complete and correct in all material respects and have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods indicated. The Financial Statements accurately set out and describe the financial condition and operating results of the Company as of the date, and during the periods, indicated therein. Except as set forth in the Financial Statements, the Company has no material liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to March 31, 2006 and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in the Financial Statements, which, in both cases, individually or in the aggregate are not material to the financial condition or operating results of the Company.

2.17 Changes. Since March 31 2006:

(a) the Company has not (i) declared or paid any dividends or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or any other liabilities outside the ordinary course of its business individually in excess of $100,000 or, in the case of indebtedness and/or liabilities individually less than $100,000, in excess of $200,000 in the aggregate, (iii) made any loans or advances to any person, other than ordinary advances for reimbursable businesses expenses, (iv) sold, exchanged, assigned, transferred, licensed or otherwise disposed of any of its assets or rights (including Company Intellectual Property), other than the sale of its inventory in the ordinary course of business, (v) waived or compromised a valuable right or a material debt owed to it, (vi) materially changed any compensation arrangement or agreement with any employee, officer, director or shareholder, or (vii) arranged or committed to do any of the things described in this subsection (a); and

(b) there has not been (i) a loss of, or a material order cancellation by, any major customer of the Company, (ii) any damage, destruction or loss, whether or not covered by insurance, materially and adversely affecting the business, properties, or financial condition of the Company, (iii) any change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the Financial Statements, except changes in the ordinary course of business that have not been, in the aggregate, materially adverse, (iv) any resignation or termination of any officer or key employee of the Company, and the Company is not aware of the impending resignation or termination of employment of any such officer, or (v) to the best of the Company's knowledge, any other event or condition of any character that would materially and adversely affect the business, properties, or financial condition of the Company.

2.18 Brokers or Finders. The Company has not agreed to incur, directly or indirectly, any liability for brokerage or finders' fees, agents' commissions or other similar charges in connection with this Agreement or any of the transactions contemplated hereby.

2.19 Qualified Small Business Stock.

(a) As of and immediately following the Closing, the Shares will meet each of the requirements for qualification as "qualified small business stock" set forth in Section 1202(c) of the Internal Revenue Code of 1986, as amended (the "**Code**"), including without limitation the following: (i) the Company will be a domestic C corporation, (ii) the Company will not have made any purchases of its own stock described in Code Section 1202(c)(3)(B) during the one-year period preceding the Closing, and (iii) the Company's (and any predecessor's) aggregate gross assets, as defined by Code Section 1202(d)(2), at no time from the date of incorporation of the Company and through the Closing have exceeded or will exceed $50 million, taking into account the assets of any corporations required to be aggregated with the Company in accordance with Code Section 1202(d)(3).

(b) As of the Closing, at least 80% (by value) of the assets of the Company are used by it in the active conduct of one or more qualified trades or businesses, as defined by Code

Section 1202(e)(3), and the Company is an eligible corporation, as defined by Code Section 1202(e)(4).

2.20 Employee Benefit Plans. The Company does not have any Employee Benefit Plan as defined in the Employee Retirement Income Security Act of 1974 other than the Company's 401(k) Plan. The Company is in material compliance with the terms of the Company's 401(k) Plan and has not received notice of any material increase in the costs of such plans.

2.21 Tax Matters. The Company has filed all tax returns and reports as required by law. These returns and reports are true and correct in all material respects. The Company has paid all taxes and other assessments due. The Company has not elected pursuant to the Code, to be treated as a Subchapter S corporation or a collapsible corporation pursuant to Section 1362(a) or Section 341(f) of the Code, nor has it made any other elections pursuant to the Code (other than elections that relate solely to methods of accounting, depreciation or amortization) that would have a material effect on the business, properties or condition (financial or otherwise) of the Company. None of the Company's tax returns have ever been audited by any governmental authorities. The Company has withheld or collected from each payment made to its employees the amount of all taxes (including without limitation, federal income taxes, Federal Insurance Contribution Act taxes and Federal Unemployment Tax Act taxes) required to be withheld or collected therefrom, and has paid the same to the proper tax receiving officers or authorized depositories.

2.22 Insurance. The Company has in full force and effect fire and casualty insurance policies, with extended coverage, sufficient in amount (subject to reasonable deductibles) to allow it to replace any of its properties that might be damaged or destroyed. The Company has obtained term life insurance payable to the Company on the lives of Stephen Quake and Gajus Worthington in the amount of $500,000. The Company has in full force and effect directors and officers liability insurance, covering all of its directors, with aggregate coverage in the amount of $2,000,000.

2.23 Corporate Documents. The Restated Articles and Bylaws of the Company are in the form made available to the Purchasers. The copy of the minute books of the Company made available to the Purchasers' counsel contains true and correct minutes of all meetings of directors (including any committees thereof) and shareholders and all actions by written consent taken without a meeting by the directors and shareholders since December 18, 2003.

2.24 Disclosure. The Company has fully provided each Purchaser with all the information which such Purchaser has requested in connection with the purchase of the Shares hereunder, as well as all information which the Company in its judgment believes is reasonably necessary to enable such Purchaser to make a decision as to whether to invest in the Company. Neither this Agreement with the Exhibits hereto, nor any other statements, certificates or documents made or delivered in connection herewith or therewith, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading in light of the circumstances under which they were made. The financial projections made available to the Purchasers (the "**Projections**") were prepared in good faith and based upon assumptions that the Company believes are reasonable, and represent the Company's good faith

estimate of its future plans and results; provided however that the Company does not represent or warrant that it will achieve any of the Projections.

2.25 Offering. Subject in part to the truth and accuracy of each Purchaser's representations set forth in this Agreement, the offer, sale and issuance of the Shares as contemplated by this Agreement is exempt from the registration requirements of the Securities Act of 1933, as amended (the "**Securities Act**"), and from the registration or qualification requirements of applicable state securities laws or blue sky laws, and neither the Company nor any authorized agent acting on its behalf will take any action hereafter that would cause the loss of such exemption.

2.26 Returns and Complaints. The Company has not received customer complaints concerning alleged defects in the design of its products that, if true, would have, individually or in the aggregate, a material adverse effect on its business, properties, or financial condition.

3. Representations and Warranties of the Purchasers. Each Purchaser, individually and not jointly, hereby represents and warrants as of the Closing Date that:

3.1 Experience. Such Purchaser is experienced in evaluating start-up companies such as the Company, is able to evaluate and represent its own interests in transactions such as the one contemplated by this Agreement, has such knowledge and experience in financial and business matters such that Purchaser is capable of evaluating the merits and risks of Purchaser's prospective investment in the Company, and has the ability to bear the economic risks of its investment.

3.2 Investment. Such Purchaser is acquiring the Shares, and the Conversion Shares, for investment for such Purchaser's own account and not with the view to, or for resale in connection with, any distribution thereof. Such Purchaser understands that the Shares, and the Conversion Shares have not been registered under the Securities Act by reason of a specific exemption from the registration provisions of the Securities Act which depends upon, among other things, the bona fide nature of the investment intent as expressed herein. Such Purchaser further represents that it does not have any contract, undertaking, agreement or arrangement with any person to sell, transfer or grant participation to any third person with respect to any of the Shares, or the Conversion Shares, other than a transfer not involving a change of beneficial ownership. Such Purchaser understands and acknowledges that the offering of the Shares pursuant to this Agreement will not be registered under the Securities Act on the ground that the sale provided for in this Agreement is exempt from the registration requirements of the Securities Act.

3.3 Rule 144. Such Purchaser acknowledges that the Shares and the Conversion Shares must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available. Such Purchaser is aware of the provisions of Rule 144 promulgated under the Securities Act which permit limited resale of shares purchased in a private placement subject to the satisfaction of certain conditions. Such Purchaser covenants that, in the absence of an effective registration statement covering the stock in question, such Purchaser will sell, transfer, or otherwise dispose of the Shares or the Conversion Shares only in a manner consistent with applicable securities laws and such Purchaser's representations and covenants set forth in this Section 3. In connection therewith, such Purchaser acknowledges that the Company

will make a notation on its stock books regarding the restrictions on transfers set forth in this Section 3 and will transfer securities on the books of the Company only to the extent not inconsistent therewith.

3.4 Legends. Purchaser understands and acknowledges that the certificate evidencing its Shares and the Conversion Shares will be imprinted with legends in the form set forth in Section 1.3 of the Investor Rights Agreement.

3.5 No Public Market. Such Purchaser understands that no public market now exists for any of the securities issued by the Company, and that the Company has made no assurances that a public market will ever exist for the Shares or the Conversion Shares.

3.6 Access to Data. Such Purchaser has received and reviewed information about the Company and has had an opportunity to discuss the Company's business, management and financial affairs with its management and to review the Company's facilities. The foregoing, however, does not limit or modify the representations and warranties of the Company in Section 2 of this Agreement or the right of the Purchasers to rely thereon.

3.7 Authorization. This Agreement when executed and delivered by such Purchaser will constitute a valid and legally binding obligation of the Purchaser, enforceable against the Purchaser in accordance with its terms, subject to: (i) judicial principles respecting election of remedies or limiting the availability of specific performance, injunctive relief, and other equitable remedies; (ii) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights; and (iii) limitations on the enforceability of the indemnification provisions of the Investor Rights Agreement.

3.8 Accredited Investor. Such Purchaser acknowledges that it is an "accredited investor" as defined in Rule 501 of Regulation D as promulgated by the Securities and Exchange Commission under the Securities Act and shall submit to the Company such further assurances of such status as may be reasonably requested by the Company. The principal address of such Purchaser is as set forth on the Schedule of Purchasers.

3.9 Public Solicitation. Purchaser knows of no public solicitation or advertisement of an offer in connection with the proposed issuance and sale of the Shares.

3.10 Tax Advisors. Purchaser has reviewed with Purchaser's own tax advisors the federal, state and local tax consequences of this investment, where applicable, and the transactions contemplated by this Agreement. Each Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents and understands that each Purchaser (and not the Company) shall be responsible for the Purchaser's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

3.11 Purchaser Counsel. Purchaser acknowledges that it has had the opportunity to review this Agreement, the exhibits and the schedules attached hereto and the transactions contemplated by this Agreement with Purchaser's own legal counsel. Each Purchaser is relying

solely on such counsel and not on any statements or representations of the Company or any of its agents for legal advice with respect to this investment or the transactions contemplated by this Agreement.

3.12 Brokers or Finders. The Company has not incurred and will not incur, directly or indirectly, as a result of any action taken by such Purchaser, any liability for brokerage or finders' fees or agents' commissions or any similar changes in connection with this Agreement.

3.13 Non-United States Persons. If Purchaser is not a United States person, such Purchaser hereby represents that such Purchaser is satisfied as to the full observance of the laws of such Purchaser's jurisdiction in connection with any invitation to subscribe for the Shares and the Conversion Shares or any use of this Agreement, the Investor Rights Agreement and the Voting Agreement, including (i) the legal requirements within such Purchaser's jurisdiction for the purchase of Shares and the Conversion Shares, (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of such securities. Such Purchaser's subscription and payment for, and such Purchaser's continued beneficial ownership of, the Shares and the Conversion Shares will not violate any applicable securities or other laws of such Purchaser's jurisdiction.

4. Conditions of Purchaser's Obligations at Closing. The obligations of each Purchaser under this Agreement are subject to the fulfillment on or before the Closing of each of the following conditions, the waiver of which shall not be effective against any Purchaser who does not consent in writing thereto:

4.1 Representations and Warranties. The representations and warranties of the Company contained in Section 2 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the date of the Closing.

4.2 Performance. The Company shall have performed and complied with all agreements, obligations and conditions contained in this Agreement that are required to be performed or complied with by it on or before the Closing.

4.3 Compliance Certificate. The President of the Company shall deliver to each Purchaser at the Closing a certificate stating that the conditions specified in Sections 4.1 and 4.2 have been fulfilled and stating that as of the Closing there shall have been no adverse change in the business, affairs, operations, properties, assets or condition of the Company.

4.4 Blue Sky. The Company shall have obtained all necessary permits and qualifications, if any, or secured an exemption therefrom, required by any state or country prior to the offer and sale of the Shares.

4.5 Opinion of Company Counsel. Each Purchaser in the Initial Closing shall have received from Wilson Sonsini Goodrich & Rosati, Professional Corporation, counsel for the Company, an opinion, dated as of the Initial Closing, in the form attached hereto as EXHIBIT E.

4.6 Investor Rights Agreement. The Company and each Purchaser shall have entered into the Investor Rights Agreement.

4.7 Restated Articles. The Restated Articles shall have been accepted for filing by the California Secretary of State and shall be in full force and effect as of the Closing Date.

4.8 Corporate Proceedings; Waivers and Consents. All corporate and other proceedings to be taken and all waivers, consents and permits necessary or appropriate for the consummation of the transactions contemplated by this Agreement will have been taken or obtained.

5. Conditions of the Company's Obligations at Closing. The obligations of the Company to each Purchaser under this Agreement are subject to the fulfillment on or before the Closing of each of the following conditions by that Purchaser:

5.1 Representations and Warranties. The representations and warranties of the Purchasers contained in Section 3 shall be true on and as of the Closing with the same effect as though such representations and warranties had been made on and as of the Closing.

5.2 Payment of Purchase Price. Each Purchaser shall have delivered the purchase price against delivery of the Shares as set forth in Section 1.4 by the Company to such Purchaser.

5.3 Blue Sky. The Company shall have obtained all necessary permits and qualifications, if any, or secured an exemption therefrom, required by any state or country for the offer and sale of the Shares.

5.4 Investor Rights Agreements. The Company and each Purchaser shall have entered into the Investor Rights Agreement.

5.5 Restated Articles . The Restated Articles shall have been accepted for filing by the California Secretary of State and shall be in full force and effect as of the Closing Date.

5.6 Proceedings and Documents. All corporate and other proceedings in connection with the transactions contemplated at the Closing hereby, and all documents and instruments incident to these transactions, shall be reasonably satisfactory in substance to the Company and its counsel.

6. Miscellaneous.

6.1 Governing Law; Jurisdiction. This Agreement and all acts and transactions pursuant hereto and the rights and obligations of the parties hereto shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions. The parties hereto agree to submit to the exclusive jurisdiction of the federal and state courts of San Mateo County, California with respect to the breach or interpretation of this Agreement or the enforcement of any and all rights, duties, liabilities, obligations, powers, and other relations between the parties arising under this Agreement.

6.2 Indemnification. The Company shall indemnify, defend and hold each Purchaser harmless against all liability, loss or damage (collectively, "**Losses**" and individually, a "**Loss**") arising from any litigation, proceeding or dispute arising from such Purchaser's status as a shareholder of the Company other than Losses arising from such Purchaser's gross negligence or willful misconduct, provided that such indemnification shall apply only to litigation, proceedings or disputes arising prior to the Company's Initial Public Offering (as defined in the Investor Rights Agreement) and the Company's obligation to indemnify any Purchaser shall be limited in amount to the amount paid by such Purchaser for the purchase of such Purchaser's Shares as set forth on EXHIBIT A. The foregoing indemnity is not intended to supercede or replace the indemnification obligations of the parties set forth in Section 1.10 of the Investor Rights Agreement nor shall it be construed to limit any other rights and remedies of the Purchasers under this Agreement or any other indemnification to which such Purchaser may be entitled under any other agreement of the Company. The foregoing indemnification rights are transferable only to Affiliates (as defined in the Investor Rights Agreement) of a Purchaser.

6.3 Survival. The representations, warranties, covenants and agreements made herein shall survive any investigation made by any Purchaser or the Company and the Closing of the transactions contemplated hereby; provided, however, that such representations and warranties are only made as of the date of such execution and delivery and as of such Closing.

6.4 Successors and Assigns. Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto; provided, however, that the rights of a Purchaser to purchase Shares at the Closing shall not be assignable without the consent of the Company.

6.5 Entire Agreement; Amendment. This Agreement and the other documents delivered pursuant hereto constitute the full and entire understanding and agreement among the parties with regard to the subjects hereof and thereof relating to the purchase of the Shares. Neither this Agreement nor any term hereof may be amended, waived, discharged or terminated other than by a written instrument signed by the Company and the holder or holders of greater than fifty percent (50%) of the then-outstanding Shares or the Conversion Shares. Notwithstanding the foregoing, any additional purchaser pursuant to Section 1.2 may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and such purchaser shall be deemed a Purchaser hereunder. The parties agree that the Schedule of Purchasers attached hereto as Exhibit A shall be updated automatically without any formal amendment to reflect the addition of any such additional Purchaser. Any amendment or waiver effected in accordance with this Section 6.5 shall be binding upon the Purchasers and each transferee of the Shares (or the Common Stock issuable upon conversion thereof), each future holder of all such securities, and the Company.

6.6 Notices, Etc. All notices and other communications required or permitted hereunder, shall be in writing and shall be personally delivered, sent by facsimile, mailed by registered or certified mail, postage prepaid, return receipt requested, or delivered by a nationally recognized overnight courier, addressed (a) if to a Purchaser, at such Purchaser's address or

facsimile number set forth on the Schedule of Purchasers, or at such other address or facsimile number as such Purchaser shall have furnished to the Company in writing, or (b) if to the Company, at its address or facsimile number set forth on the signature page to this Agreement addressed to the attention of the Corporate Secretary, or at such other address or facsimile number as the Company shall have furnished to the Purchasers. Any such notice or communication shall be deemed to have been received (A) in the case of personal delivery or delivery by telecopier, on the date of such delivery, (B) in the case of a commercial overnight courier, on the next business day after the date when sent and (C) in the case of mailing, on the fifth business day following that on which the piece of mail containing such communication is posted.

6.7 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any holder of any Shares upon any breach or default of the Company under this Agreement shall impair any such right, power or remedy of such holder, nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any holder of any breach or default under this Agreement, or any waiver on the part of any holder of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing or as provided in this Agreement. All remedies, either under this Agreement or by law or otherwise afforded to any holder, shall be cumulative and not alternative.

6.8 California Corporate Securities Law. THE SALE OF THE SECURITIES WHICH ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF SUCH SECURITIES OR THE PAYMENT OR RECEIPT OF ANY PART OF THE CONSIDERATION THEREFOR PRIOR TO SUCH QUALIFICATION IS UNLAWFUL, UNLESS THE SALE OF SECURITIES IS EXEMPT FROM THE QUALIFICATION BY SECTION 25100, 25102, OR 25105 OF THE CALIFORNIA CORPORATIONS CODE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON SUCH QUALIFICATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT.

6.9 Finder's Fee. The Company and each Purchaser shall each indemnify and hold the other harmless from any liability for any commission or compensation in the nature of a finder's fee (including the costs, expenses and legal fees of defending against such liability) for which the Company or the Purchasers, or any of their respective partners, employees, or representatives, as the case may be, is responsible.

6.10 Expenses. The Company and each Purchaser shall bear its own expenses and legal fees incurred on its behalf with respect to this Agreement and the transactions contemplated hereby.

6.11 Waiver of Conflict. Each of the Purchasers and the Company acknowledges that Wilson Sonsini Goodrich & Rosati, Professional Corporation ("**WSGR**") may have represented and may currently represent Purchasers. In the course of such representation, WSGR may have

come into possession of confidential information relating to such Purchasers. Each of the Purchasers and the Company acknowledges that WSGR is representing only the Company in this transaction. Pursuant to Rule 3-310 of the Rules of Professional Conduct promulgated by the State Bar of California, an attorney must avoid representations in which the attorney has or had a relationship with another party interested in the representation without the informed written consent of all parties affected. By executing this Agreement, each of the Purchasers and the Company hereby waives any actual or potential conflict of interest that may arise in this financing as a result of WSGR's representation of such persons or entities, WSGR's possession of such confidential information and the participation by WSGR's affiliate in the financing. Each of the Purchasers and the Company represents that it has had the opportunity to consult with independent counsel concerning the giving of this waiver.

6.12 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision; provided that no such severability shall be effective if it materially changes the economic benefit of this Agreement to any party.

6.13 Counterparts; Facsimile. This Agreement may be executed in any number of counterparts, each of which may be executed by less than all Purchasers, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument. This Agreement may be executed by facsimile signature.

6.14 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not to be considered in construing or interpreting this Agreement.

6.15 Exculpation Among Purchasers. Each Purchaser acknowledges that it is not relying upon any person, firm or corporation (including without limitation any other Purchaser), other than the Company and its officers and directors (acting in their capacity as representatives of the Company), in deciding to invest and in making its investment in the Company. Each Purchaser agrees that no other Purchaser nor the respective controlling persons, officers, directors, partners, agents or employees of any other Purchaser shall be liable to such Purchaser for any losses incurred by such Purchaser in connection with its investment in the Company.

6.16 Like Treatment of Holders. The Company shall not directly or indirectly pay or cause to be paid any consideration, whether by way of interest, fee, payment for the redemption or exchange of Preferred Stock, or otherwise to any holder of Preferred Stock for or as inducement to, any consent, waiver or amendment of any term or provision of the Preferred Stock, this Agreement or the Investor Rights Agreement unless equivalent consideration is offered on equivalent terms and conditions to all Purchasers of Preferred Stock under this Agreement bound by such consent, waiver or amendment.

6.17 Jury Trial. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING (WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATED TO THIS AGREEMENT.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington
Gajus Worthington
President and Chief Executive Officer

7100 Shoreline Court
South San Francisco, CA 94080
FAX: (650) 871-7195

PURCHASER:

AllianceBernstein L.P.

By: /s/ Adam Spilka

Name: Adam Spilka

Title: SVP, Counsel, Secretary

EXHIBIT A

SCHEDULE OF PURCHASERS

Name and Address	Shares of Series E		Purchase Price
AllianceBernstein L.P.	1,250,000	$	5,000,000.00
TOTALS	**1,250,000**	**$**	**5,000,000.00**

FLUIDIGM CORPORATION

AMENDMENT NO. 1 TO
SERIES E PREFERRED STOCK PURCHASE AGREEMENT

This Amendment No. 1 (the "**Amendment**") to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006 (the "**Purchase Agreement**"), is made and entered into effective as of December 22, 2006 (the "**Effective Date**") by and among Fluidigm Corporation, a California corporation (the "**Company**"), and the Purchasers named therein. Capitalized terms used in this Amendment that are not otherwise defined herein shall have the respective meanings assigned to them in the Purchase Agreement.

RECITALS

WHEREAS, the Company previously sold and issued an aggregate of 1,250,000 shares of Series E Preferred Stock of the Company (the "**Series E Preferred**") pursuant to the terms of the Purchase Agreement at the Initial Closing held on June 13, 2006;

WHEREAS, the Company and the Purchaser now desire to amend the terms of the Purchase Agreement to provide that the Company may sell and issue additional shares of Series E Preferred pursuant to the Purchase Agreement, at one or more additional Subsequent Closings, provided that any such additional Subsequent Closings shall take place no later than March 31, 2007.

WHEREAS, pursuant to Section 6.5 of the Purchase Agreement, the terms of the Purchase Agreement may be amended upon the written consent of the Company and the holder or holders of greater than fifty percent (50%) of the outstanding Shares or the Conversion Shares; and

WHEREAS, the Purchaser who has signed below holds greater than fifty percent (50%) of the outstanding Shares purchased under the Purchase Agreement as of the Effective Date and consents to the changes as set forth in this Amendment.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto mutually agree as follows:

AGREEMENT

1. Amendment to Section 1.1. Section 1.1 (Authorization of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"1.1 Authorization of the Shares. The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 6,318,333 shares (the "**Shares**") of its

Series E Preferred Stock (the "**Series E Preferred**"), having the rights, preferences and privileges as set forth in the Amended and Restated Articles of Incorporation attached hereto as EXHIBIT B (the "**Restated Articles**")."

2. Amendment to Section 1.2. Section 1.2 (Purchase and Sale of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"1.2 Purchase and Sale of the Shares. Subject to the terms and conditions hereof and in reliance upon the representations, warranties and agreements contained herein, the Company will issue and sell to each Purchaser, severally and not jointly, and each Purchaser will purchase from the Company, severally and not jointly, at the Closing, the number of Shares set forth opposite the Purchaser's name on the Schedule of Purchasers, at a purchase price of Four Dollars ($4.00) per Share. The Company shall be entitled to sell any unpurchased Shares to any Purchaser or to a person who is not a Purchaser and to amend the Schedule of Purchasers to include the information relating to such sales, and such purchasers shall be considered "Purchasers" and parties to this Agreement; provided that (i) such sales are made pursuant to this Agreement or an agreement identical to this one except for the Closing Date and exhibits, and (ii) such sales are completed on or prior to March 31, 2007. The Company's agreement with each Purchaser is a separate agreement, and the sale of the Shares to each Purchaser is a separate sale."

3. Governing Law. This Amendment shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions.

4. Purchase Agreement. Wherever necessary, all other terms of the Purchase Agreement are hereby amended to be consistent with the terms of this Amendment. Except as specifically set forth herein, the Purchase Agreement shall remain in full force and effect.

5. Counterparts; Facsimile. This Amendment may be executed in any number of counterparts, each of which shall be an original, and all of which together shall constitute one instrument. Executed signatures transmitted via facsimile will be accepted and considered duly executed.

6. Effect of Execution of Amendment by Certain Purchaser. This Amendment, when executed and delivered by the Company and a Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof, shall also constitute and shall be deemed a counterpart signature page to the Purchase Agreement. Consequently, each undersigned Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof acknowledges and agrees that he, she or it is bound by the terms and

conditions contained in the Purchase Agreement, as amended by this Amendment, with respect to the purchase of such shares.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

COMPANY:

FLUIDIGM CORPORATION
a California corporation

By: /s/ Gajus Worthington
Gajus Worthington,
President and Chief Executive Officer

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

CROSS CREEK CAPITAL, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

CROSS CREEK CAPITAL EMPLOYEES' FUND, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

WASATCH FUNDS, INC.
Wasatch Small Cap Growth Fund

By: Wasatch Advisors, Inc.
Its: Investment Adviser

By: /s/ Dan Thurber
Name: Dan Thurber
Title: Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

SMALLCAP WORLD FUND, INC.

By: Capital Research and Management Company, its, investment adviser

By: /s/ Michael Downer

Name: Michael Downer

Title:

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

AllianceBernstein Venture Fund I, L.P.

By: AllianceBernstein ESG Venture Management, L.P., its general partner

By: AllianceBernstein Global Derivatives Corporation, its general partner

By: /s/ James D. Kiggen

Name: James D. Kiggen

Title: Senior Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

VERSANT AFFILIATES FUND 1-A, L.P.
VERSANT AFFILIATES FUND 1-B, L.P.
VERSANT SIDE FUND I, L.P.
VERSANT VENTURE CAPITAL I, L.P.

By: Versant Ventures I, LLC
its General Partner

By: /s/ Samuel D. Colella

Name: Samuel D. Colella

Title: Managing Director

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL L.P.

By: Lehman Brothers HealthCare Venture Capital Associates L.P.,
its General Partner
By: LB I Group Inc., its General Partner

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

LEHMAN BROTHERS P.A. LLC

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

LEHMAN BROTHERS PARTNERSHIP ACCOUNT 2000/2001, L.P.

By: LB I Group Inc., its General Partner

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT 2000/2001, L.P.

By: LB I Offshore Partners Group Ltd., its General Partner

By: /s/ Michael Odrich
Name: Michael Odrich
Its: Senior Vice President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

EUCLIDSR PARTNERS, L.P.

By: EuclidSR Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.

By: EuclidSR Biotechnology Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

INTERWEST PARTNERS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

INTERWEST INVESTORS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

Lilly Bioventures, Eli Lilly & Company

By: /s/ Thomas W. Grein

Name: Thomas W. Grein

Title: Vice President and Treasurer

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

ALLOY VENTURES 2005, L.P.

By: Alloy Ventures 2005, LLC
its General Partner

By: /s/ Tony DiBona

Name: Toni DiBona

Title: Managing Member of Alloy Ventures 2005 LLC

ALLOY VENTURES 2002, L.P.
ALLOY PARTNERS 2002, L.P.

By: Alloy Ventures 2002, LLC
its General Partner

By: /s/ Tony DiBona

Name: Tony DiBona

Title: Managing Member of Alloy Ventures 2002, LLC, the general partner of Alloy Partners 2002, L.P. and Alloy Ventures 2002, L.P.

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

SIGHTLINE HEALTHCARE FUND III, L.P.

By: /s/ Kenneth E. Higgins

Name: Kenneth E. Higgins

Title: Managing Director of Sightline Partners LLC, general partner of its general partner

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASER:

/s/ Bruce Burrow
BRUCE BURROWS

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ John M. Harland

JOHN M. HARLAND

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

FERGUSON/EGAN FAMILY TRUST DATED 6/28/99

By: /s/ Rodney A. Ferguson
Name: Rodney A. Ferguson
Title: Trustee

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

HEALTH CARE ADMINISTRATION COMPANY

By: /s/ Gary L. Bowers
Name: Gary L. Bowers
Title: President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

THE CONDON FAMILY TRUST

By: /s/ Thomas J. Condon
Name: Thomas J. Condon
Title: Trustee

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

IN-Q-TEL, INC.

By: /s/ Scott G. Yancey
Name: Scott G. Yancey
Title: Executive Vice President

IN-Q-TEL EMPLOYEE FUND, LLC

By: /s/ Scott G. Yancey
Name: Scott G. Yancey
Title: EVP of In-Q-Tel, Inc., the manager of the fund

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

THE V FOUNDATION FOR CANCER RESEARCH

By: /s/ Nicholas Valvano
Name: Nicholas Valvano
Title: Chief Executive Officer

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Fredrick H. Stern

FREDRICK H. STERN

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Alfred J. Mandel

ALFRED J. MANDEL

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Pauline E. van Ysendoorn

PAULINE E. VAN YSENDOORN

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

/s/ Rhett E. Brown

RHETT E. BROWN

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 1 to Series E Preferred Stock Purchase Agreement as of the 30th day of March, 2007.

PURCHASER:

SMALLCAP World Fund, Inc.

By: Capital Research and Management Company, its investment adviser

By: /s/ Timothy D. Amour
Name: Timothy D. Armour
Title: President

[Signature Page to Amendment No. 1 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERED STOCK FINANCING
DECEMBER 22, 2006

Name	Shares of Series E Preferred Stock	Purchase Price
CLIPPERBAY & CO.		
SMALLCAP World Fund, Inc.	1,875,000	$7,500,000.00
PACO c/o 80-16-200-1037662		
Cross Creek Capital, L.P.	569,074	$2,276,296.00
PACO c/o 80-16-200-1037670	55,926	$ 223,704.00
CLEARMOON & CO.	625,000	$2,500,000.00
ALLIANCEBERNSTEIN VENTURE FUND I, L.P.	62,500	$ 250,000.00
ALLOY VENTURES 2005, L.P.	80,625	$ 322,500.00
ALLOY VENTURES 2002, L.P.	78,505	$ 314,020.00
ALLOY PARTNERS 2002, L.P.	2,120	$ 8,480.00
INTERWEST INVESTORS VII, L.P.	2,285	$ 9,140.00
INTERWEST PARTNERS VII, L.P.	47,715	$ 190,860.00
EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.	105,875	$ 423,500.00
EUCLIDSR PARTNERS, L.P.	105,875	$ 423,500.00
VERSANT AFFLIATES FUND 1-A, L.P.	5,000	$ 20,000.00
VERSANT AFFLIATES FUND 1-B, L.P.	10,500	$ 42,000.00

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERED STOCK FINANCING
DECEMBER 22, 2006

Name	Shares of Series E Preferred Stock	Purchase Price
VERSANT SIDE FUND I, L.P.	4,500	$ 18,000.00
VERSANT VENTURE CAPITAL I, L.P.	230,000	$ 920,000.00
LILLY BIO VENTURES, ELI LILLY AND COMPANY	89,750	$ 359,000.00
SIGHTLINE HEALTHCARE FUND III, L.P.	30,000	$ 120,000.00
BRUCE BURROWS	144,750	$ 579,000.00
LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL, L.P.	39,937	$ 159,748.00
LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT 2000/2001, L.P.	8,932	$ 35,728.00
LEHMAN BROTHERS P.A., LLC	76,440	$ 305,760.00
LEHMAN BROTHERS PARTNERSHIP ACCOUNT 2000/2001, L.P.	34,440	$ 137,760.00
TOTALS	4,284,749	$17,138,996.00

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERED STOCK FINANCING
MARCH 30, 2007

Name	Shares of Series E Preferred Stock	Purchase Price
JOHN M. HARLAND	5,000	$ 20,000.00
FERGUSON/EGAN FAMILY TRUST DATED 6/28/99	15,000	$ 60,000.00
HEALTH CARE ADMINISTRATION COMPANY	25,000	$ 100,000.00
THE CONDON FAMILY TRUST	12,500	$ 50,000.00
IN-Q-TEL, INC.	10,125	$ 40,500.00
IN-Q-TEL EMPLOYEE FUND, LLC	3,375	$ 13,500.00
THE V FOUNDATION FOR CANCER RESEARCH	6,250	$ 25,000.00
FREDRICK H. STERN	37,500	$ 150,000.00
ALFRED J. MANDEL	1,000	$ 4,000.00
PAULINE E. VAN YSENDOORN	2,500	$ 10,000.00
RHETT E. BROWN	12,500	$ 50,000.00
CLIPPERBAY & CO.	350,000	$1,400,000.00
TOTALS	**480,750**	**$1,923,000.00**

FLUIDIGM CORPORATION

AMENDMENT NO. 2 TO
SERIES E PREFERRED STOCK PURCHASE AGREEMENT

This Amendment No. 2 (the "**Amendment**") to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006, as amended December 22, 2006, by and among Fluidigm Corporation, a California corporation ("**Fluidigm California**") and the Purchasers named therein (the "**Purchase Agreement**"), is made and entered into effective as of October 10, 2007 (the "**Effective Date**") by and among Fluidigm Corporation, a Delaware corporation (the "**Company**"), and the Purchasers named herein. Capitalized terms used in this Amendment that are not otherwise defined herein shall have the respective meanings assigned to them in the Purchase Agreement.

RECITALS

WHEREAS, Fluidigm California previously sold and issued an aggregate of 1,250,000 shares of Series E Preferred Stock (the "**Series E Preferred**") pursuant to the terms of the Purchase Agreement at the Initial Closing held on June 13, 2006 and an additional 6,015,499 shares of Series E Preferred at Subsequent Closings held on December 22, 2006 and March 30, 2007;

WHEREAS, on July 18, 2007, Fluidigm California was merged with and into the Company, with the Company being the surviving corporation such that the Company succeeded to all of Fluidigm California's rights and obligations under the Purchase Agreement and all outstanding shares of Series E Preferred of Fluidigm California were exchanged on a one for one basis for shares of Series E Preferred of the Company;

WHEREAS, the Company and the Purchasers now desire to amend the terms of the Purchase Agreement to provide that the Company may sell and issue up to 7,375,000 additional shares of Series E Preferred (the "**Additional Shares**") pursuant to the Purchase Agreement, at one or more additional Subsequent Closings, provided that any such additional Subsequent Closings shall take place no later than December 31, 2007.

WHEREAS, pursuant to Section 6.5 of the Purchase Agreement, the terms of the Purchase Agreement may be amended upon the written consent of the Company and the holder or holders of greater than fifty percent (50%) of the outstanding Shares or the Conversion Shares;

WHEREAS, the Purchasers who have signed below hold greater than fifty percent (50%) of the outstanding Shares purchased under the Purchase Agreement as of the Effective Date and consent to the changes as set forth in this Amendment;

WHEREAS, in connection with the execution of this Amendment, the Company is amending the Amended and Restated Certificate of Incorporation of the Company to increase the

number of authorized shares of capital stock of the Company to facilitate the sale of the Additional Shares.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto mutually agree as follows:

AGREEMENT

1. Amendment to Section 1.1. Section 1.1 (Authorization of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"1.1 Authorization of the Shares. The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 17,956,252 shares (the "**Shares**") of its Series E Preferred Stock (the "**Series E Preferred**"), having the rights, preferences and privileges as set forth in the Amended and Restated Certificate of Incorporation, as amended by Amendment No. 1 to Amended and Restated Certificate of Incorporation and Amendment No. 2 to Amended and Restated Certificate of Incorporation, as attached hereto as EXHIBITS B-1 AND B-2, respectively (together for purposes of this Agreement, the "**Restated Certificate**")."

2. Amendment to Section 1.2. Section 1.2 (Purchase and Sale of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"1.2 Purchase and Sale of the Shares. Subject to the terms and conditions hereof and in reliance upon the representations, warranties and agreements contained herein, the Company will issue and sell to each Purchaser, severally and not jointly, and each Purchaser will purchase from the Company, severally and not jointly, at the applicable Closing, the number of Shares set forth opposite the Purchaser's name on the Schedule of Purchasers, at a purchase price of Four Dollars ($4.00) per Share. The Company shall be entitled to sell any unpurchased Shares to any Purchaser or to a person who is not a Purchaser and to amend the Schedule of Purchasers to include the information relating to such sales, and such purchasers shall be considered "Purchasers" and parties to this Agreement; provided that (i) such sales are made pursuant to this Agreement or an agreement identical to this one except for the Closing Date and exhibits, and (ii) such sales are completed on or prior to December 31, 2007. The Company's agreement with each Purchaser is a separate agreement, and the sale of the Shares to each Purchaser is a separate sale."

3. Amendment to Section 2. Section 2 (Representations and Warranties of the Company) of the Purchase Agreement is hereby amended to add the following sentence to the end of the paragraph which reads in its entirety as follows:

"At each Subsequent Closing, the Company shall provide an updated Schedule of Exceptions and EXHIBIT C shall be concurrently amended and restated for purposes of such Subsequent Closing."

4. Amendment to Section 2.4. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.4 (Capitalization) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"The authorized capital stock of the Company consists, or immediately prior to the Closing will consist, of 85,232,144 shares of Common Stock ("**Common Stock**"), of which 9,760,848 shares are issued and outstanding immediately prior to the Closing and 57,961,085 shares of Preferred Stock ("**Preferred Stock**"), 2,727,273 of which are designated Series A Preferred Stock of which 2,727,273 are outstanding immediately prior to the Closing; 6,460,675 of which are designated Series B Preferred Stock of which 6,460,675 are outstanding immediately prior to the Closing; 16,854,624 of which are designated Series C Preferred Stock, 16,364,832 of which are issued and outstanding immediately prior to the Closing; and 13,962,261 of which are designated Series D Preferred Stock, 13,353,333 of which are issued and outstanding immediately prior to the Closing; and 17,956,252 of which are designated Series E Preferred Stock, 8,969,836 of which are issued and outstanding immediately prior to the Closing. All such issued and outstanding shares have been duly authorized and validly issued in compliance with applicable laws, and are fully paid and nonassessable.

The Company has reserved: (i) 17,956,252 shares of Series E Preferred for issuance hereunder and 17,956,252 shares of Common Stock for issuance upon conversion of such shares of Series E Preferred; (ii) 13,353,333 shares of Common Stock for issuance upon conversion of the outstanding shares of Series D Preferred; (iii) 408,928 shares of Series D Preferred for issuance upon exercise of outstanding warrants and 408,928 shares of Common Stock for issuance upon conversion of such Series D Preferred; (iv) 16,364,832 shares of Common Stock for issuance upon conversion of the outstanding shares of Series C Preferred Stock; (v) 289,792shares of Series C Preferred Stock for issuance upon exercise of outstanding warrants and 289,792 shares of Common Stock for issuance upon conversion of such Series C Preferred Stock; (vi) 6,460,675 shares of Common Stock for issuance upon conversion of the outstanding Series B Preferred Stock; (vii) 2,727,273 shares of Common Stock for issuance upon conversion of the outstanding Series A Preferred Stock; and (viii) an aggregate of 12,800,000 shares of Common Stock for issuance to

employees and consultants of the Company pursuant to the Company's 1999 Stock Option Plan, pursuant to which options to purchase 7,247,691 shares are granted and outstanding and 1,518,223 shares are available for future grant. As of the date hereof and after giving effect to the purchase of Shares hereunder, each share of each series of the Company's Preferred Stock is convertible into one share of the Company's Common Stock. Other than with respect to the shares reserved for issuance in this paragraph, or as set forth in the Ancillary Agreements (as defined below), there are no outstanding rights, options, warrants, conversion rights, preemptive rights, rights of first refusal or similar rights for the purchase or acquisition from the Company of any securities of the Company. There are no outstanding obligations of the Company to repurchase or redeem any of its securities."

5. Amendment to Section 2.16. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.16 (Financial Statements) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"The Company has made available to each Purchaser its audited balance sheet dated as of December 31, 2004. The Company has also made available to each Purchaser unaudited balance sheets dated December 31, 2005 and December 31, 2006 and the unaudited statements of operations for the fiscal years then ended (collectively, the "**Financial Statements**"). The Financial Statements are complete and correct in all material respects and have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods indicated. The Financial Statements accurately set out and describe the financial condition and operating results of the Company as of the date, and during the periods, indicated therein. Except as set forth in the Financial Statements, the Company has no material liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to December 31, 2006 and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in the Financial Statements, which, in both cases, individually or in the aggregate are not material to the financial condition or operating results of the Company."

6. Deletion of Sections 6.9 and 6.11. Solely in connection with the sale of Additional Shares pursuant to this Amendment, the Purchase Agreement is hereby amended to delete Section 6.9 (Finder's Fee) and Section 6.11 (Waiver of Conflict), each in its entirety.

7. Amendment to Section 6.10. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 6.10 of the Purchase Agreement is hereby amended and restated in its entirety to read as follows:

"6.10 Expenses. The Company and each Purchaser shall bear its own expenses and legal fees incurred on its behalf with respect to this Agreement and the transactions contemplated hereby, *provided*, *however*, that if a Closing is effected, the Company shall reimburse the reasonable documented fees of one counsel for the Purchasers, such amount not to exceed $25,000, by wire transfer at such Closing."

8. Addition of Section 6.17. The Purchase Agreement is hereby amended to add the following Section 6.17 which reads in its entirety as follows:

"6.17 Reincorporation. Each Purchaser hereunder acknowledges that the Company completed a reincorporation into the State of Delaware on July 18, 2007 and each Purchaser hereby consents to the assignment of this Agreement to Fluidigm Corporation, a Delaware corporation effective as of July 18, 2007."

9. Restated Certificate. All references in the Purchase Agreement to the term "Restated Articles" are hereby deleted and replaced with the term "Restated Certificate."

10. Governing Law. This Amendment shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions.

11. Purchase Agreement. Wherever necessary, all other terms of the Purchase Agreement are hereby amended to be consistent with the terms of this Amendment. Except as specifically set forth herein, the Purchase Agreement shall remain in full force and effect.

12. Counterparts; Facsimile. This Amendment may be executed in any number of counterparts, each of which shall be an original, and all of which together shall constitute one instrument. Executed signatures transmitted via facsimile will be accepted and considered duly executed.

13. Effect of Execution of Amendment by Certain Purchasers. This Amendment, when executed and delivered by the Company and a Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof, shall also constitute and shall be deemed a counterpart signature page to the Purchase Agreement. Consequently, each undersigned Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof acknowledges and agrees that he, she or it is bound by the terms and conditions contained in the Purchase Agreement, as amended by this Amendment, with respect to the purchase of such shares.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

COMPANY:

FLUIDIGM CORPORATION
a Delaware corporation

By: /s/ Gajus Worthington
Gajus Worthington,
President and Chief Executive Officer

[Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

FIDELITY CONTRAFUND:
FIDELITY ADVISOR NEW INSIGHTS FUND

By: /s/ Gary Ryan

Name: Gary Ryan

Title: Assistant Treasurer

FIDELITY CONTRAFUND: FIDELITY CONTRAFUND

By: /s/ Gary Ryan

Name: Gary Ryan

Title: Assistant Treasurer

VARIABLE INSURANCE PRODUCTS FUND II:
CONTRAFUND PORTFOLIO

By: /s/ Gary Ryan

Name: Gary Ryan

Title: Assistant Treasurer

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LEERINK SWANN HOLDINGS, LLC

By: /s/ Jeffrey A. Leerink

Name: Jeffrey A. Leerink

Title: Chief Executive Officer

LEERINK SWANN HOLDINGS, LLC
CO-INVESTMENT FUND, LLC

By: /s/ Donald D. Notman, Jr.

Name: Donald D. Notman, Jr.

Title: Managing Director

[*Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

Cross Creek Capital, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

Cross Creek Capital Employees' Fund, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

WASATCH FUNDS, INC.

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Dan Thurber

Name: Dan Thurber

Title: Vice President

[*Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

SMALLCAP World Fund, Inc.

By: Capital Research and Management Company, its, investment adviser

By: /s/ Michael Downer

Name: Michael Downer

Title:

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

By: AllianceBernstein ESG Venture Management, L.P., its general partner

By: AllianceBernstein Global Derivatives Corporation, its general partner

By: /s/ James D. Kiggen

Name: James D. Kiggen

Title: Senior Vice President

[*Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

Versant Affiliates Fund 1-A, L.P.
Versant Affiliates Fund1-B, L.P.
Versant Side Fund I, L.P.
Versant Venture Capital I, L.P.

By: Versant Ventures I, LLC
its General Partner

By: /s/ Samuel D. Colella

Name: Samuel D. Colella

Title: Managing Director

[*Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL L.P.

By: Lehman Brothers HealthCare Venture Capital Associates L.P.,
its General Partner
By: LB I Group Inc., its General Partner

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

LEHMAN BROTHERS P.A. LLC

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

LEHMAN BROTHERS PARTNERSHIP ACCOUNT 2000/2001, L.P.

By: LB I Group Inc., its General Partner

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT 2000/2001, L.P.

By: LB I Offshore Partners Group Ltd., its General Partner

By: /s/ Steven Berkenfeld
Name: Steven Berkenfeld
Its: Senior Vice President

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

EUCLIDSR PARTNERS, L.P.

By: EuclidSR Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.

By: EuclidSR Biotechnology Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

INTERWEST PARTNERS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

INTERWEST INVESTORS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LILLY BIOVENTURES, ELI LILLY & COMPANY

By: /s/ Darren J. Carroll

Name: Darren J. Carroll

Title: Executive Director

[*Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

/s/ Bruce Burrows

BRUCE BURROWS

[*Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

BIOMEDICAL SCIENCES INVESTMENT FUND PTE LTD

By: /s/ Chu Swee Yeok

Name: Chu Swee Yeok

Title: Director

SINGAPORE BIO-INNOVATIONS PTE LTD

By: /s/ Sim Sze Kuan

Name: Sim Sze Kuan

Title: Director

[*Signature Page to Amendment No. 2 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 2 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

INVUS, L.P.

By: Invus Advisors LLC
General Partner of Invus LP

By: /s/ Aflalo Guimaraes

Name: Aflalo Guimaraes

Title: Managing Director

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERED STOCK FINANCING
OCTOBER 10, 2007

Name	Shares of Series E Preferred Stock	Purchase Price
FIDELITY CONTRAFUND:		
FIDELITY ADVISOR NEW INSIGHTS FUND	481,170	$ 1,924,679.00
FIDELITY CONTRAFUND: FIDELITY CONTRAFUND	4,389,865	$ 17,559,461.00
VARIABLE INSURANCE PRODUCTS FUND II:		
CONTRAFUND PORTFOLIO	1,378,965	$ 5,515,860.00
LEERICK SWANN HOLDINGS, LLC	62,500	$ 250,000.00
LEERICK SWANN CO-INVESTMENT FUND, LLC	78,750	$ 315,000.00
TOTALS	**6,391,250**	**$ 25,565,000.00**

FLUIDIGM CORPORATION

AMENDMENT NO. 3 TO
SERIES E PREFERRED STOCK PURCHASE AGREEMENT

This Amendment No. 3 (the "**Amendment**") to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006, as amended December 22, 2006 and further amended October 10, 2007, by and among Fluidigm Corporation, a California corporation ("**Fluidigm California**") and the Purchasers named therein (the "**Purchase Agreement**"), is made and entered into effective as of October 26, 2007 (the "**Effective Date**") by and among Fluidigm Corporation, a Delaware corporation (the "**Company**"), and the Purchasers named herein. Capitalized terms used in this Amendment that are not otherwise defined herein shall have the respective meanings assigned to them in the Purchase Agreement.

RECITALS

WHEREAS, Fluidigm California previously sold and issued an aggregate of 1,250,000 shares of Series E Preferred Stock (the "**Series E Preferred**") pursuant to the terms of the Purchase Agreement at the Initial Closing held on June 13, 2006, an additional 4,284,749 shares of Series E Preferred at a Subsequent Closing held on December 22, 2006, an additional 480,750 shares of Series E Preferred at a Subsequent Closing held on March 30, 2007, and an additional 6,391,250 shares of Series E Preferred at a Subsequent Closing held on October 10, 2007;

WHEREAS, on July 18, 2007, Fluidigm California was merged with and into the Company, with the Company being the surviving corporation such that the Company succeeded to all of Fluidigm California's rights and obligations under the Purchase Agreement and all outstanding shares of Series E Preferred of Fluidigm California were exchanged on a one for one basis for shares of Series E Preferred of the Company;

WHEREAS, the Company and the Purchasers now desire to amend the terms of the Purchase Agreement to provide that the Company may sell and issue up to 2,153,695 additional shares of Series E Preferred (the "**Additional Shares**") pursuant to the Purchase Agreement, at one or more additional Subsequent Closings, provided that any such additional Subsequent Closings shall take place no later than December 31, 2007.

WHEREAS, pursuant to Section 6.5 of the Purchase Agreement, the terms of the Purchase Agreement may be amended upon the written consent of the Company and the holder or holders of greater than fifty percent (50%) of the outstanding Shares or the Conversion Shares;

WHEREAS, the Purchasers who have signed below hold greater than fifty percent (50%) of the outstanding Shares purchased under the Purchase Agreement as of the Effective Date and consent to the changes as set forth in this Amendment;

WHEREAS, in connection with the execution of this Amendment, the Company is amending the Amended and Restated Certificate of Incorporation of the Company to increase the number of authorized shares of capital stock of the Company to facilitate the sale of the Additional Shares.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto mutually agree as follows:

AGREEMENT

1. Amendment to Section 1.1. Section 1.1 (Authorization of the Shares) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"1.1 Authorization of the Shares. The Company will on or before the Closing (as defined below) authorize the sale and issuance pursuant to this Agreement of up to 18,498,531 shares (the "**Shares**") of its Series E Preferred Stock (the "**Series E Preferred**"), having the rights, preferences and privileges as set forth in the Amended and Restated Certificate of Incorporation, as amended by a Certificate of Amendment to Amended and Restated Certificate of Incorporation dated October 10, 2007 and a Certificate of Amendment to Amended and Restated Certificate of Incorporation dated October 26, 2007, as attached hereto as EXHIBITS B-1 AND B-2, respectively (together for purposes of this Agreement, the "**Restated Certificate**")."

2. Amendment to Section 2.4. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.4 (Capitalization) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"The authorized capital stock of the Company consists, or immediately prior to the Closing will consist, of 87,385,839 shares of Common Stock ("**Common Stock**"), of which 9,760,848 shares are issued and outstanding immediately prior to the Closing and 60,114,780 shares of Preferred Stock ("**Preferred Stock**"), 2,727,273 of which are designated Series A Preferred Stock of which 2,727,273 are outstanding immediately prior to the Closing; 6,460,675 of which are designated Series B Preferred Stock of which 6,460,675 are outstanding immediately prior to the Closing; 16,854,624 of which are designated Series C Preferred Stock, 16,364,832 of which are issued and outstanding immediately prior to the Closing; and 13,962,261 of which are designated Series D Preferred Stock, 13,353,333 of which are issued and outstanding immediately prior to the Closing; and 20,109,947 of which are designated Series E Preferred Stock, 15,361,086 of which are issued and outstanding immediately prior to the Closing. All such issued and outstanding shares have been duly

authorized and validly issued in compliance with applicable laws, and are fully paid and nonassessable.

The Company has reserved: (i) 18,498,531 shares of Series E Preferred for issuance hereunder and 20,109,947 shares of Common Stock for issuance upon conversion of all shares of Series E Preferred; (ii) 13,353,333 shares of Common Stock for issuance upon conversion of the outstanding shares of Series D Preferred; (iii) 408,928 shares of Series D Preferred for issuance upon exercise of outstanding warrants and 408,928 shares of Common Stock for issuance upon conversion of such Series D Preferred; (iv) 16,364,832 shares of Common Stock for issuance upon conversion of the outstanding shares of Series C Preferred Stock; (v) 289,792 shares of Series C Preferred Stock for issuance upon exercise of outstanding warrants and 289,792 shares of Common Stock for issuance upon conversion of such Series C Preferred Stock; (vi) 6,460,675 shares of Common Stock for issuance upon conversion of the outstanding Series B Preferred Stock; (vii) 2,727,273 shares of Common Stock for issuance upon conversion of the outstanding Series A Preferred Stock; and (viii) an aggregate of 12,800,000 shares of Common Stock for issuance to employees and consultants of the Company pursuant to the Company's 1999 Stock Option Plan, pursuant to which options to purchase 7,247,691 shares are granted and outstanding and 1,518,223 shares are available for future grant. As of the date hereof and after giving effect to the purchase of Shares hereunder, each share of each series of the Company's Preferred Stock is convertible into one share of the Company's Common Stock. Other than with respect to the shares reserved for issuance in this paragraph, or as set forth in the Ancillary Agreements (as defined below), there are no outstanding rights, options, warrants, conversion rights, preemptive rights, rights of first refusal or similar rights for the purchase or acquisition from the Company of any securities of the Company. There are no outstanding obligations of the Company to repurchase or redeem any of its securities."

3. Amendment to Section 2.16. Solely in connection with the sale of Additional Shares pursuant to this Amendment, Section 2.16 (Financial Statements) of the Purchase Agreement is hereby amended and restated in its entirety as follows:

"The Company has made available to each Purchaser its audited balance sheet dated as of December 31, 2004. The Company has also made available to each Purchaser unaudited balance sheets dated December 31, 2005 and December 31, 2006 and the unaudited statements of operations for the fiscal years then ended (collectively, the "**Financial Statements**"). The Financial Statements are complete and correct in all material respects and have been prepared in accordance with generally

accepted accounting principles applied on a consistent basis throughout the periods indicated. The Financial Statements accurately set out and describe the financial condition and operating results of the Company as of the date, and during the periods, indicated therein. Except as set forth in the Financial Statements, the Company has no material liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to December 31, 2006 and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in the Financial Statements, which, in both cases, individually or in the aggregate are not material to the financial condition or operating results of the Company."

4. Governing Law. This Amendment shall be governed in all respects by the laws of the State of California, without regard to any provisions thereof relating to conflicts of laws among different jurisdictions.

5. Purchase Agreement. Wherever necessary, all other terms of the Purchase Agreement are hereby amended to be consistent with the terms of this Amendment. Except as specifically set forth herein, the Purchase Agreement shall remain in full force and effect.

6. Counterparts; Facsimile. This Amendment may be executed in any number of counterparts, each of which shall be an original, and all of which together shall constitute one instrument. Executed signatures transmitted via facsimile will be accepted and considered duly executed.

7. Effect of Execution of Amendment by Certain Purchasers. This Amendment, when executed and delivered by the Company and a Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof, shall also constitute and shall be deemed a counterpart signature page to the Purchase Agreement. Consequently, each undersigned Purchaser purchasing shares of Series E Preferred at a Subsequent Closing held on or after the date hereof acknowledges and agrees that he, she or it is bound by the terms and conditions contained in the Purchase Agreement, as amended by this Amendment, with respect to the purchase of such shares.

[*Remainder of page intentionally left blank*]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

COMPANY:

FLUIDIGM CORPORATION
a Delaware corporation

By: /s/ Gajus Worthington
Gajus Worthington,
President and Chief Executive Officer

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

FIDELITY CONTRAFUND:
FIDELITY ADVISOR NEW INSIGHTS FUND

By: /s/ Peter Lydecker

Name: Peter Lydecker

Title: Assistant Treasurer

FIDELITY CONTRAFUND: FIDELITY CONTRAFUND

By: /s/ Peter Lydecker

Name: Peter Lydecker

Title: Assistant Treasurer

VARIABLE INSURANCE PRODUCTS FUND II:
CONTRAFUND PORTFOLIO

By: /s/ Peter Lydecker

Name: Peter Lydecker

Title: Assistant Treasurer

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LEERINK SWANN HOLDINGS, LLC

By: /s/ Jeffrey Leerink

Name: Jeffrey Leerink

Title: Chairman

LEERINK SWANN HOLDINGS, LLC
CO-INVESTMENT FUND, LLC

By: /s/ Donald D. Notman, Jr.

Name: Donald D. Notman, Jr.

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

Cross Creek Capital, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

Cross Creek Capital Employees' Fund, L.P.

By: Cross Creek Capital GP, L.P.
Its Sole General Partner

By: Cross Creek Capital, LLC
Its Sole General Partner

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Karey Barker

Name: Karey Barker

Title: Vice President

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

WASATCH FUNDS, INC.

By: Wasatch Advisors, Inc.
Its Sole Member

By: /s/ Venice Edwards

Name: Venice Edwards

Title: Secretary

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

SMALLCAP WORLD FUND, INC.

By: **Capital Research and Management Company, its, investment adviser**

By: /s/ Paul Haaga

Name: Paul Haaga

Title:

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

ALLIANCEBERNSTEIN VENTURE FUND I, L.P.

By: **AllianceBernstein ESG Venture Management, L.P., its general partner**

By: **AllianceBernstein Global Derivatives Corporation, its general partner**

By: /s/ James D. Kiggen

Name: James D. Kiggen

Title: Senior Vice President

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

VERSANT AFFILIATES FUND 1-A, L.P.
VERSANT AFFILIATES FUND1-B, L.P.
VERSANT SIDE FUND I, L.P.
VERSANT VENTURE CAPITAL I, L.P.
By: Versant Ventures I, LLC
its General Partner

By: /s/ Samuel D. Colella

Name: Samuel D. Colella

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LEHMAN BROTHERS HEALTHCARE VENTURE CAPITAL L.P.

By: Lehman Brothers HealthCare Venture Capital Associates L.P., its General Partner
By: LB I Group Inc., its General Partner

By: /s/ Ashvin Rao
Name: Ashvin Rao
Its: Vice President

LEHMAN BROTHERS P.A. LLC

By: Deborah Nordell
Name: Deborah Nordell
Its: Vice President

LEHMAN BROTHERS PARTNERSHIP ACCOUNT 2000/2001, L.P.

By: LB I Group Inc., its General Partner

By: /s/ Ashvin Rao
Name: Ashvin Rao
Its: Vice President

LEHMAN BROTHERS OFFSHORE PARTNERSHIP ACCOUNT 2000/2001, L.P.

By: LB I Offshore Partners Group Ltd., its General Partner

By: /s/ Ashvin Rao
Name: Ashvin Rao
Its: Vice President

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

EUCLIDSR PARTNERS, L.P.

By: EuclidSR Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

EUCLIDSR BIOTECHNOLOGY PARTNERS, L.P.

By: EuclidSR Biotechnology Associates, L.P.
its General Partner

By: /s/ Elaine V. Jones

Name: Elaine V. Jones

Title: General Partner

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

INTERWEST PARTNERS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

INTERWEST INVESTORS VII, L.P.

By: InterWest Management Partners VII, LLC
its General Partner

By: /s/ Michael Sweeney

Name: Michael Sweeney

Title: As agent for the general partner

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

LILLY BIOVENTURES, ELI LILLY & COMPANY

By: /s/ Darren J. Carroll

Name: Darren J. Carroll

Title: Executive Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

ALLOY VENTURES 2005, L.P.

By: Alloy Ventures 2005, LLC
its General Partner

By: /s/ Tony DiBona

Name: Toni DiBona

Title: Managing Member of Alloy Ventures 2005 LLC

ALLOY VENTURES 2002, L.P.
ALLOY PARTNERS 2002, L.P.

By: Alloy Ventures 2002, LLC
its General Partner

By: /s/ Tony DiBona

Name: Tony DiBona

Title: Managing Member of Alloy Ventures 2002, LLC, the general partner of Alloy Partners 2002, L.P. and Alloy Ventures 2002, L.P.

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

/s/ Bruce Burrows

BRUCE BURROWS

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

SIGHTLINE HEALTHCARE FUND III, L.P.

By: /s/ Maureen Harder

Name: Maureen Harder

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

BIOMEDICAL SCIENCES INVESTMENT FUND PTE LTD

By: /s/ Chu Swee Yeok

Name: Chu Swee Yeok

Title: Director

SINGAPORE BIO-INNOVATIONS PTE LTD

By: /s/ Sim Sze Kuan

Name: Sim Sze Kuan

Title: Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the Effective Date.

PURCHASERS:

INVUS, L.P.

By: Invus Advisors LLC
General Partner of Invus LP

By: /s/ Aflalo Guimaraes

Name: Aflalo Guimaraes

Title: Managing Director

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

EXHIBIT A
SCHEDULE OF PURCHASERS
SERIES E PREFERRED STOCK FINANCING – SECOND EXTENDED CLOSING
OCTOBER 26, 2007

Name	Shares of Series E Preferred Stock	Purchase Price
CLIPPERBAY & CO.		
SMALLCAP World Fund, Inc.	2,153,695	$8,614,780.00
TOTALS	**2,153,695**	**$8,614,780.00**

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the 31st day of December, 2007.

COMPANY:

FLUIDIGM CORPORATION
a Delaware corporation

By: /s/ Gajus Worthington
Gajus Worthington,
President and Chief Executive Officer

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

IN WITNESS WHEREOF, the parties have duly executed and delivered this Amendment No. 3 to Series E Preferred Stock Purchase Agreement as of the 31st day of December, 2007.

PURCHASER:

/s/ Bruce Burrows
Bruce Burrows

[Signature Page to Amendment No. 3 to Fluidigm Corporation Series E Preferred Stock Purchase Agreement]

EXHIBIT A
SCHEDULE OF PURCHASER
SERIES E PREFERRED STOCK FINANCING – THIRD EXTENDED CLOSING
DECEMBER 31, 2007

Name	Shares of Series E Preferred Stock	Purchase Price
BRUCE BURROWS	250,000	$1,000,000.00
TOTALS	**250,000**	**$1,000,000.00**

Exhibit 4.3

FLUIDIGM CORPORATION

EIGHTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

June 13, 2006

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(continued)

EIGHTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

THIS EIGHTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT (the "**Agreement**") is entered into as of June 13, 2006 by and among Fluidigm Corporation, a California corporation (the "**Company**"), the persons set forth on EXHIBIT A hereto (the "**New Investors**"), the persons set forth on the Schedule of Founders attached hereto as EXHIBIT B (the "**Founders**"), and the persons set forth on EXHIBIT C hereto (the "**Prior Investors**"). The Prior Investors and the New Investors are referred to herein collectively as the "**Investors**."

RECITALS

WHEREAS, the Company and the New Investors have entered into a Series E Preferred Stock Purchase Agreement of even date herewith (the "**Purchase Agreement**") pursuant to which the Company shall sell, and the New Investors shall acquire, shares of the Company's Series E Preferred Stock;

WHEREAS, the Company has granted certain registration rights and other rights to the Founders and the Prior Investors pursuant to that certain Seventh Amended and Restated Investor Rights Agreement dated August 16, 2005 (the "**Prior Agreement**"); and

WHEREAS, as an inducement to the New Investors to purchase shares of the Company's Series E Preferred Stock pursuant to the Purchase Agreement, the Company, the Prior Investors and the Founders desire to amend and restate the Prior Agreement to allow the New Investors to become a party to this Agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants hereinafter set forth, the parties agree as follows:

SECTION 1

Restrictions on Transferability; Registration Rights

1.1 Certain Definitions. As used in this Agreement, the following terms shall have the following meanings:

"**Affiliate**" shall have the meaning set forth in Rule 405 of the Securities Act; provided that for AllianceBernstein L.P. and its permitted transferees, the definition of "Affiliate" shall also include (i) any general partner, officer or director of such person, (ii) any private equity or venture capital fund now or hereafter existing (a "**Fund**") for which such person or an Affiliate of such person is a general partner or management company, and (iii) if such person is a Fund, any other Fund that is directly or indirectly controlled by or under common control with one or more general partners of such person, or that shares the same management company with such person or an Affiliated management company.

"**Commission**" shall mean the Securities and Exchange Commission or any other federal agency at the time administering the Securities Act.

"**Eligible Securities**" shall mean (i) the Series A Preferred Stock issued pursuant to the Series A Preferred Stock Purchase Agreement dated December 1, 1999; (ii) the Series B Preferred Stock issued pursuant to the Series B Preferred Stock Purchase Agreement dated July 5, 2000; (iii) the Series C Preferred Stock issued pursuant to the Series C Preferred Stock Purchase Agreement dated October 23, 2001; (iv) the Series C Preferred Stock issued pursuant to the Series C Preferred Stock Purchase Agreement dated November 1, 2002; (v) the Series C Preferred Stock issued pursuant to the Series C Preferred Stock and Warrant Purchase Agreement dated September 22, 2003; (vi) the Series D Preferred Stock issued pursuant to the Series D Preferred Stock Purchase Agreement dated December 18, 2003; (vii) the Series D Preferred Stock issued pursuant to the Series D Preferred Stock Purchase Agreement dated August 16, 2005; (viii) the Series D Preferred Stock issued upon conversion of convertible promissory note(s) issued pursuant to the Convertible Promissory Note Purchase Agreement (the "**CNPA**") dated December 18, 2003, as amended by Amendment No. 1 to Convertible Note Purchase Agreement dated December 17, 2004, between the Company and Biomedical Sciences Investment Fund Pte Ltd (the "**BMSIF**"); (ix) the Series D Preferred Stock issued upon conversion of convertible promissory note(s) issued in connection with the Convertible Note Agreement (the "**CNA**") dated December 18, 2003, between the Company and Invus, L.P. (the "**Invus**"); (x) the Series E Preferred Stock issued pursuant to the Purchase Agreement; (xi) all Securities acquired by any Investor pursuant to the rights of first offer described in Sections 3 or 4 of this Agreement; and (xii) any Securities issued with respect to the foregoing upon any stock split, stock dividend, recapitalization, or similar event or upon any exercise or conversion, as applicable.

"**Exchange Act**" shall mean the Securities Exchange Act of 1934, as amended, or any similar federal statute, and the rules and regulations of the Commission thereunder, all as the same shall be in effect at the time.

"**Founders Shares**" shall mean the shares of Common Stock of the Company issued to the Founders as of the date of this Agreement or at any time in the future.

"**Holder**" shall mean (i) any Investor and any person to whom registration rights under this Agreement have been transferred in accordance with Section 1.13 hereof, (ii) for the purposes of Section 1.6 (and other portions of this Section 1, to the extent they relate to rights of registration under Section 1.6), any Founder or holder of Other Shares and (iii) for the purposes of Sections 1.5, 1.6 and 1.7 (and other portions of this Section 1, to the extent they relate to rights of registration under Sections 1.5, 1.6 and 1.7), Warrantholders.

"**Initial Public Offering**" shall mean the first sale of Securities of the Company pursuant to an effective registration statement under the Securities Act.

"**Initiating Holders**" shall mean Holders who in the aggregate hold a majority of the Registrable Securities then held by Holders assuming conversion or exercise, as applicable, of all Eligible Securities.

"**Lighthouse Preferred Warrant**" shall mean the Preferred Stock Purchase Warrant dated March 29, 2005, pursuant to which Lighthouse Capital Partners V, L.P. ("**Lighthouse**") may purchase shares of the Company's authorized Series D Preferred Stock.

"**Other Shares**" shall mean the shares of Common Stock of the Company issued pursuant to the Common Stock Purchase Agreements dated July 17, 2001 and February 2005 by and between the Company and President and Fellows of Harvard College.

"**Permitted Transferee**" shall mean (i) any general partner or retired general partner of any Holder which is a partnership; (ii) any family member of a Holder or trust for the benefit of any individual Holder; (iii) any Investor; (iv) an Affiliate of an Investor; or (v) any transferee who acquires at least 40,000 shares of Eligible Securities.

The terms "**register**," "**registered**" and "**registration**" refer to a registration effected by preparing and filing a registration statement in compliance with the Securities Act, and the declaration or ordering of the effectiveness of such registration statement.

"**Registration Expenses**" shall mean all expenses incurred by the Company in complying with Sections 1.5, 1.6 and 1.7 hereof, including, without limitation, all registration, qualification, stock exchange and filing fees, printing expenses, escrow fees, fees and disbursements of counsel for the Company and accountants and other persons retained by or for the Company (including the fees of one counsel for the Holders, not to exceed $25,000), blue sky fees and expenses, accounting fees and the expense of any special audits incident to or required by any such registration (but excluding the compensation of regular employees of the Company which shall be paid in any event by the Company).

"**Registrable Securities**" means (i) any shares of Common Stock which are Eligible Securities, (ii) any shares of Common Stock issuable upon the exercise or conversion, as applicable, of Eligible Securities, (iii) for the purposes of Section 1.6 (and other portions of this Section 1, to the extent they relate to rights of registration under Section 1.6) any shares of Common Stock which are Founder Shares or Other Shares, and (iv) for the purposes of Sections 1.5, 1.6 and 1.7 (and other portions of this Section 1, to the extent they relate to rights of registration under Sections 1.5, 1.6 and 1.7) any shares of Common Stock which are Warrant Shares; provided, however, that shares of Common Stock shall be treated as Registrable Securities only if and so long as they have not been (A) sold to or through a broker or dealer or underwriter in a public distribution or a public securities transaction, (B) sold in a transaction exempt from the registration and prospectus delivery requirements of the Securities Act under Section 4(1) thereof so that all transfer restrictions and restrictive legends with respect thereto are removed upon the consummation of such sale or (C) sold in a transaction in which the rights granted under this Section 1 are not assigned in accordance with this Agreement.

"**Restricted Securities**" shall mean the securities of the Company required to bear the legends set forth in Section 1.3 hereof.

"**Securities**" shall mean shares of, or securities convertible into or exercisable for any shares of, any class of capital stock of the Company.

"**Securities Act**" shall mean the Securities Act of 1933, as amended, or any similar federal statute and the rules and regulations of the Commission thereunder, all as the same shall be in effect at the time.

"**Selling Expenses**" shall mean all underwriting discounts and selling commissions and applicable to the securities registered by the Holders and any fees and disbursements of counsel for the Holders not included in the definition of Registration Expenses.

"**Voting Agreement**" shall mean the Second Amended and Restated Voting Agreement dated August 16, 2005 among the Company and certain stockholders of the Company.

"**Warrant Shares**" shall mean the shares of Common Stock of the Company issued or issuable upon conversion of the (i) Series C Preferred Stock issued or issuable upon exercise or conversion of (A) the warrant to purchase up to 17,500 shares of Series C Preferred Stock issued to TBCC Funding Trust II ("**TBCC**") pursuant to the Master Loan and Security Agreement dated March 27, 2002 by and between the Company and Transamerica Technology Finance Corporation; (B) the warrant to purchase up to 31,008 shares of Series C Preferred Stock issued to General Electric Capital Corporation ("**GE Capital**") in connection with the Master Security Agreement dated as of November 8, 2002, as amended (the "**Master Security Agreement**") by and between the Company and GE Capital; (C) the warrants to purchase an aggregate of up to 90,000 shares of Series C Preferred Stock issued to Glaxo Group Limited ("**GGL**") in connection with the Development Collaboration and License Agreement dated September 22, 2003 (the "**License Agreement**"); and (D) the warrants to purchase an aggregate of up to 110,000 shares of Series C Preferred Stock issued to SmithKline Beecham Corporation ("**SBC**") in connection with the License Agreement; and (ii) the Series D Preferred Stock issued or issuable upon exercise or conversion of (A) the warrant to purchase up to 37,500 shares of Series D Preferred Stock dated March 18, 2004 and issued to GE Capital in connection with extensions of credit to the Company; (B) the warrant to purchase up to 380,556 shares of Series D Preferred Stock dated June 30, 2004 and issued to In-Q-Tel, Inc. ("**In-Q-Tel**"); (C) the Lighthouse Preferred Warrant; and (D) the warrant to purchase up to 126,851 shares of Series D Preferred Stock dated June 30, 2004 and issued to In-Q-Tel Employee Fund, LLC ("**Employee Fund**") . GGL, SBC, TBCC, GE Capital, In-Q-Tel, Employee Fund, and Lighthouse are collectively referred to herein as "**Warrantholders**."

"**Worthington Shares**" shall mean the Founder Shares issued to Gajus Worthington.

1.2 Restrictions. No Restricted Securities shall be sold, assigned, transferred or pledged except upon the conditions specified in this Agreement. Each Holder will cause any proposed purchaser, assignee, transferee or pledgee of its Restricted Securities to agree in writing to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement, including, without limitation, Section 1.14, except where such Restricted Securities would cease to be Restricted Securities in connection with such proposed purchase, assignment, transfer or pledge.

1.3 Restrictive Legend. Each certificate representing Registrable Securities shall (unless otherwise permitted by the provisions of Section 1.4 below) be stamped or otherwise imprinted with a legend in the following form (in addition to any legend required under applicable state securities laws):

"THE SHARES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"). SUCH SHARES MAY NOT BE SOLD, TRANSFERRED OR PLEDGED IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL (WHICH MAY BE COUNSEL FOR THE COMPANY), OR OTHER EVIDENCE, REASONABLY ACCEPTABLE TO IT STATING THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE SECURITIES ACT."

"THE SHARES REPRESENTED BY THIS CERTIFICATE MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT BETWEEN THE COMPANY AND THE SHAREHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY."

"THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A MARKET STAND-OFF AGREEMENT IN THE EVENT OF A PUBLIC OFFERING, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY."

Each Holder consents to the Company making a notation on its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer established in this Section 1.

1.4 Notice of Proposed Transfers. Each Holder of each certificate representing Restricted Securities, by acceptance thereof, agrees to comply in all respects with the restrictions on transfer contained in Sections 1.2, 1.3, 1.4 and 1.14 of this Agreement. Solely for purposes of the foregoing sentence and for the sake of clarification, the term "Holder" shall also include and the term "Restricted Securities" shall also apply to any Founder, holder of Other Shares or Warrantholders. Prior to any proposed sale, assignment, transfer or pledge of any Restricted Securities (other than any transfer not involving a change in beneficial ownership), unless there is in effect a registration statement under the Securities Act covering the proposed transfer, the Holder thereof shall give written notice to the Company of such Holder's intention to effect such transfer, sale, assignment or pledge. Each such notice shall describe the manner and circumstances of the proposed transfer, sale, assignment or pledge in sufficient detail, and shall be accompanied at such Holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall be, reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transfer of the Restricted Securities may be effected without registration under the Securities Act and applicable state securities laws, or (ii) a "no action" letter from the Commission

to the effect that the transfer of such securities without registration will not result in a recommendation by the staff of the Commission that action be taken with respect thereto, or (iii) any other evidence reasonably satisfactory to counsel to the Company, whereupon the Holder of such Restricted Securities shall be entitled to transfer such Restricted Securities in accordance with the terms of the notice delivered by the Holder to the Company; provided, however, that no such legal opinion, "no action" letter or other evidence shall be required with respect to a transfer to an Affiliate. Each certificate evidencing the Restricted Securities transferred as above provided shall bear, except if such transfer is made pursuant to Rule 144, the appropriate restrictive legend set forth in Section 1.3 above, except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such Holder and reasonably acceptable to the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act or this Agreement.

1.5 Requested Registration.

(a) Request for Registration. In case the Company shall receive from Initiating Holders a written request that the Company effect any registration with respect to a public offering of at least 50% of the Registrable Securities, the reasonably anticipated aggregate price to the public of which, net of underwriting discounts and commissions, would exceed $20,000,000, the Company will:

(i) promptly give written notice of the proposed registration to all other Holders; and

(ii) use its best efforts to effect as soon as practicable such registration (including, without limitation, the execution of an undertaking to file post-effective amendments, appropriate qualification under applicable blue sky or other state securities laws and appropriate compliance with applicable regulations issued under the Securities Act and any other governmental requirements or regulations) as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request received by the Company within 15 days after receipt of the written notice from the Company; provided, however, that the Company shall not be obligated to take any action to effect any such registration pursuant to this Section 1.5:

(1) Prior to six months following the closing of the Company's Initial Public Offering;

(2) During the period starting with the date 60 days prior to the Company's estimated date of filing of, and ending on the date three months immediately following the effective date of, any registration statement (other than a registration of Securities in a Rule 145 transaction or with respect to an employee benefit plan) pertaining to Securities of the Company (subject to Section 1.6(a) hereof), provided that the Company is actively employing in good faith all reasonable efforts to cause such registration statement to be filed and become effective and that the Company provides the Initiating Holders written notice of its intent to file such

registration statement within 30 days of receiving the request for registration from the Initiating Holders and provided further, however, that the Company may not utilize this right more than once in any 12-month period.

(3) After the Company has effected two registrations pursuant to this Section 1.5; or

(4) If the Company shall furnish to such Holders a certificate, signed by the President of the Company, stating that in the good faith judgment of the Board of Directors it would be seriously detrimental to the Company or its shareholders for a registration statement to be filed in the near future, in which case the Company's obligation to use its best efforts to register under this Section 1.5 shall be deferred for a period not to exceed 90 days from the date of receipt of written request from the Initiating Holders; provided, however, that the Company may not utilize this right more than once in any 12-month period.

(b) Underwriting. If the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as part of their request made under Section 1.5(a), and the Company shall so advise the Holders as part of the notice given pursuant to Section 1.5(a)(i). The right of any Holder to registration pursuant to Section 1.5 shall be conditioned upon such Holder's participation in the underwriting arrangements required by this Section 1.5 and the inclusion of such Holder's Registrable Securities in the underwriting, to the extent requested and provided herein.

The Company shall (together with all Holders proposing to distribute their securities through such underwriting) enter into an underwriting agreement in customary form with the managing underwriter selected for such underwriting by the Company and a majority of the Holders. Notwithstanding any other provision of this Section 1.5, if the managing underwriter advises the Company in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Company shall so advise all Holders of Registrable Securities who indicated their intent to participate in the registration in a timely manner, and the number of shares of Registrable Securities that may be included in the registration and underwriting shall be allocated among such Holders in proportion, as nearly as practicable, to the respective number of Registrable Securities held by such Holders at the time of filing the registration statement, provided, however, that the number of shares of Registrable Securities to be included in such underwriting shall not be reduced unless all Worthington Shares, all Other Shares and all other Securities that are not Registrable Securities (other than Securities to be sold for the account of the Company) are first entirely excluded from the underwriting. No Registrable Securities excluded from the underwriting by reason of the underwriter's marketing limitation shall be included in such registration. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares.

If any Holder of Registrable Securities disapproves of the terms of the underwriting, such person may elect to withdraw therefrom by written notice to the Company, the managing underwriter and the Initiating Holders. The Registrable Securities so withdrawn shall also be withdrawn from registration.

1.6 Company Registration.

(a) Notice of Registration. If at any time or from time to time, the Company shall determine to register any Common Stock, either for its own account or the account of a security holder or holders other than (i) a registration relating to employee benefit plans, (ii) a registration relating to the offer and sale of debt securities, (iii) a registration relating to a Commission Rule 145 transaction, or (iv) a registration pursuant to Sections 1.5 or 1.7 hereof, the Company will:

(i) promptly give to each Holder written notice thereof; and

(ii) include in such registration (and any related qualification under blue sky laws or other compliance), and in any underwriting involved therein, all the Registrable Securities specified in a written request or requests made within 15 days after receipt of such written notice from the Company by any Holder.

(b) Underwriting. If the registration of which the Company gives notice is for a registered public offering involving an underwriting, the Company shall so advise the Holders in a written notice given pursuant to this Section 1.6. In such event, the right of any Holder to registration pursuant to this Section 1.6 shall be conditioned upon such Holder's participation in such underwriting and the inclusion of Registrable Securities in the underwriting to the extent provided herein.

All Holders proposing to distribute their securities through such underwriting shall (together with the Company and the other holders distributing their securities through such underwriting) enter into an underwriting agreement in customary form with the managing underwriter selected for such underwriting by the Company. Notwithstanding any other provision of this Section 1.6, if the managing underwriter advises the Company in writing that marketing factors require a limitation of the number of shares to be underwritten, then the Company shall so advise all Holders of Registrable Securities and the number of shares of Registrable Securities that may be included in the registration and underwriting shall be allocated among all Holders thereof in proportion, as nearly as practicable, to the respective number of Registrable Securities held by such Holders at the time of filing the registration statement; provided, however, that, no Registrable Securities shall be excluded until all Worthington Shares, all Other Shares and all other Securities that are not Registrable Securities (other than Securities to be sold for the account of the Company) are first excluded, and provided further, that, except in the case of the Company's Initial Public Offering (where Registrable Securities may be excluded entirely), the number of Registrable Securities included in such underwriting shall not be reduced below 25% of the total number of shares in the underwriting. No Registrable Securities excluded from the underwriting by reason of the underwriter's marketing limitation shall be included in such registration. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest 100 shares. The Company may include shares of Common Stock held by shareholders other than Holders in a registration statement pursuant to this Section 1.6 to the extent that the amount of Registrable Securities otherwise includible in such registration statement would not thereby be diminished.

If any Holder or other holder disapproves of the terms of any such underwriting, he or she may elect to withdraw therefrom by written notice to the Company and the managing underwriter. The Registrable Securities so withdrawn shall also be withdrawn from such registration and, in the case of the Company's Initial Public Offering, shall be subject to Section 1.14.

(c) Right to Terminate Registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 1.6 prior to the effectiveness of such registration, whether or not any Holder has elected to include securities in such registration.

1.7 Registration on Form S-3.

(a) If any Holder or Holders request that the Company file a registration statement on Form S-3 (or any successor form to Form S-3) for a public offering of Registrable Securities, the reasonably anticipated aggregate price to the public of which, net of underwriting discounts and commissions, would exceed $2,000,000, and the Company is then entitled to use Form S-3 under applicable Commission rules to register the Registrable Securities for such an offering, the Company will:

(i) promptly give written notice of the proposed registration to all other Holders; and

(ii) use its best efforts to effect as soon as practicable such registration (including, without limitation, the execution of an undertaking to file post-effective amendments, appropriate qualification under applicable blue sky or other state securities laws and appropriate compliance with applicable regulations issued under the Securities Act and any other governmental requirements or regulations) as may be so requested and as would permit or facilitate the sale and distribution of all or such portion of such Registrable Securities as are specified in such request, together with all or such portion of the Registrable Securities of any Holder or Holders joining in such request as are specified in a written request received by the Company within 15 days after receipt of the written notice from the Company; provided, however, that the Company shall not be obligated to take any action to effect any such registration pursuant to this Section 1.7:

(1) if the Company, within ten (10) days of the receipt of the request for registration pursuant to this Section 1.7, gives notice of its bona fide intention to effect the filing of a registration statement with the Commission within ninety (90) days of receipt of such request (other than with respect to a registration statement relating to a Rule 145 transaction or an employee benefit plan or any other registration which is not appropriate for the registration of Registrable Securities);

(2) during the period starting with the date sixty (60) days prior to the Company's estimated date of filing of, and ending on the date three months immediately following, the effective date of any registration statement pertaining to Securities of the Company (other than with respect to a registration statement relating to a Rule 145 transaction or an employee benefit plan), provided that the Company is actively employing in good faith all reasonable efforts to cause such registration statement to be filed and become effective; or

(3) if the Company shall furnish to such Holder or Holders a certificate signed by the President of the Company stating that in the good faith judgment of the Board of Directors it would be seriously detrimental to the Company or its shareholders for registration statements to be filed in the near future, then the Company's obligation to use its best efforts to file a registration statement shall be deferred for a period not to exceed 90 days from the receipt of the request to file such registration by such Holder or Holders; provided further, however, that the Company may not utilize the rights provided for in subsections (1) and (2) above and this subsection (3) more than once in total in any twelve month period. For the avoidance of doubt, if the Company utilizes any of the rights provided for in subsections (1), (2) and (3), it shall not have the right to utilize the same right again; nor shall it have the right to utilize any of the other rights provided in subsections (1), (2) and (3) for twelve months.

(b) Underwriting. If the Holders requesting registration intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as part of their request made under Section 1.7(a), and the Company shall so advise the Holders as part of the notice given pursuant to Section 1.7(a)(i). The substantive provisions of Section 1.5(b) shall otherwise apply to such registration.

1.8 Expenses of Registration. All Registration Expenses incurred in connection with any registration pursuant to Sections 1.5, 1.6 and 1.7 shall be borne by the Company. If a registration proceeding is begun upon the request of Holders pursuant to Section 1.5 or 1.7, but such request is subsequently withdrawn at the request of the Holders, then the Holders of Registrable Securities to have been registered may either: (i) bear all Registration Expenses of such proceeding, pro rata on the basis of the number of shares to have been registered, in which case the Company shall be deemed not to have effected a registration pursuant to Section 1.5(a) or 1.7(a) of this Agreement as applicable; provided, however, that the Company, and not the Holders, shall be required to pay for the Registration Expenses if the Holders learn of a materially adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request promptly following discovery of such material adverse change; or (ii) if the registration is being effected pursuant to Section 1.5, require the Company to bear all Registration Expenses of such proceeding, in which case the Company shall be deemed to have effected a registration pursuant to Section 1.5(a). Unless otherwise stated, all other Selling Expenses relating to securities registered on behalf of the Holders shall be borne by the Holders of the registered securities included in such registration pro rata on the basis of the number of shares so registered, provided that to the extent a Holder elects to retain its own counsel (an "**Additional Counsel**") separate from the counsel for all the Holders permitted pursuant to the definition of "Registration Expenses" under Section 1.1, then such Holder shall exclusively bear the costs of such Additional Counsel.

1.9 Registration Procedures. In the case of each registration, qualification or compliance effected by the Company pursuant to this Section 1, the Company will keep each Holder advised in writing as to the initiation of each registration, qualification and compliance and as to the completion thereof. At its expense the Company will, as expeditiously as reasonably possible:

(a) Prepare and file with the Commission a registration statement with respect to such Registrable Securities and use its best efforts to cause such registration statement to become effective, and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or until the distribution described in the registration statement has been completed; provided, however, that such 120-day period shall be extended for a period of time equal to the period the Holder refrains from selling any securities included in such registration at the request of an underwriter of Common Stock (or other securities) of the Company.

(b) Prepare and file with the Commission, in consultation with the Holders, such amendments and supplements to such registration statement and the prospectus used in connection with such registration statement as may be necessary to comply with the provisions of the Securities Act with respect to the disposition of all securities covered by such registration statement.

(c) Furnish to the Holders participating in such registration and to the underwriters of the securities being registered such reasonable number of copies of the registration statement, preliminary prospectus, final prospectus and such other documents as such underwriters may reasonably request in order to facilitate the public offering of such securities.

(d) Use its best efforts to register and qualify the securities covered by such registration statement under such other securities or Blue Sky laws of such jurisdictions as shall be reasonably requested by the Holders; provided that the Company shall not be required in connection therewith or as a condition thereto to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act.

(e) In the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the managing underwriter of such offering. Each Holder participating in such underwriting shall also enter into and perform its obligations under such an agreement.

(f) Notify each Holder of Registrable Securities covered by such registration statement at any time when a prospectus relating thereto is required to be delivered under the Securities Act of the happening of any event as a result of which the prospectus included in such registration statement, as then in effect, includes an untrue statement of a material fact or omits to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in light of the circumstances then existing, and at the request of any such Holder, prepare and furnish to such Holder a reasonable number of copies of a supplement to or an amendment of such prospectus as may be necessary so that, as thereafter delivered to the purchasers of such shares, such prospectus shall not include an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading or incomplete in the light of the circumstances then existing.

(g) Cause all such Registrable Securities registered pursuant hereunder to be listed on each securities exchange, or quoted in a U.S. automated inter-dealer quotation system, as the case may be, on which similar securities issued by the Company are then listed or quoted.

(h) Provide a transfer agent and registrar for all Registrable Securities registered pursuant hereunder and a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration.

(i) In the event of any underwritten public offering, cooperate with the selling Holders, the underwriters participating in the offering and their counsel in any due diligence investigation reasonably requested by the selling Holders or the underwriters in connection therewith, and participate, to the extent reasonably requested by the managing underwriter for the offering or the selling Holder, in efforts to sell the Registrable Securities under the offering (including, without limitation, participating in "roadshow" meetings with prospective investors) that would be customary for underwritten primary offerings of a comparable amount of equity securities by the Company.

1.10 Indemnification.

(a) The Company will indemnify and defend each Holder, each of its officers and directors and partners, and each person controlling such Holder within the meaning of Section 15 of the Securities Act, with respect to which registration, qualification or compliance is being effected pursuant to this Section 1, and each underwriter, if any, and each person who controls any underwriter within the meaning of Section 15 of the Securities Act, against all expenses, claims, losses, damages or liabilities (or actions in respect thereof), including any of the foregoing incurred in settlement of any litigation, commenced or threatened, arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any registration statement, prospectus, preliminary prospectus, offering circular or other document, or any amendment or supplement thereto, incident to any such registration, qualification or compliance, or based on any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein, in light of the circumstances in which they were made, not misleading, or any violation or any alleged violation by the Company of the Securities Act or the Exchange Act or any state securities law, or any rule or regulation promulgated thereunder, applicable to the Company in connection with any such registration, qualification or compliance, and the Company will reimburse each such Holder, each of its officers and directors, and each person controlling such Holder, each such underwriter and each person who controls any such underwriter, for any legal and any other expenses reasonably incurred in connection with investigating, preparing or defending any such claim, loss, damage, liability or action, as such expenses are incurred, provided that the Company will not be liable in any such case to the extent that any such claim, loss, damage, liability or expense arises out of or is based on any untrue statement or omission or alleged untrue statement or omission, made in reliance upon and in conformity with written information furnished to the Company by an instrument duly executed by such Holder, controlling person or underwriter and stated to be specifically for use therein.

(b) Each Holder will, if Registrable Securities held by such Holder are included in the securities as to which such registration, qualification or compliance is being effected, indemnify the Company, each of its directors and officers, each underwriter, if any, of the Company's securities covered by such a registration statement, each person who controls the Company or such underwriter within the meaning of Section 15 of the Securities Act, and each other such Holder, each of its officers and directors and each person controlling such Holder within the meaning of Section 15 of the Securities Act, against all claims, losses, damages and liabilities (or actions in respect thereof) arising out of or based on any untrue statement (or alleged untrue statement) of a material fact contained in any such registration statement, prospectus, offering circular or other document, or any omission (or alleged omission) to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and will reimburse the Company, such Holders, such directors, officers, persons, underwriters or control persons for any legal or any other expenses reasonably incurred in connection with investigating or defending any such claim, loss, damage, liability or action, as such expenses are incurred, in each case to the extent, but only if and to the extent, that such untrue statement (or alleged untrue statement) or omission (or alleged omission) is made in such registration statement, prospectus, offering circular or other document in reliance upon and in conformity with written information furnished to the Company by an instrument duly executed by such Holder and stated to be specifically for use therein; provided, however, that the liability of any Holder shall be limited to the net proceeds received by such Holder from the sale of Securities pursuant to such registration.

(c) Each party entitled to indemnification under this Section 1.10 (the "**Indemnified Party**") shall give notice to the party required to provide indemnification (the "**Indemnifying Party**") promptly after such Indemnified Party has actual knowledge of any claim as to which indemnity may be sought, and shall permit the Indemnifying Party to assume the defense of any such claim or any litigation resulting therefrom, provided that counsel for the Indemnifying Party, who shall conduct the defense of such claim or litigation, shall be approved by the Indemnified Party (whose approval shall not unreasonably be withheld), and the Indemnified Party may participate in such defense at such party's expense; provided, however, that an Indemnified Party (together with all other Indemnified Parties which may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the Indemnifying Party, if representation of such Indemnified Party by the counsel retained by the Indemnifying Party would be inappropriate due to actual or potential differing interests between such Indemnified Party and any other party represented by such counsel in such proceeding. The failure of any Indemnified Party to give notice as provided herein shall not relieve the Indemnifying Party of its obligations under this Section 1 unless, and only to the extent that, the failure to give such notice is materially prejudicial to an Indemnifying Party's ability to defend such action. No Indemnifying Party, in the defense of any such claim or litigation, shall, except with the consent of each Indemnified Party, consent to entry of any judgment or enter into any settlement which does not include as an unconditional term thereof the giving by the claimant or plaintiff to such Indemnified Party of a release from all liability in respect to such claim or litigation.

(d) If the indemnification provided for in this Section 1.10 is held by a court of competent jurisdiction to be unavailable to an Indemnified Party with respect to any loss,

liability, claim, damage, or expense referred to therein, then the Indemnifying Party, in lieu of indemnifying such Indemnified Party hereunder, shall contribute to the amount paid or payable by such Indemnified Party as a result of such loss, liability, claim, damage, or expense in such proportion as is appropriate to reflect the relative fault of the Indemnifying Party on the one hand and of the Indemnified Party on the other in connection with the statements or omissions that resulted in such loss, liability, claim, damage, or expense as well as any other relevant equitable considerations (except to the extent that contribution is not permitted under Section 11(f) of the Securities Act); provided, however, that, no Holder will be required to pay any amount under this subsection 1.10(d) in excess of the net proceeds from the sale of all Registrable Securities offered and sold by such Holder pursuant to such registration statement. The relative fault of the Indemnifying Party and of the Indemnified Party shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or the omission to state a material fact relates to information supplied by the Indemnifying Party or by the Indemnified Party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control with respect to the rights and obligations of each of the parties to such underwriting agreement.

(f) The obligations of the Company and Holders under this Section 1.10 shall survive the completion of any offering of Registrable Securities in a registration statement under this Section 1, and otherwise.

1.11 Information by Holder. The Holder or Holders of Registrable Securities included in any registration shall furnish to the Company such information regarding such Holder or Holders, the Securities held by them and the distribution proposed by such Holder or Holders as the Company may reasonably request in writing and as shall be required in connection with any registration referred to in this Section 1.

1.12 Reports Under Securities Exchange Act of 1934. With a view to making available to the Holders the benefits of Rule 144 promulgated under the Securities Act and any other rule or regulation of the Commission that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company agrees to use its best efforts to:

(a) make and keep public information available, as those terms are understood and defined in Rule 144 under the Securities Act, at all times after the effective date that the Company becomes subject to the reporting requirements of the Securities Act or the Exchange Act;

(b) file with the Commission in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements);

(c) register its Common Stock under Section 12 of the Exchange Act at such time as it is required to do so pursuant to the Exchange Act; and

(d) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request (i) a written statement by the Company as to its compliance with the reporting requirements of Rule 144 (at any time after ninety (90) days after the effective date of the first registration statement filed by the Company), the Securities Act and the Exchange Act (at any time after it has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after it so qualifies), (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company, and (iii) such other information in the possession of or reasonably obtainable by the Company as may be reasonably requested in availing any Holder of any rule or regulation of the Commission which permits the selling of any such securities without registration or pursuant to such form.

1.13 Transfer of Registration Rights. The rights to cause the Company to register Registrable Securities granted to the Investors under Sections 1.5, 1.6 and 1.7 may be assigned to a transferee or assignee in connection with any transfer or assignment of Eligible Securities by an Investor; provided that (a) such transfer may otherwise be effected in accordance with applicable securities laws, (b) notice of such assignment is given to the Company, (c) such transferee is a Permitted Transferee and (d) such transferee or assignee agrees to be bound by and subject to the terms and conditions of this Agreement.

1.14 Standoff Agreement.

(a) Each Holder agrees in connection with the first sale of the Company's Common Stock in a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act, upon notice by the Company or the underwriters managing such public offering, not to sell, make any short sale of, loan, pledge (or otherwise encumber or hypothecate), grant any option for the purchase of, or otherwise directly or indirectly dispose of any Securities (other than those included in the registration) without the prior written consent of the Company and such managing underwriters for such period of time as the Board of Directors establishes pursuant to its good faith negotiations with such managing underwriters; provided, however that:

(i) such agreement shall not exceed one hundred eighty (180) days;

(ii) such agreement shall not apply to transfers to an Affiliate, provided that such Affiliate agrees to be bound by the terms of such agreement, to the same extent as if such transferee were the original party thereunder;

(iii) a Holder shall not be subject to such agreement unless (A) all executive officers and directors of the Company, (B), all shareholders of the Company holding more than 1% of the Company's outstanding capital stock; and (C) all other Holders and holders of other registration rights, are subject to or obligated to enter into similar agreements; and

(iv) if and when any person identified in clause (iii) is released, in whole or in part, from such agreement (whether or not such release is contemplated at the time of the offering) or if any such agreement is terminated, the Holder shall be concurrently released on a pro rata basis based on the number of shares held by such person and the Holder.

(b) Each Holder agrees that prior to the Initial Public Offering it will not transfer securities of the Company unless each transferee agrees in writing to be bound by all of the provisions of this Section 1.14; provided that this Section 1.14(b) shall not apply to transfers pursuant to a registration statement.

(c) Each Holder hereby consents to the placement of stop transfer orders with the Company's transfer agent in order to enforce the foregoing provision and agrees to execute a market standoff agreement with said underwriters in customary form consistent with the provisions of this Section 1.14.

1.15 No Right to Delay Registration. No holder shall restrain, enjoin, or otherwise delay any registration hereunder, notwithstanding any controversy that might arise with respect to the interpretation or implementation of this Agreement.

1.16 Termination of Rights. No Holder shall be entitled to exercise any right provided for in this Section 1 after the earlier of (i) five (5) years following the consummation of the Initial Public Offering, and (ii) that date following the Initial Public Offering upon which each Holder holds less than 1% of the then issued and outstanding shares of capital stock of the Company and all such shares may be sold under Section 5 of the Securities Act whether pursuant to Rule 144 or another applicable exemption during any 90 day period. All other provisions hereof relating to registration rights shall continue to be effective despite any termination of such registration rights pursuant to this section.

1.17 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not enter into any agreement granting any holder or prospective holder of any securities of the Company registration rights with respect to such securities unless (i) such new registration rights, are subordinate to the registration rights granted Holders hereunder and include similar market stand-off obligations or (ii) such new registration rights are approved by the Holders of 50% of the Registrable Securities then held by Holders (assuming exercise or conversion of all outstanding Eligible Securities); provided, however, that Warrantholders may enter into this Agreement by executing and delivering a counterpart signature page to this Agreement.

SECTION 2

Affirmative Covenants of the Company

The Company hereby covenants and agrees as follows:

2.1 Delivery of Financial Statements. The Company will furnish to each Investor who holds at least 40,000 shares of Eligible Securities (as adjusted for stock splits and combinations):

(a) as soon as reasonably practicable, an income statement for such fiscal year, a balance sheet of the Company and statement of shareholder's equity as of the end of such year, and a cash flow statement for such year, such year-end financial reports to be in reasonable detail, prepared in accordance with generally accepted accounting principles ("**GAAP**"), and audited and certified by independent public accountants of nationally recognized standing selected by the Company; and

(b) as soon as practicable, but in any event within forty-five (45) days after the end of each of the first three (3) quarters of each fiscal year of the Company, an unaudited income statement, cash flow statement for such fiscal quarter and an unaudited balance sheet as of the end of such fiscal quarter.

2.2 Additional Information Rights.

(a) Budget and Operating Plan. The Company will furnish to each Investor who holds at least 750,000 shares of Eligible Securities (as adjusted for stock splits and combinations) as soon as practicable upon approval or adoption by the Company's Board of Directors, and in any event within 15 days prior to the start of a fiscal year, the Company's budget and operating plan for such fiscal year.

(b) Other Information. The Company will furnish to each Investor who holds at least 750,000 shares of Eligible Securities (as adjusted for stock splits and combinations) such other information relating to the financial condition, business, prospects or corporate affairs of the Company as such Investor may from time to time request; provided, however, that the Company shall not be obligated under this subsection (b) or any other subsection of Section 2.2 to provide information which it deems in good faith to be a trade secret or similar confidential information.

(c) Inspection. The Company shall permit each Investor who holds at least 750,000 shares of Eligible Securities (as adjusted for stock splits and combinations), at such Investor's expense, to visit and inspect the Company's properties, to examine its books of account and records and to discuss the Company's affairs, finances and accounts with its officers, all at such reasonable times and during normal working hours as may be requested by such Investor; provided, however, that the Company shall not be obligated under this subsection (c) or any other subsection of Section 2.2 to provide access to information which it deems in good faith to be a trade secret or similar confidential information.

(d) Monthly Financial Statements. The Company will furnish to each Investor who holds at least 750,000 shares of Eligible Securities (as adjusted for stock splits and combinations), upon the request of such Investors, within thirty (30) days of the end of each month,

an unaudited income statement and cash flow statement and unaudited balance sheet for and as of the end of such month, in reasonable detail.

2.3 Confidentiality. Each Investor agrees to use commercially reasonable efforts to maintain the confidentiality of information obtained pursuant to this Section 2, provided that such obligation shall not apply to (i) information previously in possession or independently developed by Investor, (ii) information publicly available other than as a result of breach of this provision (iii) information required to be disclosed by statute, regulation or court or administrative order.

2.4 Visitation Rights. One representative chosen collectively by LB I Group Inc., Lehman Brothers P.A. LLC, Lehman Brothers Partnership Account 2000/2001, L.P. and Lehman Brothers Offshore Partnership Account 2000/2001, L.P. (collectively, "**Lehman**"), one representative chosen collectively by EuclidSR Partners, L.P. and EuclidSR Biotechnology Partners, L.P. (collectively, "**EuclidSR**"), one representative chosen by Piper Jaffray Healthcare Fund III, L.P. ("**Piper Jaffray**"), one representative chosen by GE Capital Equity Investments, Inc. ("**GE Capital**"), one representative chosen collectively by Interwest Investors VII, L. P. and Interwest Partners VII, L.P. (collectively, "**Interwest**"), one representative chosen by AllianceBernstein L.P. ("**Alliance**"), and one representative chosen by BMSIF shall have the right to attend all meetings of the Board of Directors, including meetings of any committee of the Board and including the right to participate in any telephonic board meetings, so long as such Investor holds at least 750,000 shares of Eligible Securities (as adjusted for stock splits and combinations and the like). Said representative(s) shall be provided with notice of the meetings in the same manner at the same time as the members of the Board of Directors and shall be provided with any materials distributed to the Board of Directors in connection with board meetings. The foregoing visitation rights may be limited by the Board of Directors if (i), upon the advice of counsel, the Board of Directors determines that exclusion is required by third party confidentiality agreements, (ii) the Board is discussing engaging Investor or an affiliate of Investor as a financial advisor or underwriter; or (iii) the Board is discussing a material transaction with an entity in which Investor or a private equity fund affiliated with Investor is a 5% or greater shareholder, or (iv) the Board determines in good faith upon advice of counsel that limitations are required to maintain attorney-client privilege.

2.5 Stock Option Vesting. Unless otherwise decided by the Board of Directors, all option grants to employees shall vest over a four-year period with 25% of the shares subject to each option vesting a year after commencement of employment and the remainder of the shares vesting in equal amounts on a monthly basis thereafter.

2.6 Insurance. The Company shall, subject to the approval of the Board of Directors, maintain such fire, casualty and general liability insurance with coverages and in amounts as shall be determined by the Board of Directors. The Company agrees to maintain in full force and effect directors and officers liability insurance with coverage in the aggregate amount of amount of $2 million covering all of its directors. The Company will maintain coverage for the Series C Directors (as defined in the Voting Agreement) and the Series D Directors (as defined in the Voting Agreement) under such directors and officers liability insurance at all times commencing upon the Closing (as defined in the Purchase Agreement).

2.7 Proprietary Information Agreements. Unless otherwise determined by the Board of Directors, all future employees and consultants of the Company shall be required to execute and deliver a proprietary information and invention assignment agreement.

2.8 Invention Assignments. The Company agrees to use commercially reasonable efforts to obtain from each of the individual contributing inventors for each invention that forms any part of any patent or patent application owned by or licensed to the Company, executed invention assignments in favor of the Company or the appropriate third party licensor, as the case may be.

2.9 Key-Man Life Insurance. The Company shall obtain and maintain key-man life insurance in such amount as is determined by the Company's Board of Directors, on Gajus Worthington. Such policy shall name the Company as loss payee and shall not be cancelable by the Company without prior unanimous approval of the Board of Directors.

2.10 Compliance with Laws. The Company shall use its best efforts to comply with the requirements of all applicable laws, rules, regulations and orders of any governmental authority, where noncompliance would have a material adverse effect on the Company's business and financial condition.

2.11 Termination of Covenants. The covenants set forth in Section 2 shall terminate on, and be of no further force or effect after, the closing of the Company's Initial Public Offering. The rights granted pursuant to this Section 2 are not transferable other than to Affiliates of Holders.

SECTION 3

Right of First Offer For Company Securities

3.1 Right of First Offer. Subject to the terms and conditions specified in this Section 3, the Company hereby grants to each Investor a right of first offer with respect to future sales by the Company of its Securities. An Investor shall be entitled to apportion the right of first offer hereby granted among itself and its partners and Affiliates in such proportions as it deems appropriate.

Each time the Company proposes to offer any Securities in a Financing (as defined below), the Company shall first make an offering of such Securities to each Investor in accordance with the following provisions:

(a) The Company shall deliver a notice ("**Notice**") to each Investor stating (i) its intention to offer such Securities for sale, (ii) the number of such Securities to be offered (the "**Offered Securities**"), (iii) the price, if any, for which it proposes to offer such Securities, (iv) the terms of such offer and (v) the Offer Amount (as defined below).

(b) Within fifteen (15) calendar days after receipt of the Notice, each Investor may elect to purchase, at the price and on the terms specified in the Notice, such Securities in an amount up to the Offer Amount by providing the Company with written notice of its election.

(c) An election by an Investor pursuant to Section 3.1(b) to purchase Offered Securities shall not be considered a binding commitment on the Investor unless and until the Company receives binding commitments to purchase on the terms and conditions contained in the Notice substantially all of the Offered Securities which the Investors have not elected to purchase.

Notwithstanding the foregoing, the Company and each of the Investors acknowledge and agree that Lighthouse shall have the opportunity to invest not less than $250,000 in connection with the first Financing completed after the date of this Agreement that involves the sale and issuance by the Company of shares of the Company's convertible preferred stock with aggregate gross proceeds to the Company of at least $3 million. In the event that Lighthouse's right to purchase Offered Securities as otherwise set forth in this Section 3.1 would not permit such $250,000 investment, then each of the Investors agrees that its respective right to purchase Offered Securities pursuant to this Section 3.1 may be cut-back (proportionately with all other Investors based on the number of shares of Eligible Securities held by the Investors) in such amounts as may be necessary to permit the exercise of Lighthouse's rights as set forth herein.

3.2 Sale of Securities by Company. Within 60 days of the expiration of the period described in Section 3.1(b), any Offered Securities which the Investors have not elected to purchase may be sold by the Company to any person or persons at a price not less than, and upon terms no more favorable to the offeree than, those specified in the Notice. If the Company does not complete the sale of all such Offered Securities within said 60-day period, the rights of the Investors with respect to any such unsold Offered Securities shall be deemed to be revived.

3.3 Offer Amount. The "**Offer Amount**" shall equal that percentage of the Offered Securities equal to the number of shares of Eligible Securities held by an Investor which are Registrable Securities divided by the total number of outstanding shares of Common Stock of the Company. For the purposes of the foregoing calculations, all outstanding options and warrants shall be deemed to be exercised and all Preferred Stock shall be deemed to have been converted into Common Stock at the prevailing conversion rate.

3.4 Financing. "**Financing**" shall mean an offering or series of related offerings of Securities by the Company for purposes of raising working capital in a minimum amount of $250,000. Financing shall not include (i) the issuance or sale of shares of Common Stock or options to purchase Common stock to employees, officers, directors or consultants for the primary purpose of soliciting or retaining their services in such amount as shall have been approved by the Board of Directors, (ii) the issuance or sale of Securities to leasing entities or financial institutions in connection with commercial leasing or borrowing transactions approved by the Board of Directors, (iii) the issuance or sale of Securities to third party providers of goods or services in connection with transactions approved by the Board of Directors; (iv) the sale of Securities in a registered public offering, (v) any issuances of Securities in connection with any stock split, stock dividend or recapitalization by the Company, (vi) the issuance of Securities at a price (on an as converted to

Common Stock basis) below the original issue price of the Company's Series E Preferred Stock (as adjusted for stock splits, recapitalizations and like events) in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or any joint venture or strategic alliance, if such issuance is approved unanimously by the Board of Directors, provided that the issuance of the Company's Series E Preferred Stock to BMSIF or any Affiliate thereof or any related entity to the Singapore Economic Development Board pursuant to Section 3.4(xii) below at a price below the original issue price of the Company's Series E Preferred Stock (as adjusted for stock splits, recapitalizations and like events) shall also not be a Financing hereunder, (vii) the issuance of Securities at a price (on an as converted to Common Stock basis) at or above the original issue price of the Company's Series E Preferred Stock (as adjusted for stock splits, recapitalizations and like events) in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or any joint venture or strategic alliance, if such issuance is approved by the Board of Directors, (viii) the issuance of Securities at a price (on an as converted to Common Stock basis) below the original issue price of the Company's Series E Preferred Stock (as adjusted for stock splits, recapitalizations and like events) in connection with the acquisition of another corporation by the Company by merger, consolidation, or purchase of all or substantially all of the assets or shares of such corporation unanimously approved by the Board of Directors, (ix) the issuance of Securities at a price (on an as converted to Common Stock basis) at or above the original issue price of the Company's Series E Preferred Stock (as adjusted for stock splits, recapitalizations and like events) in connection with the acquisition of another corporation by the Company by merger, consolidation, or purchase of all or substantially all of the assets or shares of such corporation approved by the Board of Directors; (x) shares of Series E Preferred Stock issued pursuant to the terms of the Purchase Agreement; (xi) interest-bearing convertible promissory notes in the aggregate principal amount of $8 million issued or issuable pursuant to the CNPA and/or the CNA and any Securities issued on conversion thereof; and (xii) additional interest-bearing convertible promissory notes to be issued after the date hereof in the aggregate principal amount of up to $15 million to BMSIF or any Affiliate thereof or any related entity to the Singapore Economic Development Board, and any Securities issued on conversion thereof.

3.5 Termination of Right of First Offer. The right of first offer contained in this section shall not apply to and shall terminate upon the closing of an Initial Public Offering. The right of first offer granted under this Section 3 is transferable to transferees of at least 750,000 shares of Registrable Securities (as adjusted for stock splits, combinations and the like) or to Affiliates.

SECTION 4

Right of First Offer with Respect to Founder Shares

4.1 Notice of Sales. Should a Founder (a "**Seller**") propose to accept one or more bona fide offers (collectively, the "**Purchase Offer**") from any persons ("**Purchasers**") to purchase Founders Shares from such Seller (other than as set forth 4.2(d) hereof), then such Seller shall, promptly after exercise or termination of any rights of first refusal held by the Company, deliver a notice (the "**Notice**") to the Company and all Investors holding more than 750,000 shares of Eligible Securities ("**Eligible Investors**").

4.2 Purchase Right. Each Eligible Investor shall have the right, exercisable upon written notice to such Seller within ten (10) business days after receipt of the Notice, to purchase Founders Shares on the terms and conditions specified in the Purchase Offer. To the extent an Eligible Investor exercises its right to purchase such shares in accordance with the terms and conditions set forth below, the number of shares of stock which such Seller may sell to the Purchasers pursuant to the Purchase Offer shall be correspondingly reduced. The purchase right of each Eligible Investor shall be subject to the following terms and conditions:

(a) Calculation of Shares. Each Eligible Investor may purchase all or any part of that number of Founder Shares equal to the number obtained by multiplying (i) the aggregate number of Founders Shares covered by the Purchase Offer by (ii) a fraction, the numerator of which is the number of shares of Common Stock of the Company at the time owned by such Eligible Investor and the denominator of which is the number of shares of Common Stock of the Company then outstanding. For the purposes of the foregoing calculations, all outstanding options and warrants shall be deemed to be exercised and all Preferred Stock shall be deemed to have been converted into Common Stock at the prevailing conversion rate.

(b) Delivery of Consideration. Each Eligible Investor may effect its purchase right by promptly delivering to such Seller a written notice and a check or wire transfer equal to the purchase price specified in the Purchase Offer for the number of shares the Eligible Investor desires to purchase pursuant to this Section 4.2.

(c) Certificate. Within ten (10) business days of receipt of Eligible Investor's funds pursuant to Section 4.2(c), Seller shall deliver to such Eligible Investor a certificate or certificates representing the shares of Founder Shares purchased by such Eligible Investor.

(d) Permitted Transactions. The participation rights in this Section 4 shall not pertain or apply to:

(i) Any transfer to a revocable grantor trust with respect to which the Founder and members of his family are the sole beneficiaries;

(ii) Any repurchase of Founders Shares by the Company;

(iii) Any exercise by the Company of a right or remedy under the terms of any loan, security or stock pledge agreement where the Founders Shares serve as security for a loan made by the Company;

(iv) Any transfer to any ancestors or descendants or spouse of a Founder or to a trustee for their benefit or to a custodian for the benefit of a Founders' issue; or

(v) Any bona fide gift;

provided, however, that such Founder shall inform the Eligible Investors of such transfer or gift (other than a transfer pursuant to clause (ii) or (iii)) prior to effecting it and the transferee or donee (if other than the Company) shall furnish the Company and the Eligible Investors with a written agreement to be bound by and comply with all applicable provisions of this Agreement.

4.3 Sale of Securities by Founder. Within 60 days of the expiration of the period described in the first paragraph of Section 4.2, any Founders Shares covered by the Purchase Offer which the Eligible Investors have not elected to purchase may be sold by the Seller to the Purchasers on the terms and conditions of the Purchase Offer. If the Seller does not complete the sale of all Founders Shares covered by the Purchase Offer within such period, the rights of the Eligible Investors with respect to any such unsold Founders Shares shall be deemed to be revived.

4.4 Termination and Transfer. The restrictions imposed and rights granted by this Section 4 shall not apply to and shall terminate immediately prior to the closing of the Company's Initial Public Offering. Securities received pursuant to any stock dividend, stock split, recapitalization, or exercise of a conversion right shall be subject to this Section 4 to the same extent as the shares of the Company with respect to which they were issued. The right of first offer granted under this Section 4 is transferable to transferees of at least 750,000 shares of Registrable Securities (as adjusted for stock splits, combinations and the like) or to Affiliates.

4.5 Prohibited Transfer. Any attempt by a Founder to transfer Founders Shares in violation of Section 4 hereof shall be void and the Company agrees it will not effect such a transfer nor will it treat any alleged transferee(s) as the holder of such shares, without the written consent of two-thirds (2/3) in interest of the Eligible Investors.

SECTION 5

Right of Co-Sale

5.1 Notice of Sales. Should a Founder (a "**Seller**") propose to accept one or more bona fide offers (collectively, the "**Purchase Offer**") from any persons ("**Purchasers**") to purchase Founders Shares from such Seller (other than as set forth 5.2(d)), then such Seller shall, promptly after exercise or termination of any rights of first refusal held by the Company or the Eligible Investors, deliver a notice (the "**Notice**") to the Company and all Eligible Investors describing the terms and conditions of the Purchase Offer.

5.2 Participation Right. Each Eligible Investor shall have the right, exercisable upon written notice to such Seller within fifteen (15) business days after receipt of the Notice, to participate in such Seller's sale of stock pursuant to the specified terms and conditions of such Purchase Offer. To the extent an Eligible Investor exercises such right of participation in accordance with the terms and conditions set forth below, the number of shares of stock which such Seller may sell pursuant to such Purchase Offer shall be correspondingly reduced. The right of participation of each Eligible Investor shall be subject to the following terms and conditions:

(a) Calculation of Shares. Each Eligible Investor may sell all or any part of that number of shares of Common Stock of the Company equal to the number obtained by multiplying (i) the aggregate number of Founders Shares covered by the Purchase Offer by (ii) a fraction, the numerator of which is the number of shares of Common Stock of the Company at the time owned by such Eligible Investor and the denominator of which is the number of shares of Common Stock of the Company then outstanding. For the purposes of the foregoing calculations, all outstanding options and warrants shall be deemed to be exercised and all Preferred Stock shall be deemed to have been converted into Common Stock at the prevailing conversion rate.

(b) Delivery of Certificates. Each Eligible Investor may effect its participation in the sale by delivering to such Seller for transfer to the Purchaser(s) one or more certificates, properly endorsed for transfer, which represent at least the number of shares of Common Stock which such Eligible Investor elects to sell pursuant to this Section 5.2.

(c) Transfer. The stock certificate or certificates which the Eligible Investor delivers to such Seller pursuant to Section 5.2 shall be delivered by the Seller to the Purchaser(s) in consummation of the sale of the Securities pursuant to the terms and conditions specified in the Notice, and such Seller shall promptly thereafter remit to such Eligible Investor that portion of the sale proceeds to which such Eligible Investor is entitled by reason of its participation in such sale.

(d) Permitted Transactions. The participation rights in this Section 5 shall not pertain or apply to:

(i) Any transfer to a revocable grantor trust with respect to which the Seller and members of his family are the sole beneficiaries;

(ii) Any repurchase of Founders Shares by the Company;

(iii) Any exercise by the Company of a right or remedy under the terms of any loan, security or stock pledge agreement where the Founders Shares serve as security for a loan made by the Company;

(iv) Any transfer to any ancestors or descendants or spouse of a Founder or to a trustee for their benefit or to a custodian for the benefit of a Founders' issue; or

(v) Any bona fide gift;

provided, however, that such Founder shall inform the Eligible Investors of such transfer or gift (other than a transfer pursuant to clause (ii) or (iii)) prior to effecting it and the transferee or donee (if other than the Company) shall furnish the Company and the Eligible Investors with a written agreement to be bound by and comply with all applicable provisions of this Agreement.

5.3 Sale of Securities by Founder. Within 45 days of the expiration of the period described in the first paragraph of Section 5.2, any Founders Shares covered by the Purchase Offer which the Eligible Investors have not elected to purchase may be sold by the Seller to the Purchasers on the terms and conditions of the Purchase Offer. If the Seller does not complete the sale of all Founders Shares covered by the Purchase Offer within such period, the rights of the Eligible Investors with respect to any such unsold Founders Shares shall be deemed to be revived.

5.4 Termination and Transfer. The restrictions imposed and rights granted by this Section 5 shall not apply to and shall terminate immediately prior to the closing of the Company's Initial Public Offering. Securities received pursuant to any stock dividend, stock split, recapitalization, or exercise of a conversion right shall be subject to this Section 5 to the same extent as the shares of the Company with respect to which they were issued. The co-sale right granted under this Section 5 is transferable to transferees of at least 750,000 shares of Registrable Securities (as adjusted for stock splits, combinations and the like) or to Affiliates.

5.5 Prohibited Transfers.

(a) In the event any Founder should sell any Founders Shares in contravention of the co-sale rights of the Investors under Section 5 (a "**Prohibited Transfer**"), the Investors, in addition to such other remedies as may be available at law, in equity or hereunder, shall have the put option provided below, and the Founder shall be bound by the applicable provisions of such option.

(b) In the event of a Prohibited Transfer, each Eligible Investor shall have the right to sell to the Founder the type and number of shares of Common Stock equal to the number of shares that such Eligible Investor would have been entitled to transfer to the third-party transferee(s) under Section 5.2 hereof had the Prohibited Transfer been effected pursuant to and in compliance with the terms thereof. Such sale shall be made on the following terms and conditions:

(i) The price per share at which the shares are to be sold to the Founder shall be equal to the price per share paid by the third-party transferee(s) to the Founder in the Prohibited Transfer. Such price per share shall be paid to the Eligible Investor in cash if the Founder received cash for his shares. If the Founder did not receive cash but received other property instead, the price per share to be paid to the Eligible Investor shall be paid (A) in the form of the property received by the Founder for his shares, or (B) in cash equal to the fair market value of the property received by such Founder as determined in good faith by the Company's Board of Directors, at the option of the Eligible Investor. The Founder shall also reimburse each Eligible Investor for any and all fees and expense, including legal fees and expenses, incurred pursuant to the exercise or the attempted exercise of the Eligible Investor's rights under Section 5.

(ii) Within thirty (30) days after the later of the dates on which the Eligible Investor (A) received notice of the Prohibited Transfer or (B) otherwise became aware of the Prohibited Transfer, each Eligible Investor shall, if exercising the option created hereby, deliver to the Founder the certificate or certificates representing shares to be sold, each certificate to be properly endorsed for transfer.

(iii) The Founder shall, upon receipt of the certificate or certificates for the shares to be sold by an Eligible Investor pursuant to this Section 5, pay the aggregate purchase price therefor and the amount of reimbursable fees and expenses, as specified in subparagraph 5.5(b)(i), in cash or by other means acceptable to the Eligible Investor.

(c) Notwithstanding the foregoing, any attempt by a Founder to transfer Founders Shares in violation of Section 5 hereof shall be void and the Company agrees it will not effect such a transfer nor will it treat any alleged transferee(s) as the holder of such shares, without the written consent of two-thirds (2/3) in interest of the Eligible Investors.

SECTION 6

Miscellaneous

6.1 Governing Law; Jurisdiction. This Agreement shall be construed in accordance with, and governed in all respects by, the laws of the State of California, as applied to agreements entered into, and to be performed entirely in such state, between residents of such state.

The parties hereto agree to submit to the jurisdiction of the federal and state courts of San Mateo County, California with respect to the breach or interpretation of this Agreement or the enforcement of any and all rights, duties, liabilities, obligations, powers, and other relations between the parties arising under this Agreement.

6.2 Successors and Assigns. Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto.

6.3 Notices, Etc. All notices and other communications required or permitted hereunder, shall be in writing and shall be sent by facsimile personally delivered, mailed by registered or certified mail, postage prepaid, return receipt requested, or otherwise delivered by a nationally-recognized overnight courier, addressed (a) if to an Investor, at Investor's facsimile number or address as set forth in the records of the Company or (b) if to any other holder of any Eligible Securities, at such address as such holder shall have furnished the Company in writing, or, until any such holder so furnishes an address to the Company, then to and at the address of the last holder of such Eligible Securities who has so furnished an address or facsimile number to the Company, or (c) if to a Founder, at such Founder's facsimile number or address set forth on EXHIBIT B hereto, or a such other address as such Founder shall have furnished to the Company in writing, or (d) if to the Company, at its facsimile number or address set forth on the signature page hereto addressed to the attention of the Corporate Secretary, or at such other address as the Company

shall have furnished to the Investors. Any such notice or communication shall be deemed to have been received (A) in the case of personal delivery, on the date of such delivery, (B) in the case of a nationally-recognized overnight courier, on the next business day after the date when sent, (C) in the case of mailing, on the third business day following that on which the piece of mail containing such communication is posted and (D) in the case of delivery via facsimile, one (1) business day after the date of transmission provided that said transmission is confirmed telephonically on the date of transmission.

6.4 Delays or Omissions. No delay or omission to exercise any right, power or remedy accruing to any holder of any Eligible Securities upon any breach or default of the Company under this Agreement shall impair any such right, power or remedy of such holder, nor shall it be construed to be a waiver of any such breach or default, or an acquiescence therein, or of or in any similar breach or default thereafter occurring; nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. Any waiver, permit, consent or approval of any kind or character on the part of any holder of any breach or default under this Agreement, or any waiver on the part of any holder of any provisions or conditions of this Agreement, must be in writing and shall be effective only to the extent specifically set forth in such writing or as provided in this Agreement. All remedies, either under this Agreement or by law or otherwise afforded to any holder, shall be cumulative and not alternative.

6.5 Third Parties. Nothing in this Agreement, express or implied, is intended to confer upon any party, other than the parties hereto, and their respective successors and assigns, any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

6.6 Severability. If one or more provisions of this Agreement are held to be unenforceable under applicable law, portions of such provisions, or such provisions in their entirety, to the extent necessary, shall be severed from this Agreement, and the balance of this Agreement shall be enforceable in accordance with its terms.

6.7 Amendment and Waiver. Any provision of this Agreement may be amended or waived with the written consent of the Company and the Holders of at least two-thirds of the outstanding shares of the Registrable Securities then held by Holders (assuming the exercise or conversion of all outstanding Eligible Securities); provided, however, (i) that in the event such amendment or waiver adversely affects the rights and/or obligations of the Founders under this Agreement in a different manner than the other Holders, such amendment or waiver shall also require written consent of the Founders holding a majority of the then outstanding Founders Shares, (ii) that in the event such amendment or waiver adversely affects the rights and/or obligations of Lehman, EuclidSR, Piper Jaffray, GE Capital, Interwest, Alliance, and BMSIF under Section 2.4 of this Agreement, such amendment or waiver shall not be effective as to Lehman, EuclidSR, Piper Jaffray, GE Capital, Interwest or BMSIF, as the case may be, without the written consent of such party, and (iii) that in the event such amendment or waiver adversely affects the rights and/or obligations of Warrantholders under this Agreement in a different manner than the other Holders, such amendment or waiver shall also require the written consent of Warrantholders holding a

majority of the then outstanding Warrant Shares. Notwithstanding the foregoing, any purchaser of Series E Preferred Stock pursuant to the Purchase Agreement may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and such purchaser shall be deemed a Holder and an Investor hereunder. The parties agree that Exhibit A shall be updated automatically without any formal amendment to reflect the addition of any such additional party. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each Holder, the Founders, the holder of the Other Shares, Warrantholders and the Company. In addition, the Company may waive performance of any obligation owing to it, as to some or all of the Holders, or agree to accept alternatives to such performance, without obtaining the consent of any other Holder. In the event that an underwriting agreement is entered into between the Company and any Holder, and such underwriting agreement contains terms differing from this Agreement, as to any such Holder the terms of such underwriting agreement shall govern.

6.8 Rights of Holders. Each Holder shall have the absolute right to exercise or refrain from exercising any right or rights that such holder may have by reason of this Agreement, including, without limitation, the right to consent to the waiver or modification of any obligation under this Agreement, and such holder shall not incur any liability to any other holder of any Securities as a result of exercising or refraining from exercising any such right or rights.

6.9 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument.

6.10 Titles and Subtitles. The titles of the paragraphs and subparagraphs of this Agreement are for convenience of reference only and are not to be considered in construing this Agreement.

6.11 Amendment and Restatement of Prior Agreement. The undersigned Prior Investors who in the aggregate hold at least two-thirds of the outstanding Registrable Securities (as defined in the Prior Agreement) and the undersigned Founders hereby amend and restate the Prior Agreement pursuant to Section 6.7 thereof.

6.12 Waiver of Right of First Offer. The undersigned Prior Investors who in the aggregate hold at least two-thirds of the outstanding Registrable Securities (as defined in the Prior Agreement) hereby waive on behalf of all Prior Investors any rights of participation or notice under Section 3 of this Agreement and the Prior Agreement with respect to the securities sold pursuant to the Purchase Agreement. By its execution below, Lighthouse waives any right of participation or notice under Section 3 of this Agreement and Section 3 of the Prior Agreement with respect to securities sold under the Purchase Agreement.

6.13 Aggregation of Stock. All shares of Eligible Securities held or acquired by Affiliated entities or persons shall be aggregated together for the purpose of determining the availability of any rights under this Agreement.

6.14 Jury Trial. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING (WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATED TO THIS AGREEMENT.

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FLUIDIGM CORPORATION
AMENDMENT NO. 1 TO
EIGHTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

THIS AMENDMENT NO. 1 (this "**Amendment**") to that certain Eighth Amended and Restated Investor Rights Agreement, dated as of June 13, 2006 (the "**Rights Agreement**"), by and among Fluidigm Corporation, a California corporation (the "**Company**"), and the Investors and Founders named therein is entered into this 22nd day of December, 2006 by and among the Company and the undersigned, collectively the Holders of at least two-thirds of the outstanding shares of the Registrable Securities then held by Holders (assuming the exercise or conversion of all outstanding Eligible Securities). Capitalized terms not defined herein have the meanings set forth in the Rights Agreement.

RECITALS

A. It is contemplated that the Company will sell and issue additional shares of the Company's Series E Preferred Stock ("**Series E Preferred Stock**") pursuant to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006 (the "**Purchase Agreement**"), by and among the Company and the Purchasers named therein.

B. In connection with the sale of additional shares of Series E Preferred Stock, the Company and the Investors desire to (i) provide that the standoff agreement in Section 1.14 of the Rights Agreement shall not apply to securities of the Company purchased by certain Holders in the Initial Public Offering or in the public market for the Company's securities following the Initial Public Offering, and (ii) grant visitation rights pursuant to Section 2.4 of the Rights Agreement collectively to Cross Creek Capital, L.P., Cross Creek Capital Employees' Fund, L.P. and Wasatch Small Cap Growth.

C. The Company and the undersigned Holders of at least two-thirds of the outstanding shares of the Registrable Securities then held by Holders (assuming the exercise or conversion of all outstanding Eligible Securities) have agreed to amend the Rights Agreement to provide for the foregoing changes to the standoff agreement in Section 1.14 and the visitation rights in Section 2.4.

AGREEMENT

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all of the parties hereto mutually agree as follows:

SECTION 7 Amendment to Section 1.14. Section 1.14 (Standoff Agreement) of the Rights Agreement is hereby amended and restated in its entirety as follows:

"1.14 Standoff Agreement.

(a) Each Holder agrees in connection with the first sale of the Company's Common Stock in a firm commitment underwritten public offering pursuant to an effective registration statement under the Securities Act, upon notice by the Company or the underwriters managing such public offering, not to sell, make any short sale of, loan, pledge (or otherwise encumber or hypothecate), grant any option for the purchase of, or otherwise directly or indirectly dispose of any Securities (other than those included in the registration) without the prior written consent of the Company and such managing underwriters for such period of time as the Board of Directors establishes pursuant to its good faith negotiations with such managing underwriters; provided, however that:

(i) such agreement shall not exceed one hundred eighty (180) days;

(ii) such agreement shall not apply to transfers to an Affiliate, provided that such Affiliate agrees to be bound by the terms of such agreement, to the same extent as if such transferee were the original party thereunder;

(iii) such agreement shall not apply to securities of the Company purchased by AllianceBernstein Venture Fund I, L.P., SmallCap World Fund, Inc., Cross Creek Capital, L.P., Cross Creek Capital Employees' Fund, L.P. or Wasatch Small Cap Growth or their respective Affiliates in the Initial Public Offering or in the public market for the Company's securities following the Initial Public Offering;

(iv) a Holder shall not be subject to such agreement unless (A) all executive officers and directors of the Company, (B), all shareholders of the Company holding more than 1% of the Company's outstanding capital stock; and (C) all other Holders and holders of other registration rights, are subject to or obligated to enter into similar agreements; and

(v) if and when any person identified in clause (iv) is released, in whole or in part, from such agreement (whether or not such release is contemplated at the time of the offering) or if any such agreement is terminated, the Holder shall be concurrently released on a pro rata basis based on the number of shares held by such person and the Holder.

(b) Each Holder agrees that prior to the Initial Public Offering it will not transfer securities of the Company unless each transferee agrees in writing to be bound by all of the provisions of this Section 1.14; provided that this Section 1.14(b) shall not apply to transfers pursuant to a registration statement.

(c) Each Holder hereby consents to the placement of stop transfer orders with the Company's transfer agent in order to enforce the foregoing provision and agrees to execute a market standoff agreement with said

underwriters in customary form consistent with the provisions of this Section 1.14.

SECTION 8 Amendment to Section 2.4. Section 2.4 (Visitation Rights) of the Rights Agreement is hereby amended and restated in its entirety as follows:

"2.4 Visitation Rights. One representative chosen collectively by LB I Group Inc., Lehman Brothers P.A. LLC, Lehman Brothers Partnership Account 2000/2001, L.P. and Lehman Brothers Offshore Partnership Account 2000/2001, L.P. (collectively, "**Lehman**"), one representative chosen collectively by EuclidSR Partners, L.P. and EuclidSR Biotechnology Partners, L.P. (collectively, "**EuclidSR**"), one representative chosen by Piper Jaffray Healthcare Fund III, L.P. ("**Piper Jaffray**"), one representative chosen by GE Capital Equity Investments, Inc. ("**GE Capital**"), one representative chosen collectively by Interwest Investors VII, L. P. and Interwest Partners VII, L.P. (collectively, "**Interwest**"), one representative chosen by AllianceBernstein Venture Fund I, L.P. ("**Alliance**"), one representative chosen collectively by Cross Creek Capital, L.P., Cross Creek Capital Employees' Fund, L.P. and Wasatch Small Cap Growth (collectively, "**Wasatch**"), and one representative chosen by BMSIF shall have the right to attend all meetings of the Board of Directors, including meetings of any committee of the Board and including the right to participate in any telephonic board meetings, so long as such Investor holds at least 750,000 shares of Eligible Securities (as adjusted for stock splits and combinations and the like). Said representative(s) shall be provided with notice of the meetings in the same manner at the same time as the members of the Board of Directors and shall be provided with any materials distributed to the Board of Directors in connection with board meetings. The foregoing visitation rights may be limited by the Board of Directors if (i), upon the advice of counsel, the Board of Directors determines that exclusion is required by third party confidentiality agreements, (ii) the Board is discussing engaging Investor or an affiliate of Investor as a financial advisor or underwriter; or (iii) the Board is discussing a material transaction with an entity in which Investor or a private equity fund affiliated with Investor is a 5% or greater shareholder, or (iv) the Board determines in good faith upon advice of counsel that limitations are required to maintain attorney-client privilege."

SECTION 9 Amendment to Section 6.7. Section 6.7 (Amendment and Waiver) of the Rights Agreement is hereby amended and restated in its entirety as follows:

"6.7 Amendment and Waiver. Any provision of this Agreement may be amended or waived with the written consent of the Company and the Holders of at least two-thirds of the outstanding shares of the Registrable Securities then held by Holders (assuming the exercise or conversion of all outstanding Eligible Securities); provided, however, (i) that in the event such amendment or waiver adversely affects the rights and/or obligations of the Founders under this Agreement in a different manner than the other Holders, such amendment or waiver shall also require written consent of the Founders holding a majority of the

then outstanding Founders Shares, (ii) that in the event such amendment or waiver adversely affects the rights and/or obligations of Lehman, EuclidSR, Piper Jaffray, GE Capital, Interwest, Alliance, Wasatch or BMSIF under Section 2.4 of this Agreement, such amendment or waiver shall not be effective as to Lehman, EuclidSR, Piper Jaffray, GE Capital, Interwest, Alliance, Wasatch or BMSIF, as the case may be, without the written consent of such party, and (iii) that in the event such amendment or waiver adversely affects the rights and/or obligations of Warrantholders under this Agreement in a different manner than the other Holders, such amendment or waiver shall also require the written consent of Warrantholders holding a majority of the then outstanding Warrant Shares. Notwithstanding the foregoing, any purchaser of Series E Preferred Stock pursuant to the Purchase Agreement may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and such purchaser shall be deemed a Holder and an Investor hereunder. The parties agree that Exhibit A shall be updated automatically without any formal amendment to reflect the addition of any such additional party. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each Holder, the Founders, the holder of the Other Shares, Warrantholders and the Company. In addition, the Company may waive performance of any obligation owing to it, as to some or all of the Holders, or agree to accept alternatives to such performance, without obtaining the consent of any other Holder. In the event that an underwriting agreement is entered into between the Company and any Holder, and such underwriting agreement contains terms differing from this Agreement, as to any such Holder the terms of such underwriting agreement shall govern."

SECTION 10 Governing Law. This Amendment shall be construed in accordance with, and governed in all respects by, the laws of the State of California, as applied to agreements entered into, and to be performed entirely in such state, between residents of such state.

SECTION 11 Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument.

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FLUIDIGM CORPORATION

AMENDMENT NO. 2 TO
EIGHTH AMENDED AND RESTATED INVESTOR RIGHTS AGREEMENT

THIS AMENDMENT NO. 2 (this "**Amendment**") to that certain Eighth Amended and Restated Investor Rights Agreement, dated as of June 13, 2006, as amended December 22, 2006 (the "**Rights Agreement**"), by and among Fluidigm Corporation, a California corporation ("**Fluidigm California**"), and the Investors and Founders named therein is entered into effective as of October 10, 2007 by and among Fluidigm Corporation, a Delaware corporation (the "**Company**"), the undersigned Investors, and the undersigned Holders, collectively the Holders of at least two-thirds of the outstanding shares of the Registrable Securities held by Holders (assuming the exercise or conversion of all outstanding Eligible Securities). Capitalized terms not defined herein have the meanings set forth in the Rights Agreement.

RECITALS

WHEREAS, on July 18, 2007, Fluidigm California was merged with and into the Company, with the Company being the surviving corporation such that the Company succeeded to all of Fluidigm California's rights and obligations under the Rights Agreement;

WHEREAS, it is contemplated that the Company will sell and issue additional shares of the Company's Series E Preferred Stock ("**Series E Preferred Stock**") pursuant to that certain Series E Preferred Stock Purchase Agreement, dated as of June 13, 2006, as amended December 22, 2006 and further amended on the date hereof (the "**Purchase Agreement**"), by and among the Company and the Purchasers named therein;

WHEREAS, in connection with the sale of additional shares of Series E Preferred Stock, the Company and the Holders desire to amend the Rights Agreement to include the additional shares of Series E Preferred Stock to be issued pursuant to the Purchase Agreement and make certain other changes as set forth herein; and

WHEREAS, pursuant to Section 6.7 of the Rights Agreement, the Rights Agreement may be amended with the written consent of the Company and Holders of at least two-thirds of the outstanding shares of the Registrable Securities then held by Holders (assuming the exercise or conversion of all outstanding Eligible Securities) and the Company and the undersigned Holders have agreed to amend the Rights Agreement to provide for the foregoing changes.

NOW, THEREFORE, in consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, all of the parties hereto mutually agree as follows:

AGREEMENT

SECTION 12 Amendment to Recital. The first Recital of the Rights Agreement is hereby amended and restated in its entirety as follows:

"WHEREAS, the Company and the New Investors have entered into a Series E Preferred Stock Purchase Agreement of even date herewith, as amended from time to time (such agreement, as amended from time to time, the "**Purchase Agreement**"), pursuant to which the Company shall sell, and the New Investors shall acquire, shares of the Company's Series E Preferred Stock;"

SECTION 13 Amendment to Section 1.14. Subsection (a)(i) of Section 1.14 (Standoff Agreement) of the Rights Agreement is hereby amended and restated in its entirety as follows:

"(i) such agreement shall not exceed one hundred and eighty (180) days (or such greater period, not to exceed 17 days, as may be requested by the Company or an underwriter to accommodate regulatory restrictions on (i) the publication or other distribution of research reports and (ii) analyst recommendations and opinions, including, but not limited to, the restrictions contained in NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4), or any successor provisions or amendments thereto);"

SECTION 14 Deletion of Section 1.15. The Rights Agreement is hereby amended to delete Section 1.15 (No Right to Delay Registration) in its entirety.

SECTION 15 Amendment to Section 2.4. Section 2.4 (Visitation Rights) of the Rights Agreement is hereby amended and restated in its entirety as follows:

"2.4 Visitation Rights. One representative chosen collectively by LB I Group Inc., Lehman Brothers P.A. LLC, Lehman Brothers Partnership Account 2000/2001, L.P. and Lehman Brothers Offshore Partnership Account 2000/2001, L.P. (collectively, "**Lehman**"), one representative chosen collectively by EuclidSR Partners, L.P. and EuclidSR Biotechnology Partners, L.P. (collectively, "**EuclidSR**"), one representative chosen by Piper Jaffray Healthcare Fund III, L.P. ("**Piper Jaffray**"), one representative chosen by GE Capital Equity Investments, Inc. ("**GE Capital**"), one representative chosen collectively by Interwest Investors VII, L. P. and Interwest Partners VII, L.P. (collectively, "**Interwest**"), one representative chosen by AllianceBernstein Venture Fund I, L.P. ("**Alliance**"), one representative chosen collectively by Cross Creek Capital, L.P., Cross Creek Capital Employees' Fund, L.P. and Wasatch Small Cap Growth (collectively, "**Wasatch**"), one representative chosen by BMSIF, and one representative chosen collectively by the holders of a majority of the Shares purchased under Amendment No. 2 to the Purchase Agreement (collectively, the "**October 2007 Representative**") shall have the right to attend all meetings of the Board of Directors, including meetings of any committee of the Board and including the right to participate in any telephonic board meetings, so long as such Investor or the October 2007 Representative holds at least 750,000 shares of Eligible Securities (as adjusted for stock

splits and combinations and the like). Said representative(s) shall be provided with notice of the meetings in the same manner at the same time as the members of the Board of Directors and shall be provided with any materials distributed to the Board of Directors in connection with board meetings. The foregoing visitation rights may be limited by the Board of Directors if (i), upon the advice of counsel, the Board of Directors determines that exclusion is required by third party confidentiality agreements, (ii) the Board is discussing engaging Investor or an affiliate of Investor as a financial advisor or underwriter; or (iii) the Board is discussing a material transaction with an entity in which Investor or a private equity fund affiliated with Investor is a 5% or greater shareholder, or (iv) the Board determines in good faith upon advice of counsel that limitations are required to maintain attorney-client privilege."

SECTION 16 Amendment to Section 6.7. Section 6.7 (Amendment and Waiver) of the Rights Agreement is hereby amended and restated in its entirety as follows:

"6.7 Amendment and Waiver. Any provision of this Agreement may be amended or waived with the written consent of the Company and the Holders of at least two-thirds of the outstanding shares of the Registrable Securities then held by Holders (assuming the exercise or conversion of all outstanding Eligible Securities); provided, however, (i) that in the event such amendment or waiver adversely affects the rights and/or obligations of the Founders under this Agreement in a different manner than the other Holders, such amendment or waiver shall also require written consent of the Founders holding a majority of the then outstanding Founders Shares, (ii) that in the event such amendment or waiver adversely affects the rights and/or obligations of Lehman, EuclidSR, Piper Jaffray, GE Capital, Interwest, Alliance, Wasatch, BMSIF or the October 2007 Representative under Section 2.4 of this Agreement, such amendment or waiver shall not be effective as to Lehman, EuclidSR, Piper Jaffray, GE Capital, Interwest, Alliance, Wasatch, BMSIF or the October 2007 Representative, as the case may be, without the written consent of such party, and (iii) that in the event such amendment or waiver adversely affects the rights and/or obligations of Warrantholders under this Agreement in a different manner than the other Holders, such amendment or waiver shall also require the written consent of Warrantholders holding a majority of the then outstanding Warrant Shares. Notwithstanding the foregoing, any purchaser of Series E Preferred Stock pursuant to the Purchase Agreement may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement and such purchaser shall be deemed a Holder and an Investor hereunder. The parties agree that Exhibit A shall be updated automatically without any formal amendment to reflect the addition of any such additional party. Any amendment or waiver effected in accordance with this paragraph shall be binding upon each Holder, the Founders, the holder of the Other Shares, Warrantholders and the Company. In addition, the Company may waive performance of any obligation owing to it, as to some or all of the Holders, or agree to accept alternatives to such performance, without obtaining the consent of any other Holder. In the event that an underwriting agreement is entered into between the Company and any Holder, and such underwriting agreement contains terms

differing from this Agreement, as to any such Holder the terms of such underwriting agreement shall govern."

SECTION 17 Addition of Section 6.15. The Rights Agreement is hereby amended to add the following Section 6.15 which reads in its entirety as follows:

"6.15 Reincorporation. Each Investor and Founder acknowledges that the Company completed a reincorporation into the State of Delaware on July 18, 2007 and each Investor and Founder hereby consents to the assignment of this Agreement to Fluidigm Corporation, a Delaware corporation, effective as of July 18, 2007."

SECTION 18 Governing Law. This Amendment shall be construed in accordance with, and governed in all respects by, the laws of the State of California, as applied to agreements entered into, and to be performed entirely in such state, between residents of such state.

SECTION 19 Rights Agreement. Wherever necessary, all other terms of the Rights Agreement are hereby amended to be consistent with the terms of this Amendment. Except as specifically set forth herein, the Rights Agreement shall remain in full force and effect

SECTION 20 Counterparts. This Amendment may be executed in any number of counterparts, each of which shall be enforceable against the parties actually executing such counterparts, and all of which together shall constitute one instrument.

SECTION 21 Effect of Execution of Amendment by Investor. This Amendment, when executed and delivered by the Company and an Investor purchasing shares of Series E Preferred pursuant to the Purchase Agreement as contemplated in the Recitals, shall also constitute and shall be deemed a counterpart signature page to the Rights Agreement. Consequently, each undersigned Investor purchasing shares of Series E Preferred acknowledges and agrees that he, she or it is bound by the terms and conditions contained in the Rights Agreement, as amended by this Amendment.

[*Remainder of Page Intentionally Blank*]

FOUNDERS

Gajus V. Worthington

Stephen R. Quake

INVESTORS

Alejandro Berenstein, M.D.

Alfred J. Mandel

Allan Johnson

Allen May, Trustee, Intervivos Trust Dated 5/14/91

AllianceBernstein Venture Fund I, L.P.

Alloy Partners 2002, L.P.

Alloy Ventures 2002, L.P.

Alloy Ventures 2005, L.P.

Analiza, Inc.

Athersys, Inc.

Beveren Company

Biomedical Sciences Investment Fund Pte Ltd

Bradford S. Goodwin and Cathy W. Goodwin As Trustees of the Goodwin Family Trust U/A/D 7/30/97

Bradford W. Baer

Bruce Burrows

Burr & Forman LLP

Burwen Family Trust U/D/T Dated 9/30/88

Charles C. Moore

Charles R. Engles

Clark-Boyd Family Trust

Cross Creek Capital Employees' Fund, L.P.

Cross Creek Capital, L.P.

David S. Frampton and Gaja Roberta Frampton, as Trustees of the Frampton Family Trust Dtd 4/25/03

Dwayne Hardy

Edward R. LeMoure

Erick Vanderburg

Erik T. Engelson, Trustee of the Elisabeth North Kuechler Engelson Trust UTA dated January 17, 2001

Erik T. Engelson, Trustee of the Erik T. Engelson Trust UTD dated March 29, 2000

EuclidSR Biotechnology Partners, L.P.

EuclidSR Partners, L.P.

Ferguson/Egan Family Trust Dated 6/28/99

Fidelity Contrafund: Fidelity Advisor New Insights Fund

Fidelity Contrafund: Fidelity Contrafund

Finnegan, Henderson, Farabow, Garrett & Dunner, LLP

Frances H. Arnold

Fred St. Goar

Fredrick Stern

Gary R. Bang

GE Capital Equity Investments, Inc.

General Electric Capital Corporation

George S. Taylor

Glaxo Group Limited

Health Care Administration Company

Heath Lukatch

Henry P. Massey, Jr. TTEE Massey Family Trust U/A DTD 7/06/88

Herbert L. Heyneker

Howard R. Engelson

Howard R. Engelson and Mariam T. Engelson, Ttees Engelson Fam Tr UA DTD 5/26/94

In-Q-Tel Employee Fund, LLC

In-Q-Tel, Inc.

Interwest Investors VII, L.P.

Interwest Partners VII, L.P.

Invus, L.P.

J.F. Shea Co., Inc. As Nominee 1999-114

Jacaranda Partners

James H. Eberwine

James W. Larrick, M.D.

John E. Strobeck, Ph.D., M.D.

John East

John M. Harland

Jonathan S. Hoot and Andrea T. Hoot, Trustees of the Hoot Family Revocable Trust DTD 3/16/99

Joseph M. Jacobson

Kenneth A. Clark

Kiley Revocable Trust

Kristin T. McClanahan Trust

Leerink Swann Co-Investment Fund, LLC

Leerink Swann Holdings, LLC

Lehman Brothers Healthcare Venture Capital L.P.

Lehman Brothers Offshore Partnership Account 2000/2001, L.P.

Lehman Brothers P.A. LLC

Lehman Brothers Partnership Account 2000/2001, L.P.

Leo J. Parry, Jr. and Roberta J. Parry TTEES Parry Family Revocable Trust DTD 01/22/97

Lighthouse Capital Partners V, L.P.

Lilly Bio Ventures, Eli Lilly and Company

Markwell Partners

Matthew Collier

Matthew Frank

Michael H. McKay

Michael J. Reardon Trust Agreement dated June 5, 1996

Needle & Rosenberg PC

Newman Family Investment Partnership

Oculus Pharmaceuticals, Inc.

Pamela East

Pat and Betsy Collins Revocable Trust

Patrick Tenney

Paul Machle

Pauline van Ysendoorn

Peter B. Dervan

Peter S. Heinecke

Rhett E. Brown

Robert D. McCulloch and Kathleen M. McCulloch, Trustee, or their successor(s)

Robert F. Kornegay, Jr. Revocable Trust u/d/t dated May 27, 2004, Robert F. Kornegay, Jr., Trustee

Security Trust Co., Custodian FBO Frank Ruderman IRA/RO

SightLine Healthcare Fund III, L.P.

Singapore Bio-Innovations Pte Ltd.

SMALLCAP World Fund, Inc.

SmithKline Beecham Corporation

Stanley D. Hayden, and his successor(s), as the Trustee of the Stanley D. Hayden Family Trust

Stephen J. Weiss

Stephen J. Weiss and Ursula G. Weiss, Trustees of the Weiss Family 1996 Trust

Stephen L. Parry

Technogen Liquidating Trust

The Condon Family Trust

The Heckmann Family Trust

The UAB Research Foundation

The V Foundation for Cancer Research

Thomas J. Parry

Thomas L. Barton

Tim L. Traff Trust

Timothy P. Lynch

TTC Fund I, LLC

Variable Insurance Products Fund II: Contrafund Portfolio

Versant Affiliates Fund 1-A, L.P.

Versant Affiliates Fund 1-B, L.P.

Versant Side Fund I, L.P.

Versant Venture Capital I, L.P.

Wasatch Funds, Inc.

William L. Caton III, M.D.

William L. Traff Trust

William S. Brown and Barbara G. Brown, or their successors, as Trustees of the Brown FRT DTD 3/10/99

WS Investment Company 2000B

WS Investment Company 99B

WS Investment Company, LLC (2001D)

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 4.4

LOAN AND SECURITY AGREEMENTS

THIS LOAN AND SECURITY AGREEMENT No. 4561 (this *"Agreement")* is entered into as of March 29, 2005, by and between **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** *("Lender")* and **FLUIDIGM CORPORATION**, a California corporation *("Borrower"* or sometimes referred to herein as *"Debtor")* and sets forth the terms and conditions upon which Lender will lend and Borrower will repay money. In consideration of the mutual covenants herein contained, the parties agree as follows:

1. DEFINITIONS AND CONSTRUCTION

1.1 Definitions. Initially capitalized terms used and not otherwise defined herein are defined in the California Uniform Commercial Code *("UCC").*

"ACH" means the Automated Clearing House electronic funds transfer system.

"Advance" means a Loan advanced by Lender to Borrower hereunder.

"Basic Rate" means a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided in the Loan Agreement and/or the Note. On and after the Loan Commencement Date the Basic Rate shall be fixed and not subject to any further adjustments.

"Borrower's Books" means all of Borrower's books and records, including records concerning Collateral, Borrower's assets, liabilities, business operations or financial condition, on any media, and the equipment containing such information.

"Change of Management or Board Composition" means that **(i)** Borrower's senior management shall not include Gajus Worthington; **(ii)** Versant Ventures shall cease to have a representative (currently Samuel Colella) serving on Borrower's Board of Directors; or**(iii)** Lehman Brothers shall cease to have a representative (currently Hingge Hsu) serving on Borrower's Board of Directors;.

"Collateral" means: **(i)** all property listed on ***Exhibit A*** attached hereto; and **(ii)** all products and proceeds of the foregoing, including proceeds of insurance and proceeds of proceeds, *provided that*, notwithstanding anything to the contrary contained in this Agreement, the term Collateral shall not include (a) any property that is subject to a Lien that is otherwise permitted pursuant to subsection (v) of the definition of 'Permitted Liens" and Lender agrees to execute any instruments or documents necessary to evidence the intent of the foregoing; (b) more than 65% of the issued and outstanding voting securities of any Subsidiary of Borrower tha is not incorporated or organized in the United States; or (c) any of the Company's Intellectual Property (as defined below).

"Commitment" means $13,000,000.

"Commitment Fee" means $10,000.

"Commitment Termination Date" means the earliest to occur of **(i)** the earlier to occur of (a) June 1, 2005, if Borrower has not borrowed at least $2,000,000 by such date; (b) September 1, 2005, if Borrower has not borrowed an additional $3,000,000 by such date or (c) December 1, 2005; **(ii)** any Default or Event of Default that has not been cured by Borrower or waived in writing by Lender, or **(iii)** Change of Management or Board Composition (unless Lender has waived this condition in writing).

"Control Agreement" means an agreement substantially in the form *of* ***Exhibit I*** or otherwise reasonably acceptable to Lender.

"Default" means any event that with the passing of time or the giving of notice or both would become an Event of Default.

"Default Rate" means the lesser of 5% per annum above the otherwise applicable rate or the highest rate permitted by applicable law.

"Disclosure Schedule" means the Disclosure Schedule, dated as of the date hereof, and delivered to Lender in connection with the execution and delivery of this Agreement.

"Event of Default" is defined in **Section 8.**

"Funding Date" means any date on which an Advance is made to or on account of Borrower hereunder.

"Indebtedness" means **(i)** all indebtedness for borrowed money or the deferred purchase of property or services, **(ii)** all obligations evidenced by notes, bonds, debentures or similar instruments, **(iii)** all capital lease obligations, and **(iv)** all contingent obligations, consisting of guaranties of Indebtedness of other persons and obligations of reimbursement with respect to letters of credit.

"*Incumbency Certificate*" means the document in the form *of* ***Exhibit E.***

"*Index*" means the prevailing variable Prime Rate of annual interest as quoted from time to time in the western edition of the Wall Street Journal.

"*Intellectual Property*" means, collectively, all rights, priorities and privileges of the Borrower relating to intellectual property, in any medium, of any kind or nature whatsoever, now or hereafter owned or acquired or received by Borrower, or in which Borrower now holds or hereafter acquires or receives any right or interest, whether arising under United States, multinational or foreign laws or otherwise, including, without limitation, any and all property of the Borrower that is subject to, listed in or otherwise described in the Negative Pledge Agreement dated March 29, 2005 between Borrower and Lender, and shall include, in any event, all copyrights, copyright licenses, patents, patent licenses, trademarks, trademark licenses, trade secrets, internet domain names (including any right related to the registration thereof), proprietary or confidential information, mask works, sources object or other programming codes, inventions (whether or not patented or patentable), technical information, procedures, designs, knowledge, know-how, software, data base, data, skill, expertise, recipe, experience, process, models, drawings, materials or records. Notwithstanding the foregoing, Intellectual Property as defined above does not include proceeds or other revenue consisting of accounts, accounts receivable, royalties, licensing fees, or payment intangibles, obtained or owed from or on account of the licensing or other exploitation or disposition of Intellectual Property, and all of which are included as Collateral in the security interest granted by Borrower to Lender.

"*Interest Margin*" means 2.5% per annum.

"*Lender's Expenses*" means all reasonable costs or expenses (including reasonable attorneys' fees and expenses) incurred in connection with the preparation, negotiation, modification, administration, or enforcement of the Loan or Loan Documents, or the exercise or preservation of any rights or remedies by Lender, whether or not suit is brought. Lender will apply deposits (including the Commitment Fee) received by Lender, if any, towards Lender's Expenses.

"*Lien*" means any lien, security interest, pledge, bailment, lease, mortgage, hypothecation, conditional sales and title retention agreement, charge, claim, or other encumbrance.

"*Liquidation Event*" means any of: **(i)** a merger of Borrower with another entity, other than a merger whereby the shareholders of Borrower immediately prior to such merger own at least 50% of the outstanding voting securities of Borrower immediately after such merger; **(ii)** the sale (in one or a series of related transactions) of all or substantially all of Borrower's assets; or **(iii)** any transaction (or series of related transactions) whereby the shareholders of Borrower immediately prior to such transaction(s) own less than 50% of the outstanding voting securities of Borrower immediately after such transaction(s).

"*Loan*" means all of the Advances, however evidenced, and all other amounts due or to become due hereunder.

"*Loan Commencement Date*" means March 1, 2006.

"*Loan Documents*" means, collectively, this Agreement, the Warrant, the Notes, the Financing Statement and Security Agreement in the form attached as ***Exhibit A*** and all other documents, instruments and agreements entered into between Borrower and Lender in connection with the Loan, all as amended or extended from time to time.

"*Negative Pledge Agreement*" means an agreement, dated as of the date hereof, in the form *of* ***Exhibit H.***

"*Note*" means each Secured Promissory Note in the form *of* ***Exhibit B,*** delivered in connection with each Advance.

"*Notice of Borrowing*" means the form attached as ***Exhibit D.***

"*Obligations*" means all Loans, debt, principal, interest, fees, charges, Lender's Expenses and other amounts, obligations, covenants, and duties owing by Borrower to Lender of any kind or description (whether pursuant to the Loan Documents or otherwise (with the exception of the Warrant), and whether or not for the payment of money), whether direct or indirect, absolute or contingent, due or to become due, now existing or hereafter arising, and including any of the same obtained by Lender by assignment or otherwise, and all amounts Borrower is required to pay or reimburse by the Loan Documents, by law, or otherwise.

"*Permitted Indebtedness*" means: **(i)** the Loan; **(ii)** unsecured trade debt incurred in the ordinary course of Borrower's business; **(iii)** Indebtedness secured by clause **(ii)** and **(v)** of Permitted Liens; **(iv)** Subordinated Indebtedness; **(v)** Indebtedness existing as of the date hereof and listed on the Disclosure Schedule; **(vi)** Indebtedness arising from the endorsement of negotiable instruments for deposits or collections or similar transactions in the ordinary course of business; **(vii)** other Indebtedness consisting of letters of credit and

reimbursement obligations in an amount not to exceed $250,000; **(viii)** Indebtedness of (A) Borrower to any Subsidiary that is unsecured, (B) one Subsidiary to another Subsidiary, or (C) any Subsidiary to Borrower in an amount not to exceed $4,500,000 in the aggregate; **(ix)** other Indebtedness in an outstanding principal amount not to exceed $150,000 in the aggregate; and **(x)** Indebtedness incurred in connection with the extension, renewal or refinancing of any Indebtedness of the type described in clauses (i) through (ix) above, provided that the principal amount of such Indebtedness does not increase other than any reasonable premium in connection therewith. Notwithstanding the foregoing, the restrictions on Indebtedness for Subordinated Indebtedness and referenced in clause (v) of the definition of Permitted Liens shall cease at the effective date of a public offering of Borrower's capital stock which results in proceeds of at least $25,000,000.

"Permitted Liens" means: **(i)** Liens in favor of Lender; **(ii)** Liens disclosed in the Disclosure Schedule; **(iii)** Liens for taxes, fees, assessments or other governmental charges or levies not delinquent or being contested in good faith by appropriate proceedings, that do not jeopardize Lender's interest in any Collateral; **(iv)** Liens to secure payment of worker's compensation, employment insurance, old age pensions or other social security obligations of Borrower on which Borrower is current and are in the ordinary course of its business; provided none of the same diminish or impair Lender's rights and remedies respecting the Collateral; and **(v)** Liens upon or in any equipment (including any accessions, attachments, replacements, improvements or proceeds thereto) acquired or held by Borrower to secure the purchase price of such equipment or Indebtedness incurred solely for the purposes of financing such equipment, provided that the aggregate outstanding principal amount of all such financing shall not exceed $5,000,000, **(vi)** license or sublicenses of Intellectual Property granted in the ordinary course of business; **(vii)** banker's Liens, rights of setoff and similar Liens incurred on deposit and securities accounts in the ordinary course of business; **(viii)** Liens arising from judgments in circumstances not constituting and Event of Default; **(ix)** Liens in favor of customs and revenue authorities arising as a matter of law to secure payments of customs duties in connections with the importation of goods; **(x)** Liens on insurance proceeds in favor of insurance companies granted solely as security for financed premiums; **(xi)** carriers', warehousemen's, mechanics', landlords', materialmen's, repairmen's or other similar Liens arising in the ordinary course of business which are not delinquent or remain payable without penalty or which are being contested in good faith and by appropriate proceedings; **(xii)** Liens with respect to cash collateral to secure Indebtedness otherwise permitted pursuant to clause (vii) of the definition of Permitted Indebtedness; and **(xiii)** Liens incurred in connection with the extension, renewal or refinancing of the Indebtedness secured by Liens of the type described in clauses (i) through (xi) above, provided that any extension, renewal, or replacement Lien shall be limited to the collateral securing the existing Lien and the principal amount of such Indebtedness does not increase other than any reasonable premium in connection therewith.

"Regulated Substance" means any substance, material or waste the use, generation, handling, storage, treatment or disposal of which is regulated by any local or state government authority, including any of the same designated by any authority as hazardous, genetic, cloning, fetal, or embryonic.

"Responsible Officer" means each person as authorized by the board of directors of Borrower as set forth on the Incumbency Certificate.

"Subordinated Indebtedness" means Indebtedness of Borrower to Singapore EDB and Invus Group that is subordinated in both security and right of payment to the Obligations on terms and conditions reasonably satisfactory to Lender in an amount not to exceed $6,000,000.

"Subsidiary" shall mean any entity of which a majority of the outstanding equity interests entitled to vote for the election of directors is owned by Borrower.

"Term" means the period from and after the date hereof until the full, final and indefeasible payment and performance of all Obligations.

"Warrant" means the Warrant, dated as of the date hereof, in favor of Lender and its affiliates to purchase securities of Borrower substantially in the form *of* ***Exhibit C.***

1.2 Interpretation. References to "Articles," "Sections," "Exhibits," and "Schedules" are to articles, sections, exhibits and schedules herein and hereto unless otherwise indicated. "Hereof," "herein" and "hereunder" refer to this Agreement as a whole. "Including" is not limiting. All accounting and financial computations shall be computed in accordance with generally accepted accounting principles consistently applied *("GAAP").* "Or" is not necessarily exclusive. All interest computation interest shall be based on a 360-day year and actual days elapsed.

2. The Loans

2.1 Commitment. Subject to the terms hereof, Lender will make Advances to Borrower up to the principal amount of the Commitment, before the Commitment Termination Date. Notwithstanding anything in the Loan Documents to the contrary, Lender's obligation to make any Advances or to lend the undisbursed portion of the Commitment shall terminate on the Commitment Termination Date. Repaid principal of the Advances may not be re-borrowed.

2.2 The Advances. A Note setting forth the specific terms of repayment will evidence each Advance. No Advance will be made for less than $1,000,000, unless less than $1,000,000 remains available under the Commitment for borrowing. Absence of a Note evidencing any portion of the Loan shall not impair Borrower's obligation to repay it to Lender.

2.3 Terms of Payment, Repayment.

(a) Repayment. Borrower shall repay the principal and pay interest on each Advance on the terms set forth in the applicable Note. Amounts not paid when due hereunder or under the Note shall bear interest at the Default Rate. If a court of competent jurisdiction determines that Lender has received payments that, if interest, would exceed the maximum lawfully permitted, Lender will instead apply such money to fees and expenses and then to early prepayment of principal (provided that notwithstanding anything contained in any Loan Document, any such prepayment shall not trigger any Prepayment Fees).

(b) ACH. All payments due to Lender must be, at Lender's option, paid to Lender in cash or through ACH. Borrower shall execute and deliver the ACH Authorization Form substantially in the form of ***Exhibit G.*** Lender shall provide Borrower an invoice for any Obligations that are to be transferred by ACH at least 10 days in advance of the date of any ACH funds transfer with respect to Obligations which have become due and payable and are to be transferred by ACH. If the ACH payment arrangement is terminated for any reason, Borrower shall make all payments due to Lender at Lender's address specified in **Section 11.**

(c) Default Rate. While an Event of Default has occurred and is continuing, interest on the Loan shall be increased to the Default Rate. Lender's failure to charge or accrue interest at the Default Rate during the existence of a Default shall not be deemed a waiver by Lender of its right or claim thereto.

(d) Date. Whenever any payment due under the Loan Documents is due on a day other than a business day, such payment shall be made on the next succeeding business day, and such extension of time shall be included in the computation of interest or fees, as the case may be.

2.4 Fees. Borrower shall pay to Lender the following:

(a) Commitment Fee. The Commitment Fee, which has been previously paid by Borrower, and shall be applied by Lender to Lender's Expenses and other Obligations;

(b) Late Fee. On demand, a late charge on any sums due hereunder that are not paid when due, in an amount equal to 2% of the past due amount, payable on demand.

(c) Lender's Expenses. The payment of all Lender's Expenses, which may become due to Lender by Borrower hereunder shall be payable by Borrower as set forth in **Section 2.3(b).** Lender's Expenses not paid when due shall bear interest as principal at the Default Rate.

3. Conditions of Advances; Procedure for Requesting Advances

3.1 Conditions Precedent to any and all Advances. The obligation of Lender to make any Advances is subject to each and every of the following conditions precedent in form and substance satisfactory to Lender in its sole discretion: **(i)** this Agreement, a Note evidencing the Advance, the Warrant, and all other UCC financing statements, and other documents required or as specified herein have been duly authorized, executed and delivered; **(ii)** no Default or Event of Default has occurred and is continuing; **(iii)** delivery of a Notice of Borrowing with respect to the proposed Advance; **(iv)** Lender's security interests in the Collateral are valid and first priority, except for Permitted Liens; and **(v)** all such other items as Lender may reasonably deem necessary or appropriate have been delivered or satisfied. The extension of an Advance prior to the receipt by Lender of any of the foregoing shall not constitute a waiver by Lender of Borrower's obligation to deliver such item.

3.2 Procedure for Making Advances. For any Advance, Borrower shall provide Lender an irrevocable Notice of Borrowing at least 7 business days prior to the desired Funding Date and Lender shall only be required to make Advances hereunder based upon written requests which comply with the terms and exhibits of this Loan Agreement (as the same may be amended from time to time), and which are submitted and signed by a Responsible Officer. Borrower shall execute and deliver to Lender a Note and such other documents and instruments as Lender may reasonably require for each Advance made.

4. Creation of Security Interest

4.1 Grant of Security Interest. Borrower grants to Lender a valid, first priority, continuing security interest in all present and future Collateral in order to secure prompt, full, faithful and timely payment and performance of all Obligations.

4.2 Inspections. Lender shall have the right upon reasonable prior notice to inspect Borrower's Books, including computer files, and to make copies, and to test, inspect and appraise the Collateral, in order to verify any matter relating to Borrower or the Collateral.

4.3 Authorization to File Financing Statements. Borrower irrevocably authorizes Lender at any time and from time to time to file in any jurisdiction any financing statements and amendments that: **(i)** name Collateral as collateral thereunder, regardless of whether any particular Collateral falls within the scope of the UCC; **(ii)** contain any other information required by the UCC for sufficiency or filing office acceptance, including organization identification numbers; and **(iii)** contain such language as Lender determines helpful in protecting or preserving rights against third parties. Borrower ratifies any such filings made prior to the date hereof.

5. Representations and Warranties

Except as set forth on the Disclosure Schedule, Borrower represents and warrants as follows:

5.1 Due Organization and Qualification. Borrower is a corporation duly formed, existing and in good standing under the laws of its state of incorporation and qualified and licensed to do business in, and is in good standing in, any state in which the conduct of its business or its ownership of property requires that it be so qualified or in which the Collateral is located, except to the extent that such non-compliance would not reasonably be expected to result in an adverse effect on Borrower's business.

5.2 Authority. Borrower has all corporate power and authority, and has taken all actions, and has obtained all third party consents necessary to execute, deliver, and perform the Loan Documents.

5.3 Disclosure Schedule. All information on the Disclosure Schedule is true, correct and complete.

5.4 Authorization; Enforceability. The execution and delivery hereof, the granting of the security interest in the Collateral, the incurring of the Obligations, the execution and delivery of all Loan Documents and the consummation of the transactions herein and therein contemplated have been duly authorized by all necessary action by Borrower. The Loan Documents constitute legal, valid and binding obligations of Borrower, enforceable in accordance with their terms, except as enforceability may be limited by bankruptcy or similar laws relating to enforcement of creditors' rights generally.

5.5 Name and Location. Borrower has not done business under any name other than that specified on the signature page hereof. The chief executive office, principal place of business, and the place where Borrower maintains its records concerning the Collateral is set forth in **Section 11.** The Collateral is presently located at the address(es) set forth in **Section 11** and on the Disclosure Schedule or any other location that Borrower has provided Lender with written notice thereof.

5.6 Litigation. All actions or proceedings pending by or against Borrower that could reasonably be expected to result in a material adverse effect on Borrower's business before any court or administrative agency are se forth on the Disclosure Schedule.

5.7 Financial Statements. All financial statements delivered by Borrower to Lender present fairly in all material respects Borrower's financial condition for the periods indicated. All statements respecting Collateral that have been or may hereafter be delivered by Borrower to Lender are true, complete and correct in all material respects for the periods indicated.

5.8 Solvency. Borrower is solvent and able to pay its debts (including trade debts) as they come due.

5.9 Taxes. Borrower has filed and will file all required tax returns, and has paid and will pay all taxes it owes other than where the failure to comply would not reasonably be expected to have a material adverse effect o Borrower.

5.10 Rights; Title to Assets. To Borrower's knowledge, Borrower possesses, owns, or has the right to use all necessary assets, rights, trademarks, trade names, copyrights, patents, patent rights, franchises and licenses which are required to conduct of its business as now operated, except where the failure to possess or own could not reasonably be expected to have a material adverse effect on Borrower's business. Borrower has good title to its assets, free and clear of any Liens, except for Permitted Liens.

5.11 Full Disclosure. No written representation, warranty or other statement made by Borrower in any Loan Document, certificate or statement furnished to Lender contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained in such certificates or statements not misleading (it being recognized by Lender that projections and estimates as to future events are not to be viewed as facts and the actual results during the period or periods covered by any such projections and estimates may differ from projected or estimated results).

5.12 Regulated Substances. Borrower complies and will comply with all laws respecting Regulated Substances, except where the failure to comply could not reasonably be expected to have an adverse effect on Borrower's business.

5.13 Reaffirmation. Each Notice of Borrowing will constitute **(i)** a warranty and representation in favor of Lender that there does not exist any Default and **(ii)** subject to any amended Disclosure Schedule delivered to Lender or any other written disclosure required to be sent to Lender pursuant to the terms hereof, a reaffirmation as of the date thereof of all of the representations and warranties contained in this Agreement and the Loan Documents.

6. Affirmative Covenants

So long as any Obligations (other than inchoate indemnity obligations) remain outstanding, Borrower covenants and agrees that it shall do all of the following:

6.1 Good Standing and Compliance. Borrower shall maintain all governmental licenses, rights and agreements necessary for its operations or business and comply in all respects with all statutes, laws, ordinances and government rules and regulations to which it is subject except where the failure to comply would not reasonably be expected to result in a material adverse effect on Borrower.

6.2 Financial Statements, Reports, Certificates. Borrower shall deliver to Lender: **(i)** as soon as prepared, and no later than 30 days after the end of each calendar month, a balance sheet, income statement and cash flow statement covering Borrower's operations during such period; **(ii)** as soon as prepared, but no later than 90 days after the end of the fiscal year, or such other timeframe formally approved by Borrower's audit committee, audited financial statements prepared in accordance with GAAP, together with an opinion that such financial statements fairly present Borrower's financial condition by an independent public accounting firm reasonably acceptable to Lender; **(iii)** immediately upon notice thereof, a report of any legal or administrative action pending or threatened in writing against Borrower which is likely to result in liability to Borrower in excess of $100,000 (provided that Borrower shall not be required to report notices of possibly relevant third party patents, or proposals or demands to license intellectual property); and **(iv)** such other financial information as Lender may reasonably request from time to time. Financial statements delivered pursuant to subsections **(i)** and **(ii)** above shall be accompanied by a certificate signed by a Responsible Officer (each an *"Officer's Certificate")* in the form ***of Exhibit F.***

6.3 Notice of Defaults. Upon any Default or Event of Default, an Officer's Certificate setting forth the facts relating to or giving rise thereto, and the Borrower's proposed action with respect thereto.

6.4 Use; Maintenance. Borrower, at its expense, shall **(i)** maintain the tangible Collateral in good condition, reasonable wear and tear excepted, and will comply in all material respects with all laws, rules and regulations regarding use and operation of the tangible Collateral and **(ii)** repair or replace any lost or damaged Collateral except to the extent that Borrower in its good faith judgment deems it to be in its best interest not to repair or replace such lost or damaged Collateral, so long as applied to a purchase or acquisition useful to Borrower's business.

6.5 Insurance. Borrower, at its own expense, shall maintain insurance in amounts and coverages reasonably satisfactory to Lender. Each insurance shall: **(i)** name Lender loss payee or additional insured, as appropriate, **(ii)** provide for insurer's waiver of its right of subrogation against Lender and Borrower, **(iii)** provide that such insurance shall not be invalidated by any action of, or breach of warranty by, Borrower and waive set-off, counterclaim or offset against Lender, **(iv)** be primary without a right of contribution of Lender's insurance, if any, or any obligation on the part of Lender to pay premiums of Borrower, and **(v)** require the insurer to give Lender at least 30 days prior written notice of cancellation. Borrower shall furnish all certificates of insurance required by Lender.

6.6 Loss Proceeds. So long as no Event of Default has occurred and is continuing, any proceeds of insurance on or condemnation of Collateral shall, at Borrower's election and so long as Lender's security interest in such proceeds remains first priority, be used either to repair or replace such Collateral or otherwise applied to the purchase or acquisition of property useful to Borrower's business.

6.7 Further Assurances. At any time and from time to time, Borrower shall execute and deliver such further instruments and take such further action as Lender may reasonably request to effect the intent and purposes hereof, to perfect and continue perfected and of first priority Lender's security interests in the Collateral, and to effect and maintain ACH payment arrangements.

7. Negative Covenants

So long as any Obligations (other than inchoate indemnity obligations) remain outstanding, Borrower will not do any of the following:

7.1 Location of Collateral. Change its chief executive office or principal place of business or remove, except in the ordinary course of Borrower's business, the Collateral or Borrower's Books from the premises listed in **Section 11** and the Disclosure Schedule (or otherwise provided to Lender in writing pursuant to this **Section 7.1**) without giving 30 days prior written notice to Lender. Borrower's practice of delivering and maintaining inventory at a customer's location pending testing, validation and/or acceptance of such inventory by such customer shall be deemed to be in the "ordinary course of business" for purposes of this Agreement.

7.2 Extraordinary Transactions. Enter into any transaction not in the ordinary course of Borrower's business, including the sale, lease, license or other disposition of its assets, other than **(i)** sales of inventory in the ordinary course of Borrower's business; and **(ii)** licenses of intellectual property assets entered into in the ordinary course of business (provided that licensing arrangements involving universities, governmental agencies, research institutions and corporate partners shall be deemed in the "ordinary course of business"). The parties hereto agree (a) strategic partnerships, strategic collaborations, sponsored research collaborations and development transactions, (b) transactions otherwise permitted in this **Article 7,** and (c) transactions for fair value involving the sale or exclusive licensing of Intellectual Property, that is outside the scope of Borrower's business in the biotechnology field, that is not being commercialized or monetized by the Borrower; in each case, shall be deemed to be in the "ordinary course of business" for purposes of this Agreement.

7.3 Restructure. Make any material change in Borrower's corporate structure or business other than the business of the type conducted by Borrower as of the date of this Agreement or any business reasonably related or incidental thereto; or suspend operation of Borrower's business.

7.4 Liens. Create, incur, assume or suffer to exist any Lien of any kind with respect to any of its property, whether now owned or hereafter acquired, except for Permitted Liens.

7.5 Indebtedness. Create, incur, assume or suffer to exist any Indebtedness, other than Permitted Indebtedness or cause or suffer any Subsidiary to create, incur, assume or suffer to exist any Indebtedness, other than Permitted Indebtedness.

7.6 Distributions. Pay any dividends or distributions, or redeem or purchase, any capital stock, except for **(i)** repurchases of capital stock from employees, consultants or directors, under incentive stock option plans, restricted stock purchase agreements, repurchase agreements or other similar agreements approved by the Borrower's Board of Directors and **(ii)** dividends payable solely in capital stock.

7.7 Transactions with Affiliates. Directly or indirectly enter into any transaction with any affiliate which is on terms less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated entity; *provided*, any such transaction shall not be a breach of this Section 7.7 if **(i)** approved by a disinterested majority of the Borrower's Board of Directors, or **(ii)** such transaction involves sales, licensing or other transfers of property between Borrower and its Subsidiaries, or between Subsidiaries if the consideration for such sale or transfer is not less than cost (or the fair market value of such property, if lower), or **(iii)** such transaction involves intercompany loans that are otherwise permitted by **Section 7.5.**

7.8 Compliance. (i) Become regulated as an "investment company" under the Investment Company Act of 1940 or extend credit to purchase or carry margin stock; **(ii)** fail to meet the minimum funding requirements of ERISA; **(iii)** permit a Reportable Event or Prohibited Transaction, as defined in ERISA, to occur; **(iv)** fail to comply with the Federal Fair Labor Standards Act; or **(v)** violate any other material law or material regulation.

7.9 UCC Effectiveness. Change its name, jurisdiction of organization, or take any other action that could render Lender's financing statements misleading under the Code, without giving Lender 30 days advance written notice.

7.10 Deposit and Securities Accounts. Maintain any deposit accounts or accounts holding securities owned by Borrower except accounts in which Lender has obtained a perfected first priority security interest with the exception of **(i)** account number [***] with Silicon Valley Bank or a successor account with Wells Fargo Bank securing a letter of credit in favor of Borrower's landlord in an amount not to exceed $250,000 in principal amount; **(ii)** account number [***] with Comerica Bank or a successor account with Wells Fargo Bank securing a letter of credit in favor of a lender providing equipment financing to Borrower in an amount not to exceed $500,000 in principal amount; or **(iii)** account number [***] with Wells Fargo Bank securing a letter of credit in favor of Borrower's landlord in an amount not to exceed $137,527 in principal amount; or **(iv)** any other accounts at Silicon Valley Bank or Comerica Bank (other than those specified in clause (i) or (ii) of this **Section 7.10,** provided that such accounts are closed and such funds are move to deposit or securities accounts in which Lender has a perfect first priority security interest, on or before June 30, 2005.

8. Events of Default

Any one or more of the following shall constitute an Event of Default by Borrower hereunder:

8.1 Payment. Borrower fails to pay when due and payable in accordance with the Loan Documents any portion of the Obligations, or cancels an ACH payment or transfer Lender has initiated in conformity with the terms hereof *provided*, *however,* that an Event of Default shall not occur on account of a failure to pay due solely to an administrative or operational error if Borrower had the funds to make the payment when due and makes the payment the business day following Borrower's knowledge of such failure to pay.

8.2 Certain Covenant Defaults. Borrower fails to perform any obligation under **Section 6.5** or **6.6,** or violates any of the covenants contained in **Section 7.**

8.3 Other Covenant Defaults. Borrower fails or neglects to perform, keep, or observe any other term, provision, condition, covenant, or agreement contained in this Agreement, in any of the other Loan Documents, or in any other present or future agreement between Borrower and Lender and has failed to cure such failure within 30 days after its occurrence.

8.4 Attachment. Any material portion of Borrower's assets is attached, seized, subjected to a government levy, lien, writ or distress warrant, or comes into the possession of any trustee or receiver and the same is not returned, removed, waived, stayed, discharged or rescinded within 15 days.

8.5 Other Agreements. There is a default in any agreement to which Borrower is a party resulting in a right by a third party, whether or not exercised, to accelerate the maturity of any Indebtedness, in an amount greater than $ 100,000.

8.6 Judgments. One or more judgments for an aggregate of at least $100,000 is rendered against Borrower and remains unsatisfied and unstayed for more than 30 days.

8.7 Injunction. Borrower is enjoined, restrained, or in any way prevented by court order from continuing to conduct any material part of its business affairs, or if a judgment or other claim becomes a Lien upon any material portion of Borrower's assets.

8.8 Misrepresentation. Any representation, statement, or report made to Lender by Borrower was false or misleading when made in any material respect.

8.9 Enforceability. Lender's ability to enforce its rights against Borrower or any Collateral is impaired in any material respect, or Borrower asserts that any Loan Document is not a legal, valid and binding obligation of Borrower enforceable in accordance with its terms.

8.10 Involuntary Bankruptcy. An involuntary bankruptcy case remains undismissed or unstayed for 60 days or, if earlier, an order granting the relief sought is entered.

8.11 Voluntary Bankruptcy or Insolvency. Borrower commences a voluntary case under applicable bankruptcy or insolvency law, consents to the entry of an order for relief in an involuntary case under any such law, or consents or is subject to the appointment of or taking possession by a receiver, liquidator, assignee, trustee, custodian or other similar official of Borrower or any substantial part of its property, or makes an assignment for the benefit of creditors, or fails generally or admits in writing to its inability to pay its debts as they become due, or takes any corporate action in furtherance of any of the foregoing.

8.12 Merger without Assumption. Borrower or all or substantially all of Borrower's assets are acquired by or merged into any other business entity where more than 50% of Borrower's voting power is transferred by existing shareholders of Borrower, and such acquirer or resulting entity either: **(i)** does not pay off the Obligations at the closing of the acquisition, merger or sale; or **(ii)** does not provide an unconditional, unlimited guaranty of the Obligations in form and substance satisfactory to Lender and is of a credit quality unacceptable to Lender.

8.13 Liquidation Event. Borrower consummates a Liquidation Event where the acquirer or resulting entity either: **(i)** does not pay off the Obligations at the closing of the acquisition, merger or sale; or **(ii)** does not provide an unconditional, unlimited guaranty of the Obligations in form and substance satisfactory to Lender and is of a credit quality unacceptable to Lender.

8.14 General Electric Capital Corporation Indebtedness. The outstanding principal balance of Borrower owed to General Electric Capital Corporation in connection with any equipment financing shall be greater than $2,500,000 at any time after December 31, 2006.

9. Lender's Rights and Remedies

9.1 Rights and Remedies. Upon the occurrence and continuance of any Event of Default, Lender may, at its election, without notice of election and without demand, do any one or more of the following, all of which are authorized by Borrower: **(i)** accelerate and declare the Loan and all Obligations immediately due and payable; **(ii)** make such payments and do such acts as Lender considers necessary or reasonable to protect its security interest in the Collateral, with such amounts becoming Obligations bearing interest at the Default Rate; **(iii)** exercise any and all other rights and remedies available under the UCC or otherwise; **(iv)** require Borrower to assemble the Collateral at such places as Lender may designate; **(v)** enter premises where any Collateral is located, take, maintain possession of, or render unusable the Collateral or any part of it; **(vi)** without notice to Borrower, set off and recoup against any portion of the Obligations; **(vii)** ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell the Collateral, in connection with which Borrower hereby grants Lender a license to use without charge Borrower's premises, labels, name, trademarks, and other property necessary to complete, advertise, and sell any Collateral; and **(viii)** sell the Collateral at one or more public or private sales.

9.2 Power of Attorney in Respect of the Collateral. Borrower hereby irrevocably appoints Lender (which appointment is coupled with an interest) its true and lawful attorney in fact with full power of substitution, for it and in its name to, during the existence of an Event of Default: **(i)** ask, demand, collect, receive, sue for, compound and give acquittance for any and all Collateral with full power to settle, adjust or compromise any claim, **(ii)** receive payment of and endorse the name of Borrower on any items of Collateral, **(iii)** make all demands, consents and waivers, or take any other action with respect to, the Collateral, **(iv)** file any claim or take any other action, in Lender's or Borrower's name, which Lender may reasonably deem appropriate to protect its rights in the Collateral, or **(v)** otherwise act with respect to the Collateral as though Lender were its outright owner.

9.3 Charges. If Borrower fails to pay any amounts required hereunder to be paid by Borrower to any third party, Lender may at its option pay any part thereof and any amounts so paid including Lender's Expenses incurred shall become Obligations, immediately due and payable, bearing interest at the Default Rate, and secured by the Collateral. Any such payments by Lender shall not constitute an agreement to make similar payments or a waiver of any Event of Default.

9.4 Remedies Cumulative. Lender's rights and remedies under the Loan Documents and all other agreements with Borrower shall be cumulative. Lender shall have all other rights and remedies as provided under the UCC, by law, or in equity. No exercise by Lender of one right or remedy shall be deemed an election, and no waiver by Lender of any Event of Default shall be deemed a continuing waiver. No delay by Lender shall constitute a waiver, election, or acquiescence.

9.5 Application of Collateral Proceeds. Lender will apply proceeds of sale, to the extent actually received in cash, in the manner and order it determines in its sole discretion, and as prescribed by applicable law.

10. Waivers; Indemnification

10.1 Waivers. Without limiting the generality of the other waivers made by Borrower herein, to the maximum extent permitted under applicable law, Borrower hereby irrevocably waives all of the following: **(i)** any right to assert *against Lender* as a defense, counterclaim, set-off or crossclaim, any defense (legal or equitable), set-off, counterclaim, crossclaim and/or other claim (a) which Borrower may now or at any time hereafter have against any party liable to Lender in any way or manner, or (b) arising directly or indirectly from the present or future lack of perfection, sufficiency, validity and/or enforceability of any Loan Document, or any security interest; **(ii)** notice of presentment, dishonor, notice of intent to accelerate, protest, default, nonpayment, maturity; **(iii)** the benefit of all marshalling, valuation, appraisal and exemption laws; **(iv)** the right, if any, to require Lender to (a) proceed against any person liable for any of the Obligations as a condition to or before proceeding hereunder; or (b) foreclose upon, sell or otherwise realize upon or collect or apply any other property, real or personal, securing any of the Obligations, as a condition to, or before proceeding hereunder; **(v)** any demand for possession before the commencement of any suit or action to recover possession of Collateral; and **(vi)** any requirement that Lender retain possession and not dispose of Collateral until after trial or final judgment.

10.2 Lender's Liability for Collateral. Lender shall not in any way or manner be liable or responsible for: **(i)** the safekeeping of any Collateral (except to the extent mandated by the UCC); **(ii)** any loss or damage thereto occurring or arising in any manner or fashion from any cause; **(iii)** any diminution in the value thereof; or **(iv)** any act or default of any carrier, warehouseman, bailee, forwarding agency, or other person or entity whomsoever. All risk of loss, damage or destruction of the Collateral shall be borne by Borrower. Lender will have no responsibility for taking any steps to preserve rights against any parties respecting any Collateral. Lender's powers hereunder are conferred solely to protect its interest in the Collateral and do not impose any duty to exercise any such powers. None of Lender or any of its officers, directors, employees, agents or counsel will be liable for any action lawfully taken or omitted to be taken hereunder or in connection herewith (excepting gross negligence or willful misconduct), nor under any circumstances have any liability to Borrower for lost profits or other special, indirect, punitive, or consequential damages. Lender retains any documents delivered by Borrower only for its purposes and for such period as Lender, at its sole discretion, may determine necessary, after which time Lender may destroy such records without notice to or consent from Borrower.

10.3 Indemnification. Borrower shall, on an after tax basis, defend, indemnify, and hold Lender and each of its officers, directors, employees, counsel, partners, agents and attorneys-in-fact (each, an *"Indemnified Person")* harmless from and against any and all liabilities, obligations, losses, damages, penalties, actions, judgments, suits, costs, charges, expenses or disbursements (including Lender's Expenses and reasonable attorney's fees and the allocated cost of in-house counsel) of any kind or nature whatsoever with respect to the execution, delivery, enforcement, performance and administration of this Agreement and any other Loan Documents, or the transactions contemplated hereby and thereby, with respect to noncompliance with laws or regulations respecting Regulated Substances, government secrecy or technology export, or any Lien not created by Lender or right of another against any Collateral, even if the Collateral is foreclosed upon or sold pursuant hereto, and with respect to any investigation, litigation or proceeding before any agency, court or other governmental authority relating to this Agreement or the Advances or the use of the proceeds thereof, whether or not any Indemnified Person is a party thereto (all the foregoing, collectively, the *"Indemnified Liabilities"); provided*, that Borrower shall have no obligation hereunder to any Indemnified Person with respect to Indemnified Liabilities arising from the gross negligence or willful misconduct of such Indemnified Person. The obligations in this Section shall survive the Term. At the election of any Indemnified Person, Borrower shall defend such Indemnified Person using legal counsel satisfactory to such Indemnified Person, at the sole cost and expense of Borrower. All amounts owing under this Section shall be paid within 30 days after written demand.

11. Notices

All notices shall be in writing and personally delivered or sent by certified mail, postage prepaid, return receipt requested, or by confirmed facsimile, at the respective addresses set forth below:

If to Borrower:

Fluidigm Corporation
7100 Shoreline Court
South San Francisco, California 94080
Attention: General Counsel,
Director of Finance
FAX: (650)871-7152

If to Lender:

Lighthouse Capital Partners V, LP
500 Drake's Landing Road
Greenbrae, California 94904
Attention: Contract Administrator

FAX: (415)925-3387

12. General Provisions

12.1 Successors and Assigns. This Agreement shall bind and inure to the benefit of the parties' respective successors and permitted assigns. Borrower may not assign any rights hereunder without Lender's prior written consent, which consent may be granted or withheld in Lender's sole discretion. Lender shall have the right without the consent of or notice to Borrower to sell, transfer, negotiate, or grant participations in all or any part of any Loan Document, *provided* that Lender shall not sell, transfer, negotiate, or grant participations in all or any part of any Loan Document to any competitor of Borrower.

12.2 Time of Essence. Time is of the essence for the performance of all Obligations.

12.3 Severability of Provisions. Each provision hereof shall be severable from every other provision in determining its legal enforceability.

12.4 Entire Agreement. This Agreement and each of the other Loan Documents dated as of the date hereof, taken together, constitute and contain the entire agreement between Borrower and Lender with respect to their subject matter and supersede any and all prior agreements, negotiations, correspondence, understandings and communications between the parties, whether written or oral. This Agreement is the result of negotiations between and has been reviewed by the Borrower and Lender as of the date hereof and their respective counsel; *accordingly,* this Agreement shall be deemed to be the product of the parties hereto, and no ambiguity shall be construed in favor of or against Borrower or Lender. This Agreement may only be modified with the written consent of Lender. Any waiver or consent with respect to any provision of the Loan Documents shall be effective only in the specific instance and for the specific purpose for which it was given. No notice to or demand on Borrower in any one case shall entitle Borrower to any other or further notice or demand in similar or other circumstances.

12.5 Reliance by Lender. All covenants, agreements, representations and warranties made herein by Borrower shall, notwithstanding any investigation by Lender, be deemed to be material to and to have been relied upon by Lender.

12.6 No Set-Offs by Borrower. All sums payable by Borrower pursuant to this Agreement or any of the other Loan Documents shall be payable without notice or demand and shall be payable in United States Dollars without set-off or reduction of any manner whatsoever.

12.7 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which, when taken together, shall constitute one and the same original instrument.

12.8 Survival. All covenants, representations and warranties made in this Agreement shall continue in full force and effect so long as any Obligations (other than inchoate indemnity obligations) remain outstanding.

12.9 No Original Issue Discount. Borrower and Lender acknowledge and agree that the Warrant is part of an investment unit within the meaning of Section 1273(c)(2) of the Internal Revenue Code, which includes the Loan. Borrower and Lender further agree as between them, that the fair market value of the Warrant is $100 and that, pursuant to Treas. Reg. § 1.1273-2(h), $100 of the issue price of the investment unit will be allocable to the Warrant and the balance shall be allocable to the Loans. Borrower and Lender agree to prepare their federal income tax returns in a manner consistent with the foregoing and, pursuant to Treas. Reg. § 1.1273, the original issue discount on the Loan shall be considered to be zero.

12.10 Relationship of Parties. The relationship between Borrower and Lender is, and at all times shall remain, solely that of a borrower and lender. Lender is not a partner or joint venturer of Borrower; nor shall Lender under any circumstances be deemed to be in a relationship of confidence or trust or have a fiduciary relationship with Borrower or any of its affiliates, or to owe any fiduciary duty to Borrower or any of its affiliates. Lender does not undertake or assume any responsibility or duty to Borrower or any of its affiliates to select, review, inspect, supervise, pass judgment upon or otherwise inform any of them of any matter in connection with its or their property, the Loans, any Collateral or the operations of Borrower or any of its affiliates. Borrower and each of its affiliates shall rely entirely on their own judgment with respect to such matters, and any review, inspection, supervision, exercise of judgment or supply of information undertaken or assumed by Lender in connection with such matters is solely for the protection of Lender and neither Borrower nor any affiliate is entitled to rely thereon.

12.11 Choice of Law and Venue; Jury Trial Waiver. **THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF BORROWER AND LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA. BORROWER AND LENDER HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF ANY OF THE LOAN DOCUMENTS OR ANY OF THE TRANSACTIONS CONTEMPLATED THEREIN, INCLUDING CONTRACT CLAIMS, TORT CLAIMS, BREACH OF DUTY CLAIMS, AND ALL OTHER COMMON LAW OR STATUTORY CLAIMS. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.**

12.12 Termination. Upon the full, faithful and indefeasible payment and performance of all Obligations(other than inchoate indemnity obligations) and the termination of any commitment to extend credit under this Agreement, the security interest granted herein and under the other Loan Documents shall terminate and this Agreement and the other Loan Documents (other than the Warrant) shall terminate, except for any inchoate indemnity obligations under **Section 10.3** of this Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington
Name: Gajus Worthington
Title: PRESIDENT & CEO

LIGHTHOUSE CAPITAL PARTNERS V, L.P.
By: **LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.,**
its general partner

By: /s/ Thomas Conneely
Name: Thomas Conneely
Title: Vice President

Exhibit A Collateral Description
Exhibit B Form of Note
Exhibit C Form of Preferred Stock Warrant
Exhibit D Form of Notice of Borrowing
Exhibit E Form of Incumbency Certificate
Exhibit F Form of Officers Certificate
Exhibit G ACH Authorization
Exhibit H Form of Negative Pledge Agreement
Exhibit I Control Agreement

EXHIBIT A

COLLATERAL

This FINANCING STATEMENT and SECURITY AGREEMENT covers all of Debtor's interests in all of the following types or items of property described on this **Exhibit A** (collectively, the *"Collateral")*, wherever located and whether now owned or hereafter acquired, and Debtor hereby grants Secured Party a security interest therein as collateral for the payment and performance of all present and future indebtedness, liabilities, guarantees and obligations of Debtor to Secured Party, howsoever arising. Debtor agrees that said security interest may be enforced by Secured Party in accordance with the terms of all security and other agreements between Secured Party and Debtor, the California Uniform Commercial Code, or both, and that this document shall be fully effective as a security agreement, even if there is no other security or other agreement between Secured Party or Debtor:

All assets of the Debtor; all personal property of Debtor;

All "accounts", "general intangibles", "chattel paper", "contract rights", "documents", "instruments", "deposit accounts", "inventory", "farm products", "fixtures" and "equipment", as such terms are defined in Division 9 of the California Uniform Commercial Code in effect on the date hereof;

All general intangibles of every kind, including without limitation, federal, state and local tax refunds and claims of all kinds; all rights as a licensee or any kind; all customer lists, telephone numbers, and purchase orders, and all rights to purchase, lease sell, or otherwise acquire or deal with real or personal property and all rights relating thereto;

All returned and repossessed goods and all rights as a seller of goods; all collateral securing any of the foregoing; all deposit accounts, special and general, whether on deposit with Secured Party or others;

All life and other insurance policies, claims in contract, tort or otherwise, and all judgments now or hereafter arising therefrom;

All right, title and interest of Debtor, and all of Debtor's rights, remedies, security and liens, in, to and in respect of all accounts and other collateral, including, without limitation, rights of stoppage in transit, replevin, repossession and reclamation and other rights and remedies of an unpaid vendor, lienor or secured party, and all guarantees and other contracts of suretyship with respect to any accounts and other collateral, and all deposits and other security for any accounts and other collateral, and all credit and other insurance;

All notes, drafts, letters of credit, contract rights, and things in action; all drawings, specifications, blueprints and catalogs; and all raw materials, work in process, materials used or consumed in Debtor's business, goods, finished goods, returned goods and all other goods and inventory of whatsoever land or nature, any and all wrapping, packaging, advertising and shipping materials, and all documents relating thereto, and all labels and other devices, names and marks affixed or to be affixed thereto for purposes of selling or identifying the same or the seller or manufacturer thereof;

All inventory wherever located; all present and future claims against any supplier of any of the foregoing, including claims for defective goods or overpayments to or undershipments by suppliers; all proceeds arising from the lease or rental of any of the foregoing;

All equipment and fixtures, including without limitation all machinery, machine tools, motors, controls, parts, vehicles, workstations, tools, dies, jigs, furniture, furnishings and fixtures; and all attachments, accessories, accessions and property now or hereafter affixed to or used in connection with any of the foregoing, and all substitutions and replacements for any of the foregoing; all warranty and other claims against any vendor or lessor of any of the foregoing;

All investment property;

All books, records, ledger cards, computer data and programs and other property and general intangibles at any time evidencing or relating to any or all of the foregoing; and

All cash and non-cash products and proceeds of any of the foregoing, in whatever form, including proceeds in the form of inventory, equipment or any other form of personal property, including proceeds of proceeds and proceeds of insurance, and all claims by Debtor against third parties for loss or damage to, or destruction of, or otherwise relating to, any or all of the foregoing.

NOTICE — PURSUANT TO AN AGREEMENT BETWEEN DEBTOR AND SECURED PARTY, DEBTOR HAS AGREED NOT TO FURTHER ENCUMBER THE COLLATERAL DESCRIBED HEREIN (EXCEPT AS EXPRESSLY PERMITTED PURSUANT TO SUCH AGREEMENT), THE FURTHER ENCUMBERING OF WHICH MAY CONSTITUTE THE TORTIOUS INTERFERENCE

WITH SECURED PARTY'S RIGHTS BY SUCH ENCUMBRANCER. IN THE EVENT THAT ANY ENTITY IS GRANTED A SECURITY INTEREST IN DEBTOR'S ACCOUNTS, CHATTEL PAPER, GENERAL INTANGIBLES OR OTHER ASSETS CONTRARY TO THE ABOVE, THE SECURED PARTY ASSERTS A CLAIM TO ANY PROCEEDS THEREOF RECEIVED BY SUCH ENTITY.

Notwithstanding any of the foregoing, this Financing Statement and Security Agreement does not cover any of Debtor's interests in, and the Collateral shall not under any circumstance include, and no security interest is granted in, (i) any property that is subject to a Lien that is otherwise permitted pursuant to subsection (v) of the definition of "Permitted Liens" as defined in that certain Loan and Security Agreement, dated as of March 29, 2005, by and between Secured Party and Debtor, and Secured Party agrees to execute any instruments or documents necessary to evidence the intent of the foregoing, (ii) more than 65% of the issued and outstanding voting securities of any subsidiary of Debtor that is not incorporated or organized in the United States, or (iii) Debtor's Intellectual Property, including, without limitation, any and all property of the Debtor that is subject to, listed in or otherwise described in the Negative Pledge Agreement dated March 29, 2005 between the Secured Party and the Debtor. *"Intellectual Property"* means, collectively, all rights, priorities and privileges of the Debtor relating to intellectual property, in any medium, of any kind or nature whatsoever, now or hereafter owned or acquired or received by Debtor, or in which Debtor now holds or hereafter acquires or receives any right or interest, whether arising under United States, multinational or foreign laws or otherwise, and shall include, in any event, all copyrights, copyright licenses, patents, patent licenses, trademarks, trademark licenses, trade secrets, internet domain names (including any right related to the registration thereof), proprietary or confidential information, mask works, sources object or other programming codes, inventions (whether or not patented or patentable), technical information, procedures, designs, knowledge, know-how, software, data base, data, skill, expertise, recipe, experience, process, models, drawings, materials or records. Notwithstanding the foregoing, Intellectual Property as defined above does not include proceeds or other revenue consisting of accounts, accounts receivable, royalties, licensing fees, or payment intangibles obtained or owed from or on account of the licensing or other exploitation or disposition of Intellectual Property, none of which are excluded, and all of which are included as collateral in the security interest granted by Debtor to Secured Party.

"DEBTOR"

FLUIDIGM CORPORATION, a California corporation

By: _____

Name: _____

Title: _____

"SECURED PARTY"

LIGHTHOUSE CAPITAL PARTNERS V, L.P.
BY: LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.,
its general partner

By: _____

Name: _____

Title: _____

EXHIBIT B

[_____]

SECURED PROMISSORY NOTE

This SECURED PROMISSORY NOTE (this *"Note")* is made _____, 200_____, by **FLUIDIGM CORPORATION (***"Borrower")* in favor of **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** (collectively with its assigns, *"Lender").* Initially capitalized terms used and not otherwise defined herein are defined in that certain Loan and Security Agreement No. 4561 between Borrower and Lender dated March 29, 2005 (the *"Loan Agreement").*

FOR VALUE RECEIVED, Borrower promises to pay in lawful money of the United States, to the order of Lender, at 500 Drake's Landing Road, Greenbrae, California 94904, or such other place as Lender may from time to time designate *("Lender's Office")*, the principal sum of $_____ (the "Advance"), including interest on the unpaid balance and all other amounts due or to become due hereunder according to the terms hereof and of the Loan Agreement.

"Basic Rate" means a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided herein. On and after the Loan Commencement Date the Basic Rate shall be fixed and not subject to any further adjustments.

"Final Payment" means 9% of the Advance.

"Index" means the prevailing variable Prime Rate of annual interest as quoted from time to time in the western edition of the Wall Street Journal.

"Interest Margin" means 2.5% per annum.

"Loan Commencement Date" means March 1, 2006.

"Maturity Date" means the last day of the Repayment Period, or if earlier, the date of prepayment under the Note.

"Payment Date" means the first day of each calendar month.

"Prepayment Fee" means (i) if prepaid in the calendar year 2006, 3% of the outstanding principal amount being prepaid; (ii) if prepaid in the calendar year 2007, 2% of the outstanding principal amount being prepaid; and (iii) if prepaid in the calendar year 2008 or 2009, 1% of the outstanding principal amount being prepaid.

"Repayment Period" means the period beginning on the Loan Commencement Date and continuing for 36 calendar months.

1. Repayment. Borrower shall pay principal and interest due hereunder from the Funding Date, until this Note is paid in full, on each Payment Date pursuant to the terms of the Loan Agreement and this Note. Prior to the Loan Commencement Date, Borrower shall pay to Lender, monthly in advance on each Payment Date, interest calculated using the Basic Rate prevailing on the first business day of such calendar month. Beginning on the Loan Commencement Date and on each Payment Date thereafter during the Repayment Period, Borrower shall make equal installments of principal and interest in advance, calculated at the Basic Rate. On the Maturity Date, Borrower shall pay, in addition to all unpaid principal and interest outstanding hereunder, the Final Payment.

2. Interest. Interest not paid when due will, to the maximum extent permitted under applicable law, become part of principal, at Lender's option, and thereafter bear like interest as principal. Interest shall be computed on the basis of a 360 day year. All Obligations not paid when due shall bear interest at the Default Rate unless waived in writing by Lender. All amounts paid hereunder will be applied to the Obligations in Lender's discretion and as provided in the Loan Agreement.

3. Voluntary Prepayment. Borrower may prepay the Note if and only if Borrower pays to Lender **(i)** the outstanding principal amount of this Note and any unpaid accrued interest **(ii)** the Final Payment, **(iv)** the Prepayment Fee, and **(v)** all other sums, if any, that shall have become due and payable hereunder with respect to this Note.

4. Collateral. This Note is secured by the Collateral.

5. Waivers. Borrower, and all guarantors and endorsers of this Note, regardless of the time, order or place of signing, hereby waive notice, demand, presentment, protest, and notices of every kind, presentment for the purpose of accelerating maturity, diligence in collection to the fullest extent permitted by law.

6. Choice of Law; Venue. THIS NOTE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF BORROWER AND LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN THE CITY AND COUNTY OF SAN FRANCISCO, STATE OF CALIFORNIA. BORROWER AND LENDER EACH HEREBY WAIVE THEIR RESPECTIVE RIGHTS TO A JURY TRIAL OF ANY CLAIM OR CAUSE OF ACTION BASED UPON OR ARISING OUT OF THIS NOTE. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

7. Miscellaneous. The Note MAY BE MODIFIED ONLY BY A WRITING SIGNED BY BORROWER AND LENDER. Each provision hereof is severable from every other provision hereof and of the Loan Agreement when determining its legal enforceability. Sections and subsections are titled for convenience, and not for construction. "Hereof," "herein," "hereunder," and similar words refer to this Note in its entirety. "Or" is not necessarily' exclusive. "Including" is not limiting. The terms and conditions hereof inure to the benefit of and are binding upon the parties' respective permitted successors and assigns. This Note is subject to all the terms and conditions of the Loan Agreement.

IN WITNESS WHEREOF, Borrower has caused this Note to be executed by a duly authorized officer as of the day and year first above written.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

Exhibit C

Warrants

NEITHER THIS WARRANT NOR THE SHARES OF CAPITAL STOCK ISSUABLE UPON EXERCISE HEREOF HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE *"1933 ACT"),* OR ANY APPLICABLE STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD OR TRANSFERRED UNLESS SUCH SALE OR TRANSFER IS IN ACCORDANCE WITH THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS OR THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL, REASONABLY ACCEPTABLE TO THE COMPANY, TO THE EFFECT THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS.

PREFERRED STOCK PURCHASE WARRANT

Warrant No._____

Number of Shares: initially, 185,714
Series D Preferred Stock
subject to increase as set forth below

FLUIDIGM CORPORATION

Effective as of March 29, 2005

Void after March 29, 2012

1. Issuance. This Preferred Stock Purchase Warrant (the *"Warrant")* is issued to **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** by **FLUIDIGM CORPORATION,** a California corporation (hereinafter with its successors called the *"Company").*

2. Purchase Price; Number of Shares.

(a) The registered holder of this Warrant (the *"Holder"),* commencing on the date hereof, is entitled upon surrender of this Warrant with the subscription form annexed hereto duly executed, at the principal office of the Company, to purchase from the Company, at a price per share of $2.80 (the *"Purchase Price"),* 185,714 fully paid and nonassessable shares of the Company's Series D Preferred Stock, (the *"Exercise Quantity"),* $0.001 par value (the *"Preferred Stock").*

(b) On the Commitment Termination Date, the Exercise Quantity shall automatically be increased by such additional number of shares (rounded to the nearest whole share) of Series D Preferred Stock, if any, as is equal to the amount determined by dividing (A) 4% of the Aggregate Advances under the Loan Agreement, if any, by (B) the Purchase Price

In addition to other terms which may be defined herein, the following terms, as used in this Warrant, shall have the following meanings:

(i) "Aggregate Advances" means the aggregate original dollar amount of all Advances made under the Loan Agreement, whether such Advances are outstanding or prepaid, at the time of any scheduled adjustment to the Exercise Quantity.

(ii) "Loan Agreement" means that certain Loan and Security Agreement No. 4561 dated March 29, 2005 between the Company and Lighthouse Capital Partners V, L.P..

Any capitalized term not defined herein shall have the meaning as set forth in the Loan Agreement.

Until such time as this Warrant is exercised in full or expires, the Purchase Price and the securities issuable upon exercise of this Warrant are subject to adjustment as hereinafter provided. The person or persons in whose name or names any certificate representing shares of Preferred Stock is issued hereunder shall be deemed to have become the holder of record of the shares represented thereby as at the close of business on the date this Warrant is exercised with respect to such shares, whether or not the transfer books of the Company shall be closed.

3. Payment of Purchase Price. The Purchase Price may be paid (i) in cash or by check, (ii) by the surrender by the Holder to the Company of any promissory notes or other obligations issued by the Company, with all such notes and obligations so surrendered being credited against the Purchase Price in an amount equal to the principal amount thereof plus accrued interest to the date of surrender, or (iii) by any combination of the foregoing.

4. **Net Issue Election.** The Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Preferred Stock equal to the value of this Warrant or any portion hereof by the surrender of this Warrant or such portion to the Company, with the net issue election notice annexed hereto duly executed, at the principal office of the Company. Thereupon, the Company shall issue to the Holder such number of fully paid and nonassessable shares of Preferred Stock as is computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

where: X = the number of shares of Preferred Stock to be issued to the Holder pursuant to this **Section 4.**

Y = the number of shares of Preferred Stock covered by this Warrant in respect of which the net issue election is made pursuant to this **Section 4.**

A = the Fair Market Value (defined below) of one share of Preferred Stock, as determined at the time the net issue election is made pursuant to this **Section 4.**

B = the Purchase Price in effect under this Warrant at the time the net issue election is made pursuant to this **Section 4.**

"Fair *Market Value"* of a share of Preferred Stock (or fully paid and nonassessable shares of the Company's common stock, $0.001 par value (the *"Common Stock")* if the Preferred Stock has been automatically converted into Common Stock) as of the date that the net issue election is made (the *"Determination Date")* shall mean:

(i) If the net issue election is made in connection with and contingent upon the closing of the sale of the Company's Common Stock to the public in a public offering pursuant to a Registration Statement under the Securities Act of 1933, as amended (a *"Public Offering")*, and if the Company's Registration Statement relating to such Public Offering *("Registration Statement")* has been declared effective by the Securities and Exchange Commission, then the initial "Price to Public" specified in the final prospectus with respect to such offering multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible.

(ii) If the net issue election is not made in connection with and contingent upon a Public Offering, then as follows:

(a) If traded on a securities exchange or the Nasdaq National Market, the fair market value of the Common Stock shall be deemed to be the average of the closing or last reported sale prices of the Common Stock on such exchange or market over the five day period ending five trading days prior to the Determination Date, and the fair market value of the Preferred Stock shall be deemed to be such fair market value of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible;

(b) If otherwise traded in an over-the-counter market, the fair market value of the Common Stock shall be deemed to be the average of the closing ask prices of the Common Stock over the five day period ending five trading days prior to the Determination Date, and the fair market value of the Preferred Stock shall be deemed to be such fair market value of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible; and

(c) If there is no public market for the Common Stock, then fair market value shall be determined in good faith by the Company's Board of Directors.

5. Partial Exercise. This Warrant may be exercised in part, and the Holder shall be entitled to receive a new warrant, which shall be dated as of the date of this Warrant, covering the number of shares in respect of which this Warrant shall not have been exercised.

6. Fractional Shares. In no event shall any fractional share of Preferred Stock be issued upon any exercise of this Warrant. If, upon exercise of this Warrant in its entirety, the Holder would, except as provided in this **Section 6,** be entitled to receive a fractional share of Preferred Stock, then the Company shall issue the next higher number of full shares of Preferred Stock, issuing a full share with respect to such fractional share.

7. Expiration Date; Automatic Exercise. This Warrant shall expire at the close of business on March 29, 2012, and shall be void thereafter (the *"Expiration Date").* Notwithstanding the term of this Warrant fixed pursuant to this **Section 7,** and provided Holder has received advance written notice of at least twenty (20) days and has not earlier exercised this Warrant, and provided this Warrant has not been assumed by the successor entity (or parent thereof), upon the consummation of a Merger (as defined below), this Warrant shall automatically be exercised pursuant to **Section 4** hereof, without any action by Holder. *"Merger"* means: (i) a sale of all or substantially all of the Company's assets to an Unaffiliated Entity (as defined below), or (ii) the merger, consolidation or acquisition of the Company with, into or by an Unaffiliated Entity (other than a merger or consolidation for the principle purpose of changing the domicile of the Company or a bona fide round of preferred stock equity financing), that results in the Company's shareholders immediately prior to such merger, consolidation, or acquisition holding, immediately thereafter, less than a majority of the outstanding voting securities of the successor corporation or its parent. *"Unaffiliated Entity"* means any entity that is owned or controlled by parties who own less than twenty percent (20%) of the combined voting power of the voting securities of the Company immediately prior to such merger or sale of assets, consolidation or acquisition. Notwithstanding the foregoing, in the event that any outstanding warrants to purchase equity securities of the Company (it being acknowledged and agreed that options to acquire common stock issued to officers, directors, employees and consultants shall not be deemed "warrants") are assumed by the successor entity of a Merger (or parent thereof), this Warrant shall also be similarly assumed and the automatic exercise provision in this **Section 7** shall have no effect. The Company agrees to give the Holder written notice promptly after it has entered into a definitive agreement relating to any proposed Merger and written notice of termination of any definitive agreement relating to any proposed Merger. Notwithstanding anything to the contrary in this Warrant, (i) the Holder may expressly make any voluntary exercise of this Warrant contingent on, and effective immediately prior to, the consummation of such Merger and (ii) any automatic exercise of this Warrant in connection with a Merger shall be conditioned on consummation of such Merger and shall be effective immediately prior thereto.

8. Reserved Shares; Valid Issuance. The Company covenants that it will at all times from and after the date hereof reserve and keep available such number of its authorized shares of Preferred Stock and Common Stock free from all preemptive or similar rights therein, as will be sufficient to permit, respectively, the exercise of this Warrant in full and the conversion into shares of Common Stock of all shares of Preferred Stock receivable upon such exercise. The Company further covenants that such shares as may be issued pursuant to such exercise and/or conversion will, upon issuance, be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issuance thereof.

9. Stock Splits and Dividends. If after the date hereof the Company shall subdivide the Preferred Stock, by split-up or otherwise, or combine the Preferred Stock, or issue additional shares of Preferred Stock in payment of a stock dividend on the Preferred Stock, the number of shares of Preferred Stock issuable on the exercise

of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination, and the Purchase Price shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of a combination.

10. Adjustments for Diluting Issuances. The antidilution rights applicable to the Series D Preferred Stock of the Company are set forth in the Amended and Restated Articles of Incorporation, as amended from time to time (the *"Articles"),* a true and complete copy in its current form which has been made available to Holder. Such rights shall not be restated, amended or modified in any manner which affects the Holder differently than the holders of outstanding Series D Preferred Stock without such Holder's prior written consent. The Company shall provide the Holder hereof with any restatement, amendment or modification to the Articles promptly after the same has been made.

11. Mergers and Reclassifications. (a) Except as set forth in **Section 7,** If after the date hereof the Company shall enter into any Reorganization (as hereinafter defined), then, as a condition of such Reorganization, lawful provisions shall be made, and duly executed documents evidencing the same from the Company or its successor shall be delivered to the Holder, so that the Holder shall thereafter have the right to purchase, at a total price not to exceed that payable upon the exercise of this Warrant in full, the kind and amount of shares of stock and other securities and property receivable upon such Reorganization by a holder of the number of shares of Preferred Stock which might have been purchased by the Holder immediately prior to such Reorganization, and in any such case appropriate provisions shall be made with respect to the rights and interest of the Holder to the end that the provisions hereof (including without limitation, provisions for the adjustment of the Purchase Price and the number of shares issuable hereunder and the provisions relating to the net issue election) shall thereafter be applicable in relation to any shares of stock or other securities and property thereafter deliverable upon exercise hereof. For the purposes of this **Section 11,** the term *"Reorganization"* shall include without limitation any reclassification, capital reorganization or change of the Preferred Stock (other than as a result of a subdivision, combination or stock dividend provided for in **Section 9** hereof), or any consolidation of the Company with, or merger of the Company into, another corporation or other business organization (other than a merger in which the Company is the surviving corporation and which does not result in any reclassification or change of the outstanding Preferred Stock), or any sale or conveyance to another corporation or other business organization of all or substantially all of the assets of the Company.

(b) Notwithstanding any other provision of this Warrant, in the event of an automatic conversion of the Company's outstanding Series D Preferred Stock into Common Stock in accordance with the Company's Articles, as in effect from time to time, this Warrant shall thereafter represent the right to acquire for the aggregate Purchase Price (as then in effect) the number of shares of Common Stock into which the number of shares of Preferred Stock issuable upon exercise of this Warrant would have then been convertible.

12. Certificate of Adjustment. Whenever the Purchase Price is adjusted, as herein provided, the Company shall promptly deliver to the Holder a certificate of the Company's chief financial officer (or other appropriate officer) setting forth the Purchase Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

13. Notices of Record Date, Etc. In the event of:

(a) any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or any right to subscribe for, purchase, sell or otherwise acquire or dispose of any shares of stock of any class or any other securities or property, or to receive any other right;

(b) any reclassification of the capital stock of the Company, capital reorganization of the Company, consolidation or merger involving the Company, or sale or conveyance of all or substantially all of its assets; or

(c) any voluntary or involuntary dissolution, liquidation or winding-up of the Company;

then in each such event the Company will provide or cause to be provided to the Holder a written notice thereof. Such notice shall be provided at least twenty (20) business days prior to the date specified in such notice on which any such action is to be taken.

14. Representations, Warranties and Covenants. This Warrant is issued and delivered by the Company and accepted by each Holder on the basis of the following representations, warranties and covenants made by the Company:

(a) The Company has all necessary corporate power and authority to issue, execute and deliver this Warrant and to perform its obligations hereunder. This Warrant has been duly authorized issued, executed and delivered by the Company and is the valid and binding obligation of the Company, enforceable in accordance with its terms, except as enforceability may be limited by bankruptcy or similar laws relating to the enforcement of creditors' rights generally.

(b) The shares of Preferred Stock issuable upon the exercise of this Warrant have been duly authorized and reserved for issuance by the Company and, when issued in accordance with the terms hereof, will be validly issued, fully paid and nonassessable.

(c) The issuance, execution and delivery of this Warrant do not, and the issuance of the shares of Preferred Stock upon the exercise of this Warrant in accordance with the terms hereof will not, (i) violate or contravene the Company's Articles or by-laws, or any law, statute, regulation, rule, judgment or order applicable to the Company, (ii) violate, contravene or result in a breach or default under any contract, agreement or instrument to which the Company is a party or by which the Company or any of its assets are bound or (iii) require the consent or approval of or the filing of any notice or registration with any person or entity (other than such notices or filings as may be required under applicable securities laws).

(d) As long as this Warrant is, or any shares of Preferred Stock issued upon exercise of this Warrant or any shares of Common Stock issued upon conversion of such shares of Preferred Stock are, issued and outstanding, the Company will provide to the Holder the financial and other information described in that certain Loan and Security Agreement No. 4561 between the Company and Lighthouse Capital Partners V, L.P. dated as of March 29, 2005.

(e) As of the date hereof, the authorized capital stock of the Company consists of (i) 65,500,000 shares of Common Stock, of which 8,909,357 shares are issued and outstanding and 185,714 shares are reserved for issuance upon the exercise of this Warrant with respect to Common Stock and the conversion of the Preferred Stock into Common Stock if this Warrant is exercised with respect to Preferred Stock, (ii) 2,727,273 shares of Series A Preferred Stock, of which 2,727,273 are issued and outstanding shares, (iii) 6,460,675 shares of Series B Preferred Stock, of which 6,460,675 are issued and outstanding shares, (iv) 20,551,163 shares of Series C Preferred Stock, of which 16,364,832 are issued and outstanding shares, and (v) 13,887,716 shares of Series D Preferred Stock, of which 7,292,127 are issued and outstanding shares. Company has delivered a capitalization table to Holder summarizing the capitalization of the Company. At the request of Holder, not more than once per calendar quarter, the Company will provide Holder with a current capitalization table indicating changes, if any, to the number of outstanding shares of common stock and preferred stock.

15. Registration Rights. The Company grants to the Holder all the rights of a "Holder" [and an "Investor"] under the Company's Amended and Restated Investors' Rights Agreement dated as of December 18, 2003 (the *"Rights Agreement"),* including, without limitation, the registration rights contained therein, and agrees to amend the Rights Agreement so that (i) the shares of Common Stock issuable upon conversion of the shares of Preferred Stock issuable upon exercise of this Warrant shall be *"Registrable Securities,"* and (ii) the Holder shall be a "Holder" [and an "Investor"] for all purposes of such Rights Agreement.

16. Amendment. The terms of this Warrant may be amended, modified or waived only with the written consent of the Holder and the Company.

17. Representations and Covenants of the Holder. This Warrant has been entered into by the Company in reliance upon the following representations and covenants of the Holder, which by its execution hereof the Holder hereby confirms:

(a) Investment Purpose. The right to acquire Preferred Stock or the Preferred Stock issuable upon exercise of the Holder's rights contained herein will be acquired for investment and not with a view to the sale or distribution of any part thereof, and the Holder has no present intention of selling or engaging in any public distribution of the same except pursuant to a registration or exemption.

(b) Accredited Investor. Holder is an "accredited investor" within the meaning of Rule 501 of Regulation D, promulgated under the 1933 Act as presently in effect.

(c) Private Issue. The Holder understands (i) that neither the issuance of this Warrant nor the issuance of any shares of the Company's capital stock issuable upon exercise of the Holder's rights contained herein has been registered under the 1933 Act or qualified under applicable state securities laws on the ground that the issuances contemplated by this Warrant will be exempt from the registration and qualifications requirements thereof, and (ii) that the Company's reliance on such exemption is predicated on the representations of the Holderset forth in this **Section 17.**

(d) Financial Risk. The Holder has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment and has the ability to bear the economic risks of its investment.

18. Notices, Transfers, Etc.

(a) Any notice or written communication required or permitted to be given to the Holder may be given by certified mail or delivered to the Holder at the address most recently provided by the Holder to the Company.

(b) Subject to compliance with applicable federal and state securities laws, this Warrant may be transferred by the Holder with respect to any or all of the shares purchasable hereunder. Upon surrender of this Warrant to the Company, together with the assignment notice annexed hereto duly executed, for transfer of this Warrant as an entirety by the Holder, the Company shall issue a new warrant of the same denomination to the assignee. Upon surrender of this Warrant to the Company, together with the assignment hereof properly endorsed, by the Holder for transfer with respect to a portion of the shares of Preferred Stock purchasable hereunder, the Company shall issue a new warrant to the assignee, in such denomination as shall be requested by the Holder hereof, and shall issue to such Holder a new warrant covering the number of shares in respect of which this Warrant shall not have been transferred.

(c) In case this Warrant shall be mutilated, lost, stolen or destroyed, the Company shall issue a new warrant of like tenor and denomination and deliver the same (i) in exchange and substitution for and upon surrender and cancellation of any mutilated Warrant, or (ii) in lieu of any Warrant lost, stolen or destroyed, upon receipt of an affidavit of the Holder or other evidence reasonably satisfactory to the Company of the loss, theft or destruction of such Warrant.

19. No Impairment. The Company will not, by amendment of its Articles or through any reclassification, capital reorganization, consolidation, merger, sale or conveyance of assets, dissolution, liquidation, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance of performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder. In no event shall any reclassification, capital reorganization, consolidation, merger, sale or conveyance of assets, dissolution, liquidation, issue or sale of securities or any other transaction be deemed an "impairment" for purposes of this Section 18 if the shares of the Company's capital stock issuable upon exercise of this Warrant are affected thereby in the same manner as outstanding shares of such capital stock.

20. Governing Law. The provisions and terms of this Warrant shall be governed by and construed in accordance with the internal laws of the State of California without giving effect to its principles regarding conflicts of laws.

21. Successors and Assigns. This Warrant shall be binding upon the Company's successors and assigns and shall inure to the benefit of the Holder's successors, legal representatives and permitted assigns.

22. Business Days. If the last or appointed day for the taking of any action required or the expiration of any rights granted herein shall be a Saturday or Sunday or a legal holiday in California, then such action may be taken or right may be exercised on the next succeeding day which is not a Saturday or Sunday or such a legal holiday.

23. Value. The Company and the Holder agree that the value of this Warrant on the date of grant is $100.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

Subscription

To: _____

Date: _____

The undersigned hereby subscribes for _____ shares of Preferred Stock covered by this Warrant. The certificate(s) for such shares shall be issued in the name of the undersigned or as otherwise indicated below:

_____
Signature

_____
Name for Registration

_____
Mailing Address

Net Issue Election Notice

To: _____ Date: _____

The undersigned hereby elects under **Section 4** to surrender the right to purchase shares of Preferred Stock pursuant to this Warrant. The certificate(s) for such shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below:

_____
Signature

_____
Name for Registration

_____
Mailing Address

Assignment

For value received _____ hereby sells, assigns and transfers unto

_____

_____

[Please print or typewrite name and address of Assignee]

_____

the within Warrant, and does hereby irrevocably constitute and appoint _____ its attorney to transfer the within Warrant on the books of the within named Company with full power of substitution on the premises.

Dated: _____

_____

Signature

_____

Name for Registration

In the Presence of:

_____

Exhibit A

Amended and Restated Articles of Incorporation

See attached pages.

EXHIBIT D

NOTICE OF BORROWING

_____, _____

Lighthouse Capital Partners V, L.P.
500 Drake's Landing Road
Greenbrae, CA 94904-3011

Ladies and Gentlemen:

Reference is made to the Loan and Security Agreement No. 4561 dated as of March 29, 2005 (as it has been and may be amended from time to time, the *"Loan Agreement,"* initially capitalized terms used herein as defined therein), between **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** and **FLUIDIGM CORPORATION** (the *"Company")*

The undersigned is the President and CEO of the Company, and hereby irrevocably requests an Advance under the Loan Agreement, and in that connection certifies as follows:

1. The amount of the proposed Advance is $_____. The business day of the proposed Advance is _____.

2. The Loan Commencement Date for this Advance shall be March 1, 2006.

3. As of this date, no Event of Default, or event which with notice or the passage of time would constitute an Event of Default, has occurred and is continuing, or will result from the making of the proposed Advance, and the representations and warranties of the Company contained in **Section 5** of the Loan Agreement are true and correct in all material respects.

4. No event that could reasonably be expected to have a material adverse effect on the ability of Borrower to fulfill its obligations under the Loan Agreement has occurred since the date of the most recent financial statements, submitted to you by the Company.

The Company agrees to notify you promptly before the funding of the Advance if any of the matters to which I have certified above shall not be true and correct on the Funding Date.

Very truly yours,

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

EXHIBIT E

INCUMBENCY CERTIFICATE

The undersigned, William Smith, hereby certifies that:

1. He/She is the duly elected and acting General Counsel and Vice President of Legal Affairs of **FLUIDIGM CORPORATION**, a California corporation (the *"Company")*.

2. That on the date hereof, each person listed below holds the office in the Company indicated opposite his or her name and that the signature appearing thereon is the genuine signature of each such person:

NAME	OFFICE	SIGNATURE
Gajus Worthington	President and CEO	
William Smith	General Counsel and Vice President of Legal Affairs	

3. Attached hereto as ***Exhibit A*** is a true and correct copy of the Articles of Incorporation of the Company, as amended, as in effect as of the date hereof.

4. Attached hereto as ***Exhibit B*** is a true and correct copy of the Bylaws of the Company, as amended, as in effect as of the date hereof.

5. Attached hereto as ***Exhibit C*** is a copy of the resolutions of the Board of Directors of the Company authorizing and approving the Company's execution, delivery and performance of a loan facility with Lighthouse Capital Partners V, L.P.

IN WITNESS WHEREOF, the undersigned has executed this Incumbency Certificate on March 29, 2005.

FLUIDIGM CORPORATION

By: _____

Name: William Smith

Title: General Counsel and Vice President of Legal Affairs

I, the President and CEO of the Company, do hereby certify that William Smith is the duly qualified, elected and acting General Counsel and Vice President of Legal Affairs of the Company and that the above signature is his or her genuine signature.

IN WITNESS WHEREOF, the undersigned has executed and delivered this Officer's Certificate on March 29, 2005.

FLUIDIGM CORPORATION

By: _____

Name: Gajus Worthington

Title: President and CEO

EXHIBIT F

OFFICER'S CERTIFICATE

The undersigned, to induce **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** *("Lender")*, to extend or continue financial accommodations to **FLUIDIGM CORPORATION**, a California corporation (the *"Borrower")* pursuant to the terms of that certain Loan and Security Agreement dated March 29, 2005 (the *"Loan Agreement")*, hereby certifies that on the date hereof:

1. I am the duly elected and acting _____ of Borrower.

2. I am a Responsible Officer as that term is defined in the Loan Agreement.

3. The information submitted herewith complies with **Sections 5.7** and **6.2** of the Loan Agreement.

4. The financial statements delivered herewith fairly present the financial condition of Borrower

5. Borrower is currently able to meet its obligations as they come due.

6. I understand that Lender is relying upon the truthfulness, accuracy and completeness hereof in connection with the Loan Agreement.

7. I will advise you if it comes to my attention that, as of the date hereof, the information submitted herewith was not in fact true, correct and complete.

IN WITNESS WHEREOF, the undersigned has executed this Officer's Certificate on _____.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

EXHIBIT G

AUTHORIZATION FOR AUTOMATIC PAYMENT

The undersigned **FLUIDIGM CORPORATION** *("Borrower")* authorizes **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** and any and all affiliated funds (collectively, *"Lender")* and the bank / financial institution (*"Bank")* named below to initiate variable debit and/or credit entries to Borrower's deposit, checking or savings accounts as designated below and to cause funds transfers to an account of Lender as payment of any and all amounts due under the Loan and Security Agreement between Borrower and Lender dated March _____, 2005 (the *"Loan Agreement").*

1. Lender is hereby authorized to initiate variable debit and/or credit transactions and resulting funds transfers in Borrower's designated accounts with respect to amounts calculated by Lender to be due and owing to Lender by Borrower periodically under the Loan Agreement. Borrower consents to all such debit and/or credit transactions and resulting funds transfers and hereby authorizes Lender to take all such actions as may be required by Bank with respect to such transactions. Borrower acknowledges and agrees that such credit and/or debit entries may be made in amounts due under the Loan Agreement in order to cause timely payments as required by the terms of the Loan Agreement.

2. Borrower hereby authorizes Lender to release to Bank all information concerning Borrower that may be necessary or desirable for Bank to investigate or recover any erroneous funds transfers that may occur.

3. Borrower acknowledges and agrees that all such debit and/or credit transactions and funds transfers are intended to be made through an Automated Clearing House system and in compliance with the NACHA Rules and in compliance with Bank's security procedures.

4. Borrower represents and warrants that the account information set forth below is accurate and complete and that each of the account(s) set forth below is a business account maintained in Borrower's name and for Borrower's account.

This Consent shall be effective as of March 29, 2005 and shall remain in effect until the Loan Agreement has been terminated. Any cancellation by Borrower of this consent shall (i) be made in writing and (ii) delivered to Bank and Lender in such time as to afford Bank and Lender a reasonable opportunity to act on said cancellation.

Wells Fargo Bank
(Name of Borrower's Bank)

420 Montgomery St.	San Francisco	CA	94104
(Address of Bank)	(City)	(State)	(Zip Code)

Bank Routing Number [***]
(between these symbols " /:" ":/" on bottom left of check)

Account Number: [***] (checking /deposit /savings) *(circle one)*

Copy of a voided check is attached to this form

Borrower Name: **FLUIDIGM CORPORATION**
Borrower Address: 7100 Shoreline Court
South San Francisco. CA 94080

Authorized by: _____
Its: _____

Date authorized: _____

Internal ACH Authorizations from Lender:

Approved by: _____ Date: _____

EXHIBIT H

NEGATIVE PLEDGE AGREEMENT

THIS NEGATIVE PLEDGE AGREEMENT is made as of March 29, 2005, by and between **FLUIDIGM CORPORATION** *("Borrower")* and **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** *("Lender").*

In consideration of the Loan and Security Agreement between the parties of proximate date herewith (the *"Loan Agreement")*, Borrower agrees as follows:

Except as otherwise permitted in the Loan Agreement, Borrower shall not sell, transfer, assign, mortgage, pledge, lease, grant a security interest in, or encumber any of Borrower's owned intellectual property, including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registration and like protection in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held (collectively, the *"Copyrights");*

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights which may be available to Borrower now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections, including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including, without limitation, the patents and patent applications (collectively, the *"Patents");*

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks (collectively, the *"Trademarks");*

(f) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for an collect such damages for said use or infringement of the intellectual property rights identified above;

(g) Any and all licenses or other rights to use any of the Copyrights, Patents or Trademarks and all license fees and royalties arising from such use to the extent permitted by such license or rights

(h) Any and all amendments, extensions, renewals and extensions of any of the Copyrights, Patents or Trademarks; and

(i) Any and all proceeds and products of the foregoing, including, without limitation, all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

It shall be an Event of Default under the Loan Agreement if there is a breach of any term of this Negative Pledge Agreement. Borrower agrees to properly execute all documents reasonably required by Lender in order to fulfill the intent and purposes hereof.

FLUIDIGM CORPORATION

By: _____

Name: _____

Title: _____

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.**, its general partner

By: _____

Name: _____

Title: _____

EXHIBIT I

CONTROL AGREEMENT

[In form and substance acceptable to Lender in its reasonable discretion]

WELLS FARGO

RESTRICTED ACCOUNT AGREEMENT

(ACCOUNT RESTRICTED AFTER INSTRUCTIONS — Standing Wire Transfers)

This **Restricted Account Agreement** (the "Agreement"), dated as of the date specified at the end of this Agreement, is entered into among **Fluidigm Corporation** ("Company"), **Lighthouse Capital Partners V, L.P.** ("Secured Party") and the Wells Fargo Bank identified in the signature block at the end of this Agreement ("Bank"), and sets forth the rights of Secured Party and the obligations of Bank with respect to the deposit account(s) of Company at Bank identified at the end of this Agreement as the "Restricted Account(s)". As used in this Agreement, the term "Restricted Account" refers, individually and collectively, to each such deposit account.

1. **Secured Party's Interest in Restricted Account.** Secured Party represents that it is either (i) a lender who has extended credit to Company and has been granted a security interest in the Restricted Account or (ii) such a lender and the agent for a group of such lenders (the "Lenders"). Company hereby confirms, and Bank hereby acknowledges, the security interest granted by Company to Secured Party in all of Company's right, title and interest in and to the Restricted Account and all sums now or hereafter on deposit in or payable or withdrawable from the Restricted Account (the "Account Funds"). Except as specifically provided otherwise in this Agreement, Company has given Secured Party complete control over the Account Funds. Secured Party hereby appoints Bank as agent for Secured Party only for the purpose of perfecting the security interest of Secured Party in the Account Funds while they are in the Restricted Account. Company and Secured Party would like to use the Restricted Account Service of Bank described in this Agreement (the "Service") to further the arrangements between Secured Party and Company regarding the Restricted Account and the Account Funds.

2. **Access to Restricted Account.** Secured Party agrees that Company will be allowed access to the Account Funds until Bank receives written instructions from Secured Party directing that Company no longer have access to any Account Funds (the "Instructions"). Company agrees that the Account Funds should be paid to Secured Party after Bank receives the Instructions, and hereby irrevocably authorizes Bank to comply with the Instructions even if Company objects in any way to the Instructions. Company further agrees that after Bank receives the Instructions, Company will not have access to any Account Funds.

3. **Balance Reports.** Bank agrees, at the telephone request of Secured Party on any Business Day (a day on which Bank is open to conduct its regular banking business, other than a Saturday, Sunday or public holiday), to make available to Secured Party a report ("Balance Report") showing the opening available balance in the Restricted Account as of the beginning of such Business Day, either on-line or by facsimile transmission, at Bank's option. Company expressly consents to this transmission of information. Secured Party and Company understand and agree that the opening available balance in the Restricted Account at the beginning of any Business Day will be determined after deducting from the Restricted Account the face amount of all Returned Items (as defined in Section 8 of this Agreement).

4. **Transfers to Secured Party.** Bank agrees that on each Business Day after it receives the Instructions it will transfer to the Secured Party's account specified at the end of this Agreement

with the bank specified at the end of this Agreement (the "Secured Party Account") the full amount of the opening available balance in the Restricted Account at the beginning of such Business Day. Bank will use the Fedwire system to make each funds transfer unless for any reason the Fedwire system is unavailable, in which case Bank will determine the funds transfer system to be used in making each funds transfer and the means by which each transfer will be made. Bank, Secured Party and Company each agree that Bank will comply with instructions given to Bank by Secured Party directing disposition of funds in the Restricted Account without further consent by Company, subject otherwise to the terms of this Agreement and Bank's standard policies, procedures and documentation in effect from time to time governing the type of disposition requested. Company authorizes all such transfers. Except as otherwise required by law, Bank will not agree with any third party to comply with instructions for disposition of funds in the Restricted Account originated by such third party.

5. **Delays in Making Funds Transfers.** Secured Party and Company understand that a funds transfer may be delayed or not made if (a) the transfer would cause Bank to exceed any limitation on its intra-day net funds position established in accordance with Federal Reserve or other regulatory guidelines or to violate any other Federal Reserve or other regulatory risk control program, or (b) the funds transfer would otherwise cause Bank to violate any applicable law or regulation. If a funds transfer cannot be made or will be delayed, Bank will notify Secured Party by telephone.

6. **Reliance on Identifying Numbers.** If Secured Party indicates a name and an identifying number for the bank of the person or entity to receive funds transfers out of the Restricted Account, Secured Party and Company understand and agree that Bank may rely on the number Secured Party indicates even if that number identifies a bank different from the bank Secured Party named. If Secured Party indicates a name and an account number for the person or entity to receive funds transfers out of the Restricted Account, Secured Party and Company understand and agree that Bank may rely on the account number Secured Party indicates even if that account number is not the account number for the person or entity who is to receive the transfers.

7. **Reporting Errors in Transfers.** If Secured Party or Company learns of any error in a funds transfer or any unauthorized funds transfer, then the party learning of such error or unauthorized transfer (the "Informed Party") must notify Bank as soon as possible by telephone at (800) AT- WELLS (which is a recorded line), and provide written confirmation to Bank of such telephonic notice within two Business Days at the address given for Bank on the signature page of this Agreement. In no case may such notice to Bank by an Informed Party be made more than fourteen (14) calendar days after such Informed Party learns of the erroneous or unauthorized transfer. If a funds transfer is made in error and Bank suffers a loss because an Informed Party breached its agreement to notify Bank of such error within the time limits specified in this Section 7, then such Informed Party shall reimburse Bank for the loss promptly upon demand by Bank; provided, however, that in the event both Secured Party and Company breach this notification requirement, Secured Party shall not be obligated to reimburse Bank for the loss unless Company fails to satisfy Bank's demand for reimbursement within fifteen (15) calendar days after demand is made on Company.

8. **Returned Item Amounts.** Secured Party and Company understand and agree that the face amount ("Returned Item Amount") of each Returned Item will be paid by Bank debiting the Restricted Account, without prior notice to Secured Party or Company. As used in this Agreement, the term "Returned Item" means (i) any item deposited to the Restricted Account and returned unpaid, whether for insufficient funds or for any other reason, and without regard to the timeliness of such return or the occurrence or timeliness of any drawee's notice of non-payment; (ii) any item subject to a claim against Bank of breach of transfer or presentment warranty under the Uniform Commercial Code, as adopted in the applicable state; (iii) any automated clearing house ("ACH") entry credited to the Restricted Account and returned unpaid

or subject to an adjustment entry under applicable clearing house rules, whether for insufficient funds or for any other reason, and without regard to the timeliness of such return or adjustment; (iv) any credit to the Restricted Account from a merchant card transaction, against which a contractual demand for chargeback has been made; and (v) any credit to the Restricted Account made in error. Company agrees to pay all Returned Item Amounts immediately on demand, without setoff or counterclaim, to the extent there are not sufficient funds in the Restricted Account to cover the Returned Item Amounts on the day they are to be debited from the Restricted Account. Secured Party agrees to pay all Returned Item Amounts within thirty (30) calendar days after demand, without setoff or counterclaim, to the extent the Returned Item Amounts are not paid in full by Company within fifteen (15) calendar days after demand on Company by Bank, and to the extent Secured Party received proceeds from the corresponding Returned Items.

9. **Bank Fees.** Company agrees to pay all Bank's fees and charges for the maintenance and administration of the Restricted Account and for the treasury management and other account services provided with respect to the Restricted Account (collectively "Bank Fees"), including, but not limited to, the fees for (a) the Balance Reports provided on the Restricted Account, (b) the wire transfer services received with respect to the Restricted Account, (c) Returned Items, (d) funds advanced to cover overdrafts in the Restricted Account (but without Bank being in any way obligated to make any such advances), and (e) duplicate bank statements on the Restricted Account. Before Bank receives the Instructions, the Bank Fees will be paid by Bank debiting the Restricted Account, and after Bank receives the Instructions the Bank fees will be paid by Bank debiting one or more of the demand deposit operating accounts of Company at Bank specified at the end of this Agreement (the "Operating Accounts"). All such debits will be made on the Business Day that the Bank Fees are due without notice to Secured Party or Company. If there are not sufficient funds in the Restricted Account, or after Bank receives the Instructions, the Operating Accounts, to cover fully the Bank Fees on the Business Day they are debited from the Restricted Account or the Operating Accounts, or if no Operating Accounts are indicated at the end of this Agreement, such shortfall or the amount of such Bank Fees will be paid by Company sending Bank a check in the amount of such shortfall or such Bank Fees, without setoff or counterclaim, within fifteen (15) calendar days after demand of Bank. After Bank receives the Instructions, Secured Party agrees to pay the Bank Fees within thirty (30) calendar days after demand, without setoff or counterclaim, to the extent such Bank Fees are not paid in full by Company by check within fifteen (15) calendar days after demand on Company by Bank. Bank may, in its discretion, change the Bank Fees upon thirty (30) calendar days prior written notice to Company and Secured Party.

10. **Account Documentation.** Secured Party and Company agree that, except as specifically provided in this Agreement, the Restricted Account will be subject to, and Bank's operation of the Restricted Account will be in accordance with, the terms and provisions of Bank's deposit account agreement governing the Restricted Account ("Account Agreement"), a copy of which Company and Secured Party acknowledge having received.

11. **Bank Statements.** After Bank receives the Instructions, Bank will, if so indicated on the signature page of this Agreement, send to Secured Party by United States mail, at the address indicated for Secured Party after its signature to this Agreement, duplicate copies of all bank statements on the Restricted Account which are sent to Company. Company and/or Secured Party will have thirty (30) calendar days after receipt of a bank statement to notify Bank of an error in such statement. Bank's liability for such errors is limited as provided in the "Limitation of Liability" section of this Agreement.

12. **Partial Subordination of Bank's Rights.** Bank hereby subordinates to the security interest of Secured Party in the Restricted Account (i) any security interest which Bank may have or acquire in the Restricted Account, and (ii) any right which Bank may have or acquire to set off or otherwise apply any Account Funds against the payment of any indebtedness from time to time

owing to Bank from Company, except for debits to the Restricted Account permitted under this Agreement for the payment of Returned Item Amounts or Bank Fees.

13. **Bankruptcy Notice; Effect of Filing.** If Bank at any time receives notice of the commencement of a bankruptcy case or other insolvency or liquidation proceeding by or against Company (a "Bankruptcy Notice"), Bank will continue to comply with its obligations under this Agreement, except to the extent that any action required of Bank under this Agreement is prohibited under applicable bankruptcy laws or regulations or is stayed pursuant to the automatic stay imposed under the United States Bankruptcy Code or by order of any court or agency. With respect to any obligation of Secured Party hereunder which requires prior demand upon Company, the commencement of a bankruptcy case or other insolvency or liquidation proceeding by or against Company shall automatically eliminate the necessity of such demand upon Company by Bank, and shall immediately entitle Bank to make demand on Secured Party with the same effect as if demand had been made upon Company and the time for Company's performance had expired.

14. **Legal Process, Legal Notices and Court Orders.** Bank will comply with any legal process, legal notice or court order it receives if Bank determines in its sole discretion that the legal process, legal notice or court order is legally binding on it.

15. **Indemnification for Following Instructions.** Secured Party and Company each agree that, notwithstanding any other provision of this Agreement, except to the extent caused by Bank's gross negligence or willful misconduct Bank will not be liable to Secured Party or Company for any losses, liabilities, damages, claims (including, but not limited to, third party claims), demands, obligations, actions, suits, judgments, penalties, costs or expenses, including, but not limited to, attorneys' fees, (collectively, "Losses and Liabilities") suffered or incurred by Secured Party or Company as a result of or in connection with, (a) Bank complying with any binding legal process, legal notice or court order referred to in Section 14 of this Agreement, (b) Bank following any instruction or request of Secured Party, or (c) Bank complying with its obligations under this Agreement. Further, Company, and to the extent not paid by Company within fifteen (15) calendar days after demand, Secured Party, will indemnify Bank against any Losses and Liabilities Bank may suffer or incur as a result of or in connection with any of the circumstances referred to in clauses (a) through (c) of the preceding sentence.

16. **No Representations or Warranties of Bank.** Bank agrees to perform its obligations under this Agreement in a manner consistent with the quality provided when Bank performs similar services for its own account. However, Bank will not be responsible for the errors, acts or omissions of others, such as communications carriers, correspondents or clearinghouses through which Bank may perform its obligations under this Agreement or receive or transmit information in performing its obligations under this Agreement. Secured Party and Company also understand that Bank will not be responsible for any loss, liability or delay caused by wars, failures in communications networks, labor disputes, legal constraints, fires, power surges or failures, earthquakes, civil disturbances or other events beyond Bank's control. **BANK MAKES NO EXPRESS OR IMPLIED REPRESENTATIONS OR WARRANTIES WITH RESPECT TO THE SERVICE OTHER THAN THOSE EXPRESSLY SET FORTH IN THIS AGREEMENT.**

17. **Limitation of Liability.** In the event that Secured Party, Company or Bank suffers or incurs any Losses and Liabilities as a result of, or in connection with, its or any other party's performance or failure to perform its obligations under this Agreement, the affected parties shall negotiate in good faith in an effort to reach a mutually satisfactory allocation of such Losses and Liabilities, it being understood that Bank will not be responsible for any Losses and Liabilities due to any cause other than its own negligence or breach of this Agreement, in which case its liability to Secured Party and Company shall, unless otherwise provided by any law which cannot be

varied by contract, be limited to direct money damages in an amount not to exceed ten (10) times all the Bank Fees charged or incurred during the calendar month immediately preceding the calendar month in which such Losses and Liabilities occurred (or, if no Bank Fees were charged or incurred in the preceding month, the Bank Fees charged or incurred in the month in which the Losses and Liabilities occurred). Company will indemnify Bank against all Losses and Liabilities suffered or incurred by Bank as a result of third party claims; provided, however, that to the extent such Losses and Liabilities are directly caused by Bank's negligence or breach of this Agreement such indemnity will only apply to those Losses and Liabilities which exceed the liability limitation specified in the preceding sentence. The limitation of Bank's liability and the indemnification by Company set out above will not be applicable to the extent any Losses and Liabilities of any party to this Agreement are directly caused by Bank's gross negligence or willful misconduct. **IN NO EVENT WILL BANK BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, INDIRECT OR PUNITIVE DAMAGES, WHETHER ANY CLAIM IS BASED ON CONTRACT OR TORT, WHETHER THE LIKELIHOOD OF SUCH DAMAGES WAS KNOWN TO BANK AND REGARDLESS OF THE FORM OF THE CLAIM OR ACTION, INCLUDING, BUT NOT LIMITED TO, ANY CLAIM OR ACTION ALLEGING GROSS NEGLIGENCE, WILLFUL MISCONDUCT, FAILURE TO EXERCISE REASONABLE CARE OR FAILURE TO ACT IN GOOD FAITH.** Any action against Bank by Company or Secured Party under or related to this Agreement must be brought within twelve months after the cause of action accrues.

18. **Termination.** This Agreement and the Service may be terminated by Secured Party or Bank at any time by either of them giving thirty (30) calendar days prior written notice of such termination to the other two parties to this Agreement at their contact addresses specified after their signatures to this Agreement; provided, however, that this Agreement and the Service may be terminated immediately upon written notice from Bank to Company and Secured Party should Secured Party fail to make any payment when due to Bank from Secured Party under the terms of this Agreement. Secured Party and Company agree that the Restricted Account may be closed by Bank as provided in the Account Agreement. Company's and Secured Party's obligation to report errors in funds transfers and bank statements and to pay the Bank Fees, as well as the indemnifications made, and the limitations on the liability of Bank accepted, by Company and Secured Party under this Agreement will continue after the termination of this Agreement and/or the closure of the Restricted Account with respect to all the circumstances to which they are applicable existing or occurring before such termination or closure, and any liability of any party to this Agreement, as determined under the provisions of this Agreement, with respect to acts or omissions of such party prior to such termination or closure will also survive such termination or closure. Upon any termination of this Agreement and the Service or closure of the Restricted Account all collected and available balances in the Restricted Account on the date of such termination or closure will be transferred to Secured Party as requested by Secured Party in writing to Bank.

19. **Modifications, Amendments, and Waivers.** This Agreement may not be modified or amended, or any provision thereof waived, except in a writing signed by all the parties to this Agreement; provided, however, that the Bank Fees may be changed after thirty (30) calendar days prior written notice to Company and Secured Party.

20. **Notices.** All notices from one party to another shall be in writing, or be made by a telecommunications device capable of creating a written record, shall be delivered to Company, Secured Party and/or Bank at their contact addresses specified after their signatures to this Agreement, or any other address of any party notified to the other parties in writing, and shall be effective upon receipt. Any notice sent by one party to this Agreement to another party shall also be sent to the third party to this Agreement. Bank is authorized by Company and Secured Party to act on any instructions or notices received by Bank if (a) such instructions or notices

purport to be made in the name of Secured Party, (b) Bank reasonably believes that they are so made, and (c) they do not conflict with the terms of this Agreement as such terms may be amended from time to time, unless such conflicting instructions or notices are supported by a court order.

21. **Successors and Assigns.** Neither Company nor Secured Party may assign or transfer its rights or obligations under this Agreement to any person or entity without the prior written consent of Bank, which consent will not be unreasonably withheld. Bank may not assign its rights or obligations under this Agreement to any person or entity without the prior written consent of Secured Party, which consent will not be unreasonably withheld; provided, however, that no such consent will be required if the assignee is a bank affiliate of Bank.

22. **Governing Law.** Company and Secured Party understand that Bank's provision of the Service under this Agreement is subject to federal laws and regulations. To the extent that such federal laws and regulations are not applicable this Agreement shall be governed by and be construed in accordance with the laws of the state in which the office of Bank that maintains the Restricted Account is located, without regard to conflict of laws principles.

23. **Severability.** To the extent that this Agreement or the Service to be provided under this Agreement are inconsistent with, or prohibited or unenforceable under, any applicable law or regulation, they will be deemed ineffective only to the extent of such prohibition or unenforceability and be deemed modified and applied in a manner consistent with such law or regulation. Any provision of this Agreement which is deemed unenforceable or invalid in any jurisdiction shall not affect the enforceability or validity of the remaining provisions of this Agreement or the same provision in any other jurisdiction.

24. **Usury.** It is never the intention of Bank to violate any applicable usury or interest rate laws. Bank does not agree to, or intend to contract for, charge, collect, take, reserve or receive (collectively, "charge or collect") any amount in the nature of interest or in the nature of a fee, penalty or other charge which would in any way or event cause Bank to charge or collect more than the maximum Bank would be permitted to charge or collect by any applicable federal or state law. Any such excess interest or unauthorized fee shall, notwithstanding anything stated to the contrary in this Agreement, be applied first to reduce the amount owed, if any, and then any excess amounts will be refunded.

25. **Counterparts.** This Agreement may be executed in any number of counterparts each of which shall be an original with the same effect as if the signatures thereto and hereto were upon the same instrument.

26. **Entire Agreement.** This Agreement, together with the Account Agreement, contains the entire and only agreement among all the parties to this Agreement and between Bank and Company, and Bank and Secured Party, with respect to (a) the Service, (b) the interest of Secured Party and the Lenders in the Account Funds and the Restricted Account, and (c) Bank's obligations to Secured Party and the Lenders in connection with the Account Funds and the Restricted Account.

This Agreement has been signed by the duly authorized officers or representatives of Company, Secured Party and Bank on the date specified below.

Date: March 29, 2005

Restricted Account Number(s):	**[***]**
Operating Account Number(s):	**[***]**
Secured Party Account Number:	**[***]**
Bank of Secured Party Account:	**Comerica Bank**

Secured Party is to be sent duplicate Bank Statements.

[Company] FLUIDIGM CORPORATION

By: _____
Name: **Gajus Worthington**
Title: **CEO**

Address For All Notices:

Fluidigm Corporation
Attn: James Neesen
7100 Shoreline Court

[Secured Party] LIGHTHOUSE CAPITAL PARTNERS V, L.P.

BY: LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C. ITS GENERAL PARTNER

By: _____
Name: **Thomas Conneely**
Title: **Vice President**

Address For All Notices:

Lighthouse Capital Partners V, L.P.
500 Drakes Landing Road
Greenbrae, CA 94904
Attn: Contracts Administration

WELLS FARGO BANK , N.A.

By: _____
Name: **Scott M. Van Gorder**
Title: **Vice President, Senior Relationship Manager**

Address For All Notices:

420 Montgomery Street, 9th Floor
MAC A0101-096
San Francisco, CA 94108

March 29, 2005

Morgan Stanley & Co. Incorporated (the "Broker")
555 California Street 14th Floor
San Francisco, CA 94104

Re: **Notice of Pledge and Security**

Gentlemen:

Please be advised that the undersigned, Fluidigm Corporation ("Pledgor"), has pledged a security interest in Account No. [***] (the "Account") held by Broker, as securities intermediary, and in all of the securities, proceeds, cash or other assets now or hereafter held in the Account (collectively, the "Collateral"), to Lighthouse Capital Partners V, L.P. ("Pledgee") pursuant to the terms and provisions of a certain Loan and Security Agreement (the "Agreement"), dated March 29, 2005.

Broker, Pledgor and Pledgee, by signing this letter, hereby agree as follows:

a) The Account shall be retitled "Fluidigm Corporation — Pledgor/ Lighthouse Capital – Pledgee";

b) Pledgee has a security interest in the Collateral and is authorized to instruct the Broker with regard to the Account without further consent needed by Pledgor;

c) Broker is hereby notified of Pledgee's security interest, and agrees to comply with all instructions and entitlement orders of Pledgee with regard to the Account. Broker shall not comply with instructions and entitlement orders with respect to the Collateral or the Account that are originated by the Pledgor except as described in Paragraph D below. Broker is also hereby authorized and agrees to send duplicate copies of any and all statements and confirmations, as well as any other appropriate correspondence, relating to the Account directly to the Pledgee at the address indicated below, or to such other address as Pledgee may designate in writing. This pledge will remain in full force and effect until Pledgee notifies Broker in writing to the contrary;

d) Pledgee hereby instructs Broker that until further instruction in writing from an Authorized Officer of Pledgee (as defined below) that Pledgee is assuming exclusive control over the Account ("Notice of Exclusive Control"), the Broker shall comply with directions of Pledgor with respect to any transactions, including withdrawals, in the Account. Notwithstanding anything contained herein, upon receipt of a Notice of Exclusive Control (it being understood that Broker shall have no duty or obligation whatsoever to investigate or determine whether the Notice of Exclusive Control was

rightfully or legally issued), Broker shall only follow the directions and instructions of Pledgee with regard to the Account. In that case, if Pledgee so requests, Broker will proceed to liquidate the assets of the Account in accordance with Pledgee's instructions and to deliver the proceeds to Pledgee.

For purposes of this Agreement, "Authorized Officer of Pledgee" shall refer to any one of the following individuals: Richard Stubblefield and Thomas Conneely. If Pledgee finds it necessary to designate a replacement for any of the designated Authorized Officers of Pledgee, written notice of replacement shall be given to Broker, which notice shall be signed by the President, an Executive Vice President, a Senior Vice President, or such other officer of Pledgee as Broker may approve. However, Broker shall be entitled to rely on any notice it receives from someone whom it reasonably believes is an Authorized Officer of Pledgee;

e) Broker shall have no obligation to monitor the Account for any purpose in connection with the pledge granted hereunder. The Pledgee accepts and acknowledges full responsibility for reviewing daily confirmations and monthly statements to ensure that it is adequately secured;

f) Pledgor and Pledgee hereby agree to indemnify and hold harmless Broker, its affiliates, officers, and employees from and against any and all claims, causes of actions, liabilities, lawsuits, demands, and/or damages, including, without limitation, any and all court costs and reasonable attorney's fees, that might result by reason of the actions of Broker under this Agreement. Broker shall not be responsible for any losses, claims, damages, liabilities and expenses incurred by Pledgor or Pledgee, except to the extent that such losses, claims, damages, liabilities or expenses arise out of the bad faith, gross negligence, or criminal acts or omissions on the part of Broker;

g) Broker may terminate this Agreement at any time by canceling the Account and transferring all funds and securities in the Account to Pledgee;

h) As of the date hereof, the Collateral has not been paid to or withdrawn by the Pledgor; Broker is not in receipt of any notice of withdrawal or redemption with regard to the Collateral or notice not to renew the Account, and Broker has not given any notice that the Account will not be renewed or extended, as the case may be;

i) Broker's records indicate that the value of the Collateral, as of the date hereof, is approximately [***].

j) Broker subordinates any right of offset Broker may now or hereafter have against the Collateral for any indebtedness now or hereafter owing to Broker by the Pledgors to the security interest of Pledgee; provided that Broker shall continue to have a first perfected security interest in the Collateral with respect to any charges incurred in connection with the operation of the Account, including, but not limited to, fees, commissions and any costs related to unsettled securities transactions.

k) This Agreement shall be governed by the law of the State of New York, excluding its conflict of law rules. The parties hereby agree that (i) the "securities intermediary's jurisdiction" with respect to the Account and the Collateral is New York and (ii) the parties shall not agree with any other person that such securities intermediary's jurisdiction is any jurisdiction other than New York.

Very truly yours,
FLUIDIGM CORPORATION

_____
By: James Neeson
Title: Controller

Read and Agreed to:
MORGAN STANLEY & CO. INCORPORATED

By _____
Name:
Title:

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: Lighthouse Management Partners V, L.L.C.
its general partner

By _____
Name: Thomas Conneely
Title: Vice President
Address: 500 Drakes Landing Road
Greenbrae, CA 94904

SUBORDINATION AGREEMENT

This SUBORDINATION AGREEMENT (this "Agreement"), dated as of March 29, 2005, is between, on the one hand, each undersigned holder (each a "Holder" and collectively the "Holders") of Convertible Promissory Notes issued pursuant to those certain Convertible Note Purchase Agreement dated December 18, 2003, as amended from time to time (each a "Note" and collectively the "Notes") issued by **Fluidigm Corporation,** a California corporation ("Company"), and, on the other hand, **Lighthouse Capital Partners V, L.P.,** a Delaware limited partnership ("LCP"), lender under that certain Loan and Security Agreement No. 4561, dated March 29, 2005 (the "Loan Agreement") with Company (all obligations of payment and performance due or to become due pursuant to the Obligations or the Loan Documents as those terms are defined therein, as the same may be amended from time to time, are the "LCP Obligations"), with reference to the following:

WHEREAS, in order to induce LCP to enter into the Loan Agreement, the Holders agree to enter into this Agreement;

NOW, THEREFORE, in consideration of the mutual promises herein contained, the parties hereby agree as follows:

1. Subordination. Each Holder agrees that it shall not receive any payment of any amounts on account of the Notes until the LCP Obligations have been paid and performed in full. Regardless of (i) any agreement of any Holder or LCP with Company, (ii) the time, place, manner or order of attachment, perfection, or the filing of UCC-1 filings or other documents, or (iii) the giving or failure to give notice, each Holder does hereby subordinate payment by Company on its Notes to the full and final payment to LCP of the LCP Obligations. Each Holder agrees that all payments and the proceeds received by Holders on account of the Notes shall be held by them in trust for LCP for the payment of the LCP Obligations, and turned over to LCP in kind upon receipt of notice from LCP that Company has failed to pay LCP any of the LCP Obligations. Holders hereby agree they have no security interest in any property of the Company.

Notwithstanding anything in this Agreement, (i) in the event the Convertible Note, dated as of December 18, 2003 (the "Initial EDB Note"), issued by Company to Biomedical Sciences Investment Fund Pte Ltd ("BMSIF") has not been converted according to the terms set forth in Section 2 of such Initial EDB Note by the Payment Date (as defined in such Initial EDB Note), BMSIF may receive payment by the Company in an amount not to exceed 50% of the principal amount outstanding under such Initial EDB Note, and (ii) each Holder may convert any Note into capital stock of the Company and accept cash in lieu of fractional shares in connection with any such conversion. Upon conversion of any Note into capital stock of the Company and acceptance of cash in lieu of fractional shares in connection with any such conversion, this Agreement shall terminate with respect to such Note and any proceeds received by a Holder in connection with the conversion of such Note.

2. Bankruptcy. (Subject to paragraph (1) above), Each Holder agrees that upon any

distribution of assets or readjustment of indebtedness of Company, whether by liquidation, bankruptcy, assignment for the benefit of creditors, or otherwise, LCP shall receive payment in full on the LCP Obligations before Holder receives payment of any amounts due under the Notes and Holders shall pay over to LCP any amounts so received by them related to the Notes until the LCP Obligations are paid in full. In furtherance thereof, each Holder authorizes LCP to make and vote (without LCP being obligated to make or vote) any and all proofs of claim respecting the Notes in any such proceeding and to receive and collect all dividends or other payments thereupon; provided that LCP will pay over to Holders a pro rata distribution of amounts received by it in excess of that necessary for the full and final satisfaction of the LCP Obligations. Holders agree to execute such instruments of assignment and other documents as may be necessary to enforce such claims and collect such dividends or to otherwise carry out the intent and purpose hereof.

3. Representations. Each party hereto warrants and represents to the others that it has full power and authority to enter hereinto and to perform all obligations hereunder, that this Agreement is valid, binding and enforceable in accordance with its terms and that execution and performance hereof does not violate any agreement with any other person or entity. Each Holder represents and warrants that it (i) is the owner of the Notes, free and clear of the claims of any others, (ii) has not heretofore subordinated or assigned the Notes or its interest therein to any entity, (iii) will not transfer any Notes to any entity other than one which agrees to be bound hereby, and (iv) waives any rights to claim that the enforceability of this Agreement may be affected by any subsequent modification, release, extension, or change in LCP obligations.

4. No Third Party Beneficiaries. Company has no rights hereunder. This Agreement is made only for the benefit of Holders and LCP and their successors and assigns, and may not be relied upon by any other third party, including Company or any successor thereto or any judgment lien creditor thereof. Nothing herein shall constitute a commitment or agreement by either of LCP or Holder to provide funds to Company.

5. Miscellaneous. This Agreement: (i) may only be amended by a writing signed by LCP and the affected Holder; (ii) contains the entire agreement between Holders and LCP with respect to its subject matter, and all prior negotiations, documents and discussions are superseded hereby; (iii) shall be governed by the laws of the state of California; (iv) may be executed in counterparts delivered by telefacsimile, all of which, when taken together, shall constitute one and the same original document; and (v) may be attached to a Form UCC-1 and filed in the public records of any jurisdiction; and (vi) shall terminate upon the full, final and indefeasible payment and performance by Company to LCP of all LCP Obligations.

6. Waiver of Jury Trial. TO THE FULLEST EXTENT PERMITTED BY LAW, EACH OF THE PARTIES HERETO WAIVES ANY RIGHT IT MAY HAVE TO A TRIAL BY JURY IN RESPECT OF LITIGATION DIRECTLY OR INDIRECTLY ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. EACH PARTY FURTHER WAIVES ANY RIGHT TO CONSOLIDATE ANY ACTION IN WHICH A JURY TRIAL HAS BEEN WAIVED WITH ANY OTHER ACTION IN WHICH A JURY TRIAL CANNOT BE OR HAS NOT BEEN WAIVED.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first above written.

Lighthouse Capital Partners V, L.P.
a Delaware limited partnership

by: Lighthouse Management Partners V, L.L.C.
its general partner

by: /s/ Thomas Conneely
Thomas Conneely
Vice President

500 Drakes Landing Road
Greenbrae, CA 94904
Attn: Contracts Administration
Tel: (415) 464-5900
Fax: (415) 925-3387

HOLDERS:

Biomedical Sciences Investment Fund Ptd Ltd

By: /s/ Lily Chan
Title: Director
20 Biopolis Way
#09-01 Centros
Singapore 138668
Attn: Lily Chan, PhD
Tel: 65-6395-7700
Fax: 65-6395-7796

Invus, L.P.

By: Invus Advisors, LLC
Its general partner

By: _____
Title: _____
135 East 57th Street
New York, NY 10022
Attn: Phillipe J. Amouyal
Tel: (212) 371-1717
Fax: (212) 371-1829

Company hereby acknowledges and consents to the Agreement, promises to take all such action as may be necessary to fulfill its essential intent and purpose, agrees that failure to do so shall be an Event of Default under the LCP Obligations, and acknowledges that in the transactions referenced herein it has been advised to seek, and has selected, counsel of its own choosing, namely Wilson, Sonsini, Goodrich & Rosati of Palo Alto, California.

Fluidigm Corporation

By _____
Its _____

HOLDERS:

Biomedical Sciences Investment Fund Ptd Ltd

By: _____
Title: _____

20 Biopolis Way
#09-01 Centros
Singapore 138668
Attn: General Manager
Tel: 65-6395-7700
Fax: 65-6395-7796

Invus, L.P.

By: Invus Advisors, LLC
Its general partner

By: /s/ Aflalo Guimaraes
Title: Managing Director
135 East 57th Street
New York, NY 10022
Attn: Phillipe J. Amouyal
Tel: (212) 371- 1717
Fax: (212) 371-1829

Company hereby acknowledges and consents to the Agreement, promises to take all such action as may be necessary to fulfill its essential intent and purpose, agrees that failure to do so shall be an Event of Default under the LCP Obligations, and acknowledges that in the transactions referenced herein it has been advised to seek, and has selected, counsel of its own choosing, namely Wilson, Sonsini, Goodrich & Rosati of Palo Alto, California.

Fluidigm Corporation

By _____
Its _____

HOLDERS:

Biomedical Sciences Investment Fund Ptd Ltd

By: _____
Title: _____

20 Biopolis Way
#09-01 Centros
Singapore 138668
Attn: General Manager
Tel: 65-6395-7700
Fax: 65-6395-7796

Invus, L.P.

By: Invus Advisors, LLC
Its general partner

By: _____
Title: _____

135 East 57th Street
New York, NY 10022
Attn: Phillipe J. Amouyal
Tel: (212) 371-1717
Fax: (212) 371-1829

Company hereby acknowledges and consents to the Agreement, promises to take all such action as may be necessary to fulfill its essential intent and purpose, agrees that failure to do so shall be an Event of Default under the LCP Obligations, and acknowledges that in the transactions referenced herein it has been advised to seek, and has selected, counsel of its own choosing, namely Wilson, Sonsini, Goodrich & Rosati of Palo Alto, California.

Fluidigm Corporation

By /s/ Gajus Worthington
Its President & CEO

AMENDMENT NO. 01 ("*Amendment*")
TO LOAN AND SECURITY AGREEMENT NO. 4561

Entered into as of August 4, 2006 by and between
Lighthouse Capital Partners V, L.P. *("Lender")* and **Fluidigm Corporation** *("Borrower").*

RECITALS

WHEREAS, Borrower and Lender have previously entered into that certain Loan and Security Agreement No. 4561 dated as of March 29, 2005 (the *"Loan and Security Agreement";* all initially capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Loan and Security Agreement), together with the other agreements and instruments entered into in connection therewith (collectively, the *"Loan Documents");* and

WHEREAS, Borrower and Lender each have agreed to amend the Loan Documents subject to Borrower's performance of the terms and conditions hereof; and

WHEREAS, as of August 31, 2006, Borrower and Lender mutually agree that the outstanding principal balance of the Loans is $11,093,832.04;

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereby agree to modify the Loan Documents by entering into this Amendment and Borrower agrees to perform such other covenants and conditions as follows:

A) Loan and Security Agreement

(i) Definitions — The definition *of "Subordinated Indebtedness"*, shall be amended and restated to read as follows:

> *"Subordinated Indebtedness"* means Indebtedness of Borrower to Singapore EDB (including its investment fund BioMedical Sciences Investment Fund Ptd Ltd) and Invus Group that is subordinated in both security and right of payment to the Obligations on terms and conditions reasonably satisfactory to Lender in an amount not to exceed $8,000,000.

B) Secured Term Promissory Note

(i) Definitions — The following definitions shall be added to the Notes, and to the extent these terms are already defined in the Loan Documents, they shall be deleted in their entirety and replaced with the following:

"*Final Payment"* means 11.25% of the Advance.

"*Basic Rate"* means a variable *per annum* rate of interest equal to the Index plus the Interest Margin which shall be subject to adjustment as provided herein. On and after March 1, 2006 through and including August 31, 2006, the Basic Rate shall be fixed at 10.00%. On and after September 1, 2006, the Basic Rate shall be fixed at 9.75%.

"*Repayment Period"* means the period beginning on the Loan Commencement Date and continuing for 48 calendar months.

C) Additional Terms and Conditions

1. Repayment. Notwithstanding anything contained in any Note issued in connection with the Loan and Security Agreement, Section 1 of each such Note shall be superseded by the following payment terms: for and on account of all of the Notes, from March 1, 2006 through and including August 31, 2006, Borrower will pay Lender $416,006.71 per month. On and after September 1, 2006 through February 28, 2010, Borrower shall pay Lender $310,305.95 per month. In addition to all other amounts due or to become due hereunder, the Final Payment is due on the earliest to occur of the Maturity Date or March 1, 2009.

2. Restructure Fee. In addition to all other amounts due or to become due hereunder, on the earliest to occur of (i) the Maturity Date; (ii) the date of prepayment of all of the Notes, or (ii) March 1, 2009, Borrower shall pay to Lender a restructure fee in the amount of $150,000, in cash.

3. Expenses. Borrower shall pay reasonable fees and expenses incurred by Lender's legal counsel in connection with the preparation and negotiation of documentation related to this Amendment. Such restructure expenses are due and payable when billed.

D) Acknowledgments; Representations and Warranties. Borrower warrants and represents to Lender, as a material inducement to Lender's entering hereinto, as follows:

a) No Further Funding Obligations. Lender has no obligations to make further Advances to Borrower.

b) No Waivers. Lender has made no separate oral or written waiver of any existing or future Default or Event of Default by Borrower under any Loan Document.

c) No Set-Off. Borrower has no claims or rights of set-off against Lender of any kind under any Loan Document or otherwise. Borrower has no defenses to payments of any amounts owed to Lender as the same become due and payable.

d) Representations and Warranties of Borrower. The representations and warranties contained in the Loan Agreement are true and complete in all material respects as of the date hereof, except with respect to any such representation or warranty which speak only as of a specific date prior to the date hereof. Borrower warrants and represents that no Events of Default have occurred. Borrower warrants and represents that it has not reached any settlement with any other creditor of Borrower that has not been disclosed in writing to Lender.

E. Release. Borrower for itself and for its agents, partners, stockholders, employees and affiliates and its or their successors and assigns hereby (a) agrees to waive, release and further discharge Lender and its officers, directors, stockholders, partners, successors, assigns, agents and employees of and from any and all manner of claims arising in connection with the Loan Documents for damages at law or in equity with respect to any matter occurring prior to the date hereof which Borrower or such other releasing party may have had, and (b) waives California Civil Code Section 1542, which reads: "A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him must have materially affected his settlement with the debtor." Each provision of this release shall be severable from every other provision when determining its legal enforceability.

Except as amended hereby, the Loan Documents remain unmodified and unchanged and ratified by Borrower as though fully set forth herein. In the event of any contradiction between any term of this Amendment with any other Loan Document, the terms under this Amendment shall control Lender and Borrower have executed this Amendment as of the date first written above.

Borrower:	**Lender:**
Fluidigm Corporation	**Lighthouse Capital Partners V, L.P.**
	By: **Lighthouse Management Partners V, L.L.C.,** its general partner
By: /s/ Gajus Worthington	By: /s/ Thomas Conneely
Name: Gajus Worthington	Name: Thomas Conneely
Title: CEO	Title: Vice President

AMENDMENT NO. 02 *("Amendment")*
TO LOAN AND SECURITY AGREEMENT NO. 4561

Entered into as of November 16, 2006 by and between
Lighthouse Capital Partners V, L.P. *("Lender")* and **Fluidigm Corporation** *("Borrower").*

Without limiting or amending any other provisions of the Agreement, as amended, Lender and Borrower agree to the following:

Section 1.1 of the Agreement, the definition of *"Subordinated Indebtedness"*, shall be amended and restated to read as follows:

> *"Subordinated Indebtedness"* means Indebtedness of Borrower to Singapore EDB (including its investment fund BioMedical Sciences Investment Fund Ptd Ltd) and Invus Group that is subordinated in both security and right of payment to the Obligations on terms and conditions reasonably satisfactory to Lender in an amount not to exceed $13,000,000.

All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.

Borrower:	**Lender:**
Fluidigm Corporation	**Lighthouse Capital Partners V, L.P.**
	By: **Lighthouse Management Partners V, L.L.C.,** its general partner
By: /s/ Rich Delateur	By: /s/ Darren Haggerty
Name: Rich Delateur	Name: Darren Haggerty
Title: Chief Financial Officer	Title: Director of Portfolio Analysis

AMENDMENT NO. 03

Dated August 8, 2007

TO

that certain Loan and Security Agreement No. 4561
dated as of March 29, 2005, as amended *("Agreement")*, by and between
Lighthouse Capital Partners V, L.P. *("Lender")* and
Fluidigm Corporation, a Delaware corporation (formerly a California corporation) *("Borrower")*.

(All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.)

Without limiting or amending any other provisions of the Loan Documents, Lender and Borrower agree to the following:

Effective March 29, 2007, Borrower's state of incorporation has reincorporated from the State of California to the State of Delaware.

Except as amended hereby, the Loan Documents remains unmodified and unchanged.

BORROWER:	**LENDER:**
Fluidigm Corporation	**Lighthouse Capital Partners V, L.P.**
	By: **Lighthouse Management Partners V, L.L.C.,** its general partner
By: /s/ Gajus Worthington	By: /s/ Tom Conneely
Name: Gajus Worthington	Name: Tom Conneely
Title: President & CEO	Title: Vice President

AMENDMENT NO. 04

Dated February 15, 2008

TO

that certain Loan and Security Agreement No. 4561
dated as of March 29, 2005, as amended *("Agreement")*, by and between
Lighthouse Capital Partners V, L.P. *("Lender")* and
Fluidigm Corporation *("Borrower").*

this Amendment No. 04 *("Amendment 04")* to that certain Loan and Security Agreement No. 4561 dated March 29, 2005 (as amended to date, the *"Agreement)* is entered into as of February 15, 2008, by and between **Lighthouse Capital Partners V, L.P.** *("Lender")* and **Fluidigm Corporation**, a Delaware corporation *("Borrower").*

WHEREAS, Borrower and Lender have previously entered into and amended the Agreement; and

WHEREAS, Borrower has requested Lender provide an additional term loan financing, which Lender has agreed to provide subject to the terms of this Amendment 04.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants herein contained, the parties hereby agree to modify the Agreement and to perform such other covenants and conditions as follows:

(All capitalized terms not otherwise defined herein shall have the meanings given to such terms in the Agreement.)

I. Section 1.1, the following definitions shall be added to the Agreement:

"Change of Management or Board Composition " means that **(i)** Borrower's senior management shall not include Gajus Worthington; **(ii)** Versant Ventures or any of its affiliated funds shall cease to have a representative (currently Samuel Colella) serving on Borrower's Board of Directors; or **(iii)** Alloy Ventures or any of its affiliated funds shall cease to have a representative (currently Mike Hunkapiller) serving on Borrower's Board of Directors.

"Commitment One" means the Commitment as that term is used in the Agreement prior to the effect of this Amendment 04.

"Commitment Two" means $10,000,000.

"Commitment Two Warrant" mean the Warrant in favor of Lender to purchase securities of Borrower, substantially in the form *of **Exhibit C-2*** attached to this Amendment 04 and issued in conjunction with Commitment Two.

II. Section 1.1, the following definitions of the Agreement shall be deleted in its entirety and replaced with the following:

"Basic Rate" (i) under Commitment One, as defined in the Notes, as amended pursuant to Amendment No. 01, and (ii) under Commitment Two, as defined in the Notes for Advances under Commitment Two.

"Commitment" means Commitment One and Commitment Two.

"Commitment Fee" means $10,000 under Commitment One and $10,000 under Commitment Two.

"Commitment Termination Date" has occurred for Commitment One, and for Commitment Two it means the earliest to occur of **(i)** July 1, 2008; **(ii)** any Default or Event of Default, or **(iii)** Change of Management or Board Composition (unless Lender has waived this condition in writing).

"Disclosure Schedule" means the Disclosure Schedule delivered to Lender in connection with the execution and delivery of Amendment No. 04 to this Agreement.

"Loan Commencement Date" means **(i)** for Advances under Commitment One, as defined in the Notes, as amended pursuant to Amendment No. 01, and **(ii)** for Advances under Commitment Two, as defined in the Notes for Advances under Commitment Two.

"Note" means (i) in connection with Advances under Commitment One, Secured Promissory Notes in the form *of* ***Exhibit B***, and (ii) in connection with Advances under Commitment Two, Secured Promissory Notes in the form *of* ***Exhibits B-2*** to Amendment 04.

"Notice of Borrowing" means (i) in connection with Advances under Commitment One, the form attached as ***Exhibit D,*** and (ii) in connection with Advances under Commitment Two in the form of ***Exhibit D-2*** attached to Amendment 04.

"Warrant" means (i) all Warrants issued by Borrower to Lender prior to the date of Amendment 04, and (ii) the Commitment Two Warrant.

III. Section 6.2 — Section 6.2 of the Agreement shall be amended deleted in its entirety and replaced with the following:

6.2 Financial Statements, Reports, Certificates. Borrower shall deliver to Lender: **(i)** as soon as prepared, and no later than 30 days after the end of each calendar quarter, a balance sheet, income statement and cash flow statement covering Borrower's operations for each of the three months during such period, provided for each calendar month ending after the calendar quarter ending on September 30, 2008, Borrower shall deliver to Lender as soon as prepared, and no later than 30 days after the end of each calendar month, a balance sheet, income statement and cash flow statement covering Borrower's operations during such period; **(ii)** as soon as prepared, but no later than 90 days after the end of the fiscal year, or such other timeframe formally approved by Borrower's audit committee, audited financial statements prepared in accordance with GAAP, together with an opinion that such financial statements fairly present Borrower's financial condition by an independent public accounting firm reasonably acceptable to Lender; **(iii)** immediately upon notice thereof, a report of any legal or administrative action pending or threatened in writing against Borrower which is likely to result in liability to Borrower in excess of $100,000 (provided that Borrower shall not be required to report notices of possibly relevant third party patents, or proposals or demands to license intellectual property); and **(iv)** such other financial information as Lender may reasonably request from time to time. Financial statements delivered pursuant to subsections **(i)** and **(ii)** above shall be accompanied by a certificate signed by a Responsible Officer (each an *"Officer's Certificate")* in the form *of* ***Exhibit F.***

IV. Section 3 — Conditions of Advances; Procedure for requesting Advances; the following new **Sections 3.2 and 3.3** shall be added:

3.2 Procedure for Making Advances. For any Advance, Borrower shall provide Lender an irrevocable Notice of Borrowing at least 15 business days prior to the desired Funding Date and Lender shall only be required to make Advances hereunder based upon written requests which comply with the terms and exhibits of this Loan Agreement (as the same may be amended from time to time), and which are submitted and signed by a Responsible Officer. Borrower shall execute and deliver to Lender a Note and such other documents and instruments as Lender may reasonably require for each Advance made.

3.3. Conditions Precedent to Initial Advance under Commitment Two. The obligation of Lender to make the Initial Advance under Commitment Two is subject the satisfaction of each of the following conditions:

(a) This Amendment 04 duly executed by Borrower.

(b) The Commitment Two Warrant to be issued to Lender duly executed by Borrower.

(c) Delivery to Ledner of an officer's certificate of Borrower with copies of the following documents attached: **(i)** the certificate of incorporation and by-laws or other organizational documents of Borrower certified by Borrower as being in full force and effect as of the date of Amendment 04, **(ii)** incumbency and representative signatures, and **(iii)** resolutions authorizing the execution and delivery of Amendment 04 and each of the other Loan Documents.

(d) Delivery to Lender of a good standing certificate from Borrower's state of incorporation or formation and the state in which Borrower's principal place of business is located, together with certificates of the applicable governmental authorities stating that Borrower is in compliance with the franchise tax laws of each such state, each dated as of a recent date.

(e) Borrower has obtained all necessary consents of shareholders, members, and other third parties with respect to the execution, delivery and performance of the Agreement, Amendment 04, the Commitment Two Warrant, and the other Loan Documents.

(f) Borrower shall have satisfied all the conditions set forth in **Section 3.1 and 3.2** of the Agreement.

3.4 Reaffirmation Subject to the Disclosure Schedule attached hereto as Schedule 1, Borrower reaffirms the representations and warranties made to Lender in the Agreement as of the date hereof as though fully set forth herein.

3.5 Existing Notes Notes for Advances under Commitment Two are not affected by Amendment No. 01 and Notes for Advances under Commitment One remain subject to Amendment No. 01

V. Further Terms and Conditions of this Amendment 04.

1. Representations and Warranties of Borrower. Borrower warrants and represents, as a significant material inducement to Lender to enter hereinto, that: (i) no Events of Default have occurred and are continuing that have not been disclosed to Lender by Borrower in writing; (ii) it is not and has no reason to believe it may be named as a party to any judicial or administrative proceeding, litigation or arbitration, and has not received any written communication from any person or entity (whether private or governmental) threatening or indicating the same, except to the extent that any such written communication could not reasonably be expected to result in a material adverse effect on Borrower's business; and (iii) it is in full compliance with Section 7.10 of the Loan and Security Agreement.

2. No Control. Borrower warrants and represents, as a significant material inducement to Lender to enter hereinto, that none of Lender nor any affiliate, officer, director, employee, agent, or attorney of Lender have at any time, from Borrower's date of formation through to the date hereof, (i) exercised management or other control over the Borrower, (ii) exercised undue influence over Borrower or any of its officers, employees or directors, (iii) made any representation or warranty, express or implied, to any party on behalf of Borrower, (iv) entered into any joint venture, agency relationship, employment relationship, or partnership with Borrower, (v) directed or instructed Borrower on the manner, method, amount, or identity of payee of any payment made to any creditor of Borrower, and further, Borrower warrants and represents that by entering hereinto with Lender has not, are not and will not have engaged in any of the foregoing.

3. Integration Clause. This Agreement represents and documents the entirety of the agreement and understanding of the parties hereto with respect to its subject matter. All prior understandings, whether oral or written, other than the Loan Documents, are hereby merged hereinto. **NEITHER THE LOAN AND SECURITY AGREEMENT NOR THIS AGREEMENT MAY BE MODIFIED EXCEPT BY A WRITING SIGNED BY LENDER AND BORROWER.** Each provision hereof shall be severable from every other provision when determining its legal enforceability such that Lender's rights and remedies under this Agreement and the Loan Documents may be enforced to the maximum extent permitted under applicable law. This Agreement shall be binding upon, and inure to the benefit of, each party's respective permitted successors and assigns. This Agreement may be executed in counterpart originals, all of which, when taken together, shall constitute one and the same original document. No provision of any other document between Lender and Borrower shall limit the effectiveness hereof or the rights and remedies of Lender against Borrower. In the event of any contradiction or inconsistency among the terms and conditions of this Agreement or any Loan Document, the interpretation most favorable to the interests of Lender shall prevail.

Except as amended hereby, the Agreement remains unmodified and unchanged.

BORROWER:

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington
Name: Gajus Worthington
Title: President and CEO

LENDER:

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.,**
its general partner

By: /s/ Thomas Conneely
Name: Thomas Conneely
Title: Vice President

EXHIBIT B-2
(COMMITMENT TWO)

[_____]

SECURED PROMISSORY NOTE

This SECURED PROMISSORY NOTE (this *"Note")* is made _____ , 2008, by **FLUIDIGM CORPORATION** *("Borrower")* in favor of **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** (collectively with its assigns, *"Lender").* Initially capitalized terms used and not otherwise defined herein are defined in that certain Loan and Security Agreement No. 4561 between Borrower and Lender dated March 29, 2005, as amended (the *"Loan Agreement").*

FOR VALUE RECEIVED, Borrower promises to pay in lawful money of the United States, to the order of Lender, at 500 Drake's Landing Road, Greenbrae, California 94904, or such other place as Lender may from time to time designate (*"Lender's Office"),* the principal sum of $_____ (the *"Advance"),* including interest on the unpaid balance and all other amounts due or to become due hereunder according to the terms hereof and of the Loan Agreement.

"Basic Rate" means a fixed per *annum* rate of interest equal 8.5%.

"Final Payment" means 6.5% of the Advance.

"Loan Commencement Date" means January 1,2009.

"Maturity Date" means the last day of the Repayment Period, or if earlier, the date of prepayment under the Note.

"Payment Date" means the first day of each calendar month.

"Prepayment Fee" means (i) if prepaid in the calendar years 2008 or 2009, 3% of the outstanding principal amount being prepaid; (ii) if prepaid in the calendar year 2010, 2% of the outstanding principal amount being prepaid; and (iii) if prepaid in the calendar year 2011 or thereafter, 1% of the outstanding principal amount being prepaid.

"Repayment Period" means the period beginning on the Loan Commencement Date and continuing for 30 calendar months.

1. Repayment. Borrower shall pay principal and interest due hereunder from the Funding Date, until this Note is paid in full, on each Payment Date pursuant to the terms of the Loan Agreement and this Note. Borrower shall pay to Lender, monthly in advance on each Payment Date, interest calculated using the Basic Rate. Beginning on the Loan Commencement Date and on each Payment Date thereafter during the Repayment Period, Borrower shall make equal installments of principal and interest in advance, calculated at the Basic Rate. On the Maturity Date, Borrower shall pay, in addition to all unpaid principal and interest outstanding hereunder, the Final Payment.

2. Interest. Interest not paid when due will, to the maximum extent permitted under applicable law, become part of principal, at Lender's option, and thereafter bear like interest as principal. Interest shall be computed on the basis of a 360 day year. All Obligations not paid when due shall bear interest at the Default Rate unless waived in writing by Lender. All amounts paid hereunder will be applied to the Obligations in Lender's discretion and as provided in the Loan Agreement.

3. Voluntary Prepayment. Borrower may prepay the Note if and only if Borrower pays to Lender **(i)** the outstanding principal amount of this Note and any unpaid accrued interest **(ii)** the Final Payment, **(iv)** the Prepayment Fee, and **(v)** all other sums, if any, that shall have become due and payable hereunder with respect to this Note.

4. Collateral. This Note is secured by the Collateral.

5. Waivers. Borrower, and all guarantors and endorsers of this Note, regardless of the time, order or place of signing, hereby waive notice, demand, presentment, protest, and notices of every kind, presentment for the purpose of accelerating maturity, diligence in collection to the fullest extent permitted by law.

6. Choice of Law; Venue. THIS NOTE SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH THE INTERNAL LAWS OF THE STATE OF CALIFORNIA, WITHOUT REGARD TO PRINCIPLES OF CONFLICTS OF LAW. EACH OF BORROWER AND LENDER HEREBY SUBMITS TO THE EXCLUSIVE JURISDICTION OF THE STATE AND FEDERAL COURTS LOCATED IN THE CITY AND

County of San Francisco, State of California. Borrower and Lender each hereby waive their respective rights to a jury trial of any claim or cause of action based upon or arising out of this Note. Each party further waives any right to consolidate any action in which a jury trial has been waived with any other action in which a jury trial cannot be or has not been waived.

7. Miscellaneous. This Note may be modified only by a writing signed by Borrower and Lender. Each provision hereof is severable from every other provision hereof and of the Loan Agreement when determining its legal enforceability. Sections and subsections are titled for convenience, and not for construction. "Hereof," "herein," "hereunder," and similar words refer to this Note in its entirety. "Or" is not necessarily exclusive. "Including" is not limiting. The terms and conditions hereof inure to the benefit of and are binding upon the parties' respective permitted successors and assigns. This Note is subject to all the terms and conditions of the Loan Agreement.

In Witness Whereof, Borrower has caused this Note to be executed by a duly authorized officer as of the day and year first above written.

Fluidigm Corporation

By: _____

Name: _____

Title: _____

Exhibit 4.4A

NEITHER THIS WARRANT NOR THE SHARES OF CAPITAL STOCK ISSUABLE UPON EXERCISE HEREOF HAVE BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE *"1933 ACT")*, OR ANY APPLICABLE STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD OR TRANSFERRED UNLESS SUCH SALE OR TRANSFER IS IN ACCORDANCE WITH THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS OR THE COMPANY HAS RECEIVED AN OPINION OF COUNSEL, REASONABLY ACCEPTABLE TO THE COMPANY, TO THE EFFECT THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION REQUIREMENTS OF SUCH ACT AND APPLICABLE LAWS.

PREFERRED STOCK PURCHASE WARRANT

Warrant No._____

Number of Shares: initially, 185,714
Series D Preferred Stock
subject to increase as set forth below

FLUIDIGM CORPORATION

Effective as of March 29, 2005

Void after March 29, 2012

1. Issuance. This Preferred Stock Purchase Warrant (the *"Warrant")* is issued to **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** by **FLUIDIGM CORPORATION**, a California corporation (hereinafter with its successors called the *"Company").*

2. Purchase Price; Number of Shares.

(a) The registered holder of this Warrant (the *"Holder")*, commencing on the date hereof, is entitled upon surrender of this Warrant with the subscription form annexed hereto duly executed, at the principal office of the Company, to purchase from the Company, at a price per share of $2.80 (the *"Purchase Price")*, 185,714 fully paid and nonassessable shares of the Company's Series D Preferred Stock, (the *"Exercise Quantity")*, $0.001 par value (the *"Preferred Stock").*

(b) On the Commitment Termination Date, the Exercise Quantity shall automatically be increased by such additional number of shares (rounded to the nearest whole share) of Series D Preferred Stock, if any, as is equal to the amount determined by dividing (A) 4% of the Aggregate Advances under the Loan Agreement, if any, by (B) the Purchase Price

In addition to other terms which may be defined herein, the following terms, as used in this Warrant, shall have the following meanings:

(i) "Aggregate Advances" means the aggregate original dollar amount of all Advances made under the Loan Agreement, whether such Advances are outstanding or prepaid, at the time of any scheduled adjustment to the Exercise Quantity.

(ii) "Loan Agreement" means that certain Loan and Security Agreement No. 4561 dated March 29, 2005 between the Company and Lighthouse Capital Partners V, L.P..

Any capitalized term not defined herein shall have the meaning as set forth in the Loan Agreement.

Until such time as this Warrant is exercised in full or expires, the Purchase Price and the securities issuable upon exercise of this Warrant are subject to adjustment as hereinafter provided. The person or persons in whose name or names any certificate representing shares of Preferred Stock is issued hereunder shall be deemed to have become the holder of record of the shares represented thereby as at the close of business on the date this Warrant is exercised with respect to such shares, whether or not the transfer books of the Company shall be closed.

3. Payment of Purchase Price. The Purchase Price may be paid (i) in cash or by check, (ii) by the surrender by the Holder to the Company of any promissory notes or other obligations issued by the Company, with all such notes and obligations so surrendered being credited against the Purchase Price in an amount equal to the principal amount thereof plus accrued interest to the date of surrender, or (iii) by any combination of the foregoing.

4. Net Issue Election. The Holder may elect to receive, without the payment by the Holder of any additional consideration, shares of Preferred Stock equal to the value of this Warrant or any portion hereof by the surrender of this Warrant or such portion to the Company, with the net issue election notice annexed hereto duly executed, at the principal office of the Company. Thereupon, the Company shall issue to the Holder such number of fully paid and nonassessable shares of Preferred Stock as is computed using the following formula:

$$X = \frac{Y(A-B)}{A}$$

where: X = the number of shares of Preferred Stock to be issued to the Holder pursuant to this **Section 4.**

Y = the number of shares of Preferred Stock covered by this Warrant in respect of which the net issue election is made pursuant to this **Section 4.**

A = the Fair Market Value (defined below) of one share of Preferred Stock, as determined at the time the net issue election is made pursuant to this **Section 4.**

B = the Purchase Price in effect under this Warrant at the time the net issue election is made pursuant to this **Section 4.**

"Fair Market Value" of a share of Preferred Stock (or fully paid and nonassessable shares of the Company's common stock, $0.001 par value (the *"Common Stock")* if the Preferred Stock has been automatically converted into Common Stock) as of the date that the net issue election is made (the *"Determination Date")* shall mean:

(i) If the net issue election is made in connection with and contingent upon the closing of the sale of the Company's Common Stock to the public in a public offering pursuant to a Registration Statement under the Securities Act of 1933, as amended (a *"Public Offering")*, and if the Company's Registration Statement relating to such Public Offering *("Registration Statement")* has been declared effective by the Securities and Exchange Commission, then the initial "Price to Public" specified in the final prospectus with respect to such offering multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible.

(ii) If the net issue election is not made in connection with and contingent upon a Public Offering, then as follows:

(a) If traded on a securities exchange or the Nasdaq National Market, the fair market value of the Common Stock shall be deemed to be the average of the closing or last reported sale prices of the Common Stock on such exchange or market over the five day period ending five trading days prior to the Determination Date, and the fair market value of the Preferred Stock shall be deemed to be such fair market value of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible;

(b) If otherwise traded in an over-the-counter market, the fair market value of the Common Stock shall be deemed to be the average of the closing ask prices of the Common Stock over the five day period ending five trading days prior to the Determination Date, and the fair market value of the Preferred Stock shall be deemed to be such fair market value of the Common Stock multiplied by the number of shares of Common Stock into which each share of Preferred Stock is then convertible; and

(c) If there is no public market for the Common Stock, then fair market value shall be determined in good faith by the Company's Board of Directors.

5. Partial Exercise. This Warrant may be exercised in part, and the Holder shall be entitled to receive a new warrant, which shall be dated as of the date of this Warrant, covering the number of shares in respect of which this Warrant shall not have been exercised.

6. Fractional Shares. In no event shall any fractional share of Preferred Stock be issued upon any exercise of this Warrant. If, upon exercise of this Warrant in its entirety, the Holder would, except as provided in this **Section 6,** be entitled to receive a fractional share of Preferred Stock, then the Company shall issue the next higher number of full shares of Preferred Stock, issuing a full share with respect to such fractional share.

7. Expiration Date; Automatic Exercise. This Warrant shall expire at the close of business on March 29, 2012, and shall be void thereafter (the *"Expiration Date").* Notwithstanding the term of this Warrant fixed pursuant to this **Section 7,** and provided Holder has received advance written notice of at least twenty (20) days and has not earlier exercised this Warrant, and provided this Warrant has not been assumed by the successor entity (or parent thereof), upon the consummation of a Merger (as defined below), this Warrant shall automatically be exercised pursuant to **Section 4** hereof, without any action by Holder. *"Merger"* means: (i) a sale of all or substantially all of the Company's assets to an Unaffiliated Entity (as defined below), or (ii) the merger, consolidation or acquisition of the Company with, into or by an Unaffiliated Entity (other than a merger or consolidation for the principle purpose of changing the domicile of the Company or a bona fide round of preferred stock equity financing), that results in the Company's shareholders immediately prior to such merger, consolidation, or acquisition holding, immediately thereafter, less than a majority of the outstanding voting securities of the successor corporation or its parent. *"Unaffiliated Entity"* means any entity that is owned or controlled by parties who own less than twenty percent (20%) of the combined voting power of the voting securities of the Company immediately prior to such merger or sale of assets, consolidation or acquisition. Notwithstanding the foregoing, in the event that any outstanding warrants to purchase equity securities of the Company (it being acknowledged and agreed that options to acquire common stock issued to officers, directors, employees and consultants shall not be deemed "warrants") are assumed by the successor entity of a Merger (or parent thereof), this Warrant shall also be similarly assumed and the automatic exercise provision in this **Section 7** shall have no effect. The Company agrees to give the Holder written notice promptly after it has entered into a definitive agreement relating to any proposed Merger and written notice of termination of any definitive agreement relating to any proposed Merger. Notwithstanding anything to the contrary in this Warrant, (i) the Holder may expressly make any voluntary exercise of this Warrant contingent on, and effective immediately prior to, the consummation of such Merger and (ii) any automatic exercise of this Warrant in connection with a Merger shall be conditioned on consummation of such Merger and shall be effective immediately prior thereto.

8. Reserved Shares; Valid Issuance. The Company covenants that it will at all times from and after the date hereof reserve and keep available such number of its authorized shares of Preferred Stock and Common Stock free from all preemptive or similar rights therein, as will be sufficient to permit, respectively, the exercise of this Warrant in full and the conversion into shares of Common Stock of all shares of Preferred Stock receivable upon such exercise. The Company further covenants that such shares as may be issued pursuant to such exercise and/or conversion will, upon issuance, be duly and validly issued, fully paid and nonassessable and free from all taxes, liens and charges with respect to the issuance thereof.

9. Stock Splits and Dividends. If after the date hereof the Company shall subdivide the Preferred Stock, by split-up or otherwise, or combine the Preferred Stock, or issue additional shares of Preferred Stock in payment of a stock dividend on the Preferred Stock, the number of shares of Preferred Stock issuable on the exercise

of this Warrant shall forthwith be proportionately increased in the case of a subdivision or stock dividend, or proportionately decreased in the case of a combination, and the Purchase Price shall forthwith be proportionately decreased in the case of a subdivision or stock dividend, or proportionately increased in the case of a combination.

10. Adjustments for Diluting Issuances. The antidilution rights applicable to the Series D Preferred Stock of the Company are set forth in the Amended and Restated Articles of Incorporation, as amended from time to time (the *"Articles")*, a true and complete copy in its current form which has been made available to Holder. Such rights shall not be restated, amended or modified in any manner which affects the Holder differently than the holders of outstanding Series D Preferred Stock without such Holder's prior written consent. The Company shall provide the Holder hereof with any restatement, amendment or modification to the Articles promptly after the same has been made.

11. Mergers and Reclassifications. (a) Except as set forth in **Section 7,** If after the date hereof the Company shall enter into any Reorganization (as hereinafter defined), then, as a condition of such Reorganization, lawful provisions shall be made, and duly executed documents evidencing the same from the Company or its successor shall be delivered to the Holder, so that the Holder shall thereafter have the right to purchase, at a total price not to exceed that payable upon the exercise of this Warrant in full, the kind and amount of shares of stock and other securities and property receivable upon such Reorganization by a holder of the number of shares of Preferred Stock which might have been purchased by the Holder immediately prior to such Reorganization, and in any such case appropriate provisions shall be made with respect to the rights and interest of the Holder to the end that the provisions hereof (including without limitation, provisions for the adjustment of the Purchase Price and the number of shares issuable hereunder and the provisions relating to the net issue election) shall thereafter be applicable in relation to any shares of stock or other securities and property thereafter deliverable upon exercise hereof. For the purposes of this **Section 11,** the term *"Reorganization"* shall include without limitation any reclassification, capital reorganization or change of the Preferred Stock (other than as a result of a subdivision, combination or stock dividend provided for in **Section 9** hereof), or any consolidation of the Company with, or merger of the Company into, another corporation or other business organization (other than a merger in which the Company is the surviving corporation and which does not result in any reclassification or change of the outstanding Preferred Stock), or any sale or conveyance to another corporation or other business organization of all or substantially all of the assets of the Company.

(b) Notwithstanding any other provision of this Warrant, in the event of an automatic conversion of the Company's outstanding Series D Preferred Stock into Common Stock in accordance with the Company's Articles, as in effect from time to time, this Warrant shall thereafter represent the right to acquire for the aggregate Purchase Price (as then in effect) the number of shares of Common Stock into which the number of shares of Preferred Stock issuable upon exercise of this Warrant would have then been convertible.

12. Certificate of Adjustment. Whenever the Purchase Price is adjusted, as herein provided, the Company shall promptly deliver to the Holder a certificate of the Company's chief financial officer (or other appropriate officer) setting forth the Purchase Price after such adjustment and setting forth a brief statement of the facts requiring such adjustment.

13. Notices of Record Date, Etc. In the event of:

(a) any taking by the Company of a record of the holders of any class of securities for the purpose of determining the holders thereof who are entitled to receive any dividend or other distribution, or any right to subscribe for, purchase, sell or otherwise acquire or dispose of any shares of stock of any class or any other securities or property, or to receive any other right;

(b) any reclassification of the capital stock of the Company, capital reorganization of the Company, consolidation or merger involving the Company, or sale or conveyance of all or substantially all of its assets; or

(c) any voluntary or involuntary dissolution, liquidation or winding-up of the Company;

then in each such event the Company will provide or cause to be provided to the Holder a written notice thereof. Such notice shall be provided at least twenty (20) business days prior to the date specified in such notice on which any such action is to be taken.

14. Representations, Warranties and Covenants. This Warrant is issued and delivered by the Company and accepted by each Holder on the basis of the following representations, warranties and covenants made by the Company:

(a) The Company has all necessary corporate power and authority to issue, execute and deliver this Warrant and to perform its obligations hereunder. This Warrant has been duly authorized issued, executed and delivered by the Company and is the valid and binding obligation of the Company, enforceable in accordance with its terms, except as enforceability may be limited by bankruptcy or similar laws relating to the enforcement of creditors' rights generally.

(b) The shares of Preferred Stock issuable upon the exercise of this Warrant have been duly authorized and reserved for issuance by the Company and, when issued in accordance with the terms hereof, will be validly issued, fully paid and nonassessable.

(c) The issuance, execution and delivery of this Warrant do not, and the issuance of the shares of Preferred Stock upon the exercise of this Warrant in accordance with the terms hereof will not, (i) violate or contravene the Company's Articles or by-laws, or any law, statute, regulation, rule, judgment or order applicable to the Company, (ii) violate, contravene or result in a breach or default under any contract, agreement or instrument to which the Company is a party or by which the Company or any of its assets are bound or (iii) require the consent or approval of or the filing of any notice or registration with any person or entity (other than such notices or filings as may be required under applicable securities laws).

(d) As long as this Warrant is, or any shares of Preferred Stock issued upon exercise of this Warrant or any shares of Common Stock issued upon conversion of such shares of Preferred Stock are, issued and outstanding, the Company will provide to the Holder the financial and other information described in that certain Loan and Security Agreement No. 4561 between the Company and Lighthouse Capital Partners V, L.P. dated as of March 29, 2005.

(e) As of the date hereof, the authorized capital stock of the Company consists of (i) 65,500,000 shares of Common Stock, of which 8,909,357 shares are issued and outstanding and 185,714 shares are reserved for issuance upon the exercise of this Warrant with respect to Common Stock and the conversion of the Preferred Stock into Common Stock if this Warrant is exercised with respect to Preferred Stock, (ii) 2,727,273 shares of Series A Preferred Stock, of which 2,727,273 are issued and outstanding shares, (iii) 6,460,675 shares of Series B Preferred Stock, of which 6,460,675 are issued and outstanding shares, (iv) 20,551,163 shares of Series C Preferred Stock, of which 16,364,832 are issued and outstanding shares, and (v) 13,887,716 shares of Series D Preferred Stock, of which 7,292,127 are issued and outstanding shares. Company has delivered a capitalization table to Holder summarizing the capitalization of the Company. At the request of Holder, not more than once per calendar quarter, the Company will provide Holder with a current capitalization table indicating changes, if any, to the number of outstanding shares of common stock and preferred stock.

15. Registration Rights. The Company grants to the Holder all the rights of a "Holder" [and an "Investor" under the Company's Amended and Restated Investors' Rights Agreement dated as of December 18, 2003 (the *"Rights Agreement"),* including, without limitation, the registration rights contained therein, and agrees to amend the Rights Agreement so that (i) the shares of Common Stock issuable upon conversion of the shares of Preferred Stock issuable upon exercise of this Warrant shall be *"Registrable Securities"* and (ii) the Holder shall be a "Holder" [and an "Investor" for all purposes of such Rights Agreement.

16. Amendment. The terms of this Warrant may be amended, modified or waived only with the written consent of the Holder and the Company.

17. Representations and Covenants of the Holder. This Warrant has been entered into by the Company in reliance upon the following representations and covenants of the Holder, which by its execution hereof the Holder hereby confirms:

(a) Investment Purpose. The right to acquire Preferred Stock or the Preferred Stock issuable upon exercise of the Holder's rights contained herein will be acquired for investment and not with a view to the sale or distribution of any part thereof, and the Holder has no present intention of selling or engaging in any public distribution of the same except pursuant to a registration or exemption.

(b) Accredited Investor. Holder is an "accredited investor" within the meaning of Rule 501 of Regulation D, promulgated under the 1933 Act as presently in effect.

(c) Private Issue. The Holder understands (i) that neither the issuance of this Warrant nor the issuance of any shares of the Company's capital stock issuable upon exercise of the Holder's rights contained herein has been registered under the 1933 Act or qualified under applicable state securities laws on the ground that the issuances contemplated by this Warrant will be exempt from the registration and qualifications requirements thereof, and (ii) that the Company's reliance on such exemption is predicated on the representations of the Holderset forth in this **Section 17.**

(d) Financial Risk. The Holder has such knowledge and experience in financial and business matters as to be capable of evaluating the merits and risks of its investment and has the ability to bear the economic risks of its investment.

18. Notices, Transfers, Etc.

(a) Any notice or written communication required or permitted to be given to the Holder may be given by certified mail or delivered to the Holder at the address most recently provided by the Holder to the Company.

(b) Subject to compliance with applicable federal and state securities laws, this Warrant may be transferred by the Holder with respect to any or all of the shares purchasable hereunder. Upon surrender of this Warrant to the Company, together with the assignment notice annexed hereto duly executed, for transfer of this Warrant as an entirety by the Holder, the Company shall issue a new warrant of the same denomination to the assignee. Upon surrender of this Warrant to the Company, together with the assignment hereof properly endorsed, by the Holder for transfer with respect to a portion of the shares of Preferred Stock purchasable hereunder, the Company shall issue a new warrant to the assignee, in such denomination as shall be requested by the Holder hereof, and shall issue to such Holder a new warrant covering the number of shares in respect of which this Warrant shall not have been transferred.

(c) In case this Warrant shall be mutilated, lost, stolen or destroyed, the Company shall issue a new warrant of like tenor and denomination and deliver the same (i) in exchange and substitution for and upon surrender and cancellation of any mutilated Warrant, or (ii) in lieu of any Warrant lost, stolen or destroyed, upon receipt of an affidavit of the Holder or other evidence reasonably satisfactory to the Company of the loss, theft or destruction of such Warrant

19. No Impairment. The Company will not, by amendment of its Articles or through any reclassification, capital reorganization, consolidation, merger, sale or conveyance of assets, dissolution, liquidation, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance of performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such action as may be necessary or appropriate in order to protect the rights of the Holder. In no event shall any reclassification, capital reorganization, consolidation, merger, sale or conveyance of assets, dissolution, liquidation, issue or sale of securities or any other transaction be deemed an "impairment" for purposes of this Section 18 if the shares of the Company's capital stock issuable upon exercise of this Warrant are affected thereby in the same manner as outstanding shares of such capital stock.

20. Governing Law. The provisions and terms of this Warrant shall be governed by and construed in accordance with the internal laws of the State of California without giving effect to its principles regarding conflicts of laws.

21. Successors and Assigns. This Warrant shall be binding upon the Company's successors and assigns and shall inure to the benefit of the Holder's successors, legal representatives and permitted assigns.

22. Business Days. If the last or appointed day for the taking of any action required or the expiration of any rights granted herein shall be a Saturday or Sunday or a legal holiday in California, then such action may be taken or right may be exercised on the next succeeding day which is not a Saturday or Sunday or such a legal holiday.

23. Value. The Company and the Holder agree that the value of this Warrant on the date of grant is $100.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington

Name: Gajus Worthington

Title: President & CEO

Subscription

To: _____

Date: _____

The undersigned hereby subscribes for _____ shares of Preferred Stock covered by this Warrant. The certificate(s) for such shares shall be issued in the name of the undersigned or as otherwise indicated below:

_____

Signature

_____

Name for Registration

_____

Mailing Address

Net Issue Election Notice

To: _____ Date: _____

The undersigned hereby elects under **Section 4** to surrender the right to purchase shares of Preferred Stock pursuant to this Warrant. The certificate(s) for such shares issuable upon such net issue election shall be issued in the name of the undersigned or as otherwise indicated below:

_____

Signature

_____

Name for Registration

_____

Mailing Address

Assignment

For value received _____ hereby sells, assigns and transfers unto _____

_____

[Please print or typewrite name and address of Assignee]

_____

the within Warrant, and does hereby irrevocably constitute and appoint _____ its attorney to transfer the within Warrant on the books of the within named Company with full power of substitution on the premises.

Dated: _____

_____

Signature

_____

Name for Registration

In the Presence of:

_____

Exhibit 4.4B

NEGATIVE PLEDGE AGREEMENT

THIS NEGATIVE PLEDGE AGREEMENT is made as of March 29, 2005, by and between **FLUIDIGM CORPORATION** *("Borrower")* and **LIGHTHOUSE CAPITAL PARTNERS V, L.P.** *("Lender").*

In consideration of the Loan and Security Agreement between the parties of proximate date herewith (the *"Loan Agreement")*, Borrower agrees as follows:

Except as otherwise permitted in the Loan Agreement, Borrower shall not sell, transfer, assign, mortgage, pledge, lease, grant a security interest in, or encumber any of Borrower's owned intellectual property, including, without limitation, the following:

(a) Any and all copyright rights, copyright applications, copyright registration and like protection in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held (collectively, the *"Copyrights");*

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights which may be available to Borrower now or hereafter existing, created, acquired or held;

(d) All patents, patent applications and like protections, including, without limitation, improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same, including, without limitation, the patents and patent applications (collectively, the *"Patents");*

(e) Any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks (collectively, the *"Trademarks");*

(f) Any and all claims for damages by way of past, present and future infringements of any of the rights included above, with the right, but not the obligation, to sue for an collect such damages for said use or infringement of the intellectual property rights identified above;

(g) Any and all licenses or other rights to use any of the Copyrights, Patents or Trademarks and all license fees and royalties arising from such use to the extent permitted by such license or rights

(h) Any and all amendments, extensions, renewals and extensions of any of the Copyrights, Patents or Trademarks; and

(i) Any and all proceeds and products of the foregoing, including, without limitation, all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

It shall be an Event of Default under the Loan Agreement if there is a breach of any term of this Negative Pledge Agreement. Borrower agrees to properly execute all documents reasonably required by Lender in order to fulfill the intent and purposes hereof.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington

Name: Gajus Worthington

Title: President & CEO

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

By: **LIGHTHOUSE MANAGEMENT PARTNERS V, L.L.C.**, its general partner

By: /s/ Thomas Conneely

Name: Thomas Conneely

Title: Vice President

March 29, 2005

Lighthouse Capital Partners V, L.P.
500 Drakes Landing Road
Greenbrae, CA 94904

Re: Management Rights

Ladies and Gentlemen:

This letter will confirm our agreement that pursuant to and effective as of the date hereof Fluidigm Corporation (the **"Company")** shall grant Lighthouse Capital Partners V, L.P. (the **"Investor")** the following contractual management rights, in addition to any rights to non-public financial information, inspection rights, and other rights specifically provided to Investor under that certain Loan and Security Agreement of even date herewith (the "Loan Agreement"):

1. If Investor is not represented on Company's Board of Directors, Investor shall be entitled to consult with and advise management of the Company on significant business issues, including management's proposed annual operating plans, and management will meet with Investor regularly during each year at the Company's facilities at mutually agreeable times for such consultation and advice and to review progress in achieving said plans.

2. Investor may examine the books and records of the Company and inspect its facilities and may request information at reasonable times and intervals concerning the general status of the Company's financial condition and operations, provided that access to highly confidential proprietary information and facilities need not be provided.

3. If Investor is not represented on the Company's Board of Directors, the Company shall, concurrently with delivery to the Board of Directors, give a representative of Investor copies of all notices, minutes, consents and other material that the Company provides to its directors, except that the representative may be excluded from access to any material or meeting or portion thereof if the Board of Directors determines in good faith, upon advice of counsel, that such exclusion is reasonably necessary to preserve the attorney-client privilege, to protect highly confidential proprietary information, or for other similar reasons. Upon reasonable notice and at a scheduled meeting of the Board or such other time, if any, as the Board may determine in its sole discretion, such representative may address the Board with respect to Investor's concerns regarding significant business issues facing the Company.

Investor agrees that any confidential information provided to or learned by it in connection with it rights under this letter shall be subject to the confidentiality provisions set forth in that certain Investor's Rights Agreement dated December 18, 2003.

The rights described herein shall terminate and be of no further force or effect upon (a) such time as both (i) the Loan Agreement has been terminated following the repayment by the Company of all amounts owed to Investor under the Loan Agreement and (ii) neither the Investor nor any of its affiliates holds any shares of the Company's capital stock or warrants to purchase shares of the Company's capital stock; (b) the consummation of the sale of the Company's securities pursuant to a registration statement filed by the Company under the Securities Act of 1933, as amended, in connection with the firm commitment underwritten offering of its securities to the general public or (c) the consummation of a merger or consolidation of the Company that is effected (i) for independent business reasons unrelated to extinguishing such rights and (ii) for purposes other the (A) the reincorporation of the Company in a different state or (B) the formation of a holding company that will be owned exclusively by the Company's stockholders and will hold all of the outstanding shares of capital stock of the Company's successor. The confidentiality obligations referenced here will survive any such termination.

Very truly yours,

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington

Name: Gajus Worthington

Title: President & CEO

Agreed and Accepted:

LIGHTHOUSE CAPITAL PARTNERS V, L.P.

BY: Lighthouse Management Partners V, L.L.C., its general partner

By: /s/ Thomas Conneely

Name: Thomas Conneely

Title: Vice President

Exhibit 4.5

FLUIDIGM CORPORATION

CONVERTIBLE NOTE PURCHASE AGREEMENT

(US$15 Million Credit Facility)

August 7, 2006

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EXHIBITS

Fluidigm Corporation

CONVERTIBLE NOTE PURCHASE AGREEMENT
(US$15 Million Credit Facility)

This **Convertible Note Purchase Agreement** (the "**Agreement**") is made as of August 7, 2006, by and between Fluidigm Corporation, a California corporation (the "**Company**"), and Biomedical Sciences Investment Fund Pte Ltd ("**Purchaser**").

WHEREAS, the Purchaser has agreed to purchase, pursuant to the terms of this Agreement and upon the election of the Company, up to US$15,000,000 in aggregate principal of Convertible Promissory Notes of the Company;

WHEREAS, the Purchaser has agreed that the Company may elect to sell to the Purchaser within the time periods set forth herein, and the Purchaser has agreed to purchase should the Company so elect, a Convertible Promissory Note in the principal amount of US$5,000,000 in substantially the form attached hereto as Exhibit A (the "**First Note**"), the principal and interest on which are convertible into shares of Series E Preferred Stock of the Company upon the happening of certain events described in the First Note;

WHEREAS, provided that the First Note has converted (as set forth in the First Note), the Purchaser has agreed that the Company may elect to sell to the Purchaser within the time periods set forth herein, and Purchaser has agreed to purchase should the Company so elect, a second Convertible Promissory Note of the Company in the principal amount of US$5,000,000, in substantially the form attached hereto as Exhibit B (the "**Second Note**"), the principal and interest on which are convertible into shares of Series E Preferred Stock of the Company upon the happening of certain events as described in the Second Note; and

WHEREAS, provided that the Second Note has converted (as set forth in the Second Note), the Purchaser has agreed that the Company may elect to sell to the Purchaser within the time periods set forth herein, and Purchaser has agreed to purchase should the Company so elect, a third Convertible Promissory Note of the Company in the principal amount of US$5,000,000, in substantially the form attached hereto as Exhibit C (the "**Third Note**," and together with the First Note and the Second Note, an "**Additional Note**" or the "**Additional Notes**"), the principal and interest on which are convertible into shares of Series E Preferred Stock of the Company upon the happening of certain events as described in the Third Note.

NOW, THEREFORE, the parties hereby agree as follows:

1. The First Note.

1.1 Authorization; Purchaser's Obligation to Purchase. The Purchaser shall, at the Company's election and in accordance with the procedures set forth in this Section 1, purchase the First Note. Such election shall indicate that the Company has authorized the sale and issuance of the First Note in the principal amount of US$5,000,000, convertible (i) at the election of the Purchaser, (ii) upon the achievement of certain Milestones (as set forth in the First Note), or (iii) as otherwise as set forth in the First Note into shares of Series E Preferred Stock of the Company at a conversion price of US$3.60 per share. Shares of Series E Preferred Stock together with any other securities which may be issued upon conversion of any of the Additional Notes are referred to herein as the "**Note Shares**." The Additional Notes, the Note Shares and securities of the Company issued or issuable upon conversion thereof are referred to herein as the "**Securities**."

1.2 First Note Procedure. Subject to Section 1.1, the Company may exercise its option to require the Purchaser to purchase the First Note at any time on or before September 30, 2006 by giving Purchaser written notice thereof (the "**First Note Election Notice**"). The First Note Election Notice shall state that the Company has elected to require the Purchaser to purchase the First Note and shall indicate the date, time, and location of the closing of the purchase and sale of the First Note (the "**First Note Closing**"), which shall occur no sooner than 14 days or later than 25 days after the date of the First Note Election Notice.

1.3 Closing of First Note Purchase. At the First Note Closing, the Company shall deliver to the Purchaser the First Note and a duly executed Compliance Certificate in the form attached hereto as Exhibit D (the "**Compliance Certificate**"). At the First Note Closing, the Purchaser shall deliver to the Company (i) the aggregate principal amount of the First Note totalling US$5,000,000 by check or wire transfer and (ii) the Investment Representation Statement, duly executed by Purchaser, in the form attached hereto as Exhibit E (the "**Investment Representation Statement**").

1.4 Effect of Change in Series E Preferred Stock. The form of the First Note will be modified upon the happening of certain events as set forth in Section 5.2(d).

2. Representations and Warranties of the Company. Except as set forth in the Schedule of Exceptions dated of even date hereof and separately delivered to Purchaser contemporaneously with the execution and delivery of this Agreement (the "**Schedule of Exceptions**"), the Company represents and warrants to Purchaser as of the date hereof as follows:

2.1 Organization, Good Standing and Qualification. The Company is a corporation duly organized, validly existing and in good standing under the laws of the State of California and has all requisite corporate power and authority to carry on its business as currently conducted. The Company is duly qualified to transact business and is in good standing in each jurisdiction in which the failure to so qualify, individually or in the aggregate, would have a material adverse effect on its business (as now conducted), properties, or financial condition.

2.2 Corporate Power. The Company has all requisite legal and corporate power and authority to execute and deliver this Agreement and to carry out and perform its obligations under the terms of this Agreement. Subject to the corporate authorization of and election to sell and issue any of the Additional Notes hereunder, the Company will have all requisite legal and corporate power and authority to (i) sell and issue the Additional Notes hereunder and (ii) issue the Series E Preferred Stock initially issuable upon conversion of any of the Additional Notes.

2.3 Subsidiaries. The Company does not presently own or control, directly or indirectly, any interest in any other corporation, association, or other business entity.

2.4 Capitalization. The authorized capital stock of the Company consists of 77,857,144 shares of Common Stock ("**Common Stock**"), of which 9,422,895 shares are issued and outstanding and 51,687,948 shares of Preferred Stock ("**Preferred Stock**"), 2,727,273 of which are designated Series A Preferred Stock of which 2,727,273 are outstanding, 6,460,675 of which are designated Series B Preferred Stock of which 6,460,675 are outstanding, 17,000,000 of which are designated Series C Preferred Stock, 16,364,832 of which are issued and outstanding, 15,500,000 of which are designated Series D Preferred Stock, 12,196,191 of which are issued and outstanding, and 10,000,000 of which are designated Series E Preferred Stock, 1,250,000 of which are issued and outstanding. All such issued and outstanding shares have been duly authorized and validly issued in compliance with applicable laws, and are fully paid and nonassessable.

In connection with the sale and issuance of any Additional Notes, the Company will have reserved 4,166,667 shares of Series E Preferred Stock for issuance upon conversion of such Additional Note (the "**Conversion Shares**") and 4,166,667 shares of Common Stock for issuance upon conversion of such Conversion Shares. As of the date of this Agreement, the Company has reserved: (i) 10,000,000 shares of Common Stock for issuance upon conversion of the outstanding shares of Series E Preferred Stock; (ii) 12,196,191 shares of Common Stock for issuance upon conversion of the outstanding shares of Series D Preferred Stock; (iii) 408,928 shares of Series D Preferred Stock for issuance upon exercise of outstanding warrants and 408,928 shares of Common Stock for issuance upon conversion of such Series D Preferred Stock; (iv) 16,364,832 shares of Common Stock for issuance upon conversion of the outstanding shares of Series C Preferred Stock; (v) 294,868 shares of Series C Preferred Stock for issuance upon exercise of outstanding warrants and 294,868 shares of Common Stock for issuance upon conversion of such Series C Preferred Stock; (vi) 6,460,675 shares of Common Stock for issuance upon conversion of the outstanding Series B Preferred Stock; (vii) 2,727,273 shares of Common Stock for issuance upon conversion of the outstanding Series A Preferred Stock; and (viii) an aggregate of 10,800,000 shares of Common Stock for issuance to employees and consultants of the Company pursuant to the Company's 1999 Stock Plan, pursuant to which options to purchase 5,276,828 shares are granted and outstanding and 1,727,039 shares are available for future grant. Other than with respect to the shares reserved for issuance in the preceding sentence, or as set forth in this Agreement, the Investor Rights Agreement (as defined below) or the Voting Agreement (as defined below), there are no outstanding rights, options, warrants, conversion rights, preemptive rights, rights of first refusal or similar rights for the purchase or acquisition from the Company of any securities of the Company. There are no outstanding obligations of the Company to repurchase or redeem any of its securities.

Except as contemplated in the Eighth Amended and Restated Investor Rights Agreement dated June 13, 2006 (the "**Investor Rights Agreement**"), the Company has not granted or agreed to grant any registration rights, including piggyback rights, to any person or entity. Except as contemplated in the Second Amended and Restated Voting Agreement dated August 16, 2005 (the "**Voting Agreement**"), the Company is not a party or subject to any agreement or understanding, and to the Company's knowledge, there is no agreement or understanding between any person or entities, which relates to the voting or the giving of written consents with respect to any security of the Company or by a director of the Company.

2.5 Authorization. All corporate action on the part of the Company, its officers, directors and shareholders necessary for the authorization, execution and delivery of this Agreement, the performance of all obligations of the Company under this Agreement has been taken, subject to corporate authorization of any election to require the Purchasers to purchase Additional Notes pursuant to this Agreement. This Agreement constitutes a valid and legally binding obligation of the Company, enforceable in accordance with its terms, subject to: (i) judicial principles limiting the availability of specific performance, injunctive relief, and other equitable remedies; and (ii) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights.

2.6 Valid Issuance of Note and Conversion Shares. Any Additional Note that is purchased by the Purchaser hereunder, when issued, sold and delivered in accordance with the terms of this Agreement, will be free of restrictions on transfer other than restrictions on transfer under this Agreement, such Additional Note, and the Investor Rights Agreement and under applicable state and federal securities laws as in effect on the date of issuance of such Additional Note. Any Conversion Shares (and the shares of Common Stock issuable upon conversion thereof) will have been duly and validly reserved for issuance, and, upon issuance in accordance with the terms of the applicable Additional Note and the Amended and Restated Articles of Incorporation of the Company as amended through the date of issuance of such Additional Note (the "**Restated Articles**"), will be duly and validly issued, fully paid, and nonassessable and will be free of restrictions on transfer other than restrictions on transfer under this Agreement, the terms of the applicable Additional Note, and the Investor Rights Agreement and under applicable state and federal securities laws as in effect on the date of issuance of such Additional Note. The Conversion Shares (and the shares of Common Stock issuable upon conversion thereof) may be issued without any registration or qualification under state and federal securities laws as such laws are in effect as of the date of this Agreement.

2.7 Governmental Consents. As of the date of this Agreement, no consent, approval, order or authorization of, or registration, qualification, designation, declaration or filing with, any federal, state or local governmental authority on the part of the Company would be required in connection with the offer, sale or issuance of any of the Additional Notes or the Conversion Shares (and the shares of Common Stock issuable upon conversion thereof) or the consummation of any other transaction contemplated hereby, except in connection with the sale and issuance of Additional Notes for filings that may be required pursuant to applicable federal and state securities laws and blue sky laws, which filings, the Company covenants to complete within the required statutory period.

2.8 Litigation. There is no action, suit, proceeding or investigation pending or, to the Company's knowledge, currently threatened against the Company before any court, administrative agency or other governmental body which questions the validity of this Agreement or the Investor Rights Agreement or the right of the Company to enter into any of them, or to consummate the transactions contemplated hereby or thereby, or which could result, either individually or in the aggregate, in any material adverse change in the condition (financial or otherwise), business, property, assets or liabilities of the Company, nor is the Company aware that there is any basis for the foregoing. The Company is not a party or subject to, and none of its assets is bound by, the provisions of any order, writ, injunction, judgment or decree of any court or government agency or instrumentality. There is no action, suit, proceeding or investigation by or involving the Company currently pending or that the Company intends to initiate.

2.9 Employees. Each employee of the Company has executed a proprietary information and invention assignment agreement substantially in the form or forms made available to the Purchaser. To the Company's knowledge, no officer or key employee is in violation of any prior employee contract or proprietary information agreement. No employees of the Company are represented by any labor union or covered by any collective bargaining agreement. There is no pending or, to the Company's knowledge, threatened labor dispute involving the Company and any group of its employees. The Company is not aware that any officer or key employee intends to terminate his or her employment with the Company within the six months after the date of this Agreement. The Company does not have a present intention to terminate the employment of any officer or key employee. Each officer and key employee is devoting 100% of his or her business time to the conduct of the business of the Company. The Company is not aware that any officer or key employee intends to work less than full time during the six months after the date of this Agreement. Subject to general principles related to wrongful termination of employees, the employment of each officer and employee of the Company is terminable at will.

2.10 Patents and Other Intangible Assets.

(a) The Company owns, or is licensed or otherwise has the legally enforceable right to use, all copyrights, domain names, maskworks, applications for the issuance or registration of any of the foregoing, trade secrets, confidential or proprietary know-how, data and information, ideas, inventions, designs, developments, algorithms, processes, schematics, techniques, computer programs, applications and other software, works of authorship, creative effort and, to the Company's knowledge after such investigation as the Company deemed reasonable, patents, patent applications, trademarks (including service marks and design marks) and applications therefor, tradenames (all of the foregoing generically, "**Intellectual Property Rights**") utilized in, or necessary for, its business as now conducted (collectively, the "**Company Intellectual Property**") without infringing upon the right of any person, corporation or other entity.

(b) Section 2.10 of the Schedule of Exceptions lists (i) all patents and patent applications and all registered and unregistered trademarks, trade names, copyrights and maskworks and registered domain names included in the Company Intellectual Property, including the jurisdictions in which each such intellectual property right has been issued or registered or in

which any application for such issuance or registration has been filed, (ii) all licenses, sublicenses, collaborations and other agreements (or options for any of the foregoing) to which the Company is a party and pursuant to which any person, corporation or other entity is authorized to use any of the Company Intellectual Property, and (iii) all licenses, sublicenses, collaborations and other agreements (or options for any of the foregoing) to which the Company is a party and pursuant to which the Company is authorized to use any Intellectual Property Right of any third party (other than standard licenses for commercially available software). Each of the agreements in (ii) and (iii) above remain in full force and effect and, to the Company's knowledge, no party to any such agreement is in material breach or default under such agreement, and the Company is not aware of any act or failure to act by a party which would constitute a material breach or default under any such agreement, give rise to a right of the licensor to terminate any such agreement or otherwise result in termination of, or suspension or loss of exclusive rights under, any such agreement.

(c) To the Company's knowledge, the Company has not infringed or misappropriated any Intellectual Property Right of any other person, corporation or other entity. The Company has not received any communication or otherwise received any information alleging any such conduct by the Company or asserting a claim by any third party to the ownership of, or right to use, any of the Company Intellectual Property, and the Company does not know of any basis for any such claim. The Company is not aware of any action, suit, proceeding or investigation pending or currently threatened against the Company (or any third party owner or licensor of rights to the Company of any of the Company Intellectual Property) which would have a material impact on the Company's ownership of or exclusive or co-exclusive rights to use, the Company Intellectual Property.

(d) The Company is not aware that any of its employees is obligated under any agreement, or subject to any judgment, decree or order of any court or administrative agency, that would materially interfere with his or her ability to fully and freely perform their duties to the Company or that would conflict with the Company's business. To the Company's knowledge, neither the execution and delivery of this Agreement nor the issuance of any of the Additional Notes nor the carrying on of the Company's business by the employees of the Company, will conflict with or result in a material breach of the terms, conditions, or provisions of, or constitute a default under, any agreement under which any such employee is now obligated. The Company does not utilize, and will not be required to utilize, any invention, development or work of authorship of any of its employees (or persons it currently intends to hire) made prior to their employment by the Company.

(e) Except as described in Schedule 2.10, (i) the Company is not obligated, or under any liability whatsoever to make any payments by way of royalties, fees or otherwise, to any owner or licensor of, or other claimant to, any Company Intellectual Property, and (ii) the Company is not a party to any agreement concerning the Company Intellectual Property or any other Intellectual Property Right used or to be used by the Company in its business as conducted. No founder, director, officer or employee of the Company, or, to the Company's knowledge, no shareholder of the Company has any interest in the Company Intellectual Property.

(f) Except with respect to any rights granted under the agreements described in Schedule 2.10, the Company owns exclusively all rights arising from or associated with the research and development efforts of the Company, its founders, employees and independent contractors relating to the Company's business as now conducted, and all such rights form part of the Company Intellectual Property. The Company has secured valid written assignments from all employees and independent contractors who contributed to the creation or development of any of the Company Intellectual Property of the rights to such contributions that the Company does not already own by operation of law. The Company has not received notice of any claim being asserted by any current or former employee, independent contractor or other third party to the ownership, of or right to use, any of the Company Intellectual Property, or challenging or questioning the validity of any of the Company Intellectual Property, and the Company is not aware of any basis for any such claim.

(g) The Company has taken reasonable steps to protect and preserve the confidentiality of all material trade secrets included in Company Intellectual Property not otherwise protected by patents or copyright ("**Confidential Information**"). All disclosure of Confidential Information to a third party has been pursuant to the terms of a written confidentiality or non-disclosure agreement between the Company and such third party.

(h) The Company hereby represents and warrants that the data, written and oral reports and other representations and information that the Company provided to its investors (or their counsel) pertaining to the Company Intellectual Property, when taken as a whole, were truthful and, to the Company's knowledge, accurate in all material respects, and there was no omission therefrom which made such information misleading, or incomplete in any material way.

2.11 Compliance with Other Instruments. The Company is not in violation or default of any provision of its Articles of Incorporation or Bylaws, each as amended and in effect on and as of the date hereof. The Company is not in violation or default of any material provision of any instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation to which it is a party or by which it or any of its properties or assets are bound or, to the best of its knowledge, of any provision of any federal, state or local statute, rule or governmental regulation. The execution, delivery and performance of and compliance with this Agreement, the Investor Rights Agreement and the Voting Agreement and the issuance and sale of the Additional Notes, will not result in any such violation, be in conflict with or constitute, with or without the passage of time or giving of notice, a default under any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation; or require any consent or waiver under any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation (other than any consents or waivers that have been obtained); or result in the creation of any mortgage, pledge, lien, encumbrance or charge upon any of the properties or assets of the Company pursuant to any such provision, license, indenture, instrument, mortgage, deed of trust, loan, contract, commitment, judgment, decree, order or obligation.

2.12 Permits. The Company has all franchises, permits, licenses, and any similar authority necessary for the conduct of its business as now being conducted by it. The Company is not in default in any material respect under any of such franchises, permits, licenses, or other similar authority.

2.13 Environmental and Safety Laws. To its knowledge, the Company is not in violation of any applicable statute, law, or regulation relating to the environment or occupational health and safety, and to its knowledge, no material expenditures by the Company are or will be required in order to comply with any such existing statute, law, or regulation.

2.14 Title to Property and Assets. The Company has good and marketable title to all of its properties and assets free and clear of all pledges, mortgages, liens, security interests, charges and encumbrances, except liens for current taxes and assessments not yet due and possible minor liens and encumbrances which do not, in any case, individually or in the aggregate, materially detract from the value of the property subject thereto or materially impair the ownership or use of said property or assets, or the operations of the Company. With respect to the property and assets it leases, the Company is in compliance with such leases and, to the best of its knowledge, holds a valid leasehold interest free of all liens, claims or encumbrances. The Company's properties and assets are in good condition and repair in all material respects.

2.15 Agreements; Action.

(a) Except for agreements contemplated by this Agreement, there are no agreements, understandings or proposed transactions between the Company and any of its officers, directors, affiliates, or any affiliate thereof other than standard option grants and stock purchase agreements entered into prior to the date of this Agreement.

(b) There are no agreements, understandings, instruments, contracts, proposed transactions, judgments, orders, writs or decrees to which the Company is a party or by which it is bound that may involve (i) obligations (contingent or otherwise) of, or payments by the Company in excess of, US$100,000, other than in the ordinary course of business, (ii) the license of any patent, copyright, trade secret or other proprietary right to or from the Company other than standard commercial software licenses, (iii) provisions restricting or adversely affecting the development, manufacture or distribution of the Company's products or services, or (iv) indemnification by the Company with respect to infringements of proprietary rights other than indemnifications entered into in the ordinary course of business.

(c) For the purposes of subsection (b) above, all indebtedness, liabilities, agreements, understandings, instruments, contracts and proposed transactions involving the same person or entity (including persons or entities the Company has reason to believe are affiliated therewith) shall be aggregated for the purpose of meeting the individual minimum dollar amounts of such subsection.

(d) The Company is not a party to and is not bound by any contract, agreement or instrument, or subject to any restriction under its Restated Articles or its Bylaws that adversely affects its business as now conducted, its properties or its financial condition.

(e) The Company is not a guarantor or indemnitor of any indebtedness of any other person or entity.

(f) The Company has not engaged in the past three months in any discussion (i) with any representative of any entity or entities regarding the merger of the Company with or into any such entity or entities or any affiliate thereof, (ii) with any representative of any entity or any individual regarding the sale, conveyance or disposition of all or substantially all of the assets of the Company or a transaction or series of related transactions in which more than fifty percent (50%) of the voting power of the Company would be disposed of, or (iii) regarding any other form of liquidation, dissolution or winding up of the Company.

2.16 Financial Statements. The Company has fully provided the Purchaser with all the information that the Purchaser has requested for deciding whether to enter into this Agreement and to acquire the Additional Notes. The Company has made available to Purchaser its audited balance sheets dated as of December 31, 2005 and the audited statement of operations for the fiscal year then ended, its unaudited balance sheets as of March 31, 2006, and its unaudited statement of operations and cash flow statement covering the three month period then ended (collectively, the "**Financial Statements**"). The Financial Statements are complete and correct in all material respects and have been prepared in accordance with generally accepted accounting principles applied on a consistent basis throughout the periods indicated. The Financial Statements accurately set out and describe the financial condition and operating results of the Company as of the date, and during the periods, indicated therein. Except as set forth in the Financial Statements, the Company has no material liabilities, contingent or otherwise, other than (i) liabilities incurred in the ordinary course of business subsequent to March 31, 2006 and (ii) obligations under contracts and commitments incurred in the ordinary course of business and not required under generally accepted accounting principles to be reflected in the Financial Statements, which, in both cases, individually or in the aggregate are not material to the financial condition or operating results of the Company.

2.17 Changes. Since March 31, 2006:

(a) the Company has not (i) declared or paid any dividends or authorized or made any distribution upon or with respect to any class or series of its capital stock, (ii) incurred any indebtedness for money borrowed or any other liabilities outside the ordinary course of its business individually in excess of US$100,000 or, in the case of indebtedness and/or liabilities individually less than US$100,000, in excess of US$200,000 in the aggregate, (iii) made any loans or advances to any person, other than ordinary advances for reimbursable businesses expenses, (iv) sold, exchanged, assigned, transferred, licensed or otherwise disposed of any of its assets or rights (including Company Intellectual Property), other than the sale of its inventory in the ordinary course of business, (v) waived or compromised a valuable right or a material debt owed to it, (vi) materially changed any compensation arrangement or agreement with any employee, officer,

director or shareholder, or (vii) arranged or committed to do any of the things described in this subsection (a); and

(b) there has not been (i) a loss of, or a material order cancellation by, any major customer of the Company, (ii) any damage, destruction or loss, whether or not covered by insurance, materially and adversely affecting the business, properties, or financial condition of the Company, (iii) any change in the assets, liabilities, financial condition or operating results of the Company from that reflected in the Financial Statements, except changes in the ordinary course of business that have not been, in the aggregate, materially adverse, (iv) any resignation or termination of any officer or key employee of the Company, and the Company is not aware of the impending resignation or termination of employment of any such officer, or (v) to the best of the Company's knowledge, any other event or condition of any character that would materially and adversely affect the business, properties, or financial condition of the Company.

2.18 Brokers or Finders. The Company has not agreed to incur, directly or indirectly, any liability for brokerage or finders' fees, agents' commissions or other similar charges in connection with this Agreement or any of the transactions contemplated hereby.

2.19 Employee Benefit Plans. The Company does not have any Employee Benefit Plan as defined in the Employee Retirement Income Security Act of 1974 other than the Company's 401(k) Plan. The Company is in material compliance with the terms of the Company's 401(k) Plan and has not received notice of any material increase in the costs of such plans.

2.20 Tax Matters. The Company has filed all tax returns and reports as required by law. These returns and reports are true and correct in all material respects. The Company has paid all taxes and other assessments due. The Company has not elected pursuant to the Code, to be treated as a Subchapter S corporation or a collapsible corporation pursuant to Section 1362(a) or Section 341(f) of the Code, nor has it made any other elections pursuant to the Code (other than elections that relate solely to methods of accounting, depreciation or amortization) that would have a material effect on the business, properties or condition (financial or otherwise) of the Company. None of the Company's tax returns have ever been audited by any governmental authorities. The Company has withheld or collected from each payment made to its employees the amount of all taxes (including without limitation, federal income taxes, Federal Insurance Contribution Act taxes and Federal Unemployment Tax Act taxes) required to be withheld or collected therefrom, and has paid the same to the proper tax receiving officers or authorized depositories.

2.21 Insurance. The Company has in full force and effect fire and casualty insurance policies, with extended coverage, sufficient in amount (subject to reasonable deductibles) to allow it to replace any of its properties that might be damaged or destroyed. The Company has obtained term life insurance payable to the Company on the lives of Stephen Quake and Gajus Worthington in the amount of US$500,000. The Company has in full force and effect directors and officers liability insurance, covering its directors, with aggregate coverage in the amount of US$2,000,000.

2.22 Corporate Documents. The Restated Articles and By-Laws of the Company are in the form made available to the Purchaser. The copy of the minute books of the Company made available to Purchaser's counsel contains true and correct minutes of all meetings of directors (including any committees thereof) and shareholders and all actions by written consent taken without a meeting by the directors and shareholders since December 18, 2003.

2.23 Disclosure. The Company has fully provided Purchaser with all the information which Purchaser has requested in connection with the purchase of the Additional Notes hereunder, as well as all information which the Company in its judgment believes is reasonably necessary to enable Purchaser to make a decision as to whether to enter into this Agreement and to invest in the Company. Neither this Agreement with the Exhibits hereto, nor any other statements, certificates or documents made or delivered in connection herewith or therewith, contains any untrue statement of a material fact or omits to state a material fact necessary to make the statements herein or therein not misleading in light of the circumstances under which they were made. The financial projections made available to the Purchaser (the "**Projections**") were prepared in good faith and based upon assumptions that the Company believes are reasonable, and represent the Company's good faith estimate of its future plans and results; provided however, that the Company does not represent or warrant that it will achieve any of the Projections.

2.24 Offering. Subject in part to the truth and accuracy of Purchaser's representations set forth in this Agreement, the offer, sale and issuance of the Additional Notes as contemplated by this Agreement would be, if issued as of this date of this Agreement, exempt from the registration requirements of the Securities Act of 1933, as amended (the "**Securities Act**"), and neither the Company nor any authorized agent acting on its behalf will take any action hereafter that would cause the loss of such exemption.

2.25 Returns and Complaints. The Company has not received customer complaints concerning alleged defects in the design of its products that, if true, would have, individually or in the aggregate, a material adverse effect on its business, properties, or financial condition.

3. Representations and Warranties of the Purchasers. Purchaser hereby represents, warrants and agrees as follows:

3.1 Experience. Purchaser is experienced in evaluating start-up companies such as the Company, is able to evaluate and represent its own interests in transactions such as the one contemplated by this Agreement, has such knowledge and experience in financial and business matters such that Purchaser is capable of evaluating the merits and risks of Purchaser's investment in the Company, and has the ability to bear the economic risks of its investment.

3.2 Investment. Purchaser is acquiring and will acquire, the Securities, for investment for Purchaser's own account and not with the view to, or for resale in connection with, any distribution thereof. Purchaser understands that the Securities have not been registered under the Securities Act by reason of a specific exemption from the registration provisions of the Securities Act, which depends upon, among other things, the bona fide nature of Purchaser's investment intent as expressed herein. Purchaser further represents that it does not have any contract, undertaking,

agreement or arrangement with any person to sell, transfer or grant participation to any third person with respect to any of the Securities other than a transfer not involving a change of beneficial ownership. Purchaser understands and acknowledges that the offering of the Securities pursuant to this Agreement will not be registered under the Securities Act on the ground that the sale provided for in this Agreement is exempt from the registration requirements of the Securities Act.

3.3 Rule 144. Purchaser acknowledges that the Securities must be held indefinitely unless subsequently registered under the Securities Act or an exemption from such registration is available. Purchaser is aware of the provisions of Rule 144 promulgated under the Securities Act, which permit limited resale of shares purchased in a private placement subject to the satisfaction of certain conditions. Purchaser covenants that, in the absence of an effective registration statement covering the securities in question, Purchaser will sell, transfer, or otherwise dispose of the Securities only in accordance with applicable securities laws and in a manner consistent with Purchaser's representations and covenants set forth in this Agreement and the applicable Additional Note. In connection therewith, Purchaser acknowledges that the Company will make a notation on its stock books regarding the restrictions on transfer set forth in this Agreement and the applicable Additional Note and will transfer securities on the books of the Company only to the extent not inconsistent therewith.

3.4 No Public Market. Purchaser understands that no public market now exists for any of the securities issued by the Company, and that the Company has made no assurances that a public market will ever exist for the Securities.

3.5 Access to Data. Purchaser has received and reviewed information about the Company and has had an opportunity to discuss the Company's business, management and financial affairs with its management and to review the Company's facilities.

3.6 Authorization. This Agreement when executed and delivered by the Purchaser will constitute a valid and legally binding obligation of the Purchaser, enforceable against the Purchaser in accordance with its terms, subject to: (i) judicial principles respecting election of remedies or limiting the availability of specific performance, injunctive relief, and other equitable remedies; and (ii) bankruptcy, insolvency, reorganization, moratorium or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights.

3.7 Accredited Investor. Purchaser acknowledges that it is an "accredited investor" as defined in Rule 501 of Regulation D as promulgated by the United States Securities and Exchange Commission (the "**Commission**") under the Securities Act and shall submit to the Company such further assurances of such status as may be reasonably requested by the Company. The principal address of such Purchaser is as set forth on the signature page hereto.

3.8 Public Solicitation. Purchaser knows of no public solicitation or advertisement of an offer in connection with the proposed issuance and sale of the Securities.

3.9 Tax Advisors. Purchaser has reviewed with its own tax advisors the tax consequences of the purchase of the Securities and the transactions contemplated by this Agreement.

Purchaser is relying solely on such advisors and not on any statements or representations of the Company or any of its agents and understands that Purchaser (and not the Company) shall be responsible for the Purchaser's own tax liability that may arise as a result of the Purchase of the Securities or the transactions contemplated by this Agreement.

3.10 Purchaser Counsel. Purchaser acknowledges that it has had the opportunity to review this Agreement and the exhibits hereto and the transactions contemplated by this Agreement with its own legal counsel. Purchaser is relying solely on such counsel and not on any statements or representations of the Company or any of its agents for legal advice with respect to this investment or the transactions contemplated by this Agreement.

3.11 Brokers or Finders. The Company has not incurred and will not incur, directly or indirectly, as a result of any action taken by such Purchaser, any liability for brokerage or finders' fees or agents' commissions or any similar changes in connection with this Agreement.

3.12 Non-United States Persons. Purchaser hereby represents that Purchaser is satisfied as to the full observance of the laws of Purchaser's jurisdiction in connection with any invitation to subscribe for the Securities and the Additional Notes (and securities issuable upon conversion thereof) or any use of this Agreement, including (i) the legal requirements within Purchaser's jurisdiction for the purchase of the Securities and the Additional Notes (and securities issuable upon conversion thereof), (ii) any foreign exchange restrictions applicable to such purchase, (iii) any governmental or other consents that may need to be obtained and (iv) the income tax and other tax consequences, if any, that may be relevant to the purchase, holding, redemption, sale or transfer of such securities. Purchaser's subscription and payment for, and Purchaser's continued beneficial ownership of, the Securities and the Additional Notes (and securities issuable on conversion thereof) will not violate any applicable securities or other laws of Purchaser's jurisdiction.

4. Covenants of the Company. The Company hereby covenants and agrees as follows:

4.1 Subsidiary Business Plan. The Company has incorporated a wholly owned (either directly or indirectly through another subsidiary of the Company) subsidiary of the Company in Singapore (the "**Subsidiary**"). Unless prohibited by applicable law, or unless the Company and the Purchaser otherwise agree in writing, from and after incorporation of the Subsidiary, the Company shall cause the Subsidiary to use commercially reasonable efforts to conduct, its activities materially in accordance with the provisions of the business plan as established by the Board of Directors of the Subsidiary and described to the Purchaser, including the Subsidiary's plans with respect to the BioMark II project, as may be modified as set forth in this Section 4.1 (the "**Subsidiary Business Plan**"); provided, however, that the Company and the Subsidiary shall have no such obligation in the event the Subsidiary does not receive a grant under the Singapore Research Incentive Scheme for Companies ("**RISC**") and tax incentives from the Economic Development Board of Singapore (the "**EDB**") consistent with the application submitted by the Company to the EDB. Notwithstanding any provision in this Agreement to the contrary, the Company and Purchaser agree that the Subsidiary Business Plan may only be modified by the Board of Directors of the Subsidiary.

4.2 Subsidiary Board of Directors. Unless the Purchaser or its affiliates (as such term is defined under Rule 12b-2 promulgated by the Commission under the Securities Exchange Act of 1934, as amended) shall fail to hold 500,000 shares of the Company's Common Stock (on an as converted basis), the Company agrees that it will vote the voting securities of the Subsidiary now or hereafter held by the Company in such a manner as may be necessary to elect a nominee of Purchaser to the Board of Directors of the Subsidiary (the "**Nominee**"). The Purchaser may notify the Company in writing of an intention to remove from the Subsidiary's Board of Directors any incumbent Nominee or notify the Company in writing of an intention to select a new Nominee. In such event the Company shall take reasonable actions necessary to facilitate such removal and election of the new Nominee to the Board of Directors of the Subsidiary.

4.3 Affirmative Covenants. So long as any of the Additional Notes (if issued) shall remain unpaid or unconverted or the Purchaser shall have any obligation to purchase any of the Additional Notes hereunder, the Company agrees that:

4.4 Preservation of Existence. It will maintain and preserve, through itself or any successor to its business, its corporate existence and its rights to transact business and will maintain and preserve, through itself or any successor to its business, such other rights, franchises and privileges as it may in good faith determine necessary or desirable in the normal course of its business and operations and the ownership of its material properties.

4.5 Payment of Taxes. It will pay and discharge all taxes, fees, assessments and governmental charges or levies imposed upon it or upon its properties or assets prior to the date on which material penalties attach thereto, and all lawful claims for labor, materials and supplies which, if unpaid, might become a material lien upon any properties or assets of the Company, except to the extent such taxes, fees, assessments or governmental charges or levies, or such claims, are being contested in good faith by appropriate proceedings and are adequately reserved against in accordance with generally accepted accounting principles.

4.6 Compliance with Laws. It will comply in all material respects with the requirements of all applicable laws, rules, regulations and orders of any governmental authority and the terms of any material indenture, contract or other instrument to which it may be a party or under which it or its properties may be bound, except to the extent failure to so comply would not have a material adverse effect on the Company's business.

4.7 Maintenance of Properties. It will use commercially reasonable efforts to maintain and preserve all of its material properties, as it may in good faith determine to be necessary or useful in the proper conduct of its business, in good working order and condition in accordance with the general practice of other corporations of similar character and size, ordinary wear and tear accepted.

4.8 Government Authority. It will use commercially reasonable efforts to obtain and maintain all authorizations, consents, filings, exemptions, registrations and other governmental approvals necessary in connection with the execution, delivery and performance of this Agreement, the consummation of the transactions contemplated hereby or the operation and conduct of its

business and ownership of its properties, except to the extent such failure to obtain or maintain would not have a material adverse effect on the Company's business or financial condition or its ability to deliver or perform under this Agreement or consummate the transactions contemplated hereby.

4.9 Opinion of Company Counsel. Contemporaneously with the execution and delivery of this Agreement, the Purchaser will receive from Wilson Sonsini Goodrich & Rosati, P.C., counsel for the Company, an opinion, dated as of the date of this Agreement, in the form attached hereto as Exhibit F (the "**Legal Opinion**"), relating to the sale and issuance of the First Note pursuant to this Agreement.

5. Covenants of the Purchaser. The Purchaser hereby covenants and agrees as follows:

5.1 Transfers. Purchaser shall be bound by the restrictions on transfer of the Securities as set forth in the applicable Additional Note. Any permitted purchaser, assignee, transferee or pledgee of securities issued on conversion of the applicable Additional Note shall agree in writing to take and hold such securities subject to and upon the conditions set forth in the this Agreement, the applicable Additional Note, the Investor Rights Agreement, and the Voting Agreement, as each may be amended from time to time.

5.2 Additional Convertible Promissory Notes.

(a) Purchaser's Obligation to Purchase. In the event that the First Note is converted as set forth in the First Note, the Purchaser shall, at the Company's election, purchase the Second Note in the principal amount of US$5,000,000 (the "**Additional Note Principal**") in accordance with Section 5.2(b), and in the event the Second Note is converted as set forth in the Second Note, the Purchaser shall, at the Company's election, purchase the Third Note in the principal amount equal to the Additional Note Principal in accordance with Section 5.2(b).

(b) Additional Notes Procedure. Subject to Section 5.2(a), the Company may exercise its option to require the Purchaser to purchase the (i) Second Note at any time within 45 days following the conversion of the First Note and (ii) the Third Note at any time within 45 days following the conversion of the Second Note by giving Purchaser written notice thereof (the "**Election Notice**"). The Election Notice shall state that the Company has elected to require the Purchaser to purchase the Second Note or the Third Note, as the case may require, and shall indicate the date, time and location of the closing of the purchase and sale of the Second Note or the Third Note, as the case may require (each, an "**Additional Note Closing**"), which shall occur no sooner than 28 days or later than 50 days after the date of the Election Notice.

(c) Closing of Subsequent Purchase. At an Additional Note Closing, the Company shall deliver to the Purchaser the Second Note, or the Third Note, as the case may require, and a duly executed Compliance Certificate in substantially the form attached hereto as Exhibit D. At an Additional Note Closing, the Purchaser shall deliver to the Company (i) the Additional Note Principal by check or wire transfer and (ii) the Investment Representation Statement, duly executed by Purchaser.

(d) Effect of Change in Series E Preferred Stock on Additional Notes. The forms of any then-unissued Additional Notes attached hereto as Exhibits A, B, and C shall be modified upon the happening of certain events as follows:

(i) In the event the Company should at any time prior to the First Note Closing or an Additional Note Closing split or subdivide the outstanding shares of its Series E Preferred Stock (or other securities that would be issuable upon conversion of any then-unissued Additional Note) or issue additional shares of Series E Preferred Stock (or other securities that would be issuable upon conversion of any then-unissued Additional Note) to the holders thereof as a dividend or make any other distribution payable in additional shares of Series E Preferred Stock (or other securities that would be issuable upon conversion of any then-unissued Additional Note) to the holders thereof without payment of any consideration by such holder for the additional shares of Series E Preferred Stock (or such other securities), then, as of the date of such dividend, distribution, split or subdivision, the Conversion Price as set forth in the form of Additional Note shall be appropriately decreased so that the number of shares of Series E Preferred Stock or other securities issuable upon conversion of the Additional Note shall be increased in proportion to such increase of outstanding shares of Series E Preferred Stock or other securities issuable upon conversion of the Additional Note, as applicable. If the number of shares of Series E Preferred Stock (or other securities that would be issuable upon conversion of any then-unissued Additional Note) outstanding at any time prior to the First Note Closing or an Additional Note Closing is decreased by a combination of the outstanding shares of Series E Preferred Stock (or such other securities), then, following the record date of such combination, the Conversion Price set forth in the form of Additional Note shall be appropriately increased so that the number of shares of Series E Preferred Stock or other securities issuable upon conversion of the Additional Note shall be decreased in proportion to such decrease in outstanding shares of Series E Preferred Stock or other securities issuable upon conversion of the Additional Note, as applicable.

(ii) In case of any reclassification, capital reorganization, or change in the Series E Preferred Stock (or other securities that would be issuable upon conversion of any then-unissued Additional Note) of the Company prior to the First Note Closing or an Additional Note Closing, including conversion of such shares pursuant to the Company's Articles of Incorporation then in effect (other than as a result of a split, subdivision, combination, or stock dividend provided for in Section 5.2(d)(i)), then appropriate adjustment shall be made to the Conversion Price and kind of securities or other property issuable upon conversion of the form of Additional Note so that the Additional Note if purchased shall be convertible upon the terms set forth therein as of the date of such First Note Closing or Additional Note Closing, as applicable, into the kind and amount of shares of stock and other securities and property receivable in connection with such reclassification, reorganization, or change by a holder of the same number of shares of Series E Preferred Stock or other securities as would be issuable on conversion of the Additional Note as of the First Note Closing or such Additional Note Closing, as the case may require.

(iii) If at any time prior to the First Note Closing or an Additional Note Closing, as the case may require, there shall be an acquisition of the Company by merger, consolidation or otherwise where the Company is not the surviving corporation or as a result of

which all of the outstanding capital stock of the Company is exchanged for capital stock of another corporation, then, as a part of such acquisition, the Conversion Price and kind of securities issuable upon conversion of the form of Additional Note shall be appropriately adjusted so that if such Additional Note is purchased such Additional Note shall initially be convertible into, the number of shares of stock or other securities or property of the surviving or successor corporation resulting from such acquisition (or the corporation the capital stock of which is issued in exchange for the capital stock of the Company), to which a holder of the securities that would be issuable upon conversion of such Additional Note would have been entitled in such acquisition if such Additional Note had been converted immediately before such acquisition.

(e) Transfer. In the event that the Company issues any of the Additional Notes to the Purchaser, each issued Additional Note and any securities issued on conversion thereof (including securities issued on conversion of such securities) shall be subject to Section 4.1 of this Agreement, the Investment Representation Statement and the restrictions on transfer set forth in such Additional Note.

6. Termination. This Agreement shall terminate and shall be of no further force or effect at such time as (i) the Company has paid to Purchaser in cash, by check or by wire transfer the principal amount and accrued interest owing under all outstanding Additional Notes or all outstanding Additional Notes have been converted into Note Shares in accordance with their Terms and (ii) the Company has no further right to require the Purchaser to purchase any Additional Notes pursuant to this Agreement; ***provided***, ***however***, that in the event of the conversion of any of the Additional Notes, Section 12 of each such Additional Note, and Section 3, Section 5.1 and Section 8 hereof shall survive such termination.

7. Miscellaneous.

7.1 Governing Law. This Agreement and the Additional Notes (if issued) shall in all respects be governed by and construed and enforced in accordance with the laws of the State of California, without reference to the conflicts of law provisions thereof.

7.2 California Corporate Securities Law. THE SALE OF THE SECURITIES THAT ARE THE SUBJECT OF THIS AGREEMENT HAS NOT BEEN QUALIFIED WITH THE COMMISSIONER OF CORPORATIONS OF THE STATE OF CALIFORNIA AND THE ISSUANCE OF SUCH SECURITIES OR THE PAYMENT AND RECEIPT OF ANY PART OF THE CONSIDERATION THEREFROM PRIOR TO SUCH REGISTRATION IS UNLAWFUL UNLESS AN EXEMPTION FROM SUCH QUALIFICATION IS AVAILABLE. THE RIGHTS OF ALL PARTIES TO THIS AGREEMENT ARE EXPRESSLY CONDITIONED UPON REGISTRATION BEING OBTAINED, UNLESS THE SALE IS SO EXEMPT.

7.3 Survival. The representations, warranties, covenants and agreements made in this Agreement shall survive any investigation made by any party hereto and the closing of the transactions contemplated hereby.

7.4 Successors and Assigns. Except as otherwise provided herein, the provisions hereof shall inure to the benefit of, and be binding upon, the successors, assigns, heirs, executors and administrators of the parties hereto; *provided*, *however*, that the covenants and agreements of the Company set forth in Section 4 and the obligation of the Purchaser to purchase the Additional Notes as set forth in Section 1.1 and Section 5.2 shall not be assigned or transferred by Purchaser by operation of law or otherwise without the prior written consent of the Company.

7.5 Entire Agreement; Amendment. This Agreement (including its exhibits), the Schedule of Exceptions, the Business Plan, and the Additional Notes constitute the full and entire understanding and agreement between the parties with regard to the subjects hereof and thereof, and no party shall be liable or bound to any other party in any manner by any warranties, representations, or covenants except as specifically set forth herein or therein. Except as expressly provided herein, neither this Agreement nor any term hereof may be amended, waived, discharged or terminated other than by a written instrument signed by the party against whom enforcement of any such amendment, waiver, discharge or termination is sought.

7.6 Notices, etc. Any notice, request, other communication, or payment required or permitted hereunder shall be in writing and shall be deemed to have been duly given upon delivery, if delivered personally or by facsimile, or by recognized overnight courier service, or five days after deposit, if deposited in the United States mail for mailing by registered or certified mail, postage prepaid, and addressed as follows:

If to Purchaser:	Biomedical Sciences Investment Fund Pte Ltd 20 Biopolis Way #09-01 Centros Singapore 138668 Attention: Chu Swee Yeok Tel: 65-6336-2288 Fax: 65-6334-8478
If to the Company:	Fluidigm Corporation 7100 Shoreline Court South San Francisco, California 94080 Attention: Chief Executive Officer Tel: (650) 266-6000 Fax: (650) 871-7195
with a copy to:	Wilson Sonsini Goodrich & Rosati, P.C. 650 Page Mill Road Palo Alto, California 94304-1050 Attention: Ken Clark and Robert Kornegay Tel: (650) 493-9300 Fax: (650) 493-6811

Each of the above addressees may change its address or facsimile number for purposes of this paragraph by giving to the other addressee notice of such new address in conformity with this paragraph.

7.7 Counterparts; Facsimile. This Agreement may be executed in counterparts, each of which shall be enforceable against the party or parties actually executing such counterparts, and all of which together shall constitute one instrument. This Agreement may be executed by facsimile signature.

7.8 Severability. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement shall continue in full force and effect without said provision.

7.9 Expenses. Except as set forth in the Purchase Agreement, each party shall pay all costs and expenses that it incurs with respect to the negotiation, execution and delivery and performance of this Agreement. If any action at law or in equity is necessary to enforce or interpret the terms of this Agreement, or any of the Additional Notes, the prevailing party shall be entitled to reasonable attorney's fees, costs and necessary distributions in addition to any other relief to which such party may be entitled.

7.10 Titles and Subtitles. The titles and subtitles used in this Agreement are used for convenience only and are not considered in construing or interpreting this Agreement.

7.11 Jury Trial. EACH OF THE PARTIES HERETO HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING (WHETHER SOUNDING IN CONTRACT, TORT OR OTHERWISE) ARISING OUT OF OR RELATED TO THIS AGREEMENT.

7.12 Jurisdiction; Venue. The parties hereto agree to submit to the jurisdiction of and venue in the federal and state courts of San Mateo County, California with respect to the breach or interpretation of this Agreement or the enforcement of any and all rights, duties, liabilities, obligations, powers, and other relations between the parties arising under this Agreement.

7.13 Currency. Any reference to "dollars" or "$" in this Agreement shall refer to the lawful currency of the United States of America.

[Remainder of Page Intentionally Left Blank; Signature Page to Follow]

IN WITNESS WHEREOF, the parties have caused this Convertible Note Purchase Agreement to be duly executed and delivered by their proper and duly authorized officers as of the date and year first written above.

COMPANY:

FLUIDIGM CORPORATION

By: /s/ Gajus V. Worthington
Gajus V. Worthington
Chief Executive Officer

PURCHASER:

BIOMEDICAL SCIENCES INVESTMENT FUND PTE LTD

By: /s/ Chu Swee Yeok

Print Name: Chu Swee Yeok

Title: Director

[SIGNATURE PAGE TO CONVERTIBLE NOTE PURCHASE AGREEMENT]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 4.5A

THIS NOTE AND THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"). SUCH SECURITIES MAY NOT BE SOLD, TRANSFERRED OR PLEDGED IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL (WHICH MAY BE COUNSEL FOR THE COMPANY), OR OTHER EVIDENCE, REASONABLY ACCEPTABLE TO IT STATING THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE SECURITIES ACT. THIS NOTE MAY ONLY BE TRANSFERRED UPON THE TERMS AND CONDITIONS CONTAINED IN THE NOTE AND IN AN AGREEMENT BETWEEN HOLDER AND THE COMPANY

Fluidigm Corporation
a California corporation

CONVERTIBLE PROMISSORY NOTE

NOTE NUMBER E-3 (REVISED)

US$5,000,000

April 19, 2007
South San Francisco, California

1. Principal and Interest. **Fluidigm Corporation** (the "Company"), a California corporation, for value received, hereby promises to pay to the order of Biomedical Sciences Investment Fund Pte Ltd (the "Holder") in lawful money of the United States of America, the principal amount of Five Million Dollars (US$5,000,000), or such lesser amount as shall equal the outstanding principal amount hereof, together with interest from the date of this Note on the unpaid principal balance at a rate equal to 8.00% per annum, computed on the basis of the actual number of days elapsed and a year of 365 days, compounded annually.

This Convertible Promissory Note ("Note") is the third Note issued pursuant to that certain Convertible Note Purchase Agreement dated August 7, 2006 (as amended, modified or supplemented, the "Note Purchase Agreement") between the Company and the Holder. Unless defined herein, capitalized terms shall have the same meanings ascribed to them in the Note Purchase Agreement.

Unless converted in accordance with Section 3, this Note shall become due and payable as to both accrued interest and principal on the Payment Date (as defined in Section 3). This Note may be prepaid by Company at any time, in accordance with the terms of Section 2 of this Note. Upon payment in full of all principal and interest payable hereunder (including upon any conversion), this Note shall be surrendered to the Company for cancellation. All payments hereon shall be applied first to accrued interest and second to the reduction of principal.

2. Prepayment of Note. Upon five days prior written notice to Holder (the "Prepayment Notice"), the Company may prepay this Note in whole or in part; provided that any such prepayment will be applied first to the payment of expenses due under this Note, second to interest accrued on this Note and third, if the amount of prepayment exceeds the amount of all such expenses and accrued interest, to the payment of principal of this Note. In the event that the Holder desires to avoid prepayment of the Note by the Company, the Holder must within five days of its receipt of the Prepayment Notice deliver to the Company the Conversion Notice pursuant to Section 3(c)(iii) electing to convert this Note, in which case this Note will not be prepaid as provided in the Prepayment Notice and will instead be converted into shares of Series E Preferred Stock of the Company in accordance with Section 3 of this Note.

3. Conversion.

(a) Conversion Events. Upon the earlier to occur of (i) an Initial Public Offering (as defined below) or (ii) satisfaction of each of the Milestones pursuant to Section 3(b)(iv) below (either, a "Conversion Event"), all of the then outstanding principal and accrued interest owing under this Note shall convert into that number of shares of Series E Preferred Stock of the Company determined by dividing (i) the aggregate principal and accrued interest owing under this Note as of the date of such Conversion Event by (ii) the Conversion Price (as defined below). Notwithstanding the foregoing, by complying with Section 3(c)(iii) hereof, the Holder may at any time earlier elect to convert this Note into that number of shares of Series E Preferred Stock determined by dividing (i) the aggregate principal and accrued interest owing under this Note as of the date of the Conversion Notice (as defined in Section 3(c)(iii)) by (ii) the Conversion Price (as defined below).

(b) Definitions. For purposes of this Note, the following terms shall have the following meanings:

(i) The term "Change of Control Transaction" shall mean (i) the acquisition of the Company by another entity by means of any transaction or series of related transactions (including, without limitation, any stock acquisition, reorganization, merger or consolidation but excluding any merger effected exclusively for the purpose of changing the domicile of the Corporation) other than a transaction or series of transactions in which the holders of the voting securities of the Company outstanding immediately prior to such transaction or series of transactions continue to retain (either by such voting securities remaining outstanding or by such voting securities being converted into voting securities of the surviving entity), as a result of shares in the Company held by such holders prior to such transaction, at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such transaction or series of transactions; or (ii) a sale, transfer, lease or other conveyance of all or substantially all of the assets of the Corporation.

(ii) The term "Conversion Price" shall mean US$3.60, subject to adjustment as set forth in Section 5 below.

(iii) The term "Initial Public Offering" shall mean the first sale of securities of the Company pursuant to an effective registration statement under the Securities Act of 1933 (the "Securities Act") after or in connection with which the outstanding shares of Preferred Stock of the

Company have been converted into Common Stock pursuant to the Company's then existing Articles of Incorporation or otherwise.

(iv) Unless otherwise agreed in writing between the Company and the Holder, the term "Milestones" shall mean satisfaction of the following on or before April 30, 2008:

(1) The Company will have released [***] to [***], as demonstrated by a [***] approval form duly signed-off. The approval is typically characterized by having completed [***], including [***] and [***] of suitable [***];

(2) The approved [***] (or a subsequent [***] thereof) will be [***] generally [***] to [***], as demonstrated by a Company [***];

(3) The Subsidiary will also have [***] and [***] them [***] to at [***];

(4) The Subsidiary will have at least [***] the [***] of [***] to achieve [***] in the First Note and the [***] in the Second Note; and

(5) The Company will be [***] the [***] through the Subsidiary in Singapore, and the Company's then-current [***] and [***] will provide for the [***] of the [***] through the Subsidiary in Singapore; [***] if the Holder provides the Company with a [***] pursuant to Section 3(c)(ii) below, then the Company shall have 30 days following the Company's receipt of the [***] to [***] any [***] to [***] identified by the Holder in the [***].

(v) The term "Payment Date" shall mean April 19, 2009 or such later date as may be mutually agreed in writing by Holder and the Company.

(c) Conversion Procedure.

(i) Conversion in Connection with Initial Public Offering. Upon the occurrence of an Initial Public Offering as set forth in Section 3(a), this Note shall convert automatically without further action on the part of the Holder hereof. Written notice shall be delivered to Holder at the address last shown on the records of Company for Holder or given by Holder to Company for the purpose of notice notifying Holder of the conversion effected or to be effected, specifying the Conversion Price, the date on which such conversion occurred or is expected to occur and calling upon such Holder to surrender to Company, in the manner and at the place designated, the Note.

(ii) Conversion in Connection with Satisfaction of Milestones. If the Company reasonably believes that it has satisfied all of the Milestones, it may send written notice thereof (the "Milestone Completion Notice") to the Holder (at the address last shown on the records

of the Company for the Holder or given by Holder to Company for the purpose of notice) specifying the Conversion Price, the date on which the Company reasonably believes all of the Milestones were satisfied (the "Notified Milestone Completion Date"), together with a duly executed compliance certificate dated as of the Notified Milestone Completion Date substantially in the form attached hereto as Exhibit A (the "Compliance Certificate"), and calling upon Holder to surrender to the Company the Note. In the event that the Holder reasonably believes that any of (i) the Milestones have not been satisfied or (ii) the representations and warranties made in the Compliance Certificate are inaccurate in any material respect, the Holder may provide written notice (the "Milestone Response Notice") to the Company of such disagreement and/or inaccuracy within 30 days of its receipt of the Milestone Completion Notice. The Milestone Response Notice shall specify in reasonable detail the reasons for such disagreement and/or basis for belief that any of the representations and warranties made in the Compliance Certificate are inaccurate and shall be accompanied by reasonably available support documentation evidencing the basis for such disagreement or belief. If the Holder shall fail to provide the Milestone Response Notice within such time period, the Milestones shall be deemed satisfied as of the Notified Milestone Completion Date and this Note shall be automatically converted as set forth in Section 3(a). If the Holder shall have timely provided the Milestone Response Notice, the Company and the Holder shall in good faith attempt to resolve their disagreement as to the satisfaction of the Milestones and/or the accuracy of the representations and warranties in the Compliance Certificate. If the Company and Holder are unable to resolve their disagreement within the Milestones Cure Period, the Company may pay to the Holder the principal and interest owing under this Note as of the Notified Milestone Completion Date (in which case the Note shall be cancelled and surrendered) or may pursue any other remedy that may be available to it under applicable law.

(iii) Elective Conversion. If the Holder wishes to voluntarily convert this Note as set forth in Section 3(a) hereof prior to a Conversion Event, the Holder shall surrender this Note to the Company and provide the Company with a written notice (the "Conversion Notice") to that effect.

(iv) Certificate; Time of Conversion. Upon conversion of this Note, the Holder shall promptly surrender this Note, duly endorsed, at the principal office of Company. At its expense, the Company shall, as soon as practicable thereafter, issue and deliver to such Holder at such principal office a certificate or certificates for the number of shares to which Holder shall be entitled upon such conversion (bearing such legends as are required by this Note and the Note Purchase Agreement and applicable state and federal securities laws in the opinion of counsel to Company), together with any other securities and property to which Holder is entitled upon such conversion under the terms of this Note, including a check payable to Holder for any cash amounts payable as described in Section 3(d). Any such conversion of this Note shall be deemed to have been made immediately prior to the Conversion Event as described in Section 3(a) (or in the case of delivery of the Conversion Notice as set forth in Section 3(c)(iii), upon the Company's receipt of such Conversion Notice); provided, however, the Holder shall not be deemed a record holder of such shares or a purchaser of such shares until the Holder has delivered the Note for conversion. On and after such date, the Holder shall be treated as a purchaser of such shares under the Note Purchase Agreement and shall be bound by the applicable terms of this Note and Note Purchase Agreement.

(d) Fractional Shares. No fractional shares will be issued upon any conversion of this Note. In lieu of any fractional share to which the Holder would otherwise be entitled, the Company will pay to the Holder in cash that amount of the unconverted principal and interest balance of this Note.

(e) Reservation of Shares. The Company will at all times reserve and keep available out of its authorized but unissued shares or shares held in treasury, sufficient shares of Series E Preferred Stock or other securities to permit the full conversion of the outstanding principal and interest of this Note pursuant to the terms of this Note. In the event the Company shall have insufficient shares of Series E Preferred Stock or other securities to permit the full conversion of the outstanding principal and accrued interest of this Note pursuant to the terms hereof, the Company hereby covenants and agrees that the Company shall use its commercially reasonable efforts to seek board and shareholder approval of an amendment to the Company's Articles of Incorporation in order to authorize an increase in the number of authorized shares of Series E Preferred Stock or other securities of the Company in a sufficient amount so that the aggregate number of shares of Series E Preferred Stock or other securities issuable upon conversion of this Note will then be authorized and available for issuance.

4. Change of Control Transaction. The Company shall provide the Holder with 15 days written notice of the closing of a Change of Control Transaction, specifying in reasonable detail the terms of such Change of Control Transaction. If the Holder shall not have voluntarily elected to convert this Note as set forth in Section 3(c)(iii) within such 15 day period, the Company may prepay the entire principal amount and interest owing under this Note as of the date of such prepayment. The Holder shall thereafter promptly return the Note to the Company for cancellation.

5. Change in Series E Preferred Stock.

(a) Split, Subdivision or Combination of Series E Preferred Stock. In the event the Company should at any time or from time to time after the date of issuance hereof split or subdivide the outstanding shares of its Series E Preferred Stock (or other securities issuable upon conversion of this Note) or issue additional shares of Series E Preferred Stock (or other securities issuable upon conversion of this Note) to the holders thereof as a dividend or make any other distribution payable in additional shares of Series E Preferred Stock (or other securities issuable upon conversion of this Note) to the holders thereof without payment of any consideration by such holder for the additional shares of Series E Preferred Stock (or such other securities), then, as of the date of such dividend, distribution, split or subdivision, the Conversion Price of this Note shall be appropriately decreased so that the number of shares of Series E Preferred Stock or other securities issuable upon conversion of this Note shall be increased in proportion to such increase of outstanding shares of Series E Preferred Stock or other securities issuable upon conversion of this Note, as applicable. If the number of shares of Series E Preferred Stock (or other securities issuable upon conversion of this Note) outstanding at any time after the date hereof is decreased by a combination of the outstanding shares of Series E Preferred Stock (or other securities issuable upon conversion of this Note), then, following the record date of such combination, the Conversion Price for this Note shall be appropriately increased so that the number of shares of Series E Preferred Stock or other securities issuable on conversion hereof shall be decreased in proportion to such

decrease in outstanding shares of Series E Preferred Stock or other securities issuable upon conversion of this Note, as applicable.

(b) Reclassification etc. In case of any reclassification, capital reorganization, or change in the Series E Preferred Stock (or other securities issuable upon conversion of this Note) of the Company, including conversion of such shares pursuant to the Company's Articles of Incorporation then in effect (other than as a result of a split, subdivision, combination, or stock dividend provided for in Section 5(a) above), then appropriate adjustment shall be made to the Conversion Price and kind of securities or other property issuable upon conversion of this Note so that this Note shall be convertible upon the terms set forth herein into the kind and amount of shares of stock and other securities and property receivable in connection with such reclassification, reorganization, or change by a holder of the same number of shares of Series E Preferred Stock or other securities as are issuable on conversion of this Note.

(c) Merger or Consolidation. Other than a Change of Control Transaction in connection with which this Note has been converted or prepaid, if at any time there shall be an acquisition of the Company by merger, consolidation or otherwise where the Company is not the surviving corporation or as a result of which all of the outstanding capital stock of the Company is exchanged for capital stock of another corporation, then, as a part of such acquisition, the Conversion Price and kind of securities issuable upon conversion hereof shall be appropriately adjusted so that the Holder shall receive upon conversion of this Note, the number of shares of stock or other securities or property of the surviving or successor corporation resulting from such acquisition (or the corporation the capital stock of which is issued in exchange for the capital stock of the Company), to which a holder of the securities issuable upon conversion of this Note would have been entitled in such acquisition if this Note had been converted immediately before such acquisition.

6. Payment Due Date. If not previously converted into shares of Series E Preferred Stock pursuant to Section 3 hereof and if not sooner prepaid by the Company pursuant to Section 2 hereof or accelerated and declared due and owing by the Holder pursuant to Section 7 hereof, the principal amount and any accrued interest due thereon then outstanding under this Note will become due and payable on the Payment Date.

7. Default. The Company shall be deemed to be in default under this Note in the event (i) the Company shall fail to materially perform any covenant or agreement of the Company contained in Section 4 of the Note Purchase Agreement for a period of 30 days after written notice of such failure from Holder; (ii) the Company shall have failed to make payment of principal or interest due on the Note when such principal and interest becomes due; or (iii) the Company shall commence, whether voluntarily or involuntarily a case or other proceeding seeking liquidation, reorganization or other relief with respect to itself or its debts under any bankruptcy, insolvency or other similar law now or hereafter in effect or consent to any such relief or to the appointment of or taking possession of its property by any official in an involuntary case or other proceeding commenced against it. In the case of an event of default, the Holder may, by written notice to the Company, declare the unpaid principal amount of this Note, all interest accrued and unpaid hereon, and all other amounts payable hereunder to be immediately due and payable, without presentment,

demand, protest, or further notice of any kind, as well as enforce all other rights and remedies available to the Holder under applicable law.

8. Notices. Any notice, request, other communication, or payment required or permitted hereunder shall be in writing and shall be deemed to have been duly given upon delivery, if delivered personally by facsimile, or by recognized overnight courier service, or five days after deposit, if deposited in the United States mail for mailing by registered or certified mail, postage prepaid, and addressed as follows:

If to Holder:

Biomedical Sciences Investment Fund Pte Ltd
20 Biopolis Way
#09-01 Centros
Singapore 138668
Attention: Chu Swee Yeok
Tel: 65-6336-2288
Fax: 65-6334-8478

If to the Company:

Fluidigm Corporation
7100 Shoreline Court
South San Francisco, California 94080
Attention: Chief Executive Officer
Tel: (650) 266-6000
Fax: (650) 871-7195

with a copy to:

Wilson Sonsini Goodrich & Rosati, P.C.
650 Page Mill Road
Palo Alto, California 94304-1050
Attention: Ken Clark and Robert Kornegay
Tel: (650) 493-9300
Fax: (650) 493-6811

Each of the above addressees may change its address or facsimile number for purposes of this paragraph by giving to the other addressee notice of such new address in conformity with this paragraph.

9. Amendments. This Note may be amended and any provision hereof waived with the consent of the Company and the Holder.

10. No Rights as Shareholder. Nothing in this Note shall be construed as conferring upon the Holder or any other person the right to vote or to consent or to receive notice as a shareholder in respect of meetings of shareholders for the election of directors of the Company or any other matters or any rights whatsoever as a shareholder of the Company until, and only to the extent that, this Note shall have been converted.

11. Successors and Assigns. Subject to the restrictions on transfer described in Section 12 and in the Note Purchase Agreement, the rights and obligations of the Company and Investor shall be binding upon and benefit the successors, assigns, heirs, administrators and transferees of the parties.

12. Transfer of Note and Securities Issuable on Conversion Hereof. Prior to the conversion of this Note, this Note (or the underlying securities issuable upon conversion hereof) may not be sold, assigned, transferred, pledged or otherwise disposed of by the Holder, in whole or in part, without the prior written consent of the Company. With respect to any sale, assignment, transfer, pledge or other disposition of the securities into which this Note may be converted after conversion of this Note, the Holder may only transfer such securities pursuant to, and on the conditions set forth in that certain Eighth Amended and Restated Investor Rights Agreement dated June 13, 2006 between the Company and certain investors in the Company (including Holder), as may be amended from time to time (the "Rights Agreement"). The Holder shall cause any proposed purchaser, assignee, transferee or pledgee of such securities to agree in writing to take and hold such securities subject to and upon the conditions specified in this Note, the Note Purchase Agreement, and the Rights Agreement, including, without limitation, Sections 1.2, 1.3, 1.4, and 1.14 of the Rights Agreement.

13. Highest Lawful Rate. Anything herein to the contrary notwithstanding, if during any period for which interest is computed hereunder, the amount of interest computed on the basis provided for in this Note, together will all fees, charges, and other payments or rights which are treated as interest under applicable law, as provided for herein or in any other document executed in connection herewith, would exceed the amount of such interest computed on the basis of the Highest Lawful Rate, the Company shall not be obligated to pay, and the Holder shall not be entitled to charge, collect, receive, reserve, or take, interest in excess of the Highest Lawful Rate, and during any such period the interest payable hereunder shall be computed on the basis of the Highest Lawful Rate. As used herein, "Highest Lawful Rate" means the maximum non-usurious rate of interest, as in effect from time to time, which may be charged, contracted for, reserved, received, or collected by the Holder in connection with this Note under applicable law. In accordance with this section, any amounts received in excess of the Highest Lawful Rate shall be applied towards the prepayment of principal then outstanding.

14. Miscellaneous. The Company agrees to pay on demand all of the losses, costs, and expenses (including, without limitation, attorneys' fees and disbursements) which the Holder incurs in connection with enforcement of this Note, or the protection or preservation of the Holder's rights under this Note, whether by judicial proceeding or otherwise. Such costs and expenses include, without limitation, those incurred in connection with any workout or refinancing, or any bankruptcy, insolvency, liquidation, or similar proceedings. The Company hereby waives presentment, demand for performance, notice of non-performance, protest, notice of protest, and notice of dishonor. No delay on the part of the Holder in exercising any right hereunder shall operate as a waiver of such right or any other right. This Note is being delivered in and shall be construed in accordance with the laws of the State of California without regard to the conflicts of law provisions thereof. Any reference to "dollars" or "$" in this Note shall refer to the lawful money of the United States of America.

IN WITNESS WHEREOF, the Company has caused this Convertible Promissory Note to be executed by its officer thereunto duly authorized as of the date first above written.

Dated: April 19, 2007

FLUIDIGM CORPORATION
a California corporation

By: /s/ Gajus V. Worthington

Name: Gajus Worthington

Title: Chief Executive Officer

Acknowledged and Agreed:

HOLDER

BIOMEDICAL SCIENCES INVESTMENT FUND PTE LTD

By: /s/ Chu Swee Yeok

Name: Chu Swee Yeok

Title: Director

Exhibit 10.1

FLUIDIGM CORPORATION

INDEMNIFICATION AGREEMENT

This Indemnification Agreement ("**Agreement**") is made as of _____, 20__, by and between Fluidigm Corporation, a Delaware corporation (the "**Company**"), and _____ ("**Indemnitee**").

WHEREAS, the Company and Indemnitee recognize the significant cost of directors' and officers' liability insurance and the general reductions in the coverage of such insurance;

WHEREAS, the Company and Indemnitee further recognize the substantial increase in corporate litigation in general, subjecting officers and directors to expensive litigation risks at the same time as the coverage of liability insurance has been severely limited; and

WHEREAS, the Company desires to attract and retain the services of highly qualified individuals, such as Indemnitee, to serve as officers and directors of the Company and to indemnify its officers and directors so as to provide them with the maximum protection permitted by law.

NOW, THEREFORE, in consideration for Indemnitee's services as an officer or director of the Company, the Company and Indemnitee hereby agree as follows:

1. ***Indemnification***.

(a) *Third Party Proceedings*. The Company shall indemnify Indemnitee if Indemnitee was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit, proceeding or any alternative dispute resolution mechanism, whether civil, criminal, administrative or investigative (other than an action by or in the right of the Company) by reason of the fact that Indemnitee is or was a director, officer, employee or agent of the Company, or any subsidiary of the Company, or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement (if such settlement is approved in advance by the Company, which approval shall not be unreasonably withheld) actually and reasonably incurred by Indemnitee in connection with such action, suit or proceeding if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had no reasonable cause to believe Indemnitee's conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of *nolo contendere* or its equivalent, shall not, of itself, create a presumption that Indemnitee did not act in good faith and in a manner which Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, and, with respect to any criminal action or proceeding, had reasonable cause to believe that Indemnitee's conduct was unlawful.

(b) *Proceedings By or in the Right of the Company*. The Company shall indemnify Indemnitee if Indemnitee was or is a party or is threatened to be made a party to any threatened,

pending or completed action or suit by or in the right of the Company or any subsidiary of the Company to procure a judgment in its favor by reason of the fact that Indemnitee is or was a director, officer, employee or agent of the Company, or any subsidiary of the Company, or by reason of the fact that Indemnitee is or was serving at the request of the Company as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees) and, to the fullest extent permitted by law, amounts paid in settlement actually and reasonably incurred by Indemnitee in connection with the defense or settlement of such action or suit if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in or not opposed to the best interests of the Company, except that no indemnification shall be made in respect of any claim, issue or matter as to which Indemnitee shall have been adjudged to be liable to the Company unless and only to the extent that the Court of Chancery of the State of Delaware or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, Indemnitee is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery of the State of Delaware or such other court shall deem proper.

(c) *Mandatory Payment of Expenses*. To the extent that Indemnitee has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in Subsections (a) and (b) of this Section 1, or in defense of any claim, issue or matter therein, Indemnitee shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by Indemnitee in connection therewith.

2. ***Expenses; Indemnification Procedure***.

(a) *Advancement of Expenses*. The Company shall advance all expenses actually and reasonably incurred by Indemnitee in connection with the investigation, defense, settlement or appeal of any civil or criminal action, suit or proceeding referenced in Section 1(a) or 1(b) hereof (but not amounts actually paid in settlement of any such action, suit or proceeding). Indemnitee hereby undertakes to repay such amounts advanced only if, and to the extent that, it shall ultimately be determined that Indemnitee is not entitled to be indemnified by the Company as authorized hereby. The advances to be made hereunder shall be paid by the Company to Indemnitee within thirty (30) days following delivery of a written request therefor by Indemnitee to the Company.

(b) *Notice/Cooperation by Indemnitee*. Indemnitee shall, as a condition precedent to his right to be indemnified under this Agreement, give the Company notice in writing as soon as practicable of any claim made against Indemnitee for which indemnification will or could be sought under this Agreement. Notice to the Company shall be directed to the President of the Company at the address shown on the signature page of this Agreement (or such other address as the Company shall designate in writing to Indemnitee). Notice shall be deemed received three business days after the date postmarked if sent by domestic certified or registered mail, properly addressed; otherwise notice shall be deemed received when such notice shall actually be received by the Company. In addition, Indemnitee shall give the Company such information and cooperation as it may reasonably require and as shall be within Indemnitee's power.

(c) *Procedure*. Any indemnification and advances provided for in Section 1 and this Section 2 shall be made no later than thirty (30) days after receipt of the written request of Indemnitee. If a claim under this Agreement, under any statute, or under any provision of the Company's Certificate of Incorporation or Bylaws providing for indemnification, is not paid in full by the Company within thirty (30) days after a written request for payment thereof has first been received by the Company, Indemnitee may, but need not, at any time thereafter bring an action against the Company to recover the unpaid amount of the claim and, subject to Section 12 of this Agreement, Indemnitee shall also be entitled to be paid for the reasonable expenses (including reasonable attorneys' fees) of bringing such action. It shall be a defense to any such action (other than an action brought to enforce a claim for expenses incurred in connection with any action, suit or proceeding in advance of its final disposition) that Indemnitee has not met the standards of conduct which make it permissible under applicable law for the Company to indemnify Indemnitee for the amount claimed. However, Indemnitee shall be entitled to receive interim payments of expenses pursuant to Subsection 2(a) unless and until such defense may be finally adjudicated by court order or judgment from which no further right of appeal exists. It is the parties' intention that if the Company contests Indemnitee's right to indemnification, the question of Indemnitee's right to indemnification shall be for the court to decide, and neither the failure of the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) to have made a determination that indemnification of Indemnitee is proper in the circumstances because Indemnitee has met the applicable standard of conduct required by applicable law, nor an actual determination by the Company (including its Board of Directors, any committee or subgroup of the Board of Directors, independent legal counsel, or its stockholders) that Indemnitee has not met such applicable standard of conduct, shall create a presumption that Indemnitee has or has not met the applicable standard of conduct.

(d) *Notice to Insurers*. If, at the time of the receipt of a notice of a claim pursuant to Section 2(b) hereof, the Company has director and officer liability insurance in effect, the Company shall give prompt notice of the commencement of such proceeding to the insurers in accordance with the procedures set forth in the respective policies. The Company shall thereafter take all necessary or desirable action to cause such insurers to pay, on behalf of the Indemnitee, all amounts payable as a result of such proceeding in accordance with the terms of such policies.

(e) *Selection of Counsel*. In the event the Company shall be obligated under Section 2(a) hereof to pay the expenses of any proceeding against Indemnitee, the Company, if appropriate, shall be entitled to assume the defense of such proceeding, with counsel approved by Indemnitee, which approval shall not be unreasonably withheld, upon the delivery to Indemnitee of written notice of its election to do so. After delivery of such notice, approval of such counsel by Indemnitee and the retention of such counsel by the Company, the Company will not be liable to Indemnitee under this Agreement for any fees of counsel subsequently incurred by Indemnitee with respect to the same proceeding; *provided* that Indemnitee shall have the right to employ Indemnitee's counsel in any such proceeding at Indemnitee's expense; and *provided further* that if (i) the Company has expressly authorized (and continues to authorize) the employment of counsel by Indemnitee at the Company's expense, (ii) the use of counsel chosen by the Company to represent Indemnitee would present such counsel with a conflict of interest, or (iii) the Company shall not, in fact, have employed counsel reasonably satisfactory to Indemnitee within a reasonable time after notice of the institution of such

proceeding, Indemnitee shall have the right to employ counsel at the expense of the Company in accordance herewith.

3. ***Additional Indemnification Rights; Nonexclusivity***.

(a) *Scope*. Notwithstanding any other provision of this Agreement, the Company hereby agrees to indemnify the Indemnitee to the fullest extent permitted by law, notwithstanding that such indemnification is not specifically authorized by the other provisions of this Agreement, the Company's Certificate of Incorporation, the Company's Bylaws or by statute. In the event of any change, after the date of this Agreement, in any applicable law, statute, or rule which expands the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes shall be, *ipso facto*, within the purview of Indemnitee's rights and Company's obligations, under this Agreement. In the event of any change in any applicable law, statute or rule which narrows the right of a Delaware corporation to indemnify a member of its board of directors or an officer, such changes, to the extent not otherwise required by such law, statute or rule to be applied to this Agreement shall have no effect on this Agreement or the parties' rights and obligations hereunder.

(b) *Nonexclusivity.* The indemnification provided by this Agreement shall not be deemed exclusive of any rights to which Indemnitee may be entitled under the Company's Certificate of Incorporation, its Bylaws, any agreement, any vote of stockholders or disinterested Directors, the General Corporation Law of the State of Delaware, or otherwise, both as to action in Indemnitee's official capacity and as to action in another capacity while holding such office. The indemnification provided under this Agreement shall continue as to Indemnitee for any action taken or not taken while serving in an indemnified capacity even though he may have ceased to serve in such capacity at the time of any action, suit or other covered proceeding.

4. ***Partial Indemnification***. If Indemnitee is entitled under any provision of this Agreement to indemnification by the Company for some or a portion of the expenses, judgments, fines or penalties actually or reasonably incurred by him in the investigation, defense, appeal or settlement of any civil or criminal action, suit or proceeding, but not, however, for the total amount thereof, the Company shall nevertheless indemnify Indemnitee for the portion of such expenses, judgments, fines or penalties to which Indemnitee is entitled.

5. ***Mutual Acknowledgement***. Both the Company and Indemnitee acknowledge that in certain instances, Federal law or applicable public policy may prohibit the Company from indemnifying its directors and officers under this Agreement or otherwise. Indemnitee understands and acknowledges that the Company has undertaken or may be required in the future to undertake with the Securities and Exchange Commission to submit the question of indemnification to a court in certain circumstances for a determination of the Company's right under public policy to indemnify Indemnitee.

6. ***Officer and Director Liability Insurance***. The Company shall, from time to time, make the good faith determination whether or not it is practicable for the Company to obtain and maintain a policy or policies of insurance with reputable insurance companies providing the officers and directors of the Company with coverage for losses from wrongful acts, or to ensure the Company's

performance of its indemnification obligations under this Agreement. Among other considerations, the Company will weigh the costs of obtaining such insurance coverage against the protection afforded by such coverage. In all policies of director and officer liability insurance, Indemnitee shall be named as an insured in such a manner as to provide Indemnitee the same rights and benefits as are accorded to the most favorably insured of the Company's directors, if Indemnitee is a director; or of the Company's officers, if Indemnitee is not a director of the Company but is an officer. Notwithstanding the foregoing, the Company shall have no obligation to obtain or maintain such insurance if the Company determines in good faith that such insurance is not reasonably available, if the premium costs for such insurance are disproportionate to the amount of coverage provided, if the coverage provided by such insurance is limited by exclusions so as to provide an insufficient benefit, or if Indemnitee is covered by similar insurance maintained by a subsidiary or parent of the Company.

7. ***Severability***. Nothing in this Agreement is intended to require or shall be construed as requiring the Company to do or fail to do any act in violation of applicable law. The Company's inability, pursuant to court order, to perform its obligations under this Agreement shall not constitute a breach of this Agreement. The provisions of this Agreement shall be severable as provided in this Section 7. If this Agreement or any portion hereof shall be invalidated on any ground by any court of competent jurisdiction, then the Company shall nevertheless indemnify Indemnitee to the full extent permitted by any applicable portion of this Agreement that shall not have been invalidated, and the balance of this Agreement not so invalidated shall be enforceable in accordance with its terms.

8. ***Exceptions***. Any other provision herein to the contrary notwithstanding, the Company shall not be obligated pursuant to the terms of this Agreement:

(a) *Claims Initiated by Indemnitee*. To indemnify or advance expenses to Indemnitee with respect to proceedings or claims initiated or brought voluntarily by Indemnitee and not by way of defense, except with respect to proceedings brought to establish or enforce a right to indemnification under this Agreement or any other statute or law or otherwise as required under Section 145 of the Delaware General Corporation Law, but such indemnification or advancement of expenses may be provided by the Company in specific cases if the Board of Directors has approved the initiation or bringing of such suit; or

(b) *Lack of Good Faith*. To indemnify Indemnitee for any expenses incurred by the Indemnitee with respect to any proceeding instituted by Indemnitee to enforce or interpret this Agreement, if a court of competent jurisdiction determines that each of the material assertions made by the Indemnitee in such proceeding was not made in good faith or was frivolous; or

(c) *Insured Claims*. To indemnify Indemnitee for expenses or liabilities of any type whatsoever (including, but not limited to, judgments, fines, ERISA excise taxes or penalties, and amounts paid in settlement) which have been paid directly to Indemnitee by an insurance carrier under a policy of officers' and directors' liability insurance maintained by the Company.

(d) *Claims Under Section 16(b)*. To indemnify Indemnitee for expenses and the payment of profits arising from the purchase and sale by Indemnitee of securities in violation of Section 16(b) of the Securities Exchange Act of 1934, as amended, or any similar successor statute.

9. ***Construction of Certain Phrases***.

(a) For purposes of this Agreement, references to the "Company" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that if Indemnitee is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, Indemnitee shall stand in the same position under the provisions of this Agreement with respect to the resulting or surviving corporation as Indemnitee would have with respect to such constituent corporation if its separate existence had continued.

(b) For purposes of this Agreement, references to "other enterprises" shall include employee benefit plans; references to "fines" shall include any excise taxes assessed on Indemnitee with respect to an employee benefit plan; and references to "serving at the request of the Company" shall include any service as a director, officer, employee or agent of the Company which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants, or beneficiaries; and if Indemnitee acted in good faith and in a manner Indemnitee reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan, Indemnitee shall be deemed to have acted in a manner "not opposed to the best interests of the Company" as referred to in this Agreement.

10. ***Counterparts***. This Agreement may be executed in one or more counterparts, each of which shall constitute an original.

11. ***Successors and Assigns***. This Agreement shall be binding upon the Company and its successors and assigns, and shall inure to the benefit of Indemnitee and Indemnitee's estate, heirs, legal representatives and assigns.

12. ***Attorneys' Fees.*** In the event that any action is instituted by Indemnitee under this Agreement to enforce or interpret any of the terms hereof, Indemnitee shall be entitled to be paid all court costs and expenses, including attorneys' fees, actually and reasonably incurred by Indemnitee with respect to such action, unless as a part of such action, the court of competent jurisdiction determines that each of the material assertions made by Indemnitee as a basis for such action were not made in good faith or were frivolous. In the event of an action instituted by or in the name of the Company under this Agreement or to enforce or interpret any of the terms of this Agreement, Indemnitee shall be entitled to be paid all court costs and expenses, including attorneys' fees, actually and reasonably incurred by Indemnitee in defense of such action (including with respect to Indemnitee's counterclaims and cross-claims made in such action), unless as a part of such action the court determines that each of Indemnitee's material defenses to such action were made in bad faith or were frivolous.

13. ***Notice***. All notices, requests, demands and other communications under this Agreement shall be in writing and shall be deemed duly given (i) if delivered by hand and receipted for by the party addressee, on the date of such receipt, or (ii) if mailed by domestic certified or registered mail

with postage prepaid, on the third business day after the date postmarked. Addresses for notice to either party are as shown on the signature page of this Agreement, or as subsequently modified by written notice.

14. ***Consent to Jurisdiction***. The Company and Indemnitee each hereby irrevocably consent to the jurisdiction of the courts of the State of Delaware for all purposes in connection with any action or proceeding which arises out of or relates to this Agreement and agree that any action instituted under this Agreement shall be brought only in the state courts of the State of Delaware.

15. ***Choice of Law***. This Agreement shall be governed by and its provisions construed in accordance with the laws of the State of Delaware, as applied to contracts between Delaware residents entered into and to be performed entirely within Delaware without regard to the conflict of law principles thereof.

16. ***Period of Limitations***. No legal action shall be brought and no cause of action shall be asserted by or in the right of the Company against Indemnitee, Indemnitee's estate, spouse, heirs, executors or personal or legal representatives after the expiration of two years from the date of accrual of such cause of action, and any claim or cause of action of the Company shall be extinguished and deemed released unless asserted by the timely filing of a legal action within such two-year period; *provided, however*, that if any shorter period of limitations is otherwise applicable to any such cause of action, such shorter period shall govern.

17. ***Subrogation***. In the event of payment under this Agreement, the Company shall be subrogated to the extent of such payment to all of the rights of recovery of Indemnitee, who shall execute all documents required and shall do all acts that may be necessary to secure such rights and to enable the Company effectively to bring suit to enforce such rights.

18. ***Amendment and Termination***. No amendment, modification, termination or cancellation of this Agreement shall be effective unless it is in writing signed by both the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or shall constitute a waiver of any other provisions hereof (whether or not similar) nor shall such waiver constitute a continuing waiver.

19. ***Integration and Entire Agreement***. This Agreement sets forth the entire understanding between the parties hereto and supersedes and merges all previous written and oral negotiations, commitments, understandings and agreements relating to the subject matter hereof between the parties hereto.

(*signature page follows*)

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first above written.

FLUIDIGM CORPORATION

_____

Signature of Authorized Signatory

_____

Print Name

_____

Title

Address: 7000 Shoreline Court, Suite 100
South San Francisco, CA 94080

AGREED TO AND ACCEPTED:

INDEMNITEE:

_____

Signature

_____

Print Name

_____

Title

Address: _____
_____
_____

Exhibit 10.2

FLUIDIGM CORPORATION

1999 STOCK OPTION PLAN
(as amended April 24, 2007, January 29, 2008)

1. Purposes of the Plan. The purposes of this Stock Option Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentive to Employees, Directors and Consultants and to promote the success of the Company's business. Options granted under the Plan may be Incentive Stock Options or Nonstatutory Stock Options, as determined by the Administrator at the time of grant.

2. Definitions. As used herein, the following definitions shall apply:

(a) "Administrator" means the Board or any of its Committees as shall be administering the Plan in accordance with Section 4 hereof.

(b) "Applicable Laws" means the requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and the applicable laws of any other country or jurisdiction where Options are granted under the Plan.

(c) "Board" means the Board of Directors of the Company.

(d) "Code" means the Internal Revenue Code of 1986, as amended.

(e) "Committee" means a committee of Directors appointed by the Board in accordance with Section 4 hereof.

(f) "Common Stock" means the Common Stock of the Company.

(g) "Company" means Fluidigm Corporation, a Delaware corporation.

(h) "Consultant" means any person who is engaged by the Company or any Parent or Subsidiary to render consulting or advisory services to such entity.

(i) "Director" means a member of the Board of Directors of the Company.

(j) "Disability" means total and permanent disability as defined in Section 22(e)(3) of the Code.

(k) "Employee" means any person, including Officers and Directors, employed by the Company or any Parent or Subsidiary of the Company. A Service Provider shall not cease to be an Employee in the case of (i) any leave of absence approved by the Company or (ii) transfers between locations of the Company or between the Company, its Parent, any Subsidiary, or any successor. For purposes of Incentive Stock Options, no such leave may exceed three (3) months, unless reemployment upon expiration of such leave is guaranteed by statute or contract. If

reemployment upon expiration of a leave of absence approved by the Company is not so guaranteed, then six (6) months following the first day of such leave any Incentive Stock Option held by the Optionee shall cease to be treated as an Incentive Stock Option and shall be treated for tax purposes as a Nonstatutory Stock Option. Neither service as a Director nor payment of a director's fee by the Company shall be sufficient to constitute "employment" by the Company.

(l) "Exchange Act" means the Securities Exchange Act of 1934, as amended.

(m) "Fair Market Value" means, as of any date, the value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq National Market or The Nasdaq SmallCap Market of The Nasdaq Stock Market, its Fair Market Value shall be the closing sales price for such stock (or the closing bid, if no sales were reported) as quoted on such exchange or system for the last market trading day prior to the time of determination, as reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value shall be the mean between the high bid and low asked prices for the Common Stock on the last market trading day prior to the day of determination; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof shall be determined in good faith by the Administrator.

(n) "Incentive Stock Option" means an Option intended to qualify as an incentive stock option within the meaning of Section 422 of the Code.

(o) "Nonstatutory Stock Option" means an Option not intended to qualify as an Incentive Stock Option.

(p) "Officer" means a person who is an officer of the Company within the meaning of Section 16 of the Exchange Act and the rules and regulations promulgated thereunder.

(q) "Option" means a stock option granted pursuant to the Plan.

(r) "Option Agreement" means a written or electronic agreement between the Company and an Optionee evidencing the terms and conditions of an individual Option grant. The Option Agreement is subject to the terms and conditions of the Plan.

(s) "Option Exchange Program" means a program whereby outstanding Options are exchanged for Options with a lower exercise price.

(t) "Optioned Stock" means the Common Stock subject to an Option.

(u) "Optionee" means the holder of an outstanding Option granted under the Plan.

(v) "Parent" means a "parent corporation," whether now or hereafter existing, as defined in Section 424(e) of the Code.

(w) "Plan" means this 1999 Stock Option Plan.

(x) "Service Provider" means an Employee, Director or Consultant.

(y) "Share" means a share of the Common Stock, as adjusted in accordance with Section 11 below.

(z) "Subsidiary" means a "subsidiary corporation," whether now or hereafter existing, as defined in Section 424(f) of the Code.

3. Stock Subject to the Plan. Subject to the provisions of Section 11 of the Plan, the maximum aggregate number of Shares which may be subject to option and sold under the Plan is 12,800,000 Shares. The Shares may be authorized but unissued, or reacquired Common Stock.

If an Option expires or becomes unexercisable without having been exercised in full, or is surrendered pursuant to an Option Exchange Program, the unpurchased Shares which were subject thereto shall become available for future grant or sale under the Plan (unless the Plan has terminated). However, Shares that have actually been issued under the Plan, upon exercise of an Option, shall not be returned to the Plan and shall not become available for future distribution under the Plan, except that if Shares are repurchased by the Company at their original purchase price, such Shares shall become available for future grant under the Plan.

4. Administration of the Plan.

(a) Administrator. The Plan shall be administered by the Board or a Committee appointed by the Board, which Committee shall be constituted to comply with Applicable Laws.

(b) Powers of the Administrator. Subject to the provisions of the Plan and, in the case of a Committee, the specific duties delegated by the Board to such Committee, and subject to the approval of any relevant authorities, the Administrator shall have the authority in its discretion:

(i) to determine the Fair Market Value;

(ii) to select the Service Providers to whom Options may from time to time be granted hereunder;

(iii) to determine the number of Shares to be covered by each such award granted hereunder;

(iv) to approve forms of agreement for use under the Plan;

(v) to determine the terms and conditions, of any Option granted hereunder. Such terms and conditions include, but are not limited to, the exercise price, the time or times when Options may be exercised (which may be based on performance criteria), any vesting

acceleration or waiver of forfeiture restrictions, and any restriction or limitation regarding any Option or the Common Stock relating thereto, based in each case on such factors as the Administrator, in its sole discretion, shall determine;

(vi) to determine whether and under what circumstances an Option may be settled in cash under subsection 9(e) instead of Common Stock;

(vii) to reduce the exercise price of any Option to the then current Fair Market Value if the Fair Market Value of the Common Stock covered by such Option has declined since the date the Option was granted;

(viii) to initiate an Option Exchange Program;

(ix) to prescribe, amend and rescind rules and regulations relating to the Plan, including rules and regulations relating to sub-plans established for the purpose of qualifying for preferred tax treatment under foreign tax laws;

(x) to allow Optionees to satisfy withholding tax obligations by electing to have the Company withhold from the Shares to be issued upon exercise of an Option that number of Shares having a Fair Market Value equal to the amount required to be withheld. The Fair Market Value of the Shares to be withheld shall be determined on the date that the amount of tax to be withheld is to be determined. All elections by Optionees to have Shares withheld for this purpose shall be made in such form and under such conditions as the Administrator may deem necessary or advisable; and

(xi) to construe and interpret the terms of the Plan and awards granted pursuant to the Plan.

(c) Effect of Administrator's Decision. All decisions, determinations and interpretations of the Administrator shall be final and binding on all Optionees.

5. Eligibility.

(a) Nonstatutory Stock Options may be granted to Service Providers. Incentive Stock Options may be granted only to Employees.

(b) Each Option shall be designated in the Option Agreement as either an Incentive Stock Option or a Nonstatutory Stock Option. However, notwithstanding such designation, to the extent that the aggregate Fair Market Value of the Shares with respect to which Incentive Stock Options are exercisable for the first time by the Optionee during any calendar year (under all plans of the Company and any Parent or Subsidiary) exceeds $100,000, such Options shall be treated as Nonstatutory Stock Options. For purposes of this Section 5(b), Incentive Stock Options shall be taken into account in the order in which they were granted. The Fair Market Value of the Shares shall be determined as of the time the Option with respect to such Shares is granted.

(c) Neither the Plan nor any Option shall confer upon any Optionee any right with respect to continuing the Optionee's relationship as a Service Provider with the Company, nor shall it interfere in any way with his or her right or the Company's right to terminate such relationship at any time, with or without cause.

6. Term of Plan. The Plan shall become effective upon its adoption by the Board. It shall continue in effect for a term of ten (10) years unless sooner terminated under Section 13 of the Plan.

7. Term of Option. The term of each Option shall be stated in the Option Agreement; provided, however, that the term shall be no more than ten (10) years from the date of grant thereof. In the case of an Incentive Stock Option granted to an Optionee who, at the time the Option is granted, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the term of the Option shall be five (5) years from the date of grant or such shorter term as may be provided in the Option Agreement.

8. Option Exercise Price and Consideration.

(a) The per share exercise price for the Shares to be issued upon exercise of an Option shall be such price as is determined by the Administrator, but shall be subject to the following:

(i) In the case of an Incentive Stock Option

(1) granted to an Employee who, at the time of grant of such Option, owns stock representing more than ten percent (10%) of the voting power of all classes of stock of the Company or any Parent or Subsidiary, the exercise price shall be no less than 110% of the Fair Market Value per Share on the date of grant.

(2) granted to any other Employee, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(ii) In the case of a Nonstatutory Stock Option, the per Share exercise price shall be no less than 100% of the Fair Market Value per Share on the date of grant.

(iii) Notwithstanding the foregoing, Options may be granted with a per Share exercise price other than as required above pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code.

(b) The consideration to be paid for the Shares to be issued upon exercise of an Option, including the method of payment, shall be determined by the Administrator (and, in the case of an Incentive Stock Option, shall be determined at the time of grant). Such consideration may consist of (1) cash, (2) check, (3) promissory note, (4) other Shares, provided such Shares have a Fair Market Value on the date of surrender equal to the aggregate exercise price of the Shares as to which such Option shall be exercised and provided further that accepting such Shares will not result in adverse accounting consequences to the Company, as determined by the Administrator in its sole

discretion, (5) consideration received by the Company under a cashless exercise program implemented by the Company in connection with the Plan, or (6) such other consideration and method of payment for the issuance of Shares to the extent permitted by Applicable Laws, (7) any combination of the foregoing methods of payment. In making its determination as to the type of consideration to accept, the Administrator shall consider if acceptance of such consideration may be reasonably expected to benefit the Company.

9. Exercise of Option.

(a) Procedure for Exercise; Rights as a Stockholder. Any Option granted hereunder shall be exercisable according to the terms hereof at such times and under such conditions as determined by the Administrator and set forth in the Option Agreement. Unless the Administrator provides otherwise, vesting of Options granted shall be tolled during any unpaid leave of absence. An Option may not be exercised for a fraction of a Share.

An Option shall be deemed exercised when the Company receives: (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option, and (ii) full payment for the Shares with respect to which the Option is exercised. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Shares issued upon exercise of an Option shall be issued in the name of the Optionee or, if requested by the Optionee, in the name of the Optionee and his or her spouse. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Shares, notwithstanding the exercise of the Option. The Company shall issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 11 of the Plan.

Exercise of an Option in any manner shall result in a decrease in the number of Shares thereafter available, both for purposes of the Plan and for sale under the Option, by the number of Shares as to which the Option is exercised.

(b) Termination of Relationship as a Service Provider. If an Optionee ceases to be a Service Provider, such Optionee may exercise his or her Option within such period of time as is specified in the Option Agreement (of at least thirty (30) days) to the extent that the Option is vested on the date of termination (but in no event later than the expiration of the term of the Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for three (3) months following the Optionee's termination. If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified by the Administrator, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(c) Disability of Optionee. If an Optionee ceases to be a Service Provider as a result of the Optionee's Disability, the Optionee may exercise his or her Option within such period of

time as is specified in the Option Agreement (of at least six (6) months) to the extent the Option is vested on the date of termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Optionee's termination. If, on the date of termination, the Optionee is not vested as to his or her entire Option, the Shares covered by the unvested portion of the Option shall revert to the Plan. If, after termination, the Optionee does not exercise his or her Option within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(d) Death of Optionee. If an Optionee dies while a Service Provider, the Option may be exercised within such period of time as is specified in the Option Agreement (of at least six (6) months) to the extent that the Option is vested on the date of death (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement) by the Optionee's estate or by a person who acquires the right to exercise the Option by bequest or inheritance. In the absence of a specified time in the Option Agreement, the Option shall remain exercisable for twelve (12) months following the Optionee's termination. If, at the time of death, the Optionee is not vested as to the entire Option, the Shares covered by the unvested portion of the Option shall immediately revert to the Plan. If the Option is not so exercised within the time specified herein, the Option shall terminate, and the Shares covered by such Option shall revert to the Plan.

(e) Buyout Provisions. The Administrator may at any time offer to buy out for a payment in cash or Shares, an Option previously granted, based on such terms and conditions as the Administrator shall establish and communicate to the Optionee at the time that such offer is made.

10. Non-Transferability of Options. The Options may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Optionee, only by the Optionee.

11. Adjustments Upon Changes in Capitalization, Merger or Asset Sale.

(a) Changes in Capitalization. Subject to any required action by the stockholders of the Company, the number of shares of Common Stock covered by each outstanding Option, and the number of shares of Common Stock which have been authorized for issuance under the Plan but as to which no Options have yet been granted or which have been returned to the Plan upon cancellation or expiration of an Option, as well as the price per share of Common Stock covered by each such outstanding Option, shall be proportionately adjusted for any increase or decrease in the number of issued shares of Common Stock resulting from a stock split, reverse stock split, stock dividend, combination or reclassification of the Common Stock, or any other increase or decrease in the number of issued shares of Common Stock effected without receipt of consideration by the Company or other change in the corporate structure of the Company affecting the Shares that the Administrator determines is necessary to prevent diminution or enlargement of benefits or potential benefits intended to be made available under the Plan. The conversion of any convertible securities of the Company shall not be deemed to have been "effected without receipt of consideration." Such adjustment shall be made by the Board, whose determination in that respect shall be final, binding and conclusive. Except as expressly provided herein, no issuance by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall affect, and no

adjustment by reason thereof shall be made with respect to, the number or price of shares of Common Stock subject to an Option.

(b) Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, the Administrator shall notify each Optionee as soon as practicable prior to the effective date of such proposed transaction. The Administrator in its discretion may provide for an Optionee to have the right to exercise his or her Option until fifteen (15) days prior to such transaction as to all of the Optioned Stock covered thereby, including Shares as to which the Option would not otherwise be exercisable. In addition, the Administrator may provide that any Company repurchase option applicable to any Shares purchased upon exercise of an Option shall lapse as to all such Shares, provided the proposed dissolution or liquidation takes place at the time and in the manner contemplated. To the extent it has not been previously exercised, an Option will terminate immediately prior to the consummation of such proposed action.

(c) Merger or Asset Sale. In the event of a merger of the Company with or into another corporation, or the sale of substantially all of the assets of the Company, each outstanding Option shall be assumed or an equivalent option or right substituted by the successor corporation or a Parent or Subsidiary of the successor corporation. In the event that the successor corporation refuses to assume or substitute for an Option (or portion thereof), the Optionee shall fully vest in and have the right to exercise the Option (or portion thereof) that is not assumed or substituted for as to all of the Optioned Stock, including Shares as to which it would not otherwise be vested or exercisable. If an Option is not assumed or substituted for in the event of a merger or sale of assets, the Administrator shall notify the Optionee in writing or electronically that the Option shall be fully exercisable for a period of fifteen (15) days from the date of such notice, and the Option shall terminate upon the expiration of such period. For the purposes of this paragraph, the Option shall be considered assumed if, following the merger or sale of assets, the option or right confers the right to purchase or receive, for each Share subject to the Option immediately prior to the merger or sale of assets, the consideration (whether stock, cash, or other securities or property) received in the merger or sale of assets by holders of Common Stock for each Share held on the effective date of the transaction (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding Shares); provided, however, that if such consideration received in the merger or sale of assets is not solely common stock of the successor corporation or its Parent, the Administrator may, with the consent of the successor corporation, provide for the consideration to be received upon the exercise of the Option, for each Share subject to the Option, to be solely common stock of the successor corporation or its Parent equal in fair market value to the per share consideration received by holders of Common Stock in the merger or sale of assets.

12. Time of Granting Options. The date of grant of an Option shall, for all purposes, be the date on which the Administrator makes the determination granting such Option, or such other date as is determined by the Administrator. Notice of the determination shall be given to each Service Provider to whom an Option is so granted within a reasonable time after the date of such grant.

13. Amendment and Termination of the Plan.

(a) Amendment and Termination. The Board may at any time amend, alter, suspend or terminate the Plan.

(b) Stockholder Approval. The Board shall obtain stockholder approval of any Plan amendment to the extent necessary and desirable to comply with Applicable Laws.

(c) Effect of Amendment or Termination. No amendment, alteration, suspension or termination of the Plan shall impair the rights of any Optionee, unless mutually agreed otherwise between the Optionee and the Administrator, which agreement must be in writing and signed by the Optionee and the Company. Termination of the Plan shall not affect the Administrator's ability to exercise the powers granted to it hereunder with respect to Options granted under the Plan prior to the date of such termination.

14. Conditions Upon Issuance of Shares.

(a) Legal Compliance. Shares shall not be issued pursuant to the exercise of an Option unless the exercise of such Option and the issuance and delivery of such Shares shall comply with Applicable Laws and shall be further subject to the approval of counsel for the Company with respect to such compliance.

(b) Investment Representations. As a condition to the exercise of an Option, the Administrator may require the person exercising such Option to represent and warrant at the time of any such exercise that the Shares are being purchased only for investment and without any present intention to sell or distribute such Shares if, in the opinion of counsel for the Company, such a representation is required.

15. Inability to Obtain Authority. The inability of the Company to obtain authority from any regulatory body having jurisdiction, which authority is deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares hereunder, shall relieve the Company of any liability in respect of the failure to issue or sell such Shares as to which such requisite authority shall not have been obtained.

16. Reservation of Shares. The Company, during the term of this Plan, shall at all times reserve and keep available such number of Shares as shall be sufficient to satisfy the requirements of the Plan.

17. Stockholder Approval. The Plan shall be subject to approval by the stockholders of the Company within twelve (12) months after the date the Plan is adopted. Such stockholder approval shall be obtained in the degree and manner required under Applicable Laws.

APPENDIX A

FLUIDIGM CORPORATION

1999 STOCK OPTION PLAN

Additional Terms and Conditions for Options received by Employees Resident in the Netherlands

The additional terms and conditions detailed below are to be read in conjunction with the Plan and the Option Agreement relating to Options granted to Employees resident in the Netherlands. Any terms and provisions not specifically defined below for Employees subject to the laws of the Netherlands will have the same meaning as defined in the Plan and the applicable Option Agreement.

1. Definitions. Notwithstanding the provisions of the Plan, the following definitions shall apply for Options granted to Employees resident in the Netherlands.

(a) Acknowledgement Date. "Acknowledgement Date" means the date upon which an Option Agreement is signed and returned to the Company (or the Employee's employer if so designated by the Company) by the Employee.

(c) Employee. "Employee" means any person permanently employed by the Company or any Parent or Subsidiary of the Company based upon such factors as are deemed appropriate by the Administrator in its discretion, subject to any requirements and provisions of the applicable Dutch laws, including the provisions of the Dutch Civil Code (*Burgerlijk Wetboek*). The term "Employee", however, shall not include an individual who, either by himself or through his Relative or through a corporate entity, holds, directly or indirectly, 5% or more of the equity of the Company.

(d) Relative. "Relative" means immediate relative, namely one's spouse, parent, parent of spouse, brother, sister, brother of spouse, sister of spouse or child of the person or spouse.

2. Eligibility. Notwithstanding the provisions of the Plan, Options granted to residents of the Netherlands may only be granted to Employees who, either by themselves or through a corporate entity or through his Relative, do not hold, directly or indirectly, 5% or more of the equity of the Company. Consultants resident in the Netherlands shall not be eligible to receive Options.

Options may be granted to Employees in accordance with the terms of the Plan and this Appendix A to the Plan as the Administrator deems appropriate. In determining which Employees may be granted Options, the Administrator will take into account whether will

provide additional incentive to Employees and whether such Options will promote the success of the Company's business.

3. Dutch Taxes. Notwithstanding the provisions of the Plan and pursuant to Section 4(b)(ix) of this Plan, the following shall apply for residents in the Netherlands

(a) All tax and social security consequences and obligations regarding any other compulsory payments arising from the grant, possesion or exercise of any Options, from the payment for, or the subsequent possesion or disposition of or from any other event or act of the Company (or the Employee's employer) or the Employee hereunder, shall be borne solely by the Employee, and the Employee shall indemnify the Company (or the Employee's employer) and hold it harmless against and from any and all liability for any such tax or social security payment, or interest or penalty thereon, including without limitation, liabilities relating to the necessity to withhold, or to have withheld, any such tax or social security payment from any payment made to the Employee.

(b) The Company (or the Employee's employer) is at any time entitled to withhold from wages payable to the Employee any tax and social security amounts due with respect to the grant or exercise of any Options.

(c) On the Acknowledgement Date, the Employee may deliver to the Company a signed written notice in accordance with Article 10(a)(3) of the Dutch Wage Tax Act 1964 (*Wet op de Loonbelasting 1964*) (hereafter: the "Written Notice") with respect to the Options. The Written Notice will indicate that Dutch withholding tax will be due upon exercise of the Options. If no such Written Notice has been received by the Company on the Acknowledgement Date, any withholding tax will automatically be due upon vesting of the Options.

The Company shall immediately send the Written Notice to the competent Dutch tax authorities. Notwithstanding the provisions under Section 9 of the Plan, if a Written Notice has been received by the Company on the Acknowledgement Date, the Options granted under Appendix A will not be exercisable until the competent Dutch tax authorities has received the Written Notice.

4. Merger or Asset Sale. Notwithstanding the provisions of Section 11(c), if the successor corporation (or any parent or subsidiary thereof) intends to assume or substitute each outstanding Option in a merger of the Company with or into another corporation, or the sale of substantially all of the assets of the Company and the rules and regulations governing Options granted to Employees in the Netherlands (the "Netherlands Options") do not permit assumption or substitution of the Netherlands Options in the same manner as other Options, then the Administrator, in its discretion, may provide for the termination of the Netherlands Options upon the consummation of the transaction or provide for the assumption or substitution of the Netherlands Options in a different manner than the assumption or substitution of other Options.

APPENDIX B

FLUIDIGM CORPORATION

1999 STOCK OPTION PLAN
(Added April 24, 2007)

Additional Terms and Conditions for Options received by Employees Resident in France

The additional terms and conditions detailed below are to be read in conjunction with the Plan and the Option Agreement relating to Options granted to Employees resident in France. Any terms and provisions not specifically defined below for Employees subject to the laws of France will have the same meaning as defined in the Plan and the applicable Option Agreement.

In order to promote compliance of the Plan with the principles set out by the French tax authorities in their regulations 4 N 2431 dated August 30, 1997, in furtherance of Article 80 bis III of the French Code Général des Impôts, any Option granted under the Plan to residents of France will be subject to the conditions stated below.

As a matter of principle, any provision included in the Plan, the Option Agreement or any other document evidencing the terms and conditions of an Option that would contravene any substantive principle set out in Articles L.225-177 to L.225-186 of the French Code de Commerce shall not be applicable to Optionees who are residents of France.

1. Definitions. Notwithstanding the provisions of the Plan, the following definitions shall apply for Options granted to Employees resident in France.

(a) Applicable Laws. "Applicable Laws" means the legal requirements relating to the administration of stock option plans under U.S. state corporate laws, U.S. federal and state securities laws, the Code, any stock exchange or quotation system on which the Common Stock is listed or quoted and French corporate, securities, labor and tax laws.

(b) Employee. "Employee" means (i) any person employed by the Company or a branch of the Company or a Subsidiary in a salaried position within the meaning Applicable Laws, who does not own more than ten percent (10%) of the voting power of all classes of stock of the Company, or any Parent or Subsidiary, and who is a resident of the Republic of France or (ii) any person employed by the Company or a branch of the Company or a Subsidiary who is a resident of the Republic of France for tax purposes or who performs his or her duties in France and is subject to French income social security contributions on his or her remuneration.

(c) Fair Market Value. "Fair Market Value" means, as of any date, the dollar value of Common Stock determined as follows:

(i) If the Common Stock is listed on any established stock exchange or a national market system, including without limitation the Nasdaq Global Market or the Nasdaq

Global Select Market of the Nasdaq Stock Market, its Fair Market Value will be the average quotation price for the last twenty (20) days preceding the date of determination for such Common Stock (or the average closing bid for such twenty (20) day period, if no sales were reported) as quoted on such exchange or system and reported in *The Wall Street Journal* or such other source as the Administrator deems reliable;

(ii) If the Common Stock is quoted on the Nasdaq Stock market (but not on the Nasdaq Global Market or Nasdaq Global Select Market thereof) or regularly quoted by a recognized securities dealer but selling prices are not reported, its Fair Market Value will be the mean between the high bid and low asked prices for the Common Stock for the last twenty (20) days preceding the date of determination; or

(iii) In the absence of an established market for the Common Stock, the Fair Market Value thereof will be determined in good faith by the Administrator.

(d) Subsidiary. "Subsidiary" means any participating subsidiary of the Company located in the Republic of France and that falls within the definition of "subsidiary" within the meaning of Section L. 225-180 paragraph 1 of the French commercial code.

(e) Termination. "Termination" means if the Optionee is an Employee, the last day of any statutory or contractual notice period whether worked or not (provided, only the employer, and not the Optionee, may decide whether the Optionee works during the notice period) and irrespective of whether the termination of the employment agreement is due to resignation or dismissal of the Employee for any reason whatsoever; if the Optionee is a corporate officer as defined in Section 2 of this Appendix B, Termination means the date on which he or she effectively leaves his or her position as a corporate officer for any reason whatsoever.

2. Eligibility. Options granted pursuant to this Appendix B may be granted only to Employees, the *Président du conseil d'administration*, the *membres du directoire*, the *Directeur général*, the directeurs généraux délégués, the *Gérant* of a company with capital divided by shares; provided, however, that the *administrateurs* and the *membres du conseil de surveillance* who are also Employees of the Subsidiary in accordance with a valid employment agreement pursuant to Applicable Laws may be granted Options hereunder. For the purpose of this Appendix B, when applicable, the rules set forth for an Employee will be applicable to the aforementioned corporate officers.

3. Stock Subject to the Plan. The total number of Options outstanding which may be exercised for newly issued Shares may at no time exceed that number equal to one-third (1/3rd) of the Company's voting stock, whether preferred stock of the Company or Common Stock. If any Optioned Stock is to consist of reacquired Shares, such Optioned Stock must be purchased by the Company, in the limit of ten percent (10%) of its share capital, prior to the date of the grant of the corresponding new Option and must be reserved and set aside for such purposes. In addition, the new Option must be granted within one (1) year of the acquisition of the Shares underlying such new Option.

4. Limitations Upon Granting of Options.

(a) Declaration of Dividend; Capital Increase. To the extent applicable to the Company, Options cannot be granted during the twenty (20) trading days from (i) the date the Common Stock is trading on an ex-dividend basis or (ii) a capital increase.

(b) Non-Public Information. To the extent applicable to the Company, the Company will not grant Options during the closed periods required under Section L 225-177 of the French Commercial Code. As a result, notwithstanding any other provision of the Plan, Options cannot be granted:

(i) during the ten (10) trading days preceding and following the date on which the consolidated accounts, or, if unavailable, the annual accounts, are made public;

(ii) during the period between the date on which the Company's governing bodies (i.e., the Board) become aware of information which, if made public, could have a material impact on the price of the Shares, and the date ten (10) trading days after such information is made public.

(c) Right to Employment. Neither the Plan nor any Option will confer upon any Optionee any right with respect to continuing the Optionee's employment relationship with the Company or any Subsidiary.

5. Exercise Price. The exercise price for the Shares to be issued pursuant to exercise of an Option will be determined by the Administrator upon the date of grant of the Option and stated in the Option Agreement, but in no event will be less than the higher of (i) eighty percent (80%) of (A) the Fair Market Value on the date the Option is granted, or (B) if applicable, the average purchase price paid by the Company for such Shares, or (ii) the exercise price as determined under Section 8(a) of the Plan. The exercise price cannot be modified while an Option is outstanding, except as required by Applicable Laws.

6. Term of Option. The term of each Option will be as stated in the Option Agreement; provided, however, that the maximum term of an Option will not exceed ten (10) years from the date of grant of the Option.

7. Exercise of Option; Restriction on Sale.

(a) Except as otherwise explicitly set forth in the Option Agreement, Options granted hereunder may be not be exercised within one (1) year of the date the Option is granted (the "Initial Exercise Date") whether or not the Option has vested prior to such time; provided, however, that the Initial Exercise Date will be automatically adjusted to conform with any changes under Applicable Laws so that the length of time from the date of grant to the Initial Exercise Date when added to the length of time in which Shares may not be disposed of after the Initial Exercise Date as provided in Section 7(b) below, will allow for favorable tax and social security treatment under Applicable Laws. Thereafter, Options may be exercised to the extent they have vested.

An Option will be deemed exercised when the Company receives: (i) written or electronic notice of exercise (in accordance with the Option Agreement) from the person entitled to exercise the Option,

and (ii) full payment for the Shares with respect to which the Option is exercised together with any applicable withholding taxes and social security contributions. Full payment may consist of any consideration and method of payment authorized by the Administrator and permitted by the Option Agreement and the Plan. Until the Shares are issued (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder will exist with respect to the Shares, notwithstanding the exercise of the Option. The Company will issue (or cause to be issued) such Shares promptly after the Option is exercised. No adjustment will be made for a dividend or other right for which the record date is prior to the date the Shares are issued, except as provided in Section 11 of the Plan and to the extent permitted by Applicable Law.

(b) The Shares subject to an Option may not be transferred, assigned or hypothecated in any manner otherwise than by will or by the laws of descent or distribution before the date three (3) years from the Initial Exercise Date, except for any events provided for in Article 91 ter of Annex II to the French tax code; provided, however, that the duration of this restriction on sale will be automatically adjusted to conform with any changes to the holding period required for favorable tax and social security treatment under Applicable Laws to the extent permitted under Applicable Laws.

(c) Termination of Employment Relationship. Upon Termination of an Optionee's status as an Employee (other than upon the Optionee's death or Disability), the Optionee may exercise his or her Option within such period of time as specified in the Option Agreement, and only to the extent that the Optionee was entitled to exercise it at the date of Termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, at the date of Termination, the Optionee is not entitled to exercise his or her entire Option, the Shares covered by the unexercisable portion of the Option will revert to the Plan. If, after Termination, the Optionee does not exercise his or her Option within the time specified by the Administrator, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(d) Disability of Optionee. Upon Termination of an Optionee's status as an Employee terminates as a result of the Optionee's Disability, the Optionee may exercise his or her Option at any time within such period of time as specified in the Option Agreement, but only to the extent that the Optionee was entitled to exercise it at the date of such Termination (but in no event later than the expiration of the term of such Option as set forth in the Option Agreement). If, at the date of Termination, the Optionee is not entitled to exercise his or her entire Option, the Shares covered by the unexercisable portion of the Option will revert to the Plan. If, after Termination, the Optionee does not exercise his or her Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will revert to the Plan.

(e) Death of Optionee. In the event of the death of an Optionee while an Employee, the Option may be exercised at any time within six (6) months following the date of death by the Optionee's estate or by a person who acquired the right to exercise the Option by bequest or inheritance, but only to the extent that the Optionee was entitled to exercise the Option at the date of death. If, at the time of death, the Optionee was not entitled to exercise his or her entire

Option, the Shares covered by the unexercisable portion of the Option will revert to the Plan. If, after death, the Optionee's estate or a person who acquired the right to exercise the Option by bequest or inheritance does not exercise the Option within the time specified herein, the Option will terminate, and the Shares covered by such Option will immediately revert to the Plan.

8. Non-Transferability of Options. An Option may not be sold, pledged, assigned, hypothecated, transferred, or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the Optionee, only by the Optionee.

9. Changes in Capitalization. If any adjustment provided for in Section 11(a) of the Plan to the exercise price and the number of shares of Common Stock covered by outstanding Options would violate Applicable Laws in such a way to jeopardize the favorable tax and social security treatment of this Plan together with this Appendix B and the Options granted thereunder, then no such adjustment will be made prior to the exercise of any such outstanding Option.

10. Information Statements to Optionees. The Company or its Subsidiary, as required under Applicable Laws, will provide to each Optionee, with copies to the appropriate governmental entities, such statements of information as required by the Applicable Laws.

11. Reporting to the Stockholders' Meeting. The Subsidiary of the Company, if required under Applicable Laws, will provide its stockholders with an annual report with respect to Options granted and/or exercised by its Employees in the financial year.

Exhibit 10.2A

FLUIDIGM CORPORATION
1999 STOCK OPTION PLAN
STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 1999 Stock Option Plan shall have the same defined meanings in this Stock Option Agreement (the "Option Agreement").

I. NOTICE OF STOCK OPTION GRANT

Name
Address

You have been granted an option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant

Grant Number:

Vesting Commencement Date

Exercise Price per Share $_____

Total Number of Shares Granted

Total Exercise Price

Type of Option: _____ Incentive Stock Option

_____ Nonstatutory Stock Option

Term/Expiration Date: _____

Exercise and Vesting Schedule:

This Option shall be exercisable in whole or in part, and shall vest according to the following vesting schedule:

[Vesting Schedule language]

Termination Period:

This Option may be exercised, to the extent it is then vested, for three months after Optionee ceases to be a Service Provider. Upon death or Disability of the Optionee, this Option may be exercised, to the extent it is then vested, for one year after Optionee ceases to be Service Provider. In no event shall this Option be exercised later than the Term/Expiration Date as provided above.

II. AGREEMENT

1. Grant of Option. The Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the "Optionee"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 13(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO").

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the provisions of Section 9 of the Plan as follows:

(a) Right to Exercise.

(i) Subject to subsections 2(a)(ii) and 2(a)(iii) below, this Option shall be exercisable cumulatively according to the vesting schedule set forth in the Notice of Grant. Alternatively, at the election of the Optionee, this Option may be exercised in whole or in part at any time as to Shares which have not yet vested. Vested Shares shall not be subject to the Company's repurchase right (as set forth in the Restricted Stock Purchase Agreement, attached hereto as Exhibit C-1).

(ii) As a condition to exercising this Option for unvested Shares, the Optionee shall execute the Restricted Stock Purchase Agreement.

(iii) This Option may not be exercised for a fraction of a Share.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice") which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if

required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that, if so requested by the Company or any representative of the underwriters (the "Managing Underwriter") in connection with any registration of the offering of any securities of the Company under the Securities Act, Optionee shall not sell or otherwise transfer any Shares or other securities of the Company during the 180-day period (or such other period as may be requested in writing by the Managing Underwriter and agreed to in writing by the Company) (the "Market Standoff Period") following the effective date of a registration statement of the Company filed under the Securities Act. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such Market Standoff Period and Optionee agrees to enter into a market stand-off agreement in customary form consistent with this section with the managing underwriter.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash;

(b) check;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(d) surrender of other Shares which, (i) in the case of Shares acquired upon exercise of an option, have been owned by the Optionee for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

9. Tax Consequences. Set forth below is a brief summary as of the date of this Option of some of the federal tax consequences of exercise of this Option and disposition of the Shares. THIS SUMMARY IS NECESSARILY INCOMPLETE, AND THE TAX LAWS AND REGULATIONS

ARE SUBJECT TO CHANGE. THE OPTIONEE SHOULD CONSULT A TAX ADVISER BEFORE EXERCISING THIS OPTION OR DISPOSING OF THE SHARES.

(a) Exercise of NSO. There may be a regular federal income tax liability upon the exercise of an NSO. The Optionee will be treated as having received compensation income (taxable at ordinary income tax rates) equal to the excess, if any, of the Fair Market Value of the Exercised Shares on the date of exercise over the Exercise Price. If Optionee is an Employee or a former Employee, the Company will be required to withhold from Optionee's compensation or collect from Optionee and pay to the applicable taxing authorities an amount in cash equal to a percentage of this compensation income at the time of exercise, and may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

(b) Exercise of ISO. If this Option qualifies as an ISO, there will be no regular federal income tax liability upon the exercise of the Option, although the excess, if any, of the Fair Market Value of the Exercised Shares on the date of exercise over the Exercise Price will be treated as an adjustment to the alternative minimum tax for federal tax purposes and may subject the Optionee to the alternative minimum tax in the year of exercise.

(c) Exercise of ISO Following Disability. If the Optionee ceases to be an Employee as a result of a disability that is not a total and permanent disability as defined in Section 22(e)(3) of the Code, to the extent permitted on the date of termination, the Optionee must exercise an ISO within three months of such termination for the ISO to be qualified as an ISO.

(d) Disposition of Shares. In the case of an NSO, if Shares are held for at least one year, any gain realized on disposition of the Shares will be treated as long-term capital gain for federal income tax purposes. In the case of an ISO, if Shares transferred pursuant to the Option are held for at least one year after exercise and at least two years after the Date of Grant, any gain realized on disposition of the Shares will also be treated as long-term capital gain for federal income tax purposes. If Shares purchased under an ISO are disposed of within one year after exercise or two years after the Date of Grant, any gain realized on such disposition will be treated as compensation income (taxable at ordinary income rates) to the extent of the difference between the Exercise Price of the Exercised Shares and the lesser of (i) the Fair Market Value of the Exercised Shares on the date of exercise, or (ii) the sale price of the Exercised Shares. Different rules may apply if the Shares are subject to a substantial risk of forfeiture (within the meaning of Section 83 of the Code) at the time of purchase. Any additional gain will be taxed as capital gain, short-term depending on the period that the ISO Shares were held.

(e) Notice of Disqualifying Disposition of ISO Shares. If the Option granted to Optionee herein is an ISO, and if Optionee sells or otherwise disposes of any of the Shares acquired pursuant to the ISO on or before the later of (i) the date two years after the Date of Grant, or (ii) the date one year after the date of exercise, the Optionee shall immediately notify the Company in writing of such disposition. Optionee agrees that Optionee may be subject to income tax withholding by the Company on the compensation income recognized by the Optionee.

(f) Section 83(b) Election for Unvested Shares Purchased Pursuant to Options. With respect to the exercise of an Option for unvested Shares, an election (the "Election") may be filed by the Optionee with the Internal Revenue Service, within 30 days of the purchase of the Shares, electing pursuant to Section 83(b) of the Code to be taxed currently on any difference between the

purchase price of the Shares and their Fair Market Value on the date of purchase. In the case of an NSO, this will result in a recognition of taxable income to the Optionee on the date of exercise, measured by the excess, if any, of the Fair Market Value of the Exercised Shares, at the time the Option is exercised over the purchase price for the Exercised Shares. Absent such an election, taxable income will be measured and recognized by Optionee at the time or times on which the Company's Repurchase Option lapses. In the case of an ISO, such an election will result in a recognition of income to the Optionee for alternative minimum tax purposes on the date of exercise, measured by the excess, if any, of the Fair Market Value of the Exercised Shares, at the time the Option is exercised, over the purchase price for the Exercised Shares. Absent such an election, alternative minimum taxable income will be measured and recognized by Optionee at the time or times on which the Company's Repurchase Option lapses. Optionee is strongly encouraged to seek the advice of his or her own tax consultants in connection with the purchase of the Shares and the advisability of filing of the Election under Section 83(b) of the Code. A form of Election under Section 83(b) is attached hereto as Exhibit C-5 for reference.

OPTIONEE ACKNOWLEDGES THAT IT IS OPTIONEE'S SOLE RESPONSIBILITY AND NOT THE COMPANY'S TO FILE TIMELY THE ELECTION UNDER SECTION 83(b), EVEN IF OPTIONEE REQUESTS THE COMPANY OR ITS REPRESENTATIVE TO MAKE THIS FILING ON OPTIONEE'S BEHALF.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This Option Agreement is governed by the internal substantive laws but not the choice of law rules of the State of California.

11. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this

Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE:

_____
[Name]

Residence Address:

_____

_____

FLUIDIGM CORPORATION

By: _____

Title: _____

EXHIBIT A

1999 STOCK OPTION PLAN
EXERCISE NOTICE

Fluidigm Corporation
Attn: President
7000 Shoreline Court
Suite 100
South San Francisco, CA 94080

1. Exercise of Option. Effective as of today, _____, _____, the undersigned, [Name] ("Optionee") hereby elects to exercise Optionee's option (the "Option") to purchase _____ shares of the Common Stock (the "Shares") of Fluidigm Corporation (the "Company") under and pursuant to the 1999 Stock Option Plan (the "Plan") and the Stock Option Agreement dated [Grant Date] (the "Option Agreement").

2. Delivery of Payment. Purchaser herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the optioned stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 11 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder,

elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and the terms and conditions of this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, the terms and conditions of this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Administrator which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of the State of California.

11. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Restricted Stock Purchase Agreement, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by:

OPTIONEE:

_____

[Name]

Address:

_____

_____

Accepted by:

FLUIDIGM CORPORATION

By: _____

Its: _____

Date Received: _____

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE	:	[NAME]
COMPANY	:	FLUIDIGM CORPORATION
SECURITY	:	COMMON STOCK
AMOUNT	:	
DATE	:	

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

1. Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(a) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company, and with any other legend required under applicable state securities laws.

(b) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions

directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(c) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

_____

[Name]

Date: _____

EXHIBIT C-1

FLUIDIGM CORPORATION

1999 STOCK OPTION PLAN
RESTRICTED STOCK PURCHASE AGREEMENT

THIS AGREEMENT is made between (the "Purchaser") and Fluidigm Corporation (the "Company") as of _____, _____.

Unless otherwise defined herein, the terms defined in the 1999 Stock Option Plan shall have the same defined meanings in this Agreement.

RECITALS

A. Pursuant to the exercise of the option granted to Purchaser under the Plan and pursuant to the Option Agreement dated [Grant Date] by and between the Company and Purchaser with respect to such grant (the "Option"), which Plan and Option Agreement are hereby incorporated by reference, Purchaser has elected to purchase _____ shares of Common Stock, of which _____ shares have not become vested under the vesting schedule set forth in the Option Agreement ("Unvested Shares"). The Unvested Shares and the shares subject to the Option Agreement which have become vested are sometimes collectively referred to herein as the "Shares".

B. As required by the Option Agreement, as a condition to Purchaser's election to exercise the option, Purchaser must execute this Agreement, which sets forth the rights and obligations of the parties with respect to Shares acquired upon exercise of the Option.

1. Repurchase Option.

(a) If Purchaser's status as a Service Provider is terminated for any reason, including for cause, death, and Disability, the Company shall have the right and option to purchase from Purchaser, or Purchaser's personal representative, as the case may be, all of the Purchaser's Unvested Shares as of the date of such termination at the price paid by the Purchaser for such Shares (the "Repurchase Option").

(b) Upon the occurrence of such termination, the Company may exercise its Repurchase Option by delivering personally or by registered mail, to Purchaser (or his transferee or legal representative, as the case may be), within ninety (90) days of the termination, a notice in writing indicating the Company's intention to exercise the Repurchase Option and setting forth a date for closing not later than thirty (30) days from the mailing of such notice. The closing shall take place at the Company's office. At the closing, the holder of the certificates for the Unvested Shares being transferred shall deliver the stock certificate or certificates evidencing the Unvested Shares, and the Company shall deliver the purchase price therefor.

(c) At its option, the Company may elect to make payment for the Unvested Shares to a bank selected by the Company. The Company shall avail itself of this option by a notice in writing to Purchaser stating the name and address of the bank, date of closing, and waiving the closing at the Company's office.

(d) If the Company does not elect to exercise the Repurchase Option conferred above by giving the requisite notice within ninety (90) days following the termination, the Repurchase Option shall terminate.

(e) The Repurchase Option shall terminate in accordance with the vesting schedule contained in Optionee's Option Agreement.

2. Transferability of the Shares; Escrow.

(a) Purchaser hereby authorizes and directs the Secretary of the Company, or such other person designated by the Company, to transfer the Unvested Shares as to which the Repurchase Option has been exercised from Purchaser to the Company.

(b) To insure the availability for delivery of Purchaser's Unvested Shares upon repurchase by the Company pursuant to the Repurchase Option under Section 1, Purchaser hereby appoints the Secretary, or any other person designated by the Company as escrow agent, as its attorney-in-fact to sell, assign and transfer unto the Company, such Unvested Shares, if any, repurchased by the Company pursuant to the Repurchase Option and shall, upon execution of this Agreement, deliver and deposit with the Secretary of the Company, or such other person designated by the Company, the share certificates representing the Unvested Shares, together with the stock assignment duly endorsed in blank, attached hereto as Exhibit C-2. The Unvested Shares and stock assignment shall be held by the secretary in escrow, pursuant to the Joint Escrow Instructions of the Company and Purchaser attached as Exhibit C-3 hereto, until the Company exercises its Repurchase Option, until such Unvested Shares are vested, or until such time as this Agreement no longer is in effect. As a further condition to the Company's obligations under this Agreement, the spouse of the Purchaser, if any, shall execute and deliver to the Company the Consent of Spouse attached hereto as Exhibit C-4. Upon vesting of the Unvested Shares, the escrow agent shall promptly deliver to the Purchaser the certificate or certificates representing such Shares in the escrow agent's possession belonging to the Purchaser, and the escrow agent shall be discharged of all further obligations hereunder; provided, however, that the escrow agent shall nevertheless retain such certificate or certificates as escrow agent if so required pursuant to other restrictions imposed pursuant to this Agreement.

(c) The Company, or its designee, shall not be liable for any act it may do or omit to do with respect to holding the Shares in escrow and while acting in good faith and in the exercise of its judgment.

(d) Transfer or sale of the Shares is subject to restrictions on transfer imposed by any applicable state and federal securities laws. Any transferee shall hold such Shares subject to all the provisions hereof and the Exercise Notice executed by the Purchaser with respect to any Unvested Shares purchased by Purchaser and shall acknowledge the same by signing a copy of this Agreement.

3. Ownership, Voting Rights, Duties. This Agreement shall not affect in any way the ownership, voting rights or other rights or duties of Purchaser, except as specifically provided herein.

4. Legends. The share certificate evidencing the Shares issued hereunder shall be endorsed with the following legend (in addition to any legend required under applicable federal and state securities laws):

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS UPON TRANSFER AND RIGHTS OF REPURCHASE AS SET FORTH IN AN AGREEMENT BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

5. Adjustment for Stock Split. All references to the number of Shares and the purchase price of the Shares in this Agreement shall be appropriately adjusted to reflect any stock split, stock dividend or other change in the Shares which may be made by the Company pursuant to Section 11 of the Plan after the date of this Agreement.

6. Notices. Notices required hereunder shall be given in person or by registered mail to the address of Purchaser shown on the records of the Company, and to the Company at their respective principal executive offices.

7. Survival of Terms. This Agreement shall apply to and bind Purchaser and the Company and their respective permitted assignees and transferees, heirs, legatees, executors, administrators and legal successors.

8. Section 83(b) Election. Purchaser hereby acknowledges that he or she has been informed that, with respect to the exercise of an Option for Unvested Shares, an election (the "Election") may be filed by the Purchaser with the Internal Revenue Service, within 30 days of the purchase of the exercised Shares, electing pursuant to Section 83(b) of the Code to be taxed currently on any difference between the purchase price of the exercised Shares and their Fair Market Value on the date of purchase. In the case of a Nonstatutory Stock Option, this will result in a recognition of taxable income to the Purchaser on the date of exercise, measured by the excess, if any, of the Fair Market Value of the exercised Shares, at the time the Option is exercised over the purchase price for the exercised Shares. Absent such an Election, taxable income will be measured and recognized by Purchaser at the time or times on which the Company's Repurchase Option lapses. In the case of an Incentive Stock Option, such an Election will result in a recognition of income to the Purchaser for alternative minimum tax purposes on the date of exercise, measured by the excess, if any, of the Fair Market Value of the exercised Shares, at the time the option is exercised, over the purchase price for the exercised Shares. Absent such an Election, alternative minimum taxable income will be measured and recognized by Purchaser at the time or times on which the Company's Repurchase Option lapses. Purchaser is strongly encouraged to seek the advice of his or her own tax consultants in connection with the purchase of the Shares and the advisability of filing of the Election under Section 83(b) of the Code. A form of Election under Section 83(b) is attached hereto as Exhibit C-5 for reference.

PURCHASER ACKNOWLEDGES THAT IT IS PURCHASER'S SOLE RESPONSIBILITY AND NOT THE COMPANY'S TO FILE TIMELY THE ELECTION UNDER SECTION 83(b) OF THE CODE, EVEN IF PURCHASER REQUESTS THE COMPANY OR ITS REPRESENTATIVE TO MAKE THIS FILING ON PURCHASER'S BEHALF.

9. Representations. Purchaser has reviewed with his own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. Purchaser is relying solely on such advisors and not on any statements or representations

of the Company or any of its agents. Purchaser understands that he (and not the Company) shall be responsible for his own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement.

10. Governing Law. This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

Purchaser represents that he has read this Agreement and is familiar with its terms and provisions. Purchaser hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Board upon any questions arising under this Agreement.

IN WITNESS WHEREOF, this Agreement is deemed made as of the date first set forth above.

OPTIONEE:

_____

[Name]

Residence Address:

_____

_____

Dated: _____

FLUIDIGM CORPORATION

By: _____

Title: _____

EXHIBIT C-2

ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED I, [Name], hereby sell, assign and transfer unto _____ _____ (_____) shares of the Common Stock of Fluidigm Corporation standing in my name of the books of said corporation represented by Certificate No. _____ herewith and do hereby irrevocably constitute and appoint _____ to transfer the said stock on the books of the within named corporation with full power of substitution in the premises.

This Stock Assignment may be used only in accordance with the Restricted Stock Purchase Agreement between Fluidigm Corporation and the undersigned dated _____, _____.

Dated: _____, _____

Signature: _____
[Name]

INSTRUCTIONS: Please do not fill in any blanks other than the signature line. The purpose of this assignment is to enable the Company to exercise its "repurchase option," as set forth in the Agreement, without requiring additional signatures on the part of the Purchaser.

EXHIBIT C-3

JOINT ESCROW INSTRUCTIONS

_____, ____

Wilson Sonsini Goodrich & Rosati
Attn: Robert F. Kornegay
650 Page Mill Road
Palo Alto, CA 94304

Ladies and Gentlemen:

As Escrow Agent for both Fluidigm Corporation (the "Company"), and the undersigned purchaser of stock of the Company (the "Purchaser"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of that certain Restricted Stock Purchase Agreement ("Agreement") between the Company and the undersigned, in accordance with the following instructions:

1. In the event the Company and/or any assignee of the Company (referred to collectively for convenience herein as the "Company") exercises the Company's repurchase option set forth in the Agreement, the Company shall give to Purchaser and you a written notice specifying the number of shares of stock to be purchased, the purchase price, and the time for a closing hereunder at the principal office of the Company. Purchaser and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

2. At the closing, you are directed (a) to date the stock assignments necessary for the transfer in question, (b) to fill in the number of shares being transferred, and (c) to deliver the stock assignments, together with the certificate evidencing the shares of stock to be transferred, to the Company or its assignee, against the simultaneous delivery to you of the purchase price (by cash, a check, or some combination thereof) for the number of shares of stock being purchased pursuant to the exercise of the Company's repurchase option.

3. Purchaser irrevocably authorizes the Company to deposit with you any certificates evidencing shares of stock to be held by you hereunder and any additions and substitutions to said shares as defined in the Agreement. Purchaser does hereby irrevocably constitute and appoint you as Purchaser's attorney-in-fact and agent for the term of this escrow to execute with respect to such securities all documents necessary or appropriate to make such securities negotiable and to complete any transaction herein contemplated, including but not limited to the filing with any applicable state blue sky authority of any required applications for consent to, or notice of transfer of, the securities. Subject to the provisions of this paragraph 3, Purchaser shall exercise all rights and privileges of a stockholder of the Company while the stock is held by you.

4. Upon written request of the Purchaser, but no more than once per calendar year, unless the Company's repurchase option has been exercised, you will deliver to Purchaser a certificate or certificates representing so many shares of stock as are not then subject to the Company's repurchase option. Within 120 days after cessation of Purchaser's continuous employment by or services to the Company, or any parent or subsidiary of the Company, you will deliver to Purchaser a certificate or

certificates representing the aggregate number of shares held or issued pursuant to the Agreement and not purchased by the Company or its assignees pursuant to exercise of the Company's repurchase option.

5. If at the time of termination of this escrow you should have in your possession any documents, securities, or other property belonging to Purchaser, you shall deliver all of the same to Purchaser and shall be discharged of all further obligations hereunder.

6. Your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

7. You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact for Purchaser while acting in good faith, and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

8. You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or corporation, excepting only orders or process of courts of law and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. In case you obey or comply with any such order, judgment or decree, you shall not be liable to any of the parties hereto or to any other person, firm or corporation by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

9. You shall not be liable in any respect on account of the identity, authorities or rights of the parties executing or delivering or purporting to execute or deliver the Agreement or any documents or papers deposited or called for hereunder.

10. You shall not be liable for the outlawing of any rights under the Statute of Limitations with respect to these Joint Escrow Instructions or any documents deposited with you.

11. You shall be entitled to employ such legal counsel and other experts as you may deem necessary properly to advise you in connection with your obligations hereunder, may rely upon the advice of such counsel, and may pay such counsel reasonable compensation therefor.

12. Your responsibilities as Escrow Agent hereunder shall terminate if you shall cease to be an officer or agent of the Company or if you shall resign by written notice to each party. In the event of any such termination, the Company shall appoint a successor Escrow Agent.

13. If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

14. It is understood and agreed that should any dispute arise with respect to the delivery and/or ownership or right of possession of the securities held by you hereunder, you are authorized

and directed to retain in your possession without liability to anyone all or any part of said securities until such disputes shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

15. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to each of the other parties thereunto entitled at the following addresses or at such other addresses as a party may designate by ten days' advance written notice to each of the other parties hereto.

16. By signing these Joint Escrow Instructions, you become a party hereto only for the purpose of said Joint Escrow Instructions; you do not become a party to the Agreement.

17. This instrument shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and permitted assigns.

18. These Joint Escrow Instructions shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California.

PURCHASER:

_____
[Name]

FLUIDIGM CORPORATION

By: _____

Title: _____

ESCROW AGENT
Wilson Sonsini Goodrich & Rosati, PC

_____
Robert F. Kornegay

Dated: _____, _____

EXHIBIT C-4

CONSENT OF SPOUSE

I, _____, spouse of [Name], have read and approve the foregoing Restricted Stock Purchase Agreement (the "Agreement"). In consideration of granting of the right to my spouse to purchase shares of Fluidigm Corporation, as set forth in the Agreement, I hereby appoint my spouse as my attorney-in-fact in respect to the exercise of any rights under the Agreement and agree to be bound by the provisions of the Agreement insofar as I may have any rights in said Agreement or any shares issued pursuant thereto under the community property laws or similar laws relating to marital property in effect in the state of our residence as of the date of the signing of the foregoing Agreement.

Dated: _____ _____ Signature: _____

EXHIBIT C-5

ELECTION UNDER SECTION 83(b)
OF THE INTERNAL REVENUE CODE OF 1986

The undersigned taxpayer hereby elects, pursuant to Sections 55 and 83(b) of the Internal Revenue Code of 1986, as amended, to include in taxpayer's gross income or alternative minimum taxable income, as the case may be, for the current taxable year the amount of any compensation taxable to taxpayer in connection with taxpayer's receipt of the property described below:

1. The name, address, taxpayer identification number and taxable year of the undersigned are as follows:

NAME: TAXPAYER: [Name] SPOUSE:

ADDRESS:

IDENTIFICATION NO.: TAXPAYER: SPOUSE:

TAXABLE YEAR:

2. The property with respect to which the election is made is described as follows: _____ shares (the "Shares") of the Common Stock of Fluidigm Corporation (the "Company").

3. The date on which the property was transferred is: _____, _____.

4. The property is subject to the following restrictions:

The Shares may not be transferred and are subject to forfeiture under the terms of an agreement between the taxpayer and the Company. These restrictions lapse upon the satisfaction of certain conditions contained in such agreement.

5. The fair market value at the time of transfer, determined without regard to any restriction other than a restriction which by its terms will never lapse, of such property is:
$_____.

6. The amount (if any) paid for such property is:
$_____.

The undersigned has submitted a copy of this statement to the person for whom the services were performed in connection with the undersigned's receipt of the above-described property. The transferee of such property is the person performing the services in connection with the transfer of said property.

The undersigned understands that the foregoing election may not be revoked except with the consent of the Commissioner.

Dated: _____

_____
[Name]

The undersigned spouse of taxpayer joins in this election.

Dated: _____

_____
Spouse of [Name]

FLUIDIGM CORPORATION
1999 STOCK OPTION PLAN
STOCK OPTION AGREEMENT
(NSO for Consultants)

Unless otherwise defined herein, the terms defined in the 1999 Stock Option Plan shall have the same defined meanings in this Stock Option Agreement (the "Option Agreement").

I. NOTICE OF STOCK OPTION GRANT

Name
Address

You have been granted an option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan and this Option Agreement, as follows:

Date of Grant

Grant Number

Vesting Commencement Date

Exercise Price per Share $_____

Total Number of Shares Granted

Total Exercise Price

Type of Option: _____ Incentive Stock Option

_X_ Nonstatutory Stock Option

Term/Expiration Date: _____

Exercise and Vesting Schedule:

This Option shall be exercisable in whole or in part, and shall vest according to the following vesting schedule:

[Vesting Schedule]

Termination Period:

This Option may be exercised in whole or in part, to the extent it is then vested, at any time prior to the Expiration Date set forth above. This Option may not be exercised with respect to unvested shares.

II. AGREEMENT

1. Grant of Option. The Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the "Optionee"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 13(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan and this Option Agreement, the terms and conditions of the Plan shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO").

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the provisions of Section 9 of the Plan as follows:

(a) Right to Exercise.

(i) Subject to subsections 2(a)(ii) below, this Option shall be exercisable cumulatively according to the vesting schedule set forth in the Notice of Grant.

(ii) This Option may not be exercised for a fraction of a Share.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice") which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that, if so requested by the Company or any representative of the underwriters (the "Managing Underwriter") in connection with any registration of the offering of any securities of the Company under the Securities Act, Optionee shall not sell or

otherwise transfer any Shares or other securities of the Company during the 180-day period (or such other period as may be requested in writing by the Managing Underwriter and agreed to in writing by the Company) (the "Market Standoff Period") following the effective date of a registration statement of the Company filed under the Securities Act. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such Market Standoff Period and Optionee agrees to enter into a market stand-off agreement in customary form consistent with this section with the managing underwriter.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash;

(b) check;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(d) surrender of other Shares which, (i) in the case of Shares acquired upon exercise of an option, have been owned by the Optionee for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

9. Tax Consequences. Set forth below is a brief summary as of the date of this Option of some of the federal tax consequences of exercise of this Option and disposition of the Shares. THIS SUMMARY IS NECESSARILY INCOMPLETE, AND THE TAX LAWS AND REGULATIONS ARE SUBJECT TO CHANGE. THE OPTIONEE SHOULD CONSULT A TAX ADVISER BEFORE EXERCISING THIS OPTION OR DISPOSING OF THE SHARES.

There may be a regular federal income tax liability upon the exercise of an NSO. The Optionee will be treated as having received compensation income (taxable at ordinary income tax rates) equal to the excess, if any, of the Fair Market Value of the Exercised Shares on the date of exercise over the Exercise Price. If Optionee is an Employee or a former Employee, the Company will be required to withhold from Optionee's compensation or collect from Optionee and pay to the

applicable taxing authorities an amount in cash equal to a percentage of this compensation income at the time of exercise, and may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

10. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This Option Agreement is governed by the internal substantive laws but not the choice of law rules of the State of California.

11. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE:

_____

[Name]

Residence Address:

_____

_____

FLUIDIGM CORPORATION

By: _____

Title: _____

EXHIBIT A

1999 STOCK OPTION PLAN
EXERCISE NOTICE

Fluidigm Corporation
Attn: President
7000 Shoreline Court
Suite 100
South San Francisco, CA 94080

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("Optionee") hereby elects to exercise Optionee's option (the "Option") to purchase _____ shares of the Common Stock (the "Shares") of Fluidigm Corporation (the "Company") under and pursuant to the 1999 Stock Option Plan (the "Plan") and the Stock Option Agreement dated [Grant Date] (the "Option Agreement").

2. Delivery of Payment. Purchaser herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the optioned stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 11 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder,

elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and the terms and conditions of this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, the terms and conditions of this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Administrator which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of the State of California.

11. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Restricted Stock Purchase Agreement, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by:

OPTIONEE:

_____

[Name]

Address:

_____

_____

Accepted by:

FLUIDIGM CORPORATION

By: _____

Its: _____

Date Received: _____

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE	:	[NAME]
COMPANY	:	FLUIDIGM CORPORATION
SECURITY	:	COMMON STOCK
AMOUNT	:	
DATE	:	

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company, and with any other legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701

may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

_____

[Name]

Date: _____

FLUIDIGM CORPORATION

1999 STOCK OPTION PLAN

INTERNATIONAL STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 1999 Stock Option Plan (or the applicable appendix thereunder) shall have the same defined meanings in this Stock Option Agreement (the "Option Agreement").

I. NOTICE OF STOCK OPTION GRANT

Name
Address

You have been granted an option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan (and the applicable appendix thereunder, if any) and this Option Agreement, as follows:

Date of Grant		
Grant Number:		
Vesting Commencement Date		
Exercise Price per Share	U.S.$	
Total Number of Shares Granted		
Total Exercise Price	U.S.$	
Type of Option:	____	Incentive Stock Option
	X	Nonstatutory Stock Option
Term/Expiration Date:		

Exercise and Vesting Schedule:

This Option shall be exercisable in whole or in part, and shall vest according to the following vesting schedule:

[Vesting Schedule]

Termination Period:

This Option may be exercised, to the extent it is then vested, for three months after Optionee ceases to be a Service Provider. Upon death or Disability of the Optionee, this Option may be exercised, to the extent it is then vested, for one year after Optionee ceases to be Service Provider. In no event shall this Option be exercised later than the Term/Expiration Date as provided above.

II. AGREEMENT

1. Grant of Option. The Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the "Optionee"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 13(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan (including any applicable appendix thereunder) and this Option Agreement, the terms and conditions of the Plan (including any applicable appendix thereunder) shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO").

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the provisions of Section 9 of the Plan as follows:

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice in the form attached as Exhibit A (the "Exercise Notice") which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised, and such other representations and agreements as may be required by the Company. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares. This Option shall be deemed to be exercised upon receipt by the Company of such fully executed Exercise Notice accompanied by the aggregate Exercise Price.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver

to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit B.

4. Lock-Up Period. Optionee hereby agrees that, if so requested by the Company or any representative of the underwriters (the "Managing Underwriter") in connection with any registration of the offering of any securities of the Company under the Securities Act, Optionee shall not sell or otherwise transfer any Shares or other securities of the Company during the 180-day period (or such other period as may be requested in writing by the Managing Underwriter and agreed to in writing by the Company) (the "Market Standoff Period") following the effective date of a registration statement of the Company filed under the Securities Act. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such Market Standoff Period and Optionee agrees to enter into a market stand-off agreement in customary form consistent with this section with the managing underwriter.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash;

(b) check;

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan; or

(d) surrender of other Shares, provided that Shares acquired from the Company (i) have been owned by the Optionee and not subject to a substantial risk of forfeiture for more than six (6) months on the date of surrender, and (ii) have a Fair Market Value on the date of surrender equal to the aggregate Exercise Price of the Exercised Shares.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

9. Tax Obligations.

(a) Withholding. Optionee agrees to make appropriate arrangements with the Company (or the Parent or Subsidiary employing or retaining Optionee) for the satisfaction of all Federal, state, local and foreign income and employment tax withholding requirements as well as

social security charges applicable to the vesting of the Option, the exercise of the Option or the disposition of any Shares acquired upon exercise. In this regard, Optionee authorizes the Company (and/or the Parent or Subsidiary employing or retaining Optionee) to withhold all applicable taxes legally payable by Optionee from the Optionee's wages or other cash compensation paid to Optionee by the Company (and/or the Parent or Subsidiary employing or retaining Optionee) or from proceeds from the sale of Shares acquired upon exercise of the Option in an amount sufficient to cover such tax obligations. Optionee acknowledges and agrees that the Company may refuse to honor the exercise and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise.

(b) Tax Consultation. Optionee understands that he or she may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that he or she will consult with any tax advisors Optionee deems appropriate in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

10. Acknowledgements.

(a) Optionee acknowledges receipt of a copy of the Plan (including any applicable appendixes thereunder) and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan (including any applicable appendixes thereunder) and this Option Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

(b) The Company (and not Optionee's employer) is granting the Option. The Company will administer the Plan from outside Optionee's country of residence and that United States of America law will govern all Options granted under the Plan.

(c) That benefits and rights provided under the Plan are wholly discretionary and, although provided by the Company, do not constitute regular or periodic payments. The benefits and rights provided under the Plan are not to be considered part of Optionee' s salary or compensation for purposes of calculating any severance, resignation, redundancy or other end of service payments, vacation, bonuses, long-term service awards, indemnification, pension or retirement benefits, or any other payments, benefits or rights of any kind. Optionee waives any and all rights to compensation or damages as a result of the termination of employment with the Company for any reason whatsoever insofar as those rights result or may result from:

(i) the loss or diminution in value of such rights under the Plan, or

(ii) Optionee ceases to have any rights under, or ceases to be entitled to any rights under the Plan as a result of such termination.

(d) The grant of the Option, and any future grant of Options under the Plan is entirely voluntary, and at the complete discretion of the Company. Neither the grant of the Option

nor any future grant of an Option by the Company will be deemed to create any obligation to grant any further Options, whether or not such a reservation is explicitly stated at the time of such a grant. The Company has the right, at any time to amend, suspend or terminate the Plan.

(e) The Plan will not be deemed to constitute, and will not be construed by Optionee to constitute, part of the terms and conditions of employment, and that the Company will not incur any liability of any kind to Optionee as a result of any change or amendment, or any cancellation, of the Plan at any time.

(f) Participation in the Plan will not be deemed to constitute, and will not be deemed by Optionee to constitute, an employment or labor relationship of any kind with the Company.

(g) By entering into this Option Agreement, and as a condition of the grant of the Option, Optionee consents to the collection, use, and transfer of personal data as described in this subsection to the full extent permitted by and in full compliance with Applicable Law.

(i) Optionee understands that the Company and its Subsidiaries hold certain personal information about the Optionee, including, but not limited to, name, home address and telephone number, date of birth, social insurance number, salary, nationality, job title, any Shares or directorships held in the Company, details of all Options or other entitlement to Shares awarded, canceled, exercised, vested, unvested, or outstanding in Optionee's favor, for the purpose of managing and administering the Plan ("Data").

(ii) Optionee further understands that the Company and/or its Subsidiaries will transfer Data among themselves as necessary for the purposes of implementation, administration, and management of Optionee's participation in the Plan, and that the Company and/or its Subsidiary may each further transfer Data to any third parties assisting the Company in the implementation, administration, and management of the Plan ("Data Recipients").

(iii) Optionee understands that these Data Recipients may be located in Optionee's country of residence or elsewhere, such as the United States. Optionee authorizes the Data Recipients to receive, possess, use, retain, and transfer Data in electronic or other form, for the purposes of implementing, administering, and managing Optionee's participation in the Plan, including any transfer of such Data, as may be required for the administration of the Plan and/or the subsequent holding of Shares on Optionee' s behalf, to a broker or third party with whom the Shares acquired on exercise may be deposited.

(iv) Optionee understands that Optionee may, at any time, review the Data, request that any necessary amendments be made to it, or withdraw Optionee's consent herein in writing by contacting the Company. Optionee further understands that withdrawing consent may affect Optionee's ability to participate in the Plan.

(h) Optionee has received the terms and conditions of this Option Agreement and any other related communications, and Optionee consents to having received these documents in English.

11. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This Option Agreement is governed by the internal substantive laws but not the choice of law rules of the State of California.

12. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE COMPANY'S RIGHT TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

Optionee acknowledges receipt of a copy of the Plan and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE:

_____

[Name]

Residence Address:

_____

_____

_____

FLUIDIGM CORPORATION

By: _____

Title: _____

EXHIBIT A

1999 STOCK OPTION PLAN

EXERCISE NOTICE

Fluidigm Corporation
Attn: President
7000 Shoreline Court
Suite 100
South San Francisco, CA 94080

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("Optionee") hereby elects to exercise Optionee's option (the "Option") to purchase _____ shares of the Common Stock (the "Shares") of Fluidigm Corporation (the "Company") under and pursuant to the 1999 Stock Option Plan, including any applicable appendixes thereunder (collectively, the "Plan"), and the Stock Option Agreement dated [Grant Date] (the "Option Agreement").

2. Delivery of Payment. Optionee herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement, and any and all withholding taxes due in connection with the exercise of the Option.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the optioned stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 11 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee; and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended.

12. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

6. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF UNDERWRITTEN PUBLIC OFFERING OF THE COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

7. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and the terms and conditions of this Exercise Notice

shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, the terms and conditions of this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

8. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Administrator which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

9. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of the State of California.

10. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Restricted Stock Purchase Agreement, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Submitted by:

OPTIONEE:

_____

[Name]

Address:

_____

_____

_____

Accepted by:

FLUIDIGM CORPORATION

By: _____

Its: _____

Date Received: _____

EXHIBIT B

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE : [NAME]

COMPANY : FLUIDIGM CORPORATION

SECURITY : COMMON STOCK

AMOUNT :

DATE :

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company, and with any other legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701

may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including: (1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

_____

[Name]

Date: _____, _____

FLUIDIGM CORPORATION

1999 STOCK OPTION PLAN

FRENCH STOCK OPTION AGREEMENT

Unless otherwise defined herein, the terms defined in the 1999 Stock Option Plan (or the applicable appendix thereunder) shall have the same defined meanings in this Stock Option Agreement (the "Option Agreement").

I. NOTICE OF STOCK OPTION GRANT

Name
Address

You have been granted an option to purchase Common Stock of the Company, subject to the terms and conditions of the Plan (and the applicable appendix thereunder, if any) and this Option Agreement, as follows:

Date of Grant		
Vesting Commencement Date		
Exercise Price per Share	$	
Total Number of Shares Granted		
Total Exercise Price	U.S.$	
Type of Option:	_____	Incentive Stock Option
	X	Nonstatutory Stock Option
Term/Expiration Date:		

Exercise and Vesting Schedule:

This Option shall be exercisable in whole or in part, and shall vest according to the following vesting schedule:

[Twenty-five percent (25%) of the Shares subject to the Option shall vest twelve months after the Vesting Commencement Date, and 1/48 of the Shares subject to the Option shall vest each month thereafter on the same day of the month as the Vesting Commencement Date (and if there is no corresponding date, the last day of the month), subject to Optionee continuing to be a Service Provider through such dates; provided, however, the Option granted hereunder may not be exercised before one (1) year following the date the Option is granted ("Initial Exercise Date") whether or not the Option has vested prior to such time.]

Restriction on Sale:

The Shares may not be transferred, assigned or hypothecated in any manner otherwise than by will or by the laws of descent or distribution before the date three (3) years after the Initial Exercise Date (the "Holding Period"), except upon the occurrence of an event provided for by Article 91 ter of Annex II to the French Tax Code.

Optionee shall be obligated to have Shares held pursuant to an escrow arrangement established by the Company, in order to insure compliance with the Holding Period and so that the Company may sufficiently track the Shares acquired upon exercise of the Option and the Company shall be given sufficient access to any account Optionee may have with respect to any such Shares so that the Company may correctly provide any required reports to the French taxing authorities as required by Applicable Laws. Optionee hereby authorizes and directs the Company to hold all Shares exercised subject to this Option under the Escrow Provisions attached hereto as Exhibit B, for the duration of the Holding Period or until such time as this Agreement is no longer in effect. Optionee hereby appoints the Secretary, or any other person designated by the Company as escrow agent and shall, upon execution of this Agreement, deliver and deposit with the Secretary of the Company, or such other person designated by the Company, the share certificates representing the Shares.

The Company, or its designee, shall not be liable for any act it may do or omit with respect to holding the Shares in escrow and while acting in good faith and in the exercise of its judgment.

Termination Period:

This Option will be exercisable for three (3) months after Optionee ceases to be a Service Provider, unless such termination is due to Optionee's death or Disability, in which case this Option will be exercisable for one (1) year after Optionee ceases to be Service Provider in the event of Optionee's Disability and six (6) months after Optionee ceases to be a Service Provider in the event of Optionee's death. Notwithstanding the foregoing, in no event may this Option be exercised after the Term/Expiration Date as provided above.

II. AGREEMENT

1. Grant of Option. The Administrator of the Company hereby grants to the Optionee named in the Notice of Grant (the "Optionee"), an option (the "Option") to purchase the number of Shares set forth in the Notice of Grant, at the exercise price per Share set forth in the Notice of Grant (the "Exercise Price"), and subject to the terms and conditions of the Plan, which is incorporated herein by reference. Subject to Section 13(c) of the Plan, in the event of a conflict between the terms and conditions of the Plan (including any applicable appendix thereunder) and this Option Agreement, the terms and conditions of the Plan (including any applicable appendix thereunder) shall prevail.

If designated in the Notice of Grant as an Incentive Stock Option ("ISO"), this Option is intended to qualify as an Incentive Stock Option as defined in Section 422 of the Code. Nevertheless, to the extent that it exceeds the $100,000 rule of Code Section 422(d), this Option shall be treated as a Nonstatutory Stock Option ("NSO").

2. Exercise of Option. This Option shall be exercisable during its term in accordance with the provisions of Section 9 of the Plan as follows:

(a) Right to Exercise. This Option shall be exercisable during its term in accordance with the Vesting Schedule set out in the Notice of Grant and with the applicable provisions of the Plan and this Option Agreement.

(b) Method of Exercise. This Option shall be exercisable by delivery of an exercise notice to the Company, in the form attached as Exhibit A (the "Exercise Notice") or in a manner and pursuant to such procedures as the Administrator may determine, which shall state the election to exercise the Option, the number of Shares with respect to which the Option is being exercised (the "Exercised Shares"), and such other representations and agreements as may be required by the Company and/or the Subsidiary pursuant to the provisions of the Plan (including Appendix B). Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the Optioned Stock, notwithstanding the exercise of the Option. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance of the Shares, except as provided in Appendix B of the Plan. The Exercise Notice shall be signed by Optionee and shall be delivered in person or by certified mail to the Secretary of the Subsidiary or such other person as the Company may designate. The Exercise Notice shall be accompanied by payment of the aggregate Exercise Price as to all Exercised Shares and all applicable tax withholdings. This Option shall be deemed to be exercised upon receipt by the Subsidiary of such fully executed Exercise Notice accompanied by the aggregate Exercise Price and payment of all applicable tax withholdings.

No Shares shall be issued pursuant to the exercise of an Option unless such issuance and such exercise complies with Applicable Laws. Assuming such compliance, for income tax purposes the Shares shall be considered transferred to the Optionee on the date on which the Option is exercised with respect to such Shares.

3. Optionee's Representations. In the event the Shares have not been registered under the Securities Act of 1933, as amended, at the time this Option is exercised, the Optionee shall, if required by the Company, concurrently with the exercise of all or any portion of this Option, deliver to the Company his or her Investment Representation Statement in the form attached hereto as Exhibit C.

4. Lock-Up Period. Optionee hereby agrees that, if so requested by the Company or any representative of the underwriters (the "Managing Underwriter") in connection with any registration of the offering of any securities of the Company under the Securities Act, Optionee shall not sell or otherwise transfer any Shares or other securities of the Company during the 180-day period (or such other period as may be requested in writing by the Managing Underwriter and agreed to in writing by the Company) (the "Market Standoff Period") following the effective date of a registration statement of the Company filed under the Securities Act. The Company may impose stop-transfer instructions with respect to securities subject to the foregoing restrictions until the end of such Market Standoff Period and Optionee agrees to enter into a market stand-off agreement in customary form consistent with this section with the managing underwriter.

5. Method of Payment. Payment of the aggregate Exercise Price shall be by any of the following, or a combination thereof, at the election of the Optionee:

(a) cash or check (denominated in U.S. Dollars);

(b) wire transfer (denominated in U.S. Dollars); or

(c) consideration received by the Company under a formal cashless exercise program adopted by the Company in connection with the Plan.

6. Restrictions on Exercise. This Option may not be exercised until such time as the Plan has been approved by the stockholders of the Company, or if the issuance of such Shares upon such exercise or the method of payment of consideration for such shares would constitute a violation of any Applicable Law.

7. Non-Transferability of Option. This Option may not be transferred in any manner otherwise than by will or by the laws of descent or distribution and may be exercised during the lifetime of Optionee only by Optionee. The terms of the Plan and this Option Agreement shall be binding upon the executors, administrators, heirs, successors and assigns of the Optionee.

8. Term of Option. This Option may be exercised only within the term set out in the Notice of Grant, and may be exercised during such term only in accordance with the Plan and the terms of this Option.

9. Withholding and Responsibility for Tax Related Items. Optionee hereby acknowledges and agrees that the ultimate liability for any and all tax, social insurance and payroll tax withholding ("Tax-Related Items") is and remains, to the extent provided for by law, his or her responsibility and liability and that his or her employer, the Company and its Subsidiaries (a) make no representations or undertakings regarding the treatment of any Tax-Related Items in connection with any aspect of the Option grant, including the grant, vesting or exercise of the Option and the subsequent sale of Shares acquired pursuant to such exercise; and (b) do not commit to structure the terms of the grant or any aspect of the Option to reduce or eliminate his or her liability for Tax-Related Items.

Optionee agrees that prior to exercise of the Option or sale of the Share(s) acquired thereunder, he or she shall pay or make adequate arrangements satisfactory to the Company and/or his or her employer, as applicable, to satisfy all withholding obligations of the Company and/or his or her employer. Optionee acknowledges and agrees that the Company may refuse to honor the exercise of the Option and refuse to deliver Shares if such withholding amounts are not delivered at the time of exercise or related sale. In this regard, Optionee authorizes the Company and/or his or her employer (be it through the intermediary of the Broker or otherwise) to withhold all applicable Tax-Related Items legally payable by him or her from his or her wages or other cash compensation paid to him or her by the Company and/or his or her employer, or from proceeds of sale. Alternatively, or in addition, Optionee agrees and acknowledges that the Company may sell or arrange for the sale of Shares that Optionee is due to acquire with respect to the Option to meet the minimum withholding obligation for Tax Related Items. Any estimated withholding which is not required in satisfaction of any Tax Related Items shall be repaid to Optionee by the Company or his or her employer, as applicable. Finally, Optionee agrees that he or she shall pay to the Company or his or her employer, as

applicable, any amount of any Tax Related Items that the Company and/or his or her employer may be required to withhold as a result of his or her participation in the Plan or his or her exercise of the Option or sale of Shares acquired thereunder that cannot be satisfied by the means previously described. In the event that the Options under the Plan are subsequently disqualified for purposes of French tax law, Optionee agrees to submit immediately the amount of any income tax withholding and/or Optionee's social security contributions due by means of check, cash or credit transfer. In addition, Optionee grants the Company or his/her employer the right to require the Broker to withhold sufficient amounts from the sale proceeds to meet the Tax Related Items withholding obligations.

Optionee's employer or the Company may withhold Shares owed to Optionee at the time of exercise in order to meet the tax and/or social insurance charges that might be due on behalf of Optionee at the time of sale of the underlying Shares. Upon sale of the underlying Shares, Optionee authorizes his/her employer or the Company to withhold, or request the Broker to withhold, from the proceeds to be paid to Optionee the amount necessary to satisfy the Tax Related Items due on behalf of Optionee at the time of exercise of the Option and/or sale of the Shares acquired thereunder. If such amounts are due and are not withheld, Optionee shall agree to submit the amount due to the Company, his or her employer or the appropriate tax authorities by check, cash or credit transfer upon request.

Optionee also agrees that in the hypothesis he/she breaches any obligation set forth in the Plan, or this Option Agreement, the damages that shall be suffered by his/her employer and/or the Company shall be no less than the amount of the taxes and social security contributions (employer's and Employee's part) applicable to the related Options or Shares acquired thereunder, which minimum amount shall therefore be withheld by his/her employer, the Company or the Broker as damages, notwithstanding any further action from his/her employer and or the Company against Optionee.

10. Acknowledgements.

(a) Optionee acknowledges receipt of a copy of the Plan (including any applicable appendixes thereunder) and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan (including any applicable appendixes thereunder) and this Option Agreement in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan (including any applicable appendixes thereunder) or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

(b) The Company (and not Optionee's employer) is granting the Option. The Company will administer the Plan from outside Optionee's country of residence and that United States of America law will govern all Options granted under the Plan.

(c) That benefits and rights provided under the Plan are wholly discretionary and, although provided by the Company, do not constitute regular or periodic payments. The benefits and rights provided under the Plan are not to be considered part of Optionee's salary or compensation for purposes of calculating any severance, resignation, redundancy or other end of service payments, vacation, bonuses, long-term service awards, indemnification, pension or retirement benefits, or any other payments, benefits or rights of any kind. Optionee waives any and all rights to compensation or

damages as a result of the termination of employment with the Company for any reason whatsoever insofar as those rights result or may result from:

(i) the loss or diminution in value of such rights under the Plan, or

(ii) Optionee ceases to have any rights under, or ceases to be entitled to any rights under the Plan as a result of such termination.

(d) The grant of the Option, and any future grant of Options under the Plan is entirely voluntary, and at the complete discretion of the Company. Neither the grant of the Option nor any future grant of an Option by the Company will be deemed to create any obligation to grant any further Options, whether or not such a reservation is explicitly stated at the time of such a grant. The Company has the right, at any time to amend, suspend or terminate the Plan (including any applicable appendixes thereunder).

(e) The Plan will not be deemed to constitute, and will not be construed by Optionee to constitute, part of the terms and conditions of employment, and that the Company will not incur any liability of any kind to Optionee as a result of any change or amendment, or any cancellation, of the Plan at any time.

(f) Participation in the Plan will not be deemed to constitute, and will not be deemed by Optionee to constitute, an employment or labor relationship of any kind with the Company.

(g) By entering into this Option Agreement, and as a condition of the grant of the Option, Optionee consents to the collection, use, and transfer of personal data as described in this subsection to the full extent permitted by and in full compliance with Applicable Law.

(i) Optionee understands that the Company and its Subsidiaries hold certain personal information about the Optionee, including, but not limited to, name, home address and telephone number, date of birth, social insurance number, salary, nationality, job title, any Shares or directorships held in the Company, details of all Options or other entitlement to Shares awarded, canceled, exercised, vested, unvested, or outstanding in Optionee's favor, for the purpose of managing and administering the Plan ("Data").

(ii) Optionee further understands that the Company and/or its Subsidiaries will transfer Data among themselves as necessary for the purposes of implementation, administration, and management of Optionee's participation in the Plan, and that the Company and/or its Subsidiary may each further transfer Data to any third parties assisting the Company in the implementation, administration, and management of the Plan ("Data Recipients").

(iii) Optionee understands that these Data Recipients may be located in Optionee's country of residence or elsewhere, such as the United States. Optionee authorizes the Data Recipients to receive, possess, use, retain, and transfer Data in electronic or other form, for the purposes of implementing, administering, and managing Optionee's participation in the Plan, including any transfer of such Data, as may be required for the administration of the Plan and/or the subsequent holding of Shares on Optionee's behalf, to a broker or third party with whom the Shares acquired on exercise may be deposited.

(iv) Optionee understands that Optionee may, at any time, review the Data, request that any necessary amendments be made to it, or withdraw Optionee's consent herein in writing by contacting the Company. Optionee further understands that withdrawing consent may affect Optionee's ability to participate in the Plan.

(h) Optionee has received the terms and conditions of this Option Agreement and any other related communications, and Optionee consents to having received these documents in English. **Je reconnais expressément par les présentes, que je comprends et parle parfaitement la langue anglaise, que j'ai eu le temps nécessaire pour entièrement lire et parfaitement comprendre le présent contrat ainsi que l'ensemble des documents et annexes s'y afférant et que j'ai eu l'opportunité de m'en entretenir avec les conseils de mon choix.** (*I represent that I perfectly speak and understand English language, that I had enough time to review and understand this agreement as all the related documents and appendix and that I had the opportunity to obtain advice from the counsels of my choice).*

11. Entire Agreement; Governing Law. The Plan is incorporated herein by reference. The Plan and this Option Agreement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee. This Option Agreement is governed by the internal substantive laws but not the choice of law rules of the State of California.

12. No Guarantee of Continued Service. OPTIONEE ACKNOWLEDGES AND AGREES THAT THE VESTING OF SHARES PURSUANT TO THE VESTING SCHEDULE HEREOF IS EARNED ONLY BY CONTINUING AS A SERVICE PROVIDER AT THE WILL OF THE COMPANY OR THE PARENT OR SUBSIDIARY OF THE COMPANY EMPLOYING OR RETAINING OPTIONEE (NOT THROUGH THE ACT OF BEING HIRED, BEING GRANTED THIS OPTION OR ACQUIRING SHARES HEREUNDER). OPTIONEE FURTHER ACKNOWLEDGES AND AGREES THAT THIS AGREEMENT, THE TRANSACTIONS CONTEMPLATED HEREUNDER AND THE VESTING SCHEDULE SET FORTH HEREIN DO NOT CONSTITUTE AN EXPRESS OR IMPLIED PROMISE OF CONTINUED ENGAGEMENT AS A SERVICE PROVIDER FOR THE VESTING PERIOD, FOR ANY PERIOD, OR AT ALL, AND SHALL NOT INTERFERE IN ANY WAY WITH OPTIONEE'S RIGHT OR THE RIGHT OF THE COMPANY (OR THE PARENT OR SUBSIDIARY OF THE COMPANY EMPLOYING OR RETAINING OPTIONEE) TO TERMINATE OPTIONEE'S RELATIONSHIP AS A SERVICE PROVIDER AT ANY TIME, WITH OR WITHOUT CAUSE.

[Signature Page Follows]

Optionee acknowledges receipt of a copy of the Plan (including Appendix B attached thereto) and represents that he or she is familiar with the terms and provisions thereof, and hereby accepts this Option subject to all of the terms and provisions thereof. Optionee has reviewed the Plan and this Option in their entirety, has had an opportunity to obtain the advice of counsel prior to executing this Option and fully understands all provisions of the Option. Optionee hereby agrees to accept as binding, conclusive and final all decisions or interpretations of the Administrator upon any questions arising under the Plan or this Option. Optionee further agrees to notify the Company upon any change in the residence address indicated below.

OPTIONEE:

_____

[Name]

Residence Address:

_____

_____

FLUIDIGM CORPORATION

By: _____

Title: _____

EXHIBIT A

1999 STOCK OPTION PLAN
EXERCISE NOTICE

Fluidigm Corporation
Attn: President
7000 Shoreline Court
Suite 100
South San Francisco, CA 94080

1. Exercise of Option. Effective as of today, _____, _____, the undersigned ("Optionee") hereby elects to exercise Optionee's option (the "Option") to purchase _____ shares of the Common Stock (the "Shares") of Fluidigm Corporation (the "Company") under and pursuant to the 1999 Stock Option Plan, including any applicable appendixes thereunder (collectively, the "Plan"), and the Stock Option Agreement dated [Grant Date] (the "Option Agreement").

2. Delivery of Payment. Optionee herewith delivers to the Company the full purchase price of the Shares, as set forth in the Option Agreement. Should any tax or social contribution be due by the Company (or Optionee's employer) due to the exercise of the Option or the disposition of the Shares, Optionee hereby agrees that the corresponding amount may be withheld on the proceeds due to Optionee from any sale of the Shares by the broker previously selected by the Company to be used by Optionee and such amount shall be directly paid to the Company so that the Company may pay the relevant taxing authorities any amounts due.

3. Representations of Optionee. Optionee acknowledges that Optionee has received, read and understood the Plan and the Option Agreement and agrees to abide by and be bound by their terms and conditions.

4. Rights as Stockholder. Until the issuance of the Shares (as evidenced by the appropriate entry on the books of the Company or of a duly authorized transfer agent of the Company), no right to vote or receive dividends or any other rights as a stockholder shall exist with respect to the optioned stock, notwithstanding the exercise of the Option. The Shares shall be issued to the Optionee as soon as practicable after the Option is exercised. No adjustment shall be made for a dividend or other right for which the record date is prior to the date of issuance except as provided in Section 11 of the Plan.

5. Company's Right of First Refusal. Before any Shares held by Optionee or any transferee (either being sometimes referred to herein as the "Holder") may be sold or otherwise transferred (including transfer by gift or operation of law), the Company or its assignee(s) shall have a right of first refusal to purchase the Shares on the terms and conditions set forth in this Section (the "Right of First Refusal").

(a) Notice of Proposed Transfer. The Holder of the Shares shall deliver to the Company a written notice (the "Notice") stating: (i) the Holder's bona fide intention to sell or otherwise transfer such Shares; (ii) the name of each proposed purchaser or other transferee ("Proposed Transferee"); (iii) the number of Shares to be transferred to each Proposed Transferee;

and (iv) the bona fide cash price or other consideration for which the Holder proposes to transfer the Shares (the "Offered Price"), and the Holder shall offer the Shares at the Offered Price to the Company or its assignee(s).

(b) Exercise of Right of First Refusal. At any time within thirty (30) days after receipt of the Notice, the Company and/or its assignee(s) may, by giving written notice to the Holder, elect to purchase all, but not less than all, of the Shares proposed to be transferred to any one or more of the Proposed Transferees, at the purchase price determined in accordance with subsection (c) below.

(c) Purchase Price. The purchase price ("Purchase Price") for the Shares purchased by the Company or its assignee(s) under this Section shall be the Offered Price. If the Offered Price includes consideration other than cash, the cash equivalent value of the non-cash consideration shall be determined by the Board of Directors of the Company in good faith.

(d) Payment. Payment of the Purchase Price shall be made, at the option of the Company or its assignee(s), in cash (by check), by cancellation of all or a portion of any outstanding indebtedness of the Holder to the Company (or, in the case of repurchase by an assignee, to the assignee), or by any combination thereof within 30 days after receipt of the Notice or in the manner and at the times set forth in the Notice.

(e) Holder's Right to Transfer. If all of the Shares proposed in the Notice to be transferred to a given Proposed Transferee are not purchased by the Company and/or its assignee(s) as provided in this Section, then the Holder may sell or otherwise transfer such Shares to that Proposed Transferee at the Offered Price or at a higher price, provided that such sale or other transfer is consummated within 120 days after the date of the Notice, that any such sale or other transfer is effected in accordance with any applicable securities laws and that the Proposed Transferee agrees in writing that the provisions of this Section shall continue to apply to the Shares in the hands of such Proposed Transferee. If the Shares described in the Notice are not transferred to the Proposed Transferee within such period, a new Notice shall be given to the Company, and the Company and/or its assignees shall again be offered the Right of First Refusal before any Shares held by the Holder may be sold or otherwise transferred.

(f) Exception for Certain Family Transfers. Anything to the contrary contained in this Section notwithstanding, the transfer of any or all of the Shares during the Optionee's lifetime or on the Optionee's death by will or intestacy to the Optionee's immediate family or a trust for the benefit of the Optionee's immediate family shall be exempt from the provisions of this Section. "Immediate Family" as used herein shall mean spouse, lineal descendant or antecedent, father, mother, brother or sister. In such case, the transferee or other recipient shall receive and hold the Shares so transferred subject to the provisions of this Section, and there shall be no further transfer of such Shares except in accordance with the terms of this Section.

(g) Termination of Right of First Refusal. The Right of First Refusal shall terminate as to any Shares upon the first sale of Common Stock of the Company to the general public pursuant to a registration statement filed with and declared effective by the Securities and Exchange Commission under the Securities Act of 1933, as amended.

6. Tax Consultation. Optionee understands that Optionee may suffer adverse tax consequences as a result of Optionee's purchase or disposition of the Shares. Optionee represents that Optionee has consulted with any tax consultants Optionee deems advisable in connection with the purchase or disposition of the Shares and that Optionee is not relying on the Company for any tax advice.

7. Restrictive Legends and Stop-Transfer Orders.

(a) Legends. Optionee understands and agrees that the Company shall cause the legends set forth below or legends substantially equivalent thereto, to be placed upon any certificate(s) evidencing ownership of the Shares together with any other legends that may be required by the Company or by state or federal securities laws:

THE SECURITIES REPRESENTED HEREBY HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933 (THE "ACT") AND MAY NOT BE OFFERED, SOLD OR OTHERWISE TRANSFERRED, PLEDGED OR HYPOTHECATED UNLESS AND UNTIL REGISTERED UNDER THE ACT OR, IN THE OPINION OF COMPANY COUNSEL SATISFACTORY TO THE ISSUER OF THESE SECURITIES, SUCH OFFER, SALE OR TRANSFER, PLEDGE OR HYPOTHECATION IS IN COMPLIANCE THEREWITH.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO CERTAIN RESTRICTIONS ON TRANSFER AND RIGHT OF FIRST REFUSAL OPTIONS HELD BY THE ISSUER OR ITS ASSIGNEE(S) AS SET FORTH IN THE EXERCISE NOTICE BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS AND RIGHT OF FIRST REFUSAL ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE MAY NOT BE TRANSFERRED, ASSIGNED OR HYPOTHECATED IN ANY MANNER OTHER THAN BY WILL OR BY THE LAWS OF DESCENT OR DISTRIBUTION BEFORE THE DATE THREE (3) YEARS AFTER THE INITIAL EXERCISE DATE, AS SUCH TERM IS DEFINED IN THE STOCK OPTION AGREEMENT BETWEEN THE ISSUER AND THE ORIGINAL HOLDER OF THESE SHARES, A COPY OF WHICH MAY BE OBTAINED AT THE PRINCIPAL OFFICE OF THE ISSUER. SUCH TRANSFER RESTRICTIONS ARE BINDING ON TRANSFEREES OF THESE SHARES.

THE SHARES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO RESTRICTIONS ON TRANSFER FOR A PERIOD NOT TO EXCEED 180 DAYS FOLLOWING THE EFFECTIVE DATE OF UNDERWRITTEN PUBLIC OFFERING OF THE

COMPANY'S SECURITIES AND MAY NOT BE SOLD OR OTHERWISE DISPOSED OF BY THE HOLDER WITHOUT THE CONSENT OF THE COMPANY OR THE MANAGING UNDERWRITER.

(b) Stop-Transfer Notices. Optionee agrees that, in order to ensure compliance with the restrictions referred to herein, the Company may issue appropriate "stop transfer" instructions to its transfer agent, if any, and that, if the Company transfers its own securities, it may make appropriate notations to the same effect in its own records.

(c) Refusal to Transfer. The Company shall not be required (i) to transfer on its books any Shares that have been sold or otherwise transferred in violation of any of the provisions of this Exercise Notice or (ii) to treat as owner of such Shares or to accord the right to vote or pay dividends to any purchaser or other transferee to whom such Shares shall have been so transferred.

8. Successors and Assigns. The Company may assign any of its rights under this Exercise Notice to single or multiple assignees, and the terms and conditions of this Exercise Notice shall inure to the benefit of the successors and assigns of the Company. Subject to the restrictions on transfer herein set forth, the terms and conditions of this Exercise Notice shall be binding upon Optionee and his or her heirs, executors, administrators, successors and assigns.

9. Interpretation. Any dispute regarding the interpretation of this Exercise Notice shall be submitted by Optionee or by the Company forthwith to the Administrator which shall review such dispute at its next regular meeting. The resolution of such a dispute by the Administrator shall be final and binding on all parties.

10. Governing Law; Severability. This Exercise Notice is governed by the internal substantive laws, but not the choice of law rules, of the State of California.

11. Entire Agreement. The Plan and Option Agreement are incorporated herein by reference. This Exercise Notice, the Plan, the Restricted Stock Purchase Agreement, the Option Agreement and the Investment Representation Statement constitute the entire agreement of the parties with respect to the subject matter hereof and supersede in their entirety all prior undertakings and agreements of the Company and Optionee with respect to the subject matter hereof, and may not be modified adversely to the Optionee's interest except by means of a writing signed by the Company and Optionee.

Je reconnais expressément par les présentes, que je comprends et parle parfaitement la langue anglaise, que j'ai eu le temps nécessaire pour entièrement lire et parfaitement comprendre le présent contrat ainsi que l'ensemble des documents et annexes s'y afférant et que j'ai eu l'opportunité de m'en entretenir avec les conseils de mon choix. (*I represent that I perfectly speak and understand English language, that I had enough time to review and understand this agreement as all the related documents and appendix and that I had the opportunity to obtain advice from the counsels of my choice).*

Submitted by:

OPTIONEE:

_____

[Name]

Address:

_____

_____

Accepted by:

FLUIDIGM CORPORATION

By: _____

Its: _____

Date Received: _____

EXHIBIT B

FLUIDIGM CORPORATION

1999 STOCK OPTION PLAN

ESCROW PROVISIONS – FRENCH EMPLOYEES

(a) Option. As set forth in the Notice of Grant, you have been granted the Option under the Plan. The Shares acquired upon exercise of the Option shall be held by the Company under these Escrow Provisions in an account in your name.

(b) Legal and Equitable Title. Legal and equitable title to the Option and any cash or securities acquired pursuant thereto, shall remain with you at all times, notwithstanding that such items may be held by the Company pursuant to these Escrow Instructions.

(c) Exercise of Option. You may instruct the Company to exercise the Option on your behalf at such time or times as permitted by the Notice of Grant, the Stock Option Agreement and the Plan.

(d) Proceeds of Exercise. Shares acquired upon exercise of the Option shall be retained in this Escrow until the date three (3) years from the Initial Exercise Date (the "Holding Period"); provided, however, that the duration of this restriction on sale shall be automatically adjusted to conform with any changes to the holding period required for favorable tax and social security treatment under Applicable Laws, as defined in the Plan. Upon the expiration of the Holding Period, you may elect to keep the Shares in your account under these Escrow Provisions or have them distributed to you as soon as administratively feasible. You may elect to keep any proceeds from any sale of such Shares, made following the expiration of the Holding Period, in your account under these Escrow Provisions or to have them distributed to you within ten (10) business days of the sale, pursuant to such channels as the Company reasonably determines appropriate.

(e) Powers of Company. The Company may take any and all actions, and is hereby granted such powers and discretion, as may appear necessary or proper to comply with the Applicable Laws and to effectuate and carry out the terms and purposes of this Escrow, including, but not limited to, the power to exercise the Option and hold or dispose of the proceeds of such exercise in accordance with the terms of these Escrow Provisions.

(f) Limitation of Liability. The Company shall not be liable for any damage caused by the exercise of its discretion as authorized by these Escrow Provisions for any reason, except gross negligence or willful misconduct. The Company shall not be liable for honest mistakes of judgment or for losses or liabilities due to such honest mistakes of judgment.

(g) Costs and Expenses of this Escrow. All costs and expenses of these Escrow Provisions shall be borne by the Company.

(h) Governing Law. This Escrow shall be administered in the State of California, and its validity, construction and all rights hereunder, shall be governed by the laws of the State of California; provided, however, that all matters affecting the title, ownership and transferability of any security, whether created or held hereunder, shall be governed by all applicable federal, state, or foreign securities laws.

OPTIONEE	FLUIDIGM CORPORATION
Signature	By
Print Name	Title
Residence Address	

EXHIBIT C

INVESTMENT REPRESENTATION STATEMENT

OPTIONEE : [NAME]

COMPANY : FLUIDIGM CORPORATION

SECURITY : COMMON STOCK

AMOUNT :

DATE :

In connection with the purchase of the above-listed Securities, the undersigned Optionee represents to the Company the following:

(a) Optionee is aware of the Company's business affairs and financial condition and has acquired sufficient information about the Company to reach an informed and knowledgeable decision to acquire the Securities. Optionee is acquiring these Securities for investment for Optionee's own account only and not with a view to, or for resale in connection with, any "distribution" thereof within the meaning of the Securities Act of 1933, as amended (the "Securities Act").

(b) Optionee acknowledges and understands that the Securities constitute "restricted securities" under the Securities Act and have not been registered under the Securities Act in reliance upon a specific exemption therefrom, which exemption depends upon, among other things, the bona fide nature of Optionee's investment intent as expressed herein. In this connection, Optionee understands that, in the view of the Securities and Exchange Commission, the statutory basis for such exemption may be unavailable if Optionee's representation was predicated solely upon a present intention to hold these Securities for the minimum capital gains period specified under tax statutes, for a deferred sale, for or until an increase or decrease in the market price of the Securities, or for a period of one year or any other fixed period in the future. Optionee further understands that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or an exemption from such registration is available. Optionee further acknowledges and understands that the Company is under no obligation to register the Securities. Optionee understands that the certificate evidencing the Securities will be imprinted with a legend which prohibits the transfer of the Securities unless they are registered or such registration is not required in the opinion of counsel satisfactory to the Company, and with any other legend required under applicable state securities laws.

(c) Optionee is familiar with the provisions of Rule 701 and Rule 144, each promulgated under the Securities Act, which, in substance, permit limited public resale of "restricted securities" acquired, directly or indirectly from the issuer thereof, in a non-public offering subject to the satisfaction of certain conditions. Rule 701 provides that if the issuer qualifies under Rule 701 at the time of the grant of the Option to the Optionee, the exercise will be exempt from registration under the Securities Act. In the event the Company becomes subject to the reporting requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, ninety (90) days thereafter (or such longer period as any market stand-off agreement may require) the Securities exempt under Rule 701 may be resold, subject to the satisfaction of certain of the conditions specified by Rule 144, including:

(1) the resale being made through a broker in an unsolicited "broker's transaction" or in transactions directly with a market maker (as said term is defined under the Securities Exchange Act of 1934); and, in the case of an affiliate, (2) the availability of certain public information about the Company, (3) the amount of Securities being sold during any three month period not exceeding the limitations specified in Rule 144(e), and (4) the timely filing of a Form 144, if applicable.

In the event that the Company does not qualify under Rule 701 at the time of grant of the Option, then the Securities may be resold in certain limited circumstances subject to the provisions of Rule 144, which requires the resale to occur not less than one year after the later of the date the Securities were sold by the Company or the date the Securities were sold by an affiliate of the Company, within the meaning of Rule 144; and, in the case of acquisition of the Securities by an affiliate, or by a non-affiliate who subsequently holds the Securities less than two years, the satisfaction of the conditions set forth in sections (1), (2), (3) and (4) of the paragraph immediately above.

(d) Optionee further understands that in the event all of the applicable requirements of Rule 701 or 144 are not satisfied, registration under the Securities Act, compliance with Regulation A, or some other registration exemption will be required; and that, notwithstanding the fact that Rules 144 and 701 are not exclusive, the Staff of the Securities and Exchange Commission has expressed its opinion that persons proposing to sell private placement securities other than in a registered offering and otherwise than pursuant to Rules 144 or 701 will have a substantial burden of proof in establishing that an exemption from registration is available for such offers or sales, and that such persons and their respective brokers who participate in such transactions do so at their own risk. Optionee understands that no assurances can be given that any such other registration exemption will be available in such event.

Signature of Optionee:

_____

[Name]

Date: _____, _____

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.4

2020.LICI.001.B
California Institute of Technology

SECOND AMENDED AND RESTATED LICENSE AGREEMENT

This SECOND AMENDED AND RESTATED LICENSE AGREEMENT ("Agreement"), effective May 1, 2000 (the "Effective Date") with a second restatement date as of May 1, 2004 (the "Second Restatement Date"), between **California Institute Of Technology**, 1200 East California Boulevard, Pasadena, California 91125 ("Caltech") and **Fluidigm Corporation**, 7100 Shoreline Court, South San Francisco, California 94080 (formerly Mycometrix Corporation) ("Licensee").

Whereas, Caltech has been engaged in basic research in the field of microfluidics;

Whereas, that research led to the United States patents, patent applications and other inventions listed in Exhibit A, which are owned, solely or jointly, by Caltech;

Whereas, Licensee is desirous of obtaining, and Caltech wishes to grant to Licensee, an exclusive license (or the maximum rights Caltech can grant) to the Licensed Patents (as defined in Section 1.5) and Improvements thereof in the Field (as defined in Sections 1.4 and 1.3, respectively) and an exclusive license to the Technology (as defined in Section 1.9);

Whereas, the Caltech and Licensee have entered into a prior License Agreement made as of May 1, 2000, and an Amended and Restated License Agreement made as of June 1, 2002, which the parties now wish to further amend and restate as set forth herein.

Now, Therefore, the parties agree as follows:

ARTICLE 1

DEFINITIONS

1.1 **"Affiliate"** shall mean, with respect to Licensee, any entity which controls, is controlled by or is under common control with Licensee. An entity shall be regarded as in control of another entity for purposes of this definition if it owns or controls fifty percent (50%) or more of the shares of the subject entity entitled to vote in the election of directors (or, in the case of an entity that is not a corporation, for the election of the corresponding managing authority). "Affiliate" shall mean, with respect to Caltech, any research entity which is operated or managed as a facility under Caltech.

1.2 **"Deductible Expenses"** means (i) all trade, cash and quantity credits, discounts, refunds or government rebates; (ii) amounts for claims, allowances or credits for returns, retroactive price reductions, or chargebacks; (iii) packaging, handling fees and prepaid freight, sales taxes, duties and other governmental charges (including value added tax); and (iv) provisions for uncollectible accounts determined in accordance with reasonable accounting practices, consistently applied to all products of the selling party. For the removal of doubt, Net Sales shall not include sales by Licensee to its Affiliates for resale, provided that if Licensee sells a Licensed Product to an Affiliate for resale, Net Sales shall include the amounts invoiced by such Affiliate to third parties on the resale of such Licensed Product. In the event that Licensee grants a sublicense hereunder, and receives payments based upon the Sublicensee's sales of Licensed Products, Licensee may upon notice to Caltech modify this definition of "Net Sales" for purposes of calculating royalties payable to Caltech on such Sublicensee's sales to be the same as the definition of "Net Sales" on which such royalties to Licensee are calculated.

1.3 **"Field"** means [***]

[***]

1.4 **"Improvements"** shall mean all Caltech rights (whether or not Caltech has sole or joint rights) in any improvement or invention conceived and reduced to practice or otherwise developed in or arising from research in the Field as conducted by Dr. Stephen Quake, researchers of the Quake laboratory, or in collaboration with members of the Frances Arnold or Axel Scherer laboratories, whether invented solely by Caltech researchers or jointly with (i) Licensee or (ii) other researchers without an obligation of assignment to Caltech.

1.5 **"Licensed Patents"** means the patent applications listed in Exhibit A hereto; any patents issuing on such patent applications, all divisionals, continuations, continuations-in-part, patents of addition, substitutions, registrations, reissues, reexaminations or extensions of any kind with respect to any of the existing patents and any foreign counterparts of such patent applications and patents, and Improvements.

1.6 **"Licensed Product"** means products covered by a Valid Claim of a Licensed Patent in the country in which such product is sold or products in which the Technology is utilized.

1.7 **"Net Sales"** means the total amount invoiced to third parties on sales of Licensed Products for which royalties are due under Article 4 below, less, to the extent allocable to such invoiced amounts, Deductible Expenses.

1.8 **"Sublicensee"** shall mean any non-Affiliate third party to whom Licensee has granted the right under the Licensed Patents and Technology to manufacture and sell Licensed Products, with respect to Licensed Products made and sold by such third party.

1.9 **"Technology"** means all proprietary information, know-how, procedures, methods, prototypes, designs, technical data, reports, and data owned by Caltech that are necessary or useful in the development of products in the Field covered by any issued patent or pending patent application within the Licensed Patents, and which relate to such products.

1.10 **"Valid Claim"** means a claim of an issued and unexpired patent or a claim of a pending patent application within the Licensed Patents which has not been held unpatentable, invalid or unenforceable by a court or other government agency of competent jurisdiction and has not been admitted to be invalid or unenforceable through reissue, re-examination, disclaimer or otherwise; provided, however, that if the holding of such court or agency is later reversed by a court or agency with overriding authority, the claim shall be reinstated as a Valid Claim with respect to Net Sales made after the date of such reversal. Notwithstanding the foregoing provisions of this Section 1.10, if a claim of a pending patent application within the Licensed Patents has not issued as a claim of an issued patent within the Licensed Patents, within five (5) years after the filing date from which such claim takes priority, such pending claim shall not be a Valid Claim for purposes of this Agreement.

ARTICLE 2

PATENT LICENSE GRANT

2.1 Caltech hereby grants to Licensee an exclusive, royalty-bearing, worldwide license, with the right to grant and authorize sublicenses, under the Licensed Patents and Technology to make, have made, use, import, offer for sale and sell Licensed Products, practice any method or procedure and otherwise exploit the Licensed Patents and Technology.

2.2 These licenses are subject to: (a) the reservation of Caltech's right to make, have made, and use Licensed Products for noncommercial educational and research purposes, but not for sale or other distribution to third parties; and (b) the rights of the U.S. Government under Title 35, United States Code, Section 200 et seq., including but not limited to the grant to the U.S. government of a nonexclusive, nontransferrable, irrevocable, paid-up license to practice or have practiced any invention conceived or first actually reduced to practice in the performance of work for or on behalf of the U.S. Government throughout the world. These licenses are not

transferable by Licensee except as provided in Section 16.4, but Licensee shall have the right to grant non-exclusive or exclusive sublicenses hereunder, provided that:

(a) License shall include all its sublicensing income in Licensee's reports to Caltech, as provided in Section 9.2, and Licensee shall pay royalties thereon to Caltech pursuant to Section 4.2 and 4.4;

(b) Licensee shall furnish Caltech within thirty (30) days of the execution thereof, a true and complete copy of each sublicense and any changes or additions thereto;

(c) License may grant sublicenses of no greater scope than the license granted under Section 2.1; and

Each sublicense granted by Licensee shall include provisions similar in all material respects to those of Articles 6, 12, 15, 16 and Section 2.2.

ARTICLE 3

IMPROVEMENTS

3.1 The parties acknowledge that Exhibit A includes all Improvements disclosed by Caltech to Licensee between May 1, 2000 and the Second Restatement Date, and elected by Licensee as of the Second Restatement Date. Caltech shall notify Licensee in writing of Improvements made after the Second Restatement Date and during the term of the Agreement. Upon receipt of an invention disclosure constituting an Improvement, Licensee can elect to add such Improvement and any related patent filings to Exhibit A hereof to be within the Licensed Patents. Thereafter, Licensee shall be responsible for patent prosecution and costs associated with such elected Improvement in accordance with Article 11 herein, as well as to issue additional stock pursuant to Section 5.3. No less than at each anniversary of the Second Restatement Date, Exhibit A shall be updated by the parties to reflect the inclusion of all Improvements so elected, as well as updates on all Licensed Patents.

ARTICLE 4

ROYALTIES

4.1 With respect to Licensed Products manufactured or sold by Licensee in a country in which such manufacture or sale is covered by a Valid Claim of a Licensed Patent, Licensee agrees to pay Caltech [***] of Net Sales of such Licensed Products wherein the Licensed Products are instruments or apparatus directly used for the reading and/or analysis of data from other Licensed Products, including microfluidic chips that are Licensed Products, and [***] of Net Sales of Licensed Products by Licensee for all such other Licensed Products, including microfluidic chips that are Licensed Products, Royalties due under this Section 4.1 shall be payable on a country-by-country and Licensed Product-by-Licensed Product basis until the expiration of the last-to-expire issued Valid Claim covering such Licensed Product in such country.

4.2 With respect to Licensed Products manufactured or sold by Sublicensees in a country in which such manufacture or sale is covered by a Valid Claim of a Licensed Patent, Licensee agrees to pay Caltech [***] of the revenues received by Licensee from Sublicensees' Net Sales of such Licensed Products wherein the Licensed Products are instruments or apparatus directly used for the reading and/or analysis of data from other Licensed Products, including microfluidic chips that are Licensed Products, and [***] of the revenues received by Licensee from Sublicensees' Net Sales of Licensed Products for all such other Licensed Products, including microfluidic chips that are Licensed Products. Royalties due under this Section 4.2 shall be payable on a country-by-country and Licensed Product-by-Licensed Product basis until the expiration of the last-to-expire issued Valid Claim covering such Licensed Product in such country.

4.3 With respect to Licensed Products manufactured or sold by Licensee in a country in which such manufacture or sale is not covered by Valid Claim of a Licensed Patent but the Technology is utilized, Licensee agrees to pay Caltech [***] of Net Sales of such Licensed Products by Licensee, wherein the Licensed Products are instruments or

apparatus directly used for the reading and/or analysis of data from other Licensed Products, including microfluidic chips that are Licensed Products, and [***] of Net Sales of Licensed Products by Licensee for all such other Licensed Products, including microfluidic chips that are Licensed Products. Royalties due under this Section 4.3 shall be payable on a country-by-country and Licensed Product-by-Licensed Product basis for a period of [***] years from the Effective Date or the issuance of a U.S. patent that covers the Licensed Product, whichever first occurs.

4.4 With respect to Licensed Products manufactured or sold by Sublicensees in a country in which such manufacture or sale is not covered by a Valid Claim of a Licensed Patent but the Technology is utilized, Licensee agrees to pay Caltech [***] of the revenues received by Licensee from Sublicensees' Net Sales of such Licensed Products wherein the Licensed Products are instruments or apparatus directly used for the reading and/or analysis of data from other Licensed Products, including microfluidic chips that are Licensed Products, and [***] of the revenues received by Licensee from Sublicensees' Net Sales of Licensed Products for all such other Licensed Products, including microfluidic chips that are Licensed Products. Royalties due under this Section 4.4 shall be payable on a country-by-country and Licensed Product-by-Licensed Product basis for a period of [***] years from the Effective Date or the issuance of a U.S. patent that covers the Licensed Product, whichever first occurs.

4.5 Notwithstanding the above, it is understood and agreed that Caltech shall not be entitled to any share of amounts received by Licensee for equity, debt, pilot studies, to support research or development activities to be undertaken by Licensee, research and development or other performance based milestones, the achievement by Licensee or Sublicensee of specified milestones or benchmarks relating to the development of Licensed Products, the license or sublicense of any intellectual property other than the Licensed Patents, reimbursement for patent or other expenses, or with respect to products other than Licensed Products.

4.6 In the event that a Licensed Product is sold in combination with one or more other products or other items that are not Licensed Products, Net Sales for such combination products will be reasonably calculated on a country-by-country and Licensed Product-by-Licensed

Product basis by Licensee by multiplying the Net Sales of that combination by a fraction equal to the relative value of the combination attributable to the Licensed Product, in relation to the relative value of the combination, as reasonably determined by Licensee in good faith. In addition, in the event that a Licensed Product is not sold in combination with one or more other products or other items that are not Licensed Products, but instead comprises multiple components, some of which would constitute a Licensed Product if sold separately (each, a "Licensed Component"), and the others would not constitute a Licensed Product if sold separately, then Net Sales for such Licensed Product will be calculated by multiplying the Net Sales of such Licensed Product by the fraction A/B, where A is the gross selling price of the Licensed Component sold separately and B is the gross selling price of such Licensed Product. If no such separate sales are made by Licensee, its Affiliate or Sublicensee, Net Sales for such Licensed Product shall be calculated by multiplying Net Sales of such Licensed Product by the fraction C/(C+D), where C is the fully allocated cost of the Licensed Component and D is the fully allocated cost of the other components.

4.7 Commencing on January 1, 2004, and continuing for each anniversary thereof during the term of this Agreement, if Licensee has not paid, during the preceding calendar year, a minimum of [***] in royalties under Sections 4.1, 4.2, 4.3, and 4.4, Licensee agrees to pay, on or before March 1 of that calendar year, an additional royalty for the prior calendar year equal to the difference between [***] and any lower amount paid under Sections 4.1, 4.2, 4.3, and 4.4 for the prior calendar year.

4.8 In the event Licensee or Sublicensee becomes obligated to pay amounts to a third party with respect to a Licensed Product for patent rights of a third party, Licensee may deduct [***] of the amounts owing to such third party (prior to reductions) from the amount owing to Caltech for such Licensed Product; provided, however, the amounts otherwise due to Caltech shall not be so reduced by more than [***].

4.9 For the purpose of determining royalties payable under this Agreement, any royalties or other revenues Licensee receives from Sublicensees in currencies other than U.S. dollars and any Net Sales denominated in currencies other than U.S. dollars shall be converted

into U.S. dollars according to Licensee's reasonable standard internal conversion procedures, including Licensee's standard internal rates and conversion schedule.

4.10 No more than one royalty payment shall be due with respect to a sale of a particular Licensed Product. No multiple royalties shall be payable because any Licensed Product, or its manufacture, sale or use is covered by more than one Valid Claim in a given country. No royalty shall be payable under this Article 4 with respect to Licensed Products distributed for use in research and/or development or as promotional samples or otherwise distributed without charge to third parties.

4.11 Any sublicenses granted by Licensee, including, without limitation, any nonexclusive sublicenses, shall remain in effect in the event this license terminates pursuant to Article 12; provided, the financial obligations of each Sublicensee to Caltech shall be limited to the amounts Licensee shall be obligated to pay Caltech for the activities of such Sublicensee pursuant to this Agreement.

4.12 Royalties due under this Article 4 shall be payable on a country-by-country and Licensed Product-by-Licensed Product basis until the expiration of the last-to-expire issued Valid Claim covering such Licensed Product in such country, if the manufacture or sale of such Licensed Product was at the time of the first commercial sale in such country covered by a Valid Claim. Otherwise, royalties due under this Article 4 shall be payable on a country-by-country and Licensed Product-by-Licensed Product basis until [***] whichever first occurs.

4.13 Notwithstanding the provisions of this Article 4, no royalty shall be payable to Caltech with respect to any sales of Licensed Products to the U.S. Government on sales made solely to permit the U.S. Government to practice or have practiced or have practiced or sue on its behalf any invention or process covered by the Licensed Patents.

ARTICLE 5

LICENSEE EQUITY INTEREST

5.1 In accordance with the License Agreement of May 1, 2000, Licensee issued to Caltech, in consideration of Licensee's receipt of the intangible property rights granted under

that License Agreement (which rights are carried forward herein), [***] shares of common stock of Licensee, pursuant to the terms of a reasonable and customary stock issuance agreement. Further, it is acknowledged that, as partial consideration for entering into the first Amended and Restated License Agreement of June 1, 2002, with the reformation of the initial License Agreement of May 1, 2000 and the associated restatements and amendments (including, but not limited to, an updated Exhibit A), Licensee issued to Caltech [***] shares of common stock of Licensee.

5.2 Caltech agrees that, in the event of any underwritten or public offering of securities of Licensee or a Affiliate, Caltech shall comply with and agree to any reasonable restriction on the transfer of equity interest, or any part thereof, imposed by an underwriter, and shall perform all acts and sign all necessary documents required with respect thereto.

5.3 If Licensee wishes at its sole discretion to license hereunder any Improvements disclosed by Caltech to Licensee during a twelve (12) month period beginning with June 1, 2003, and for each anniversary thereafter (each twelve month period will be referred to as an "Improvement Period"), Licensee shall notify Caltech in writing accordingly within thirty (30) days after the end of each Improvement Period. For the first two (2) Improvement Periods, Licensee agrees to issue to Caltech, in consideration of Licensee's election to receive additional intangible property rights to all Improvements disclosed to Licensee during an Improvement Period, [***] shares of common stock of Licensee, pursuant to the terms of a reasonable and customary stock issuance agreement. Thereafter, Licensee is hereby granted an option by Caltech that Licensee can exercise during the final year of the first two (2) Improvement Period on an annual basis on the same terms and conditions. The consideration of this option was partially paid by the [***] shares granted by Licensee to Caltech as referenced in Section 5.1 of this Agreement. Further, it is acknowledged that pursuant to the initial License Agreement of May 1, 2000 and the first Amended and Restated License Agreement of June 1, 2002, Licensee elected to receive additional intangible property rights to Improvements disclosed to Licensee by Caltech during May 1, 2000 through May 31, 2003, in consideration of the issuance to Caltech by Licensee of [***] shares of common stock of Licensee (which represents the [***] share grant under Section 5.1 above and [***] shares pursuant to the parties'

Letter Agreement dated June 19, 2003, paragraph #3), receipt of which shares Caltech hereby acknowledges.

ARTICLE 6

DUE DILIGENCE

6.1 Licensee agrees to use commercially reasonable efforts to introduce commercial Licensed Product(s) as soon as practical, consistent with sound and reasonable business practices and judgments. Licensee shall be deemed to have satisfied its obligations under this Section if Licensee has an ongoing and active research program or marketing program, as appropriate, directed toward production and use of one or more Licensed Products. Any efforts of Licensee's Sublicensees shall be considered efforts of Licensee for the sole purpose of determining Licensee's compliance with its obligation under this Section.

6.2 After the first year from the Effective Date, Caltech shall have the right, no more often than once each year, to require Licensee to report to Caltech in writing on its progress in introducing commercial Licensed Product(s) in the United States.

6.3 If Licensee is not fulfilling its obligations under Section 6.1 with respect to the Field and Caltech so notifies Licensee in writing, Caltech and Licensee shall negotiate in good faith any additional efforts to be taken by Licensee. If the parties do not reach agreement within ninety (90) days, the parties shall submit the issue to arbitration as provided in Article 14 to determine whether any additional efforts shall be required of Licensee. If subsequent to the conclusion of such arbitration proceedings Licensee then fails to make any required efforts, and does not remedy that failure within sixty (60) days after further written notice to Licensee, Caltech may convert the license granted in Section 2.1 to a nonexclusive license in any part of the Field in which Licensee is not fulfilling its obligations under Section 6.1, and the royalties payable under this Agreement shall be reduced by [***] for Licensed Products in the Field sold under such a nonexclusive license.

ARTICLE 7

INFRINGEMENT BY THIRD PARTY

7.1 Both Caltech and Licensee agree to notify the other in writing should either party become aware of infringement of the Licensed Patents. Licensee, upon notice to Caltech, shall have the sole right to initiate an action against the infringer at Licensee's expense, either in Licensee's name or in Caltech's name if so required by law, Licensee shall have sole control of the action.

7.2 If Licensee, its Affiliate or Sublicensee, distributor or other customer is sued by a third party charging infringement of patent rights that dominate a claim of the Licensed Patents or that cover the development, manufacture, use, distribution or sale of a Licensed Product, Licensee will promptly notify Caltech. As between the parties to this Agreement, Licensee shall have sole control of the defense in any such action(s).

7.3 If a declaratory judgment action alleging invalidity unenforceability or noninfringement of any of the Licensed Patents is brought against Licensee and/or Caltech, Licensee may elect to have sole control of the action, and if Licensee so elects it shall bear all the costs of the action. Licensee also may elect to undertake and have sole control of the defense of any interference, opposition or similar action with respect to the Licensed Patents providing it bears all the costs of such action.

7.4 In the event Licensee institutes a legal action pursuant to Section 7.1, within thirty (30) days after receipt of notice of Licensee's intent to institute such legal action, Caltech shall have the right to jointly prosecute such action and to fund up to one-half (½) the costs of such action. Caltech shall fully cooperate with and supply all assistance reasonably requested by Licensee, including by using commercially reasonable efforts to have its employees testify when requested and to make available relevant records, papers, information, samples, specimens, and the like. Licensee shall bear the reasonable expenses incurred by Caltech in providing such assistance and cooperation as is requested pursuant to this Section 7.4. Licensee shall keep Caltech reasonably informed of the progress of the legal action, and Caltech shall be entitled to be represented by counsel in connection with such legal action at its own expense. Licensee's

reasonable and customary expenses for such action (including attorneys' fees and expert fees) shall be fully creditable against royalties owed to Caltech hereunder, provided that in no one year shall such expenses to be credited against more than [***] of royalty payments to Caltech. Any remaining expenses may be carried over and credited against royalties owed in future years.

7.5 Licensee shall have the light to settle any claims, but only upon terms and conditions that are reasonably acceptable to Caltech. Should Licensee elect to abandon such an action other than pursuant to a settlement with the alleged infringer that is reasonably acceptable to Caltech, Licensee shall give timely notice to Caltech who, if it so desires, may continue the action; provided, however, that the sharing of expenses and any recovery in such suit shall be as agreed upon between the parties.

7.6 Any amounts paid to Licensee by third parties as the result of an action pursuant to this Article 7 (such as in satisfaction of a judgment or pursuant to a settlement) shall first be applied to reimbursement of the unreimbursed expenses (including attorneys' fees and expert fees) incurred by Licensee and then to the payment to Caltech of any royalties against which were credited expenses of the action in accordance with Section 7.4. Any remainder shall be divided between the parties as follows:

(a) To the extent the amount recovered reflects lost profits, Licensee shall retain the remainder, less the amount of any royalties that would have been due Caltech on sales of Licensed Product lost by Licensee as a result of the infringement had Licensee made such sales, provided that (i) Licensee shall in any event retain at least [***] of the remainder; and (ii) Caltech shall receive an amount equal to the royalties it would have received if such sales had been made by Licensee, provided such amount shall in no event exceed [***] of the remainder; or

(b) To the extent the amount recovered does not reflect lost profits, such amount shall be shared by Caltech and Licensee pro rata according to the respective percentages of costs borne by each in such action; provided, however, that in no event shall Caltech receive less than twenty-five percent (25%) of such amount.

ARTICLE 8

BENEFITS OF LITIGATION,

EXPIRATION OR ABANDONMENT

8.1 In a case where one or more patents or particular claims thereof within the Licensed Patents expire, or are abandoned, or are declared invalid or unenforceable or otherwise construed by a court of last resort or by a lower court from whose decree no appeal is taken, or certiorari is not granted within the period allowed therefor, then the effect thereof hereunder shall be:

(a) that such patents or particular claims shall, as of the date of expiration or abandonment or final decision as the case may be, cease to be included within the Licensed Patents for the purpose of this Agreement;

(b) that such construction so placed upon the Licensed Patents by the court shall be followed from and after the date of entry of the decision, and royalties shall thereafter be payable by Licensee only in accordance with such construction; and

(c) In the event that Licensee challenges the validity of Licensed Patents, Licensee may not cease paying royalties as of the date validity of the claims in issue are challenged, but rather may cease paying royalties as to those claims only after a final adjudication of invalidity of those claims.

8.2 In the event that any of the contingencies provided for in Section 8.1 occurs, Caltech agrees to renegotiate in good faith with Licensee a reasonable royalty rate under the remaining Licensed Patents which are unexpired and in effect and under which Licensee desires to retain a License.

ARTICLE 9

RECORDS, REPORTS AND PAYMENTS

9.1 Licensee shall keep records and books of account in respect of all Licensed Products made and sold by Licensee or its Affiliates under this Agreement and of royalties or other revenues Licensee receives from Sublicensees other than Licensee’s Affiliates for the sale

of Licensed Products. Caltech shall have the right at its own cost, during Licensee's business hours, no more often than annually, to have an independent certified public accounting firm of nationally recognized standing to examine such records and books. Licensee shall keep the same for at least three (3) years after it pays Caltech the royalties due for such Licensed Products and require Licensee's Affiliates to do the same. The accounting firm shall disclose to Caltech only whether or not the reports are correct and the amount of any discrepancies. Caltech shall, and shall cause its accounting firm to, not disclose to any third party any confidential information learned through an examination of such records and books.

9.2 Following the first commercial sale of a Licensed Product, on or before the last day of each February, May, August and November for so long as royalties are payable under this Agreement, Licensee shall render to Caltech a report in writing, setting forth Net Sales and the number of units of Licensed Products sold during the preceding calendar quarter by Licensee and its Affiliates, and the royalties or other revenues received by Licensee from Net Sales of Licensed Products made by Licensee's Sublicensees other than Affiliates during the preceding calendar quarter. Each such report shall also set forth an explanation of the calculation of the royalties payable hereunder and be accompanied by payment of the royalties shown by said report to be due Caltech. Notwithstanding foregoing, if (i) Caltech materially breaches this Agreement, (ii) Licensee gives Caltech written notice of the breach, and (iii) Caltech has not cured the breach by the time a payment is due under this Section, then Licensee may make the required payment into an interest bearing escrow account to be released when the breach is cured, less any damages that may be payable to License by virtue or Caltech's breach. Royalty reports which are not challenged by Caltech or amended by Licensee within thirty-six (36) months after receipt by Caltech shall be conclusively presumed correct and not subject to challenge, audit, or amendment.

ARTICLE 10

CONFIDENTIALITY

10.1 Except as provided herein, each party shall maintain in confidence, and shall not use for any purpose or disclose to any third party, information disclosed by the other party in writing and marked "Confidential" or that is disclosed orally and confirmed in writing as

confidential within forty-five (45) days following such disclosure (collectively, “Confidential Information”). Confidential Information shall not include any information that is; (i) already known to the receiving party at the time of disclosure hereunder, (ii) now or hereafter becomes publicly known other than through acts or omissions of the receiving party, (iii) disclosed to the receiving party by a third party under no obligation of confidentiality to the disclosing party, (iv) disclosed as required by securities or other applicable laws or pursuant to legal requirement, or (v) disclosed to actual or prospective investors or corporate partners, or to a party’s accountants, attorneys, and other professional advisors. All reports provided to Caltech by Licensee pursuant to this Agreement shall be treated as confidential information of Licensee, pursuant to this Section 10.1. The terms of this Agreement shall be treated as confidential information of Licensee, pursuant to this Section 10.1.

10.2 Notwithstanding the provisions of Section 10.1 above, Licensee may use or disclose confidential information comprising the Licensed Patents and Technology to the extent necessary to exercise its rights hereunder (including commercialization and/or sublicensing of the Licensed Patents and Technology) or fulfill its obligations and/or duties hereunder and in filing for, prosecuting or maintaining any proprietary rights, prosecuting or defending litigation, complying with applicable governmental regulations and/or submitting information to tax or other governmental authorities.

ARTICLE 11

PATENT PROSECUTION AND PATENT COSTS

11.1 Licensee shall have the right to apply for, prosecute and maintain during the term of this Agreement, the Licensed Patents. Caltech shall provide Licensee with timely disclosures regarding Improvements and potential Improvements. The application filings, prosecution, maintenance and payment of all fees and expenses, including legal fees, relating to such Licensed Patents shall be the responsibility of Licensee, provided that Licensee shall pay for all reasonable fees and expenses, including reasonable legal fees, incurred in such application filings, prosecution and maintenance. Caltech shall provide Licensee with all information necessary or useful for the filing and prosecution of such Licensed Patents and shall cooperate fully with Licensee so that Licensee may establish and maintain such rights. Patent attorneys

chosen by Licensee shall handle all patent filings and prosecutions, on behalf of Caltech, provided, however, Caltech shall be entitled to review and comment upon and approve all actions undertaken in the prosecution of all patents and applications. Caltech shall provide any comments or approvals hereunder promptly.

11.2 In the event Licensee declines to apply for, prosecute or maintain any Licensed Patents, Caltech shall have the right to pursue the same at Caltech's expense and Licensee shall have no rights under Caltech's interest therein. If Licensee decides not to apply for, prosecute or maintain any Licensed Patents, Licensee shall give sufficient and timely notice to Caltech so as to permit Caltech to apply for, prosecute and maintain such Licensed Patents. In such event, Licensee shall provide Caltech with all information necessary or useful for the filing and prosecution of such Licensed Patents and shall cooperate fully with Caltech so that Caltech may establish and maintain such rights.

11.3 Licensee shall reimburse Caltech for all reasonable out-of-pocket expenses incurred by Caltech for the filing for, prosecution and maintenance of the Licensed Patents Rights. Such expenses shall be reimbursed following receipt by Licensee from Caltech of (i) an invoice covering such fees (including copies of invoices for legal fees describing the legal services performed in reasonable detail) and (ii) reasonably satisfactory evidence that such fees were paid. Initially, payments shall be made in six (6) equal quarterly installments due within ten days after the end of the first six (6) full calendar quarters, effective twenty-four (24) months from the Effective Date of this Agreement. Subsequent payments under this Section 11.3 shall be made to Caltech within sixty (60) days following receipt by Licensee from Caltech of (i) an invoice covering such fees (including copies of invoices for legal fees describing the legal services performed in reasonable detail) and (ii) reasonably satisfactory evidence that such fees were paid. If Licensee elects to no longer pay the expenses of a patent or patent application within the Licensed Patents in any country, Licensee shall notify Caltech not less than thirty (30) days prior to such action. In the event that Licensee elects not to pay such expenses the license granted to Licensee hereunder shall terminate. [***] of patent expenses paid by Licensee in conjunction with foreign patent costs shall be creditable against earned royalties due Caltech in the respective territory covered by the patent or patents that are foreign filed.

ARTICLE 12

TERMINATION

12.1 The term of this Agreement shall commence upon the Effective Date and shall terminate on a country-by-country and Licensed Product by Licensed Product basis upon the expiration of the last to expire Licensed Patent in such country. Caltech shall have the right to terminate this Agreement, subsequent to and subject to the outcome of arbitration proceedings pursuant to Article 14, prior to the date it would otherwise expire pursuant to this Section 12.1 if Licensee fails to make any payment due hereunder and Licensee continues to fail to make the payment, either to Caltech directly or by placing any disputed amount into an interest bearing escrow account to be released when the dispute is resolved, for a period of sixty (60) days after receiving written notice from Caltech specifying Licensee's failure. If this Agreement expires pursuant to the first sentence of this Section 12.1, Licensee shall retain a nonexclusive, perpetual, royalty-free, worldwide license, with the right to sublicense, under the Licensed Patents and Technology, to research, develop, make, use, sell, offer for sale and import Licensed Products.

12.2 If either party materially breaches this Agreement, the other party may elect to give the bleaching party written notice describing the alleged breach. If the breaching party has not cured such breach within sixty (60) days after receipt of such notice, the notifying party will be entitled, in addition to any other rights it may have under this Agreement, to terminate this Agreement effective immediately; provided, however, that if either party receives notification from the other of a material breach and if the party alleged to be in default notifies the other party in writing within thirty (30) days of receipt of such default notice that it disputes the asserted default, the matter will be submitted to arbitration as provided in Article 14 of this Agreement. In such event, the nonbreaching party shall not have the right to terminate this Agreement until it has been determined in such arbitration proceeding that the other party materially breached this Agreement, and the breaching party fails to cure such breach within ninety (90) days after the conclusion of such arbitration proceeding.

12.3 Licensee shall have the right to terminate this Agreement either in its entirety or as to any jurisdiction or any part of the Licensed Patents or Technology upon thirty (30) days

written notice. If Licensee does so, it shall submit all required reports and make all required payments in accordance with Section 9.2

12.4 In the event of any termination or expiration of the term of this Agreement, Licensee shall have the right to use or sell Licensed Products on hand on the date of such termination or expiration and to complete Licensed Products in the process of manufacture at the time of such termination or expiration and use or sell the same, provided that Licensee shall submit the applicable royalty report described in Section 9.2, along with the royalty payments required above in accordance with Section 4.1 for sale of such Licensed Products, provided that the Licensed Products are still covered by a Valid Claim following such termination or expiration.

12.5 Termination of this Agreement for any reason shall not release any party hereto from any liability which, at the time of such termination, has already accrued to the other party or which is attributable to a period prior to such termination, nor preclude either party from pursuing any rights and remedies it may have hereunder or at law or in equity which accrued or are based upon any event occurring prior to such termination.

12.6 Section 5.2 and Articles 10, 12, 14, and 16 of this Agreement shall survive termination of this Agreement for any reason.

12.7 If Licensee is acquired by or merges into a third party (i.e., Licensee is not a surviving company in the merger), then Caltech may terminate its obligations to disclose and grant licenses to Improvements by providing notice to Licensee of that termination. The remainder of the Agreement and the licenses granted hereunder (including prior licenses granted to Improvements) continues.

ARTICLE 13

WARRANTIES AND NEGATION OF

WARRANTIES, IMPLIED LICENSES AND AGENCY

13.1 Caltech represents and warrants that (i) it owns all right, title and interest in and to the Licensed Patents and Technology, (ii) it has the right to enter into this Agreement, (iii) it has not granted and will not grant during the term of this Agreement rights in or to any Licensed

Patents or Technology that are inconsistent with the rights granted to Licensee herein, (iv) to Caltech's knowledge, there are no claims of third parties that would call into question the rights of Caltech to grant to Licensee the rights contemplated hereunder; (v) to Caltech's knowledge, practice of the Licensed Patents will not infringe intellectual property rights of third parties; (vi) except for the Licensed Patents, as of the effective date of the Agreement, to Caltech's belief and knowledge, Caltech does not own or control any patents or patent applications that would dominate any practice of the Licensed Patents or Technology, and (vii) there are no threatened or pending actions, suits, investigations, claims, or proceedings in any way relating to the Licensed Patents or Technology.

13.2 Nothing in this Agreement shall be construed as:

(a) a representation or warranty of Caltech as to the validity or scope of Licensed Patents or any claim thereof; or

(b) an obligation to bring or prosecute actions or suits against third parties for infringement.

(c) conferring by implication, estoppel or otherwise, any license or rights under any existing patents of Caltech other than Licensed Patents, regardless of whether such other patents are dominant or subordinate to Licensed Patents. Notwithstanding the foregoing, and to the extent legally permissible, Caltech hereby grants Licensee a right of first refusal as to such dominant or subordinate patents, providing that a Caltech faculty member does not wish to personally commercialize the technology embodied in such patents.

13.3 CALTECH MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND ASSUMES NO RESPONSIBILITIES WHATEVER WITH RESPECT TO THE USE, SALE, OR OTHER DISPOSITION BY LICENSEE OF LICENSED PRODUCT(S).

13.4 Caltech shall indemnify, defend and hold harmless Licensee from and against any and all losses, damages, costs and expenses (including attorneys' fees) arising out of a material breach by Caltech of its representations and warranties ("Claims"), provided that (i) Caltech is notified promptly of any Claims, (ii) Licensee has the sole right to control and defend or settle

any litigation within the scope of this indemnity, and (iii) all indemnified parties cooperate to the extent necessary in the defense of any Claims.

ARTICLE 14

ARBITRATION

14.1 Any dispute under this Agreement which is not settled by mutual consent shall be finally settled by binding arbitration, conducted in accordance with the Commercial Arbitration Rules of the American Arbitration Association by one (1) independent, neutral arbitrator appointed in accordance with said rules. The arbitration shall be held in San Francisco, California. The arbitrators shall determine what discovery shall be permitted, consistent with the goal of limiting the cost and time that the parties must expend for discovery; provided the arbitrators shall permit such discovery as they deem necessary to permit an equitable resolution of the dispute. Any written evidence originally in a language other than English shall be submitted in English translation accompanied by the original or a true copy thereof. Except as otherwise expressly provided in this Agreement, the costs of the arbitration, including administrative and arbitrator(s)' fees, shall be shared equally by the parties and each party shall bear its own costs and attorneys' and witness' fees incurred in connection with the arbitration. A disputed performance or suspended performances pending the resolution of the arbitration must be completed within a reasonable time period following the final decision of the arbitrator(s). Any arbitration subject to this Article shall be completed within one (1) year from the filing of notice of a request for such arbitration. The arbitration proceedings and the decision shall not be made public without the joint consent of the parties and each party shall maintain the confidentiality of such proceedings and decision unless otherwise permitted by the other party. Any decision which requires a monetary payment shall require such payment to be payable in United States dollars, free of any tax or other deduction. The parties agree that the decision shall be the sole, exclusive and binding remedy between them regarding any and all disputes, controversies, claims and counterclaims presented to the arbitrators. Any award may be entered in a court of competent jurisdiction for a judicial recognition of the decision and an order of enforcement.

ARTICLE 15

PRODUCT LIABILITY

15.1 Licensee agrees that Caltech shall have no liability to Licensee or to any purchasers or users of Licensed Products made or sold by Licensee for any claims, demands, losses, costs, or damages suffered by Licensee, or purchasers or users of such Licensed Products, or any other party, which may result from personal injury, death, or property damage related to the manufacture, use, or sale of such Licensed Products ("Product Claims"). Licensee agrees to defend, indemnify, and hold harmless Caltech, its trustees, officers, agents, and employees from any such Product Claims, provided that (i) Licensee is notified promptly of any Product Claims, (ii) Licensee has the sole right to control and defend or settle any litigation within the scope of this indemnity, (iii) all indemnified parties cooperate in the defense of any Product Claims, and (iv) the Product Claims do not involve or relate to a material breach by Caltech of its representations and warranties.

15.2 At such time as Licensee begins to sell or distribute Licensed Products (other than for the purpose of obtaining regulatory approvals), Licensee shall at its sole expense, procure and maintain policies of comprehensive general liability insurance in amounts not less than [***] in annual aggregate and naming those indemnified under Section 15.1 as additional insureds. Such comprehensive general liability insurance shall provide (i) product liability coverage and (ii) broad form contractual liability coverage for Licensee's indemnification under Section 15.1. In the event the aforesaid product liability coverage does not provide for occurrence liability, Licensee shall maintain such comprehensive general liability insurance for a reasonable period of not less than five (5) years after it has ceased commercial distribution or use of any Licensed Product.

15.3 Licensee shall provide Caltech with written evidence of Such insurance upon request of Caltech. Licensee shall provide Caltech with notice at least fifteen (15) days prior to any cancellation, non-renewal or material change in such insurance, to the extent Licensee receives advance notice of such matters from its insurer. If Licensee does not obtain replacement insurance providing comparable coverage within ninety (90) days following the date of such cancellation, non-renewal or material change, Caltech shall have the right to terminate this

Agreement effective at the end of such ninety (90) day period without any additional waiting period; provided that if Licensee uses reasonable efforts but is unable to obtain the required insurance at commercially reasonable rates, Caltech shall not have the right to terminate this Agreement, and Caltech instead shall cooperate with Licensee to either grant a waiver of Licensee's obligations under this Article or assist Licensee in identifying a carrier to provide such insurance or in developing a program for self-insurance or other alternative measures.

ARTICLE 16

MISCELLANEOUS

16.1 Licensee agrees that it shall not use the name of Caltech, or California Institute of Technology, in any advertising or publicity material, or make any form of representation or statement which would constitute an express or implied endorsement by Caltech of any Licensed Product, and that it shall not authorize others to do so, without first having obtained written approval from Caltech, except as may be required by governmental law, rule or regulation.

16.2 Licensee agrees to mark the appropriate U.S. patent number or numbers on all Licensed Products made or sold in the United States in accordance with all applicable governmental laws, rules and regulations, and to require its Sublicensees to do the same.

16.3 This Agreement sets forth the complete agreement of the parties concerning the subject matter hereof. No claimed oral agreement in respect thereto shall be considered as any part hereof. No waiver of or change in any of the terms hereof subsequent to the execution hereof claimed to have been made by any representative of either party shall have any force or effect unless in writing, signed by duly authorized representatives of the parties.

16.4 This Agreement shall be binding upon and inure to the benefit of any successor or assignee of Caltech. This Agreement is not assignable by Licensee without the prior written consent of Caltech, except that Licensee may assign this Agreement without the prior written consent of Caltech, to any Affiliate, or in connection with the sale or transfer of all or substantially all the assets of Licensee relating to the Licensed Products or services utilizing the methods within the Licensed Patents. Any permitted assignee shall succeed to all of the rights and obligations of Licensee under this Agreement.

16.5 This Agreement is subject in all respects to the laws and regulations of the United States of America, including the Export Administration Act of 1979, as amended, and any regulations thereunder.

16.6 This Agreement shall be deemed to have been entered into in California and shall be construed and enforced in accordance with California law.

16.7 Any notice or communication required or permitted to be given or made under this Agreement shall be addressed as follows:

Caltech:	Office of Technology Transfer California Institute of Technology 1200 East California Boulevard (MC 210-85) Pasadena, CA 91125 Fax No.: (626) 356-2486
Licensee:	Fluidigm Corporation 7100 Shoreline Court South San Francisco, CA 94080 Attn: President Fax No: (650) 871-7195 Phone: (650) 266-6000

Either party may notify the other in writing of a change of address or fax number, in which event any subsequent communication relative to this Agreement shall be sent to the last said notified address or number, provided, however, that the parties shall deliver all material notices under this Agreement by registered mail or overnight delivery service. All notices and communications relating to this Agreement shall be deemed to have been given when received.

16.8 Nothing in this Agreement will impair Licensee's right to independently acquire, license, develop for itself, or have others develop for it, intellectual property and technology performing similar functions as the Licensed Patents and Technology or to market and distribute products other than Licensed Products based on such other intellectual property and technology.

16.9 NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR INDIRECT DAMAGES ARISING OUT OF THIS AGREEMENT, HOWEVER CAUSED, UNDER ANY THEORY OF LIABILITY.

16.10 The relationship of Licensee and Caltech established by this Agreement is that of independent contractors, Nothing in this Agreement shall be construed to create any other relationship between Licensee and Caltech. Neither party shall have any right, power or authority to assume, create or incur any expense, liability or obligation, express or implied, on behalf of the other.

16.11 Licensee agrees that a Licensed Product which embodies a patented invention or is produced through the use thereof for sale in the United States shall be manufactured substantially in the United States to the extent required by 35 U.S.C. Section 204.

16.12 Neither party shall lose any rights hereunder or be liable to the other party for damages or losses (except for payment obligations) on account of failure of performance by the defaulting party if the failure is occasioned by war, strike, fire, Act of God, earthquake, flood, lockout, embargo, governmental acts or orders or restrictions, failure of suppliers, or any other reason where failure to perform is beyond reasonable control and not caused by the negligence or intentional conduct or misconduct of the nonperforming party, and such party has exerted all reasonable efforts to avoid or remedy such force majeure; provided, however, that in no event shall a party be required to settle any labor dispute or disturbance.

16.13 In the event that any provisions of this Agreement are determined to be invalid or unenforceable by a court of competent jurisdiction, the remainder of the Agreement shall remain in full force and effect without said provision. The parties shall in good faith negotiate a substitute clause for any provision declared invalid or unenforceable, which shall most nearly approximate the intent of the parties in entering this Agreement.

16.14 This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

16.15 The headings of the several Sections are inserted for convenience of reference only and are not intended to be a part of or to affect the meaning or interpretation of this Agreement.

16.16 Whenever provision is made in this Agreement for either party to secure the consent or approval of the other, that consent or approval shall not unreasonably be withheld or delayed, and whenever in this Agreement provisions are made for one party to object to or disapprove a matter, such objection or disapproval shall not unreasonably be exercised.

In Witness Whereof, the parties have caused this Agreement to be executed:

CALIFORNIA INSTITUTE OF TECHNOLOGY
(Caltech)

Date: 4/29/04

By: /s/ Lawrence Gilbert

Name: Lawrence Gilbert

Title: Senior Director
Office of Technology Transfer

Date: April 28, 2004

FLUIDIGM CORPORATION
(Licensee)

By: /s/ Gajus Worthington

Name: Gajus Worthington

Title: President and CEO

[***]

Exhibit A

Licensed Patents

[***]

Exhibit A

Licensed Patents

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Exhibit A

Licensed Patents

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Exhibit A

Licensed Patents

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Exhibit A

Licensed Patents

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Exhibit A

Licensed Patents

[***]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.4A

2020.LICI.001.C
California Institute of Technology

ADDENDUM TO
SECOND AMENDED AND RESTATED LICENSE AGREEMENT

THIS ADDENDUM TO SECOND AMENDED AND RESTATED LICENSE AGREEMENT (this "Addendum") dated as of March 29, 2007 (the "Addendum Date"), is entered into between CALIFORNIA INSTITUTE OF TECHNOLOGY ("Caltech"), having an address at 1200 East California Boulevard, Pasadena, California 91125, and FLUIDIGM CORPORATION ("Licensee"), having a principal place of business at 7100 Shoreline Court, South San Francisco, California 94080, with respect to the following facts:

A. The parties entered into the Second Amended and Restated License Agreement (the "Agreement") effective May 1, 2000, with a second restatement date as of May 1, 2004. All terms used, but not defined herein, shall have the respective meanings set forth in the Agreement.

B. On the terms and conditions of this Addendum, the parties desire to clarify and modify certain provisions to the Agreement.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants set forth below, the parties agree as follows:

1. Licensed Patents and Improvements.

1.1 The Agreement is amended by deleting Exhibit A to the Agreement and by replacing it with Exhibit A to this Addendum.

1.2 Caltech represents that it has disclosed to Licensee all Improvements arising prior to the Addendum Date.

1.3 The parties acknowledge that Exhibit A to this Addendum includes (a) all Improvements disclosed by Caltech to Licensee prior to the Addendum Date, and elected by Licensee to be included in the scope of the license grant by Caltech to Licensee under the Agreement, and (b) all updates on all Licensed Patents as of the Addendum Date. Caltech confirms that Licensee has taken all action on its part that is necessary for all subject matter included in Exhibit A to this Addendum to be included in the scope of the license grant by Caltech to Licensee under the Agreement.

2. Licensee Equity Interest and Improvement Periods.

2.1 Notwithstanding anything to the contrary in Article 5 of the Agreement, the Improvement Periods shall be those periods from June 1, 2003 through May 31, 2004, from June 1, 2004 through May 31, 2005, from [***]

2.2 Notwithstanding anything to the contrary in Article 5 of the Agreement, (a) Licensee shall issue to Caltech [***] [***] shares of common stock of Licensee, pursuant to the terms of a reasonable and customary stock issuance agreement, and (b) the parties acknowledge that the issuance of such shares (in addition to the shares issued by Licensee to Caltech prior to the Second Restatement Date) shall be in full satisfaction of Licensee's obligations to issue shares or otherwise make payments to Caltech pursuant to the Agreement.

3. Royalty Reports.

The parties acknowledge (a) that the royalty reports received by Caltech under Section 9.2 of the Agreement prior to the Addendum Date are presumed correct and not subject to challenge, audit or amendment, and (b) that the format of, and the methodology used by Licensee in preparing, the royalty reports under Section 9.2 of the Agreement are mutually acceptable and in compliance with the terms and conditions of the Agreement.

4. Patent Costs.

Notwithstanding anything to the contrary in Article 11 of the Agreement, Licensee shall have no obligation to reimburse Caltech for any costs or expenses incurred by Caltech in connection with the Licensed Patents that have not been reimbursed by Licensee prior to the Addendum Date.

5. Further Assurances.

Each party shall take such further actions, and execute such further documents and instruments, as reasonably requested by the other party to effectuate the grant of licenses and rights from Caltech to Licensee under the Agreement and otherwise to enable Licensee to enjoy the full benefit thereof.

6. Miscellaneous.

6.1 This Addendum shall be effective for all purposes as of the Addendum Date. Except as otherwise expressly modified by this Addendum, the Agreement shall remain in full force and effect in accordance with its terms.

6.2 This Addendum shall be governed by, interpreted and construed in accordance with the laws of the State of California, without regard to conflicts of law principles.

6.3 This Addendum may be executed in counterparts, each of which shall be deemed to be an original and together shall be deemed to be one and the same document.

IN WITNESS WHEREOF, the parties have caused this Addendum to be duly executed and delivered effective as of the Addendum Date.

California Institute of Technology

By: /s/ Lawrence Gilbert
(Signature)

Lawrence Gilbert
(Printed Name)

SR DR Tech Transfer
(Title)

FLUIDIGM CORPORATION

By: /s/ Gajus V. Worthington
(Signature)

Gajus V. Worthington
(Printed Name)

CEO
(Title)

EXHIBIT A

[TO BE ATTACHED]

Appendix 1.7 Fluidigm Patent Family
US Cases

[* * *]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.5

4060.LICI.010 Harvard

CO-EXCLUSIVE LICENSE AGREEMENT

Between

President and Fellows of Harvard College

And

Mycometrix Corporation

Effective as of October 15, 2000

Re: Harvard Case #[***]

In consideration of the mutual promises and covenants set forth below, the parties hereto agree as follows:

ARTICLE I
DEFINITIONS

As used in this Agreement, the following terms shall have the following meanings:

1.1 ACADEMIC RESEARCH PURPOSES: use of PATENT RIGHTS for academic research or other not-for-profit scholarly purposes which are undertaken at a non-profit or governmental institution that does not use the PATENT RIGHTS in the production or manufacture of products for sale or the performance of services for a fee.

1.2 AFFILIATE: any entity which controls, is controlled by, or is under common control with a party by ownership or control of at least fifty percent (50%) of the voting stock or other ownership. Unless otherwise specified, the term LICENSEE includes AFFILIATES.

1.3 FIELD : use of PATENT RIGHTS to develop, manufacture, use, offer for sale, sell, or import components and products in FIELD I and/or FIELD II:

FIELD I: [***]

FIELD II: [***]

1.4 HARVARD: President and Fellows of Harvard College, a nonprofit Massachusetts educational corporation having offices at the Office for Technology and Trademark Licensing, Holyoke Center, Suite 727, 1350 Massachusetts Avenue, Cambridge, Massachusetts 02138.

1.5 LICENSED PROCESSES: the processes covered by at least one VALID CLAIM included within the PATENT RIGHTS.

1.6 LICENSED PRODUCTS: products covered by at least one VALID CLAIM included within the PATENT RIGHTS or products made or services provided in accordance with or by means of LICENSED PROCESSES.

1.7 LICENSEE: Mycometrix Corporation, a corporation organized under the laws of California having its principal offices at 213 East Grand Avenue, South San Francisco, CA 94080.

1.8 NET SERVICE INCOME: SERVICE INCOME less LICENSEE's actual direct and indirect cost for research, development and/or services provided.

1.9 NET SALES: the amount actually received for sales, leases, or other transfers of LICENSED PRODUCTS, less:

(i) customary trade, quantity or cash discounts and non-affiliated brokers' or agents' commissions actually allowed and taken;

(ii) amounts repaid or credited by reason of rejection or return;

(iii) to the extent separately stated on purchase orders, invoices, or other documents of sale, taxes levied on and/or other governmental charges made as to production, sale, transportation, delivery or use and paid by or on behalf of LICENSEE; and

(iv) reasonable charges for delivery or transportation provided by third parties and cost of insurance in transit, if separately stated.

NET SALES also includes the fair market value of any non-cash consideration received by LICENSEE for the sale, lease, or transfer of LICENSED PRODUCTS.

If a LICENSED PRODUCT is sold as a combination product containing the LICENSED PRODUCT and one or more other components, NET SALES shall be calculated by multiplying the gross amount invoiced for the sale of the combination product by the fraction A/A+B where A is the average gross selling price of the LICENSED PRODUCT sold separately by LICENSEE and B is the average gross selling price of such other components of the combination products sold separately by LICENSEE during the relevant royalty payment period.

In the event that LICENSEE grants a sublicensee hereunder, and receives payments based upon SUBLICENSEE's sales of LICENSED PRODUCTS, LICENSEE may upon approval from HARVARD (which shall not be unreasonably withheld) modify the definition of NET SALES for the purposes of calculating royalties payable to HARVARD on such SUBLICENSEE's sales to be the same as the definition of NET SALES on which such royalties to LICENSEE are calculated.

1.10 SERVICE INCOME: the total financial consideration received by LICENSEE for commercial services performed on a fee-for-service basis using the LICENSED PRODUCTS or LICENSED PROCESSES by LICENSEE under a contract with a third party, where such services are based primarily on the use of fully functional LICENSED PRODUCTS or LICENSED PROCESSES (as applicable) for their intended commercial use (such as, for example, where LICENSEE performs commercial-scale genotyping services for a pharmaceutical company on a fee-for-service basis using fully developed microfluidics chips comprising LICENSED PRODUCTS). SERVICE INCOME shall not include amounts received in connection with research and/or development of LICENSED PRODUCTS or LICENSED PROCESSES themselves.

1.11 PATENT RIGHTS: The applications and patents as listed in Appendix A of this Agreement, the allowed claims of such applications, the inventions described and claimed therein, and any divisions or continuations of the applications and patents as listed in Appendix A, and specific claims of any continuations-in-part of such applications to the extent the specific claims are directed to subject matter described in the applications and patents listed in Appendix A in a manner sufficient to support such specific claims under 35 U.S.C., patents issuing thereon or reissues thereof, and any and all foreign patents and patent applications corresponding thereto, all to the extent owned or controlled by HARVARD.

1.12 SUBLICENSE INCOME: the amount paid to LICENSEE by a third party (other than an AFFILIATE of LICENSEE) (a) for the sublicening of PATENT RIGHTS to a third party as well as (b) for the related licensing of LICENSEE's own patent rights or know-how or LICENSEE's in-licensed non-HARVARD technologies, including but not limited to (i) license fees, (ii) milestone payments, (iii) royalties, (iv) the fair market value in cash of any non-cash consideration for such sublicense, and (v) in the event that LICENSEE receives any payment for equity in consideration for the grant of sublicense rights that included a premium over the fair market value of such equity, the amount of such premium. LICENSEE shall be responsible for determining such fair market value with reasonable business judgment.

1.13 SUBLICENSEE: any non-AFFILIATE granted a sublicense of any of the rights HARVARD has granted to LICENSEE under Section 3.1.

1.14 TERRITORY: Worldwide.

1.15 VALID CLAIM: either (i) a claim of an issued patent that has not been held unenforceable or invalid by an agency or a court of competent jurisdiction in any

unappealable or unappealed decision or (ii) a claim of a published, pending patent application, which claim is substantially identical to a corresponding claim in a subsequently issued patent having priority to the patent application.

1.16 The terms “Public Law 96-517” and “Public Law 98-620” include all amendments to those statutes.

1.17 The terms “sold” and “sell” include, without limitation, leases and other transfers and similar transactions.

Article II
Representations

2.1 HARVARD is owner by assignment from [***], in the foreign patent applications corresponding thereto, and in the inventions described and claimed therein.

2.2 HARVARD has authority to issue licenses under PATENT RIGHTS.

2.3 HARVARD is committed to the policy that ideas or creative works produced at HARVARD should be used for the greatest possible public benefit, and believes that every reasonable incentive should be provided for the prompt introduction of such ideas into public use, all in a manner consistent with the public interest.

2.4 LICENSEE is prepared and intends to diligently develop the invention and to bring products to market which are subject to this Agreement, specifically including one or more products in the FIELD selected from a [***].

2.5 LICENSEE is desirous of obtaining a co-exclusive license in the FIELD and in the TERRITORY in order to practice the PATENT RIGHTS in the United States and in certain foreign countries, and to manufacture, use and sell in the commercial market the products made in accordance therewith, and HARVARD is desirous of granting such a license to LICENSEE in accordance with the terms of this Agreement.

Article III
Grant of Rights

3.1 HARVARD hereby grants to LICENSEE and LICENSEE accepts, subject to the terms and conditions hereof, in the TERRITORY a co-exclusive commercial license under PATENT RIGHTS in FIELD I and in FIELD II to make and have made, to use and have used, to sell

and have sold, and to offer for sale and have offered for sale the LICENSED PRODUCTS, and to practice the LICENSED PROCESSES, for the life of the PATENT RIGHTS. HARVARD will grant no more than two commercial licenses in FIELD I at any time and will grant no more than two commercial licenses in FIELD II at any time and HARVARD will not grant other licenses in the FIELD except as required by HARVARD's obligations in Section 3.2(a) or as permitted Section 3.2(b). Such co-exclusive license shall include the right to grant sublicenses under the following circumstances: (i) LICENSEE can demonstrate that it has added significant value to the PATENT RIGHTS to be sublicensed, and that such a sublicense also contains a substantial and essentially simultaneous license of LICENSEE owned intellectual property, or (ii) LICENSEE grants a sublicense under other HARVARD patent rights licensed exclusively to LICENSEE which are dominated by PATENT RIGHTS, and such sublicense under PATENT RIGHTS is necessary to practice such other HARVARD patent rights.

3.2 The granting and exercise of this license is subject to the following conditions:

(a) HARVARD's "Statement of Policy in Regard to Inventions, Patents and Copyrights," dated August 10, 1998, Public Law 96-517, Public Law 98-620. In addition, this Agreement is subject to HARVARD's obligations under agreements with other sponsors of research, provided that such obligations are not in conflict with the rights granted hereunder. Any right granted in this Agreement greater than that permitted under Public Law 96-517, or Public Law 98-620, shall be subject to modification as may be required to conform to the provisions of those statutes.

(b) HARVARD reserves the right to make and use, and grant to others non-exclusive licenses to make and use solely for ACADEMIC RESEARCH PURPOSES the subject matter described and claimed in PATENT RIGHTS.

(c) LICENSEE shall use commercially reasonable efforts to effect introduction of the LICENSED PRODUCTS into the commercial market as soon as practicable, consistent with sound and reasonable business practice and judgment; thereafter, until the expiration of this Agreement, LICENSEE shall endeavor to keep LICENSED PRODUCTS reasonably available to the public.

(d) At any time after three years from the effective date of this Agreement and as HARVARD's sole remedy for such non-performance, HARVARD may increase the license maintenance royalty under Section 4.4 to [***] dollars each in FIELD I and in FIELD II in year 2004 and [***] dollars each in FIELD I and in FIELD II per year each year beginning in 2005, if in HARVARD's reasonable judgment, the Progress Reports furnished by LICENSEE do not demonstrate that LICENSEE has satisfied at least one of the following conditions, which non-performance is not cured within ninety (90) days following the written notification of such by HARVARD to LICENSEE:

(i) has put the licensed subject matter into commercial use in at least one of the countries hereby licensed, directly or through a sublicense, and is keeping the licensed subject matter reasonably available to the public; or

(ii) is engaged in research, development, manufacturing, marketing or sublicensing activity appropriate to achieving 3.2(d)(i).

(e) In all sublicenses granted by LICENSEE hereunder, LICENSEE shall include a requirement that the SUBLICENSEE use commercially reasonable efforts to bring the subject matter of the sublicense into commercial use. LICENSEE shall further provide in such sublicenses that such sublicenses are subject and subordinate to the terms and conditions of this Agreement, except: (i) the SUBLICENSEE may not further sublicense; and (ii) the rate of royalty on NET SALES paid by the SUBLICENSEE to the LICENSEE. Copies of the relevant provisions of all sublicense agreements shall be provided promptly to HARVARD. HARVARD agrees to maintain any information contained in such provisions in confidence, except as otherwise required by law, however, HARVARD may include in its usual reports annual amounts of royalties paid.

(f) A license in any other field of use in addition to the FIELD shall be the subject of a separate agreement and shall require LICENSEE's submission of evidence, satisfactory to HARVARD, demonstrating LICENSEE's willingness and ability to develop and commercialize in such other field of use the kinds of products or processes likely to be encompassed in such other fields.

(g) To the extent that federal funds are used to support research leading to a patent or patent application in the PATENT RIGHTS, LICENSEE shall cause any LICENSED PRODUCT produced for sale by LICENSEE or SUBLICENSEES in the United States to be manufactured substantially in the United States during the period of exclusivity of this license in the United States.

3.4 All rights reserved to the United States Government and others under Public Law 96-517, and Public Law 98-620, shall remain and shall in no way be affected by this Agreement.

ARTICLE IV
ROYALTIES

4.1 LICENSEE shall pay to HARVARD a non-refundable license royalty fee in the sum of [***] payable within thirty (30) days of the execution date of this Agreement.

4.2 (a) In consideration of the right and license granted herein, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty of [***] on NET SALES of LICENSED PRODUCTS sold by LICENSEE.

(b) In the event that a single LICENSED PRODUCT or LICENSED PROCESS is covered by HARVARD intellectual property in addition to PATENT RIGHTS, which is licensed to LICENSEE under other agreements as of the date of this Agreement, then the total royalty payment due HARVARD under all such agreements including this Agreement shall be [***] of NET SALES. LICENSEE shall notify HARVARD of the identity of each license agreement that includes patent rights covering the product or process, and HARVARD shall distribute the royalties evenly among such agreements.

(c) As consideration for the rights granted hereunder, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty in the form of stock of LICENSEE as follows:

(i) LICENSEE shall issue to HARVARD [***] shares of the Common Stock of LICENSEE ("Shares") pursuant to the terms of a mutually acceptable Stock Subscription Agreement, provided, however, that HARVARD shall be subject to and enter into appropriate agreements and related documents as required of other stockholders of LICENSEE.

(ii) HARVARD represents and warrants to LICENSEE that:

(1) HARVARD is acquiring the Shares for its own account for investment and not with a view to, or for sale in connection with any distribution thereof, nor with any present intention of distributing or selling the same; and HARVARD has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof.

(2) HARVARD has full power and authority to enter into and to perform this Agreement in accordance with its terms.

(3) HARVARD has sufficient knowledge and experience in investing in companies similar to LICENSEE so as to be able to evaluate the risks and merits of its investment in LICENSEE and is able financially to bear the risks thereof.

(iii) Each certificate representing the Shares shall bear a legend substantially in the following form:

"The shares represented by this certificate have not been registered under the Securities Act of 1933 or any state securities law and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a registration statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Corporation shall have received an opinion of counsel satisfactory to the Corporation that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable securities laws."

"The shares represented by this certificate are subject to a mutually agree-upon Stock Purchase and Right of First Refusal Agreement with this Corporation, a copy of which Stock Purchase and Right of First Refusal Agreement is available for inspection at the offices of the Corporation or may be made available upon request."

The foregoing legend shall be removed from the certificates representing any Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to the Securities Act of 1933, as amended.

If at any time prior to the time the Shares are eligible for resale pursuant to an exemption from registration under the Securities Act of 1933, as amended, LICENSEE proposes to register any of its Common Stock, under the Securities Act of 1933, except at LICENSEE's initial public offering or any offering pursuant to Forms S-4 or S-8, LICENSEE shall offer HARVARD the opportunity to have its Shares registered under the registration statement to be filed at such time. HARVARD will be offered the right to register its Shares under the same terms, conditions and restrictions as other shareholders with piggyback registration rights and the inclusion of any Shares in such registration statement shall be subject to the approval of the underwriters of such offering

(iv) HARVARD's ownership rights to Shares shall not be affected should the license pursuant to this Agreement be converted to a nonexclusive one.

(d) In the case of sublicenses, LICENSEE shall also pay to HARVARD a royalty of [***] of SUBLICENSE INCOME. If compensation for such a sublicense of PATENT RIGHTS is bundled with compensation received for the sublicensing of the other HARVARD patent rights licensed to LICENSEE under other agreements as of the date of this Agreement, LICENSEE shall pay HARVARD only [***] of the total compensation received no matter how many license agreements from HARVARD are involved. In such a case, LICENSEE shall notify HARVARD of the identity of each license agreement involved and HARVARD shall distribute its [***] of

compensation equally among those license agreements, including this Agreement.

(e) LICENSEE shall pay HARVARD [***] of NET SERVICE INCOME. If SERVICE INCOME is bundled with service income under another license to LICENSEE as of the date of this Agreement, LICENSEE shall pay a royalty of [***] of NET SERVICE INCOME received from each and every third party ("Third Party") to which services are provided. LICENSEE shall notify HARVARD of the identity of each license agreement involved in the services and HARVARD shall distribute its [***] of compensation equally among those license agreements, including this Agreement.

(f) If other co-exclusive licenses in the same FIELD and TERRITORY are granted after the date this Agreement is executed, the above financial compensation shall not exceed the financial compensation to be paid by other licensees in the same FIELD and TERRITORY during the term of the co-exclusive license provided LICENSEE accepts any less favorable terms included in such other license.

If stock is part of the financial compensation to be paid by other licensees in the same FIELD and TERITORY, the fair market value of the stock shall be the same as the price per share which other investors paid in the last round of financing unless the stock is publicly traded.

4.3 On sales between LICENSEE and its AFFILIATES for resale or incorporation into products, the royalty shall be paid on the NET SALES of the AFFILIATE. On sales between LICENSEE and sublicensees for resale, the royalty shall be paid on the SUBLICENSE INCOME.

4.4 No later than January 1 of each calendar year indicated below, LICENSEE shall pay to HARVARD the following non-refundable license maintenance royalty and/or advance on royalties. Such payments shall be credited against running royalties due for that calendar year and Royalty Reports shall reflect such a credit. Such payments shall not be credited against milestone payments (if any) nor against royalties due for any subsequent calendar year nor against such payments due under any other agreements with HARVARD.

	FIELD I	FIELD II
January 1, 2002	[***]	[***]
January 1, 2003	[***]	[***]
January 1, 2004	[***]	[***]
each year thereafter	[***]	[***]

ARTICLE V
REPORTING

5.1 Prior to signing this Agreement, LICENSEE has provided to HARVARD a written business plan under which LICENSEE intends to bring the subject matter of the licenses

granted hereunder into commercial use upon execution of this Agreement. Such plan includes proposed marketing efforts.

5.2 No later than sixty (60) days after June 30 of each calendar year, LICENSEE shall provide to HARVARD a written annual Progress Report describing progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales during the most recent twelve (12) month period ending June 30 and plans for the forthcoming year. If multiple technologies are covered by the license granted hereunder, the Progress Report shall provide the information set forth above for each technology. If progress differs from that anticipated in the plan required under Section 5.1, LICENSEE shall explain the reasons for the difference and propose a modified plan for HARVARD's review. LICENSEE shall also provide any reasonable additional data HARVARD requires to evaluate LICENSEE's performance.

5.3 LICENSEE shall report to HARVARD the date of first sale of LICENSED PRODUCTS (or results of LICENSED PROCESSES) in each country within thirty (30) days of occurrence.

5.4 (a) LICENSEE shall submit to HARVARD within sixty (60) days after each calendar half year ending June 30 and December 31, a Royalty Report setting forth for such half year at least the following information:

(i) the number of LICENSED PRODUCTS sold by LICENSEE in each country;

(ii) total billings and amounts actually received for such LICENSED PRODUCTS;

(iii) an accounting for all LICENSED PROCESSES used or sold;

(iv) deductions applicable to determine the NET SALES thereof;

(v) the amount of SERVICE INCOME received by LICENSEE and an accounting of all deductions to yield NET SERVICE INCOME;

(vi) the amount of SUBLICENSE INCOME received by LICENSEE; and

(vii) the amount of royalty due thereon, or, if no royalties are due to HARVARD for any reporting period, the statement that no royalties are due.

Such report shall be certified as correct by an officer of LICENSEE and shall include a detailed listing of all deductions from royalties.

(b) LICENSEE shall pay to HARVARD with each such Royalty Report the amount of royalty due with respect to such half year. If multiple technologies are covered by the license granted hereunder, LICENSEE shall specify which PATENT RIGHTS are utilized for each LICENSED PRODUCT and LICENSED PROCESS included in the Royalty Report.

(c) All payments due hereunder shall be deemed received when funds are credited to HARVARD's bank account and shall be payable by check or wire transfer in United States dollars. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States (as reported in the New York Times or the Wall Street Journal) on the last working day of each royalty period. No transfer, exchange, collection or other charges shall be deducted from such payments.

(d) All such reports shall be maintained in confidence by HARVARD except as required by law; however, HARVARD may include in its usual reports annual amounts of royalties paid.

(e) Late payments shall be subject to a charge of one and one-half percent (1.5%) per month, or $250, whichever is greater.

5.5 In the event of acquisition, merger, change of corporate name or change in make-up, organization, or identity, LICENSEE shall notify HARVARD in writing within thirty (30) days of such event.

5.6 If by law, regulation or fiscal policy of a particular country, conversion into United States dollars or transfer of funds of a convertible currency to the United States is restricted or forbidden, LICENSEE shall give HARVARD prompt notice in writing and shall pay the royalty and other amounts due through such means or methods as are lawful in such country as HARVARD may reasonably designate. Failing the designation by HARVARD of such lawful means or methods within thirty (30) days after such notice is given to HARVARD, LICENSEE shall deposit such royalty or other payment in local currency to the credit of HARVARD in a recognized banking institution designated by HARVARD, or if none is designated by HARVARD within the thirty (30) day period described above, in a recognized banking institution selected by LICENSEE and identified in a written notice to HARVARD by LICENSEE, and such deposit shall fulfill all obligations of LICENSEE to HARVARD with respect to such royalties. When in any country in which the law or regulations prohibit both the transmittal and deposit of royalties on sales in such country, royalty payments shall be suspended for as long as such prohibition is in effect, and as soon as such prohibition ceases to be in effect, all royalties which LICENSEE would have been under obligation to transmit or deposit, but for the prohibition, shall be deposited or transmitted promptly to the extent allowable.

ARTICLE VI
RECORD KEEPING

6.1 LICENSEE shall keep, and shall require its SUBLICENSEES to keep, accurate records (together with supporting documentation) of LICENSED PRODUCTS made, used or sold under this Agreement, and SERVICE INCOME and SUBLICENSE INCOME received by LICENSEE under this Agreement, appropriate to determine the amount of royalties due to HARVARD hereunder. Such records shall be retained for three (3) years following the end of the reporting period to which they relate. For such three year period, they shall be

available during normal business hours upon reasonable advance notice for examination by a certified public accountant selected by HARVARD, and reasonably acceptable to LICENSEE, for the sole purpose of verifying reports and payments hereunder. In conducting examinations pursuant to this Section 6.1, HARVARD's accountant shall have access to all records which HARVARD reasonably believes to be relevant to the calculation of royalties under Article IV. HARVARD agrees to maintain any information contained in such records in confidence, except as otherwise required by law and except information in regarding the amount of royalties due.

6.2 HARVARD's accountant shall not disclose to HARVARD any information other than information relating to the accuracy of reports and payments made hereunder.

6.3 Such examination by HARVARD's accountant shall be at HARVARD's expense, except that if such examination shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then LICENSEE shall pay the cost of such examination as well as any additional sum that would have been payable to HARVARD had the LICENSEE reported correctly, plus interest on said sum at the rate of one and one-half percent (1.5%) per month.

ARTICLE VII
DOMESTIC AND FOREIGN PATENT FILING AND MAINTENANCE

7.1 Upon execution of this Agreement, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all reasonable expenses HARVARD has incurred for the preparation, filing, prosecution, maintenance and counseling with respect to PATENT RIGHTS. Such expenses total [***] as of October 1, 2000. Thereafter, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all such future reasonable expenses prior to the termination of this Agreement upon receipt of invoices from HARVARD.

7.2 HARVARD shall be responsible for the preparation, filing, prosecution and maintenance of any and all patent applications and patents included in PATENT RIGHTS. HARVARD will instruct counsel to directly notify HARVARD and LICENSEE and provide them copies of any official communications from the United States and foreign patent offices relating to said prosecution, and to provide LICENSEE with advance draft copies of all relevant communications to the various patent offices, so that LICENSEE may be informed and apprised of the continuing prosecution of patent applications in PATENT RIGHTS. LICENSEE shall have reasonable opportunities to participate in decision making on all key decisions affecting filing, prosecution and maintenance of patents and patent applications in PATENT RIGHTS. HARVARD will use reasonable efforts to incorporate LICENSEE's reasonable suggestions regarding said prosecution. HARVARD shall use all reasonable efforts to amend any patent application to include claims reasonably requested by LICENSEE to protect LICENSED PRODUCTS.

7.3 HARVARD and LICENSEE shall cooperate fully in the preparation, filing, prosecution and maintenance of PATENT RIGHTS and of all patents and patent applications licensed to LICENSEE hereunder, executing all papers and instruments or requiring members of

HARVARD to execute such papers and instruments so as to enable HARVARD to apply for, to prosecute and to maintain patent applications and patents in HARVARD's name in any country. Each party shall provide to the other prompt notice as to all matters which come to its attention and which may affect the preparation, filing, prosecution or maintenance of any such patent applications or patents.

7.4 LICENSEE may elect to surrender its PATENT RIGHTS in any country upon sixty (60) days written notice to HARVARD. Such notice shall not relieve LICENSEE from responsibility to reimburse HARVARD for patent-related expenses incurred prior to the expiration of the (60) day notice period.

7.5 If HARVARD elects not to prosecute or maintain any of the patents or patent applications relating to PATENT RIGHTS or any portion thereof in any country, LICENSEE shall be given sufficient notice of HARVARD's decision so that LICENSEE may request that HARVARD continue prosecuting or maintaining such patents or patent applications, at LICENSEE's expense. If HARVARD elects not to prosecute or maintain such patents or patent applications after such request by LICENSEE, then LICENSEE shall have the right, but not the obligation, at its own expense to prosecute and maintain such patents and patent applications or portion thereof in such country and in HARVARD's name. If LICENSEE assumes 100% of the costs to file, prosecute, and maintain certain patents and patent applications relating to the PATENT RIGHTS pursuant to this Section 7.5, and, if HARVARD licenses the PATENT RIGHTS to one or more co-exclusive licensees designated in Section 3.1 after such time, then HARVARD will credit LICENSEE with the costs LICENSEE has paid in excess of 50% if one other licensee, due for the preparation, filing, prosecution and maintenance of patents and patent applications relating to PATENT RIGHTS pursuant to Section 7.1 above.

7.6 If LICENSEE can demonstrate that it is not being adequately informed or apprised of the continuing prosecution of patents or patent applications in PATENT RIGHTS, or that it is not being provided with reasonable opportunities to participate in decision making or that its interests are not being adequately protected, LICENSEE shall be entitled to engage, at LICENSEE's expense, independent patent counsel to review and evaluate patent prosecution and filing of patents and patent applications included in PATENT RIGHTS.

ARTICLE VIII
INFRINGEMENT

8.1 With respect to any PATENT RIGHTS that are licensed to LICENSEE pursuant to this Agreement, LICENSEE shall have the right to prosecute in its own name and at its own expense any infringement of such patent. HARVARD agrees to notify LICENSEE promptly of each infringement of such patents of which HARVARD, as applicable, is or becomes aware. Before LICENSEE commences an action with respect to any infringement of such patents, LICENSEE shall give careful consideration to the views of HARVARD and to potential effects on the public interest in making its decision whether or not to sue.

8.2 LICENSEE acknowledges that other co-exclusive licensees of PATENT RIGHTS designated in Section 3.1 shall have rights identical to LICENSEE to prosecute infringers and that co-exclusive licensees will be bound by the identical terms of this Section 8.2. In any prosecution instigated by LICENSEE and in which HARVARD, as necessary, is also named plaintiff as owner of the PATENT RIGHTS, LICENSEE must notify other co-exclusive licensees of the existence of such legal action and allow other co-exclusive licensees to join as a plaintiff upon co-exclusive licensees' request. In addition, in the event other co-exclusive licensees instigate an infringement prosecution, LICENSEE hereby consents to being joined as a plaintiff in such suit solely for the purpose of procuring standing to bring the action and at the sole expense of the instigating co-exclusive licensee. To the extent that LICENSEE desires to participate in any strategic decisions affecting the prosecution of the action brought by other co-exclusive licensees, LICENSEE acknowledges that it and co-exclusive licensees will necessarily have to reach a mutual agreement concerning litigation expenses and strategy. In no event shall HARVARD incur any liability or expense in connection with any action of co-exclusive licensees, joint or otherwise.

During any such litigation, HARVARD will agree to not license any defendant or accused infringer of the PATENT RIGHTS in the litigation, without LICENSEE's prior written consent.

8.3 (a) If LICENSEE elects to commence an action as described above, HARVARD may, to the extent permitted by law, elect to join as parties in that action. Regardless of whether HARVARD elects to join as parties, HARVARD shall cooperate fully with LICENSEE in connection with any such action.

(b) HARVARD agrees to join as a party in any action if required by law to do so in order to bring an action under the PATENT RIGHTS.

(c) LICENSEE shall reimburse HARVARD for any costs incurs with LICENSEE's approval, including reasonable attorneys' fees, as part of an action brought by LICENSEE, irrespective of whether HARVARD becomes a co-plaintiff.

8.4 If LICENSEE elects to commence an action as described above, LICENSEE may deduct from its royalty payments to HARVARD with respect to the patent(s) subject to suit an amount not exceeding fifty percent (50%) of LICENSEE's expenses and costs of such action, including reasonable attorneys' fees; provided, however, that such reduction shall not exceed fifty percent (50%) of the total royalty due to HARVARD with respect to the patent(s) subject to suit for each calendar year. If such fifty percent (50%) of LICENSEE's expenses and costs exceeds the amount of royalties deducted by LICENSEE for any calendar year, LICENSEE may to that extent reduce the royalties due to HARVARD from LICENSEE in succeeding calendar years, but never by more than fifty percent (50%) of the total royalty due in any one year with respect to the patent(s) subject to suit.

8.5 No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the prior written consent of HARVARD which consent shall not be unreasonably withheld.

8.6 Recoveries or reimbursements from actions commenced by LICENSEE pursuant to this Article shall first be applied to reimburse LICENSEE, HARVARD for litigation costs not paid from royalties and then to reimburse HARVARD for royalties deducted by LICENSEE pursuant to Section 8.4. Any remaining recoveries or reimbursements shall be shared as follows:

(a) If the amount is lost profits or lost royalties, LICENSEE shall receive an amount equal to the damages the court determines LICENSEE has suffered as a result of the infringement less the amount of any royalties that would have been due HARVARD on sales of LICENSED PRODUCTS lost by LICENSEE as a result of the infringement had LICENSEE made such sales, and HARVARD shall receive an amount equal to the royalties it would have received if such sales had been made by LICENSEE, and

(b) As to awards other than lost profits or lost royalties, fifty percent (50%) to LICENSEE and fifty percent (50%) to HARVARD.

(c) If two or more co-exclusive licensees undertake the suit, the provision of this Section 8.6 will be modified to take into account each co-exclusive licensee's expenses and lost profits.

8.7 If LICENSEE elects not to exercise its right to prosecute an infringement of the PATENT RIGHTS pursuant to this Article, HARVARD may do so at its own expense, controlling such action and retaining all recoveries therefrom. LICENSEE shall cooperate fully with HARVARD in connection with any such action.

8.8 If a declaratory judgment action is brought naming LICENSEE as a defendant and alleging invalidity of any of the PATENT RIGHTS, HARVARD may elect to take over the sole defense of the action at its own expense. LICENSEE shall cooperate fully with HARVARD in connection with any such action. HARVARD shall consult with LICENSEE regarding such defense.

ARTICLE IX
TERMINATION OF AGREEMENT

9.1 This Agreement, unless terminated as provided herein, shall remain in effect until the last patent or patent application in PATENT RIGHTS has expired or been abandoned.

9.2 HARVARD may terminate this Agreement as follows:

(a) If LICENSEE does not make a payment due hereunder and fails to cure such non-payment (including the payment of interest in accordance with Section 5.4(e)) within

thirty (30) days after the date of notice in writing of such non-payment by HARVARD.

(b) If LICENSEE defaults in its obligations under Sections 10.3(c) and 10.3(d) to procure and maintain insurance.

(c) If LICENSEE shall become insolvent, shall make an assignment for the benefit of creditors, or shall have a petition in bankruptcy filed for or against it. Such termination shall be effective immediately upon HARVARD giving written notice to LICENSEE.

(d) If an examination by HARVARD's accountant pursuant to Article V shows an underreporting or underpayment by LICENSEE in excess of twenty percent (20%) for any twelve (12) month period, provided that such underreporting or underpayment is not determined to be inadvertent or the result of an honest mistake.

(e) If LICENSEE is convicted of a felony relating to the manufacture, use, or sale of LICENSED PRODUCTS.

(f) Except as provided in Subsections (a), (b), and (c) above, if LICENSEE defaults in the performance of any material obligations under this Agreement and the default has not been remedied within forty-five (45) days after the date of notice in writing of such default by HARVARD.

9.3 LICENSEE shall provide, in all sublicenses granted by it under this Agreement, that LICENSEE's interest in such sublicenses shall at HARVARD's option terminate or be assigned to HARVARD upon termination of this Agreement; however, LICENSEE shall have the option to nominate one of its sublicensees as a substitute for LICENSEE. The proposed substitute must (i) have a net worth of at least equivalent to the net worth LICENSEE had as of the date of this Agreement and (ii) have available resources and sufficient scientific, business and other expertise comparable to LICENSEE in order to satisfy its obligations under this Agreement. At least sixty (60) days prior to termination of this Agreement, LICENSEE shall provide HARVARD with written notice of LICENSEE's nominee together with documentation sufficient to demonstrate the requirements set forth in subparagraphs (i) and (ii) above for HARVARD's approval, which shall not be unreasonably withheld. HARVARD shall notify LICENSEE in writing of its decision prior to termination of this Agreement. If HARVARD approves LICENSEE's nominee, LICENSEE shall assign this Agreement to its nominee and its nominee shall accept the assignment no later than thirty (30) days after the termination date of this Agreement.

In the event that HARVARD disapproved LICENSEE's first nominee, prior to the termination date of this Agreement, LICENSEE shall have the option to nominate one of its other sublicensees for HARVARD's approval which shall not be unreasonably withheld.

9.4 LICENSEE may terminate this Agreement by giving ninety (90) days advance written notice of termination to HARVARD. Upon termination, LICENSEE shall submit a final Royalty Report to HARVARD and any royalty payments and unreimbursed patent expenses invoiced by HARVARD shall become immediately payable.

9.5 Sections 6.1, 6.2, 6.3, 7.1, 9.4, 9.5, 10.2, 10.3, 10.4, and 10.7 of this Agreement shall survive termination.

ARTICLE X
GENERAL

10.1 HARVARD does not warrant the validity of the PATENT RIGHTS licensed hereunder and make no representations whatsoever with regard to the scope of the licensed PATENT RIGHTS or that such PATENT RIGHTS may be exploited by LICENSEE, an AFFILIATE, or SUBLICENSEE without infringing other patents, provided, however, HARVARD represents that it has no knowledge of any facts or circumstances as of the execution date of this Agreement that would render any of the PATENT RIGHTS invalid or unenforceable. HARVARD represents and warrants, to the best of its knowledge, that HARVARD owns all right, title and interest in and to the PATENT RIGHTS.

10.2 HARVARD EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE PATENT RIGHTS OR INFORMATION SUPPLIED BY HARVARD, LICENSED PROCESSES OR LICENSED PRODUCTS CONTEMPLATED BY THIS AGREEMENT.

10.3 (a) LICENSEE shall indemnify, defend and hold harmless HARVARD and its current or former directors, governing board members, trustees, officers, faculty, medical and professional staff, employees, students, and agents and their respective successors, heirs and assigns (collectively, the "INDEMNITEES"), from and against any claim, liability, cost, expense, damage, deficiency, loss or obligation of any kind or nature (including, without limitation, reasonable attorney's fees and other costs and expenses of litigation) (collectively, "Claims"), based upon, arising out of, or otherwise relating to this Agreement, including without limitation any cause of action relating to product liability concerning any product, process, or service made, used or sold pursuant to any right or license granted under this Agreement, provided, however, that such indemnification shall not apply to any liability, damage, loss, or expense to the extent directly attributable to the negligent activities, reckless misconduct or intentional misconduct of Indemnitees.

(b) Each Indemnitee that intends to claim indemnification under Section 10.3(a) shall promptly notify LICENSEE of any claim or action in respect of which the Indemnitee intends to claim such indemnification, and LICENSEE shall assume the defense thereof with counsel mutually satisfactory to LICENSEE and HARVARD. The failure to deliver notice to LICENSEE within a reasonable time after the

commencement of any such claim or action, if materially prejudicial to its ability to defend such action, shall relieve LICENSEE of any liability to the Indemnitee under Section 10.3(a) with respect to such action, but the omission so to deliver notice to LICENSEE will not relieve it of any liability that it may have to any Indemnitee otherwise than under Section 10.3(a). HARVARD and any other Indemnitee, and their respective employees and agents, shall cooperate fully with LICENSEE and its legal representatives in the investigation of any claim or action covered by the indemnification under Section 10.3(a).

(c) Beginning at the time any such product, process or service is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in amounts not less than $2,000,000 per incident and $2,000,000 annual aggregate and naming the Indemnitees as additional insureds. During clinical trials of any such product, process or service, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in such equal or lesser amount as HARVARD shall require, naming the Indemnitees as additional insureds. Such commercial general liability insurance shall provide: (i) product liability coverage; and (ii) broad form contractual liability coverage for LICENSEE's indemnification under this Agreement. If LICENSEE elects to self-insure all or part of the limits described above (including deductibles or retentions which are in excess of $250,000 annual aggregate) such self-insurance program must be acceptable to HARVARD and the Risk Management Foundation of the Harvard Medical Institutions, Inc. in their sole discretion. The minimum amounts of insurance coverage required shall not be construed to create a limit of LICENSEE's liability with respect to its indemnification under this Agreement.

(d) LICENSEE shall provide HARVARD with written evidence of such insurance upon request of HARVARD. LICENSEE shall provide HARVARD with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance; if LICENSEE does not obtain replacement insurance providing comparable coverage within such fifteen (15) day period, HARVARD shall have the right to terminate this Agreement effective at the end of such fifteen (15) day period without notice or any additional waiting periods.

(e) LICENSEE shall maintain such commercial general liability insurance beyond the expiration or termination of this Agreement during: (i) the period that any product, process, or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE; and (ii) a reasonable period after the period referred to in Subsection (e)(i) above which in no event shall be less than fifteen (15) years.

10.4 LICENSEE shall not use HARVARD's name or insignia, or any adaptation of them, or the name of any of HARVARD's inventors in any advertising, promotional or sales literature without the prior written approval of HARVARD.

10.5 Without the prior written approval of HARVARD in each instance, neither this Agreement nor the rights granted hereunder shall be transferred or assigned in whole or in part by LICENSEE to any person whether voluntarily or involuntarily, by operation of law or otherwise, except that each of LICENSEE and its AFFILIATES may assign this Agreement in connection with a merger, consolidation or sale or transfer of all or substantially all of its assets. This Agreement shall be binding upon the respective successors, legal representatives and assignees of HARVARD and LICENSEE.

10.6 The interpretation and application of the provisions of this Agreement shall be governed by the laws of the Commonwealth of Massachusetts.

10.7 LICENSEE shall comply with all applicable laws and regulations. In particular, it is understood and acknowledged that the transfer of certain commodities and technical data is subject to United States laws and regulations controlling the export of such commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce. These laws and regulations among other things, prohibit or require a license for the export of certain types of technical data to certain specified countries. LICENSEE hereby agrees and gives written assurance that it will comply with all United States laws and regulations controlling the export of commodities and technical data, that it will be solely responsible for any violation of such by LICENSEE or its AFFILIATES or SUBLICENSEES, and that it will defend and hold HARVARD, CHILDREN, and MIT harmless in the event of any legal action of any nature occasioned by such violation.

10.8 LICENSEE agrees: (i) to obtain all regulatory approvals required for the manufacture and sale of LICENSED PRODUCTS and LICENSED PROCESSES; and (ii) to utilize appropriate patent marking on such LICENSED PRODUCTS. LICENSEE also agrees to register or record this Agreement as is required by law or regulation in any country where the license is in effect.

10.9 Any notices to be given hereunder shall be sufficient if signed by the party (or party's attorney) giving same and either: (i) delivered in person; (ii) mailed certified mail return receipt requested; or (iii) faxed to other party if the sender has evidence of successful transmission and if the sender promptly sends the original by ordinary mail, in any event to the following addresses:

If to LICENSEE:
Mycometrix Corporation
213 E. Grand Ave.
South San Francisco, CA 94080
Attention:
Fax: (650)-

If to HARVARD:
Office for Technology and Trademark Licensing
Harvard University
Holyoke Center, Suite 727
1350 Massachusetts Avenue
Cambridge, MA 02138
Fax: (617) 495-9568

By such notice either party may change their address for future notices.

Notices delivered in person shall be deemed given on the date delivered. Notices sent by fax shall be deemed given on the date faxed. Notices mailed shall be deemed given on the date postmarked on the envelope.

10.10 Should a court of competent jurisdiction later hold any provision of this Agreement to be invalid, illegal, or unenforceable, and such holding is not reversed on appeal, it shall be considered severed from this Agreement. All other provisions, rights and obligations shall continue without regard to the severed provision, provided that the remaining provisions of this Agreement are in accordance with the intention of the parties.

10.11 In the event of any controversy or claim arising out of or relating to any provision of this Agreement or the breach thereof, the parties shall try to settle such conflict amicably between themselves. Subject to the limitation stated in the final sentence of this Section 10.11, any such conflict which the parties are unable to resolve promptly shall be settled through arbitration conducted in accordance with the rules of the American Arbitration Association. The demand for arbitration shall be filed within a reasonable time after the controversy or claim has arisen, and in no event after the date upon which institution of legal proceedings based on such controversy or claim would be barred by the applicable statute of limitation. Such arbitration shall be held in Boston, Massachusetts. The award through arbitration shall be final and binding. Either party may enter any such award in a court having jurisdiction or may make application to such court for judicial acceptance of the award and an order of enforcement, as the case may be. Notwithstanding the foregoing, either party may, without recourse to arbitration, assert against the other party a third-party claim or cross-claim in any action brought by a third party, to which the subject matter of this Agreement may be relevant.

10.12 This Agreement constitutes the entire understanding between the parties and neither party shall be obligated by any condition or representation other than those expressly stated herein or as may be subsequently agreed to by the parties hereto in writing.

[The remainder of this page is intentionally blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives.

President And Fellows of Harvard College	Mycometrix Corporation
/s/ Joyce Brinton	/s/ Gajus Worthington
Joyce Brinton, Director Office for Technology and Trademark Licensing	President
12/20/00	12/21/00
Date	Date

APPENDIX A

The following comprise PATENT RIGHTS:

[***]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.5A

First Amendment

To

Co-Exclusive License Agreement

Between

PRESIDENT AND FELLOWS OF HARVARD COLLEGE

And

MYCOMETRIX CORPORATION (now Fluidigm Corporation)

Re: Harvard Case #[***]

This is the first amendment to a co-exclusive license agreement effective October 15, 2000, by and between the President and Fellows of Harvard College, with offices at 1350 Massachusetts Avenue, Suite 727, Cambridge, MA 02138 ("Harvard") and Mycometrix Corporation, a California Corporation, with offices at 213 East Grand Avenue, South San Francisco, CA 94080 ("Licensee").

WHEREAS, Licensee has changed its name to Fluidigm Corporation, and moved to a new address at 7100 Shoreline Court, South San Francisco, California 94080; and

WHEREAS, both parties desire to clarify the definition of NET SALES and to make various minor changes to the Agreement.

NOW THEREFORE, Harvard and Licensee agree as follows:

1. Change Paragraph 1.5 to:

   LICENSED PROCESSES: the processes claimed, in whole or in part, by at least one VALID CLAIM included within PATENT RIGHTS.

2. Change Paragraph 1.6 to:

   LICENSED PRODUCTS: the products which are claimed, or the use of which is claimed, by at least one VALID CLAIM included within

PATENT RIGHTS or products made or services provided in accordance with or by means of LICENSED PROCESSES.

3. Change Paragraph 1.7 to:

LICENSEE: Fluidigm Corporation, a corporation organized under the laws of California, having its principal offices at 7100 Shoreline Court, South San Francisco, California 94080.

4. Change the second full paragraph of Paragraph 1.9 to:

In the event that a LICENSED PRODUCT is sold or leased as a combination product containing the LICENSED PRODUCT and one or more other components, NET SALES shall be calculated by multiplying the gross amount invoiced for the sale of the combination product by the fraction A/A+B, where A is the average gross selling price of the LICENSED PRODUCT sold separately by LICENSEE, and B is the average gross selling price of such other components of the combination products sold separately by LICENSEE during the relevant royalty payment period. In the event a substantial number of such separate sales were not made during the relevant royalty period, then NET SALES shall be reasonably allocated by LICENSEE between such LICENSED PRODUCT and such other components of the combination based on their relative importance or value. If LICENSEE does so allocate, LICENSEE shall promptly deliver to HARVARD a written report providing a detailed explanation of how LICENSEE determined said relative importance or value. In the event that HARVARD disagrees with the determination made by LICENSEE of said allocation of importance or value, HARVARD shall so notify LICENSEE in writing, and a representative of LICENSEE and a representative of HARVARD shall meet in order to discuss and resolve such disagreement. If such disagreement cannot be resolved within sixty (60) days, such disagreement shall be subject to resolution in accordance with Section 10.11.

5. Add the following sentence to the end of Paragraph 1.10:

In addition, SERVICE INCOME shall be subject to the following deductions:

i) customary trade, quantity or cash discounts and non-affiliated broker's or agents' commissions actually allowed and taken;

ii) amounts repaid or credited by reason of rejection; and

iii) to the extent separately stated on purchase orders, invoices, or other documents of sale, taxes levied on and/or other governmental

charges made as to performance, production, sale or use and paid by or on behalf of LICENSE.

6. Change Paragraph 1.15 to:

VALID CLAIM: either (i) a claim of an issued patent that has not been held unenforceable or invalid by an agency or a court of competent jurisdiction in any unappealable or unappealed decision or (ii) a claim of a pending patent application that has not been abandoned or finally rejected without the possibility of appeal or refiling and that has been pending for less than six (6) years from the earlier of a) the first priority date of such patent application or b) the effective date of this Agreement.

7. Change Paragraph 3.2(c) to:

LICENSEE shall use commercially reasonable efforts to effect introduction of the LICENSED PRODUCTS into the commercial market as soon as practicable, consistent with sound and reasonable business practice and judgment; thereafter, until the expiration of this Agreement, LICENSEE shall endeavor to keep LICENSED PRODUCTS reasonably available to the public, in each case consistent with industry practices for similar companies and similar products.

8. Replace the last two sentences of Paragraph 3.2(e) with:

"Copies of all sublicense agreements shall be promptly provided to HARVARD. If a sublicense agreement is part of a larger agreement (i.e., one that includes a business relationship in addition to a sublicense agreement), LICENSEE need only send the part of said larger agreement that is the sublicense agreement. HARVARD agrees to maintain any information contained in such sublicensing agreements in confidence, except as otherwise required by law, however, HARVARD may include in its usual reports annual amounts of royalties paid."

9. In Paragraph 5.3 delete "in each country", so LICENSEE needs to report the date of first sale in the first country to have a sale, but LICENSEE still needs to report the date of first sale for each LICENSED PRODUCT.

10. Replace Paragraph 6.2 with:

"HARVARD's accountant shall not disclose to HARVARD any information other than whether the reports are correct or not, the reasons for any incorrectness and the amount of any discrepancies."

11. Add new Paragraph 6.4:

"Such examination by HARVARD's accountant shall take place not more than once in each calendar year."

12. Change Paragraph 9.2(d) to:

"If an examination by HARVARD's accountant pursuant to Article V shows an underreporting or underpayment by LICENSEE in excess of twenty (20%) percent for any twelve (12) month period and HARVARD's accountant determines said underreporting or underpayment was not inadvertent or not the result of an honest mistake on LICENSEE's part. In that event, LICENSEE may promptly request HARVARD to have its accountant's findings reviewed by another independent certified public accounting firm of nationally recognized standing reasonably acceptable to LICENSEE, the total cost of which will be invoiced to LICENSEE and paid within thirty (30) days. If said review indicates said underreporting or underpayment by LICENSEE was inadvertent or the result of an honest mistake then HARVARD will not terminate this Agreement.

13. In Paragraph 10.9, change lines 6-11 to:

If to LICENSEE:

Fluidigm Corporation
7100 Shoreline Court
South San Francisco, CA 94080
Attention: General Counsel
Fax: 650-871-7195

In all other respects the co-exclusive License Agreement, effective October 15, 2000, shall remain the same. This amendment shall become effective upon both parties signing below, and have an effective date of January 1, 2005.

IN WITNESS WHEREOF, the parties hereto have caused this second amendment to be executed by their duly authorized representatives.

PRESIDENT AND FELLOWS OF HARVARD COLLEGE:

/s/ Joyce Brinton

Joyce Brinton
Director
Office for Technology and
Trademark Licensing

Date: 12/22/04

FLUIDIGM CORPORATION:

/s/ Gajus Worthington

Printed: Gajus Worthington

Title: President & CEO

Date: 12/23/04

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.6

4060.LICI.006 Harvard

CO-EXCLUSIVE LICENSE AGREEMENT

Between

President and Fellows of Harvard College

And

Mycometrix Corporation

Effective as of October 15, 2000

Re: Harvard Case [***]

In consideration of the mutual promises and covenants set forth below, the parties hereto agree as follows:

ARTICLE I
DEFINITIONS

As used in this Agreement, the following terms shall have the following meanings:

1.1 ACADEMIC RESEARCH PURPOSES: use of PATENT RIGHTS for academic research or other not-for-profit scholarly purposes which are undertaken at a non-profit or governmental institution that does not use the PATENT RIGHTS in the production or manufacture of products for sale or the performance of services for a fee.

1.2 AFFILIATE: any entity which controls, is controlled by, or is under common control with a party by ownership or control of at least fifty percent (50%) of the voting stock or other ownership. Unless otherwise specified, the term LICENSEE includes AFFILIATES.

1.3 FIELD: use of PATENT RIGHTS to develop, manufacture, use, offer for sale, sell, or import components and products in FIELD I and/or FIELD II:

FIELD I: [***]

FIELD II: [***]

1.4 HARVARD: President and Fellows of Harvard College, a nonprofit Massachusetts educational corporation having offices at the Office for Technology and Trademark Licensing, Holyoke Center, Suite 727, 1350 Massachusetts Avenue, Cambridge, Massachusetts 02138.

1.5 LICENSED PROCESSES: the processes covered by at least one VALID CLAIM included within the PATENT RIGHTS.

1.6 LICENSED PRODUCTS: products covered by at least one VALID CLAIM included within the PATENT RIGHTS or products made or services provided in accordance with or by means of LICENSED PROCESSES.

1.7 LICENSEE: Mycometrix Corporation, a corporation organized under the laws of Califonia having its principal offices at 213 East Grand Avenue, South San Francisco, CA 94080.

1.8 NET SERVICE INCOME: SERVICE INCOME less LICENSEE's actual direct and indirect cost for research, development and/or services provided.

1.9 NET SALES: the amount actually received for sales, leases, or other transfers of LICENSED PRODUCTS, less:

(i) customary trade, quantity or cash discounts and non-affiliated brokers' or agents' commissions actually allowed and taken;

(ii) amounts repaid or credited by reason of rejection or return;

(iii) to the extent separately stated on purchase orders, invoices, or other documents of sale, taxes levied on and/or other governmental charges made as to production, sale, transportation, delivery or use and paid by or on behalf of LICENSEE; and

(iv) reasonable charges for delivery or transportation provided by third parties and cost of insurance in transit, if separately stated.

NET SALES also includes the fair market value of any non-cash consideration received by LICENSEE for the sale, lease, or transfer of LICENSED PRODUCTS.

If a LICENSED PRODUCT is sold as a combination product containing the LICENSED PRODUCT and one or more other components, NET SALES shall be calculated by multiplying the gross amount invoiced for the sale of the combination product by the fraction A/A+B where A is the average gross selling price of the LICENSED PRODUCT sold separately by LICENSEE and B is the average gross selling price of such other components of the combination products sold separately by LICENSEE during the relevant royalty payment period.

In the event that LICENSEE grants a sublicensee hereunder, and receives payments based upon SUBLICENSEE's sales of LICENSED PRODUCTS, LICENSEE may upon approval from HARVARD (which shall not be unreasonably withheld) modify the definition of NET SALES for the purposes of calculating royalties payable to HARVARD on such SUBLICENSEE's sales to be the same as the definition of NET SALES on which such royalties to LICENSEE are calculated.

1.10 SERVICE INCOME: the total financial consideration received by LICENSEE for commercial services performed on a fee-for-service basis using the LICENSED PRODUCTS or LICENSED PROCESSES by LICENSEE under a contract with a third party, where such services are based primarily on the use of fully functional LICENSED PRODUCTS or LICENSED PROCESSES (as applicable) for their intended commercial use (such as, for example, where LICENSEE performs commercial-scale genotyping services for a pharmaceutical company on a fee-for-service basis using fully developed microfluidics chips comprising LICENSED PRODUCTS). SERVICE INCOME shall not include amounts received in connection with research and/or development of LICENSED PRODUCTS or LICENSED PROCESSES themselves.

1.11 PATENT RIGHTS: The applications and patents as listed in Appendix A of this Agreement, the allowed claims of such applications, the inventions described and claimed therein, and any divisions or continuations of the applications and patents as listed in Appendix A, and specific claims of any continuations-in-part of such applications to the extent the specific claims are directed to subject matter described in the applications and patents listed in Appendix A in a manner sufficient to support such specific claims under 35 U.S.C., patents issuing thereon or reissues thereof, and any and all foreign patents and patent applications corresponding thereto, all to the extent owned or controlled by HARVARD.

1.12 SUBLICENSE INCOME: the amount paid to LICENSEE by a third party (other than an AFFILIATE of LICENSEE) (a) for the sublicening of PATENT RIGHTS to a third party as well as (b) for the related licensing of LICENSEE's own patent rights or know-how or LICENSEE's in-licensed non-HARVARD technologies, including but not limited to (i) license fees, (ii) milestone payments, (iii) royalties, (iv) the fair market value in cash of any non-cash consideration for such sublicense, and (v) in the event that LICENSEE receives any payment for equity in consideration for the grant of sublicense rights that included a premium over the fair market value of such equity, the amount of such premium. LICENSEE shall be responsible for determining such fair market value with reasonable business judgment.

1.13 SUBLICENSEE: any non-AFFILIATE granted a sublicense of any of the rights HARVARD has granted to LICENSEE under Section 3.1.

1.14 TERRITORY: Worldwide.

1.15 VALID CLAIM: either (i) a claim of an issued patent that has not been held unenforceable or invalid by an agency or a court of competent jurisdiction in any unappealable or unappealed decision or (ii) a claim of a published, pending patent application, which claim is substantially identical to a corresponding claim in a subsequently issued patent having priority to the patent application.

1.16 The terms “Public Law 96-517” and “Public Law 98-620” include all amendments to those statutes.

1.17 The terms “sold” and “sell” include, without limitation, leases and other transfers and similar transactions.

Article II
Representations

2.1 HARVARD is owner by assignment from [***], in the US and foreign patent applications corresponding thereto, and in the inventions described and claimed therein. Inventorship will be finalized in the near future.

2.2 HARVARD has authority to issue licenses under PATENT RIGHTS.

2.3 HARVARD is committed to the policy that ideas or creative works produced at HARVARD should be used for the greatest possible public benefit, and believes that every reasonable incentive should be provided for the prompt introduction of such ideas into public use, all in a manner consistent with the public interest.

2.4 LICENSEE is prepared and intends to diligently develop the invention and to bring products to market which are subject to this Agreement, specifically including one or more products in the FIELD selected from a [***].

2.5 LICENSEE is desirous of obtaining a co-exclusive license in the FIELD and in the TERRITORY in order to practice the PATENT RIGHTS in the United States and in certain foreign countries, and to manufacture, use and sell in the commercial market the products made in accordance therewith, and HARVARD is desirous of granting such a license to LICENSEE in accordance with the terms of this Agreement.

Article III
Grant of Rights

3.1 HARVARD hereby grants to LICENSEE and LICENSEE accepts, subject to the terms and conditions hereof, in the TERRITORY a co-exclusive commercial license under PATENT

RIGHTS in FIELD I and in FIELD II to make and have made, to use and have used, to sell and have sold, and to offer for sale and have offered for sale the LICENSED PRODUCTS, and to practice the LICENSED PROCESSES, for the life of the PATENT RIGHTS. HARVARD will grant no more than two commercial licenses in FIELD I at any time and will grant no more than two commercial licenses in FIELD II at any time and HARVARD will not grant other licenses in the FIELD except as required by HARVARD's obligations in Section 3.2(a) or as permitted Section 3.2(b). Such co-exclusive license shall include the right to grant sublicenses under the following circumstances: (i) LICENSEE can demonstrate that it has added significant value to the PATENT RIGHTS to be sublicensed, and that such a sublicense also contains a substantial and essentially simultaneous license of LICENSEE owned intellectual property, or (ii) LICENSEE grants a sublicense under other HARVARD patent rights licensed exclusively to LICENSEE which are dominated by PATENT RIGHTS, and such sublicense under PATENT RIGHTS is necessary to practice such other HARVARD patent rights.

3.2 The granting and exercise of this license is subject to the following conditions:

(a) HARVARD's "Statement of Policy in Regard to Inventions, Patents and Copyrights," dated August 10, 1998, Public Law 96-517, Public Law 98-620. In addition, this Agreement is subject to HARVARD's obligations under agreements with other sponsors of research, provided that such obligations are not in conflict with the rights granted hereunder. Any right granted in this Agreement greater than that permitted under Public Law 96-517, or Public Law 98-620, shall be subject to modification as may be required to conform to the provisions of those statutes.

(b) HARVARD reserves the right to make and use, and grant to others non-exclusive licenses to make and use solely for ACADEMIC RESEARCH PURPOSES the subject matter described and claimed in PATENT RIGHTS.

(c) LICENSEE shall use commercially reasonable efforts to effect introduction of the LICENSED PRODUCTS into the commercial market as soon as practicable, consistent with sound and reasonable business practice and judgment; thereafter, until the expiration of this Agreement, LICENSEE shall endeavor to keep LICENSED PRODUCTS reasonably available to the public.

(d) At any time after three years from the effective date of this Agreement and as HARVARD's sole remedy for such non-performance, HARVARD may increase the license maintenance royalty under Section 4.4 to [***] ($[***]) dollars each in FIELD I and in FIELD II in year 2004 and [***] ($[***]) dollars each in FIELD I and FIELD II per year each year beginning in 2005, if in HARVARD's reasonable judgment, the Progress Reports furnished by LICENSEE do not demonstrate that LICENSEE has satisfied at least one of the following conditions, which non-performance is not cured within ninety (90) days following the written notification of such by HARVARD to LICENSEE:

(i) has put the licensed subject matter into commercial use in at least one of the countries hereby licensed, directly or through a sublicense, and is keeping the licensed subject matter reasonably available to the public; or

(ii) is engaged in research, development, manufacturing, marketing or sublicensing activity appropriate to achieving 3.2(d)(i).

(e) In all sublicenses granted by LICENSEE hereunder, LICENSEE shall include a requirement that the SUBLICENSEE use commercially reasonable efforts to bring the subject matter of the sublicense into commercial use. LICENSEE shall further provide in such sublicenses that such sublicenses are subject and subordinate to the terms and conditions of this Agreement, except: (i) the SUBLICENSEE may not further sublicense; and (ii) the rate of royalty on NET SALES paid by the SUBLICENSEE to the LICENSEE. Copies of the relevant provisions of all sublicense agreements shall be provided promptly to HARVARD. HARVARD agrees to maintain any information contained in such provisions in confidence, except as otherwise required by law, however, HARVARD may include in its usual reports annual amounts of royalties paid.

(f) A license in any other field of use in addition to the FIELD shall be the subject of a separate agreement and shall require LICENSEE's submission of evidence, satisfactory to HARVARD, demonstrating LICENSEE's willingness and ability to develop and commercialize in such other field of use the kinds of products or processes likely to be encompassed in such other fields.

(g) To the extent that federal funds are used to support research leading to a patent or patent application in the PATENT RIGHTS, LICENSEE shall cause any LICENSED PRODUCT produced for sale by LICENSEE or SUBLICENSEES in the United States to be manufactured substantially in the United States during the period of exclusivity of this license in the United States.

3.4 All rights reserved to the United States Government and others under Public Law 96-517, and Public Law 98-620, shall remain and shall in no way be affected by this Agreement.

ARTICLE IV
ROYALTIES

4.1 LICENSEE shall pay to HARVARD a non-refundable license royalty fee in the sum of [***] dollars ($[***]) payable within thirty (30) days of the execution date of this Agreement.

4.2 (a) In consideration of the right and license granted herein, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty of [***] percent ([***]) on NET SALES of LICENSED PRODUCTS sold by LICENSEE.

(b) In the event that a single LICENSED PRODUCT or LICENSED PROCESS is covered by HARVARD intellectual property in addition to PATENT RIGHTS, which is licensed to LICENSEE under other agreements as of the date of this Agreement, then the total royalty payment due HARVARD under all such agreements including this Agreement shall be [***] percent ([***]) of NET SALES. LICENSEE shall notify HARVARD of the identity of each license agreement that includes patent rights covering the product or process, and HARVARD shall distribute the royalties evenly among such agreements.

(c) As consideration for the rights granted hereunder, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty in the form of stock of LICENSEE as follows:

(i) LICENSEE shall issue to HARVARD [***] shares of the Common Stock of LICENSEE ("Shares") pursuant to the terms of a mutually acceptable Stock Subscription Agreement, provided, however, that HARVARD shall be subject to and enter into appropriate agreements and related documents as required of other stockholders of LICENSEE.

(ii) HARVARD represents and warrants to LICENSEE that:

(1) HARVARD is acquiring the Shares for its own account for investment and not with a view to, or for sale in connection with any distribution thereof, nor with any present intention of distributing or selling the same; and HARVARD has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof.

(2) HARVARD has full power and authority to enter into and to perform this Agreement in accordance with its terms.

(3) HARVARD has sufficient knowledge and experience in investing in companies similar to LICENSEE so as to be able to evaluate the risks and merits of its investment in LICENSEE and is able financially to bear the risks thereof.

(iii) Each certificate representing the Shares shall bear a legend substantially in the following form:

"The shares represented by this certificate have not been registered under the Securities Act of 1933 or any state securities law and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a registration statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Corporation shall have received an opinion of counsel satisfactory to the Corporation that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable securities laws."

"The shares represented by this certificate are subject to a mutually agree-upon Stock Purchase and Right of First Refusal Agreement with this Corporation, a copy of which Stock Purchase and Right of First Refusal Agreement is available for inspection at the offices of the Corporation or may be made available upon request."

The foregoing legend shall be removed from the certificates representing any Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to the Securities Act of 1933, as amended.

If at any time prior to the time the Shares are eligible for resale pursuant to an exemption from registration under the Securities Act of 1933, as amended, LICENSEE proposes to register any of its Common Stock, under the Securities Act of 1933, except at LICENSEE's initial public offering or any offering pursuant to Forms S-4 or S-8, LICENSEE shall offer HARVARD the opportunity to have its Shares registered under the registration statement to be filed at such time. HARVARD will be offered the right to register its Shares under the same terms, conditions and restrictions as other shareholders with piggyback registration rights and the inclusion of any Shares in such registration statement shall be subject to the approval of the underwriters of such offering

(iv) HARVARD's ownership rights to Shares shall not be affected should the license pursuant to this Agreement be converted to a non-exclusive one.

(d) In the case of sublicenses, LICENSEE shall also pay to HARVARD a royalty of [***] of SUBLICENSE INCOME. If compensation for such a sublicense of PATENT RIGHTS is bundled with compensation received for the sublicensing of the other HARVARD patent rights licensed to LICENSEE under other agreements as of the date of this Agreement, LICENSEE shall pay HARVARD only [***] of the total compensation received no matter how many license agreements from HARVARD are involved. In such a case, LICENSEE shall notify HARVARD of the identity of each license agreement involved and HARVARD shall distribute its [***] of

compensation equally among those license agreements, including this Agreement.

(e) LICENSEE shall pay HARVARD [***] of NET SERVICE INCOME. If SERVICE INCOME is bundled with service income under another license to LICENSEE as of the date of this Agreement, LICENSEE shall pay a royalty of [***] of NET SERVICE INCOME received from each and every third party ("Third Party") to which services are provided. LICENSEE shall notify HARVARD of the identity of each license agreement involved in the services and HARVARD shall distribute its [***] of compensation equally among those license agreements, including this Agreement.

(f) If other co-exclusive licenses in the same FIELD and TERRITORY are granted after the date this Agreement is executed, the above financial compensation shall not exceed the financial compensation to be paid by other licensees in the same FIELD and TERRITORY during the term of the co-exclusive license provided LICENSEE accepts any less favorable terms included in such other license.

If stock is part of the financial compensation to be paid by other licensees in the same FIELD and TERITORY, the fair market value of the stock shall be the same as the price per share which other investors paid in the last round of financing unless the stock is publicly traded.

4.3 On sales between LICENSEE and its AFFILIATES for resale or incorporation into products, the royalty shall be paid on the NET SALES of the AFFILIATE. On sales between LICENSEE and sublicensees for resale, the royalty shall be paid on the SUBLICENSE INCOME.

4.4 No later than January 1 of each calendar year indicated below, LICENSEE shall pay to HARVARD the following non-refundable license maintenance royalty and/or advance on royalties. Such payments shall be credited against running royalties due for that calendar year and Royalty Reports shall reflect such a credit. Such payments shall not be credited against milestone payments (if any) nor against royalties due for any subsequent calendar year nor against such payments due under any other agreements with HARVARD.

	FIELD I	FIELD II
January 1, 2002	[***]	[***]
January 1, 2003	[***]	[***]
January 1, 2004	[***]	[***]
each year thereafter	[***]	[***]

ARTICLE V
REPORTING

5.1 Prior to signing this Agreement, LICENSEE has provided to HARVARD a written business plan under which LICENSEE intends to bring the subject matter of the licenses

granted hereunder into commercial use upon execution of this Agreement. Such plan includes proposed marketing efforts.

5.2 No later than sixty (60) days after June 30 of each calendar year, LICENSEE shall provide to HARVARD a written annual Progress Report describing progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales during the most recent twelve (12) month period ending June 30 and plans for the forthcoming year. If multiple technologies are covered by the license granted hereunder, the Progress Report shall provide the information set forth above for each technology. If progress differs from that anticipated in the plan required under Section 5.1, LICENSEE shall explain the reasons for the difference and propose a modified plan for HARVARD's review. LICENSEE shall also provide any reasonable additional data HARVARD requires to evaluate LICENSEE's performance.

5.3 LICENSEE shall report to HARVARD the date of first sale of LICENSED PRODUCTS (or results of LICENSED PROCESSES) in each country within thirty (30) days of occurrence.

5.4 (a) LICENSEE shall submit to HARVARD within sixty (60) days after each calendar half year ending June 30 and December 31, a Royalty Report setting forth for such half year at least the following information:

(i) the number of LICENSED PRODUCTS sold by LICENSEE in each country;

(ii) total billings and amounts actually received for such LICENSED PRODUCTS;

(iii) an accounting for all LICENSED PROCESSES used or sold;

(iv) deductions applicable to determine the NET SALES thereof;

(v) the amount of SERVICE INCOME received by LICENSEE and an accounting of all deductions to yield NET SERVICE INCOME;

(vi) the amount of SUBLICENSE INCOME received by LICENSEE; and

(vii) the amount of royalty due thereon, or, if no royalties are due to HARVARD for any reporting period, the statement that no royalties are due.

Such report shall be certified as correct by an officer of LICENSEE and shall include a detailed listing of all deductions from royalties.

(b) LICENSEE shall pay to HARVARD with each such Royalty Report the amount of royalty due with respect to such half year. If multiple technologies are covered by the license granted hereunder, LICENSEE shall specify which PATENT RIGHTS are utilized for each LICENSED PRODUCT and LICENSED PROCESS included in the Royalty Report.

(c) All payments due hereunder shall be deemed received when funds are credited to HARVARD's bank account and shall be payable by check or wire transfer in United States dollars. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States (as reported in the New York Times or the Wall Street Journal) on the last working day of each royalty period. No transfer, exchange, collection or other charges shall be deducted from such payments.

(d) All such reports shall be maintained in confidence by HARVARD except as required by law; however, HARVARD may include in its usual reports annual amounts of royalties paid.

(e) Late payments shall be subject to a charge of one and one-half percent (1.5%) per month, or $250, whichever is greater.

5.5 In the event of acquisition, merger, change of corporate name or change in make-up, organization, or identity, LICENSEE shall notify HARVARD in writing within thirty (30) days of such event.

5.6 If by law, regulation or fiscal policy of a particular country, conversion into United States dollars or transfer of funds of a convertible currency to the United States is restricted or forbidden, LICENSEE shall give HARVARD prompt notice in writing and shall pay the royalty and other amounts due through such means or methods as are lawful in such country as HARVARD may reasonably designate. Failing the designation by HARVARD of such lawful means or methods within thirty (30) days after such notice is given to HARVARD, LICENSEE shall deposit such royalty or other payment in local currency to the credit of HARVARD in a recognized banking institution designated by HARVARD, or if none is designated by HARVARD within the thirty (30) day period described above, in a recognized banking institution selected by LICENSEE and identified in a written notice to HARVARD by LICENSEE, and such deposit shall fulfill all obligations of LICENSEE to HARVARD with respect to such royalties. When in any country in which the law or regulations prohibit both the transmittal and deposit of royalties on sales in such country, royalty payments shall be suspended for as long as such prohibition is in effect, and as soon as such prohibition ceases to be in effect, all royalties which LICENSEE would have been under obligation to transmit or deposit, but for the prohibition, shall be deposited or transmitted promptly to the extent allowable.

ARTICLE VI
RECORD KEEPING

6.1 LICENSEE shall keep, and shall require its SUBLICENSEES to keep, accurate records (together with supporting documentation) of LICENSED PRODUCTS made, used or sold under this Agreement, and SERVICE INCOME and SUBLICENSE INCOME received by LICENSEE under this Agreement, appropriate to determine the amount of royalties due to HARVARD hereunder. Such records shall be retained for three (3) years following the end of the reporting period to which they relate. For such three year period, they shall be

available during normal business hours upon reasonable advance notice for examination by a certified public accountant selected by HARVARD, and reasonably acceptable to LICENSEE, for the sole purpose of verifying reports and payments hereunder. In conducting examinations pursuant to this Section 6.1, HARVARD's accountant shall have access to all records which HARVARD reasonably believes to be relevant to the calculation of royalties under Article IV. HARVARD agrees to maintain any information contained in such records in confidence, except as otherwise required by law and except information in regarding the amount of royalties due.

6.2 HARVARD's accountant shall not disclose to HARVARD any information other than information relating to the accuracy of reports and payments made hereunder.

6.3 Such examination by HARVARD's accountant shall be at HARVARD's expense, except that if such examination shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then LICENSEE shall pay the cost of such examination as well as any additional sum that would have been payable to HARVARD had the LICENSEE reported correctly, plus interest on said sum at the rate of one and one-half percent (1.5%) per month.

ARTICLE VII
DOMESTIC AND FOREIGN PATENT FILING AND MAINTENANCE

7.1 Upon execution of this Agreement, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all reasonable expenses HARVARD has incurred for the preparation, filing, prosecution, maintenance and counseling with respect to PATENT RIGHTS. Such expenses total [* * *] as of October 1, 2000. Thereafter, LICENSEE shall reimburse HARVARD for [* * *] of all such future reasonable expenses prior to termination of this Agreement upon receipt of invoices from HARVARD.

7.2 HARVARD shall be responsible for the preparation, filing, prosecution and maintenance of any and all patent applications and patents included in PATENT RIGHTS. HARVARD will instruct counsel to directly notify HARVARD and LICENSEE and provide them copies of any official communications from the United States and foreign patent offices relating to said prosecution, and to provide LICENSEE with advance draft copies of all relevant communications to the various patent offices, so that LICENSEE may be informed and apprised of the continuing prosecution of patent applications in PATENT RIGHTS. LICENSEE shall have reasonable opportunities to participate in decision making on all key decisions affecting filing, prosecution and maintenance of patents and patent applications in PATENT RIGHTS. HARVARD will use reasonable efforts to incorporate LICENSEE's reasonable suggestions regarding said prosecution. HARVARD shall use all reasonable efforts to amend any patent application to include claims reasonably requested by LICENSEE to protect LICENSED PRODUCTS.

7.3 HARVARD and LICENSEE shall cooperate fully in the preparation, filing, prosecution and maintenance of PATENT RIGHTS and of all patents and patent applications licensed to LICENSEE hereunder, executing all papers and instruments or requiring members of

HARVARD to execute such papers and instruments so as to enable HARVARD to apply for, to prosecute and to maintain patent applications and patents in HARVARD's name in any country. Each party shall provide to the other prompt notice as to all matters which come to its attention and which may affect the preparation, filing, prosecution or maintenance of any such patent applications or patents.

7.4 LICENSEE may elect to surrender its PATENT RIGHTS in any country upon sixty (60) days written notice to HARVARD. Such notice shall not relieve LICENSEE from responsibility to reimburse HARVARD for patent-related expenses incurred prior to the expiration of the (60) day notice period.

7.5 If HARVARD elects not to prosecute or maintain any of the patents or patent applications relating to PATENT RIGHTS or any portion thereof in any country, LICENSEE shall be given sufficient notice of HARVARD's decision so that LICENSEE may request that HARVARD continue prosecuting or maintaining such patents or patent applications, at LICENSEE's expense. If HARVARD elects not to prosecute or maintain such patents or patent applications after such request by LICENSEE, then LICENSEE shall have the right, but not the obligation, at its own expense to prosecute and maintain such patents and patent applications or portion thereof in such country and in HARVARD's name. If LICENSEE assumes 100% of the costs to file, prosecute, and maintain certain patents and patent applications relating to the PATENT RIGHTS pursuant to this Section 7.5, and, if HARVARD licenses the PATENT RIGHTS to one or more co-exclusive licensees designated in Section 3.1 after such time, then HARVARD will credit LICENSEE with the costs LICENSEE has paid in excess of [* * *] if one other licensee, due for the preparation, filing, prosecution and maintenance of patents and patent applications relating to PATENT RIGHTS pursuant to Section 7.1 above.

7.6 If LICENSEE can demonstrate that it is not being adequately informed or apprised of the continuing prosecution of patents or patent applications in PATENT RIGHTS, or that it is not being provided with reasonable opportunities to participate in decision making or that its interests are not being adequately protected, LICENSEE shall be entitled to engage, at LICENSEE's expense, independent patent counsel to review and evaluate patent prosecution and filing of patents and patent applications included in PATENT RIGHTS.

ARTICLE VIII
INFRINGEMENT

8.1 With respect to any PATENT RIGHTS that are licensed to LICENSEE pursuant to this Agreement, LICENSEE shall have the right to prosecute in its own name and at its own expense any infringement of such patent. HARVARD agrees to notify LICENSEE promptly of each infringement of such patents of which HARVARD, as applicable, is or becomes aware. Before LICENSEE commences an action with respect to any infringement of such patents, LICENSEE shall give careful consideration to the views of HARVARD and to potential effects on the public interest in making its decision whether or not to sue.

8.2 LICENSEE acknowledges that other co-exclusive licensees of PATENT RIGHTS designated in Section 3.1 shall have rights identical to LICENSEE to prosecute infringers and that co- exclusive licensees will be bound by the identical terms of this Section 8.2. In any prosecution instigated by LICENSEE and in which HARVARD, as necessary, is also named plaintiff as owner of the PATENT RIGHTS, LICENSEE must notify other co-exclusive licensees of the existence of such legal action and allow other co-exclusive licensees to join as a plaintiff upon co-exclusive licensees' request. In addition, in the event other co- exclusive licensees instigate an infringement prosecution, LICENSEE hereby consents to being joined as a plaintiff in such suit solely for the purpose of procuring standing to bring the action and at the sole expense of the instigating co-exclusive licensee. To the extent that LICENSEE desires to participate in any strategic decisions affecting the prosecution of the action brought by other co-exclusive licensees, LICENSEE acknowledges that it and co- exclusive licensees will necessarily have to reach a mutual agreement concerning litigation expenses and strategy. In no event shall HARVARD incur any liability or expense in connection with any action of co-exclusive licensees, joint or otherwise.

During any such litigation, HARVARD will agree to not license any defendant or accused infringer of the PATENT RIGHTS in the litigation, without LICENSEE's prior written consent.

8.3 (a) If LICENSEE elects to commence an action as described above, HARVARD may, to the extent permitted by law, elect to join as parties in that action. Regardless of whether HARVARD elects to join as parties, HARVARD shall cooperate fully with LICENSEE in connection with any such action.

(b) HARVARD agrees to join as a party in any action if required by law to do so in order to bring an action under the PATENT RIGHTS.

(c) LICENSEE shall reimburse HARVARD for any costs incurs with LICENSEE's approval, including reasonable attorneys' fees, as part of an action brought by LICENSEE, irrespective of whether HARVARD becomes a co-plaintiff.

8.4 If LICENSEE elects to commence an action as described above, LICENSEE may deduct from its royalty payments to HARVARD with respect to the patent(s) subject to suit an amount not exceeding [* * *] of LICENSEE's expenses and costs of such action, including reasonable attorneys' fees; provided, however, that such reduction shall not exceed [* * *] of the total royalty due to HARVARD with respect to the patent(s) subject to suit for each calendar year. If such [* * *] of LICENSEE's expenses and costs exceeds the amount of royalties deducted by LICENSEE for any calendar year, LICENSEE may to that extent reduce the royalties due to HARVARD from LICENSEE in succeeding calendar years, but never by more than [* * *] of the total royalty due in any one year with respect to the patent(s) subject to suit.

8.5 No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the prior written consent of HARVARD which consent shall not be unreasonably withheld.

8.6 Recoveries or reimbursements from actions commenced by LICENSEE pursuant to this Article shall first be applied to reimburse LICENSEE, HARVARD for litigation costs not paid from royalties and then to reimburse HARVARD for royalties deducted by LICENSEE pursuant to Section 8.4. Any remaining recoveries or reimbursements shall be shared as follows:

(a) If the amount is lost profits or lost royalties, LICENSEE shall receive an amount equal to the damages the court determines LICENSEE has suffered as a result of the infringement less the amount of any royalties that would have been due HARVARD on sales of LICENSED PRODUCTS lost by LICENSEE as a result of the infringement had LICENSEE made such sales, and HARVARD shall receive an amount equal to the royalties it would have received if such sales had been made by LICENSEE, and

(b) As to awards other than lost profits or lost royalties, [* * *] to LICENSEE and fifty percent (50%) to HARVARD.

(c) If two or more co-exclusive licensees undertake the suit, the provision of this Section 8.6 will be modified to take into account each co-exclusive licensee's expenses and lost profits.

8.7 If LICENSEE elects not to exercise its right to prosecute an infringement of the PATENT RIGHTS pursuant to this Article, HARVARD may do so at its own expense, controlling such action and retaining all recoveries therefrom. LICENSEE shall cooperate fully with HARVARD in connection with any such action.

8.8 If a declaratory judgment action is brought naming LICENSEE as a defendant and alleging invalidity of any of the PATENT RIGHTS, HARVARD may elect to take over the sole defense of the action at its own expense. LICENSEE shall cooperate fully with HARVARD in connection with any such action. HARVARD shall consult with LICENSEE regarding such defense.

ARTICLE IX
TERMINATION OF AGREEMENT

9.1 This Agreement, unless terminated as provided herein, shall remain in effect until the last patent or patent application in PATENT RIGHTS has expired or been abandoned.

9.2 HARVARD may terminate this Agreement as follows:

(a) If LICENSEE does not make a payment due hereunder and fails to cure such non-payment (including the payment of interest in accordance with Section 5.4(e)) within

thirty (30) days after the date of notice in writing of such non-payment by HARVARD.

(b) If LICENSEE defaults in its obligations under Sections 10.3(c) and 10.3(d) to procure and maintain insurance.

(c) If LICENSEE shall become insolvent, shall make an assignment for the benefit of creditors, or shall have a petition in bankruptcy filed for or against it. Such termination shall be effective immediately upon HARVARD giving written notice to LICENSEE.

(d) If an examination by HARVARD's accountant pursuant to Article V shows an underreporting or underpayment by LICENSEE in excess of twenty percent (20%) for any twelve (12) month period, provided that such underreporting or underpayment is not determined to be inadvertent or the result of an honest mistake.

(e) If LICENSEE is convicted of a felony relating to the manufacture, use, or sale of LICENSED PRODUCTS.

(f) Except as provided in Subsections (a), (b), and (c) above, if LICENSEE defaults in the performance of any material obligations under this Agreement and the default has not been remedied within forty-five (45) days after the date of notice in writing of such default by HARVARD.

9.3 LICENSEE shall provide, in all sublicenses granted by it under this Agreement, that LICENSEE's interest in such sublicenses shall at HARVARD's option terminate or be assigned to HARVARD upon termination of this Agreement; however, LICENSEE shall have the option to nominate one of its sublicensees as a substitute for LICENSEE. The proposed substitute must (i) have a net worth of at least equivalent to the net worth LICENSEE had as of the date of this Agreement and (ii) have available resources and sufficient scientific, business and other expertise comparable to LICENSEE in order to satisfy its obligations under this Agreement. At least sixty (60) days prior to termination of this Agreement, LICENSEE shall provide HARVARD with written notice of LICENSEE's nominee together with documentation sufficient to demonstrate the requirements set forth in subparagraphs (i) and (ii) above for HARVARD's approval, which shall not be unreasonably withheld. HARVARD shall notify LICENSEE in writing of its decision prior to termination of this Agreement. If HARVARD approves LICENSEE's nominee, LICENSEE shall assign this Agreement to its nominee and its nominee shall accept the assignment no later than thirty (30) days after the termination date of this Agreement.

In the event that HARVARD disapproved LICENSEE's first nominee, prior to the termination date of this Agreement, LICENSEE shall have the option to nominate one of its other sublicensees for HARVARD's approval which shall not be unreasonably withheld.

9.4 LICENSEE may terminate this Agreement by giving ninety (90) days advance written notice of termination to HARVARD. Upon termination, LICENSEE shall submit a final Royalty Report to HARVARD and any royalty payments and unreimbursed patent expenses invoiced by HARVARD shall become immediately payable.

9.5 Sections 6.1, 6.2, 6.3, 7.1, 9.4, 9.5, 10.2, 10.3, 10.4, and 10.7 of this Agreement shall survive termination.

ARTICLE X
GENERAL

10.1 HARVARD does not warrant the validity of the PATENT RIGHTS licensed hereunder and make no representations whatsoever with regard to the scope of the licensed PATENT RIGHTS or that such PATENT RIGHTS may be exploited by LICENSEE, an AFFILIATE, or SUBLICENSEE without infringing other patents, provided, however, HARVARD represents that it has no knowledge of any facts or circumstances as of the execution date of this Agreement that would render any of the PATENT RIGHTS invalid or unenforceable. HARVARD represents and warrants, to the best of its knowledge, that HARVARD owns all right, title and interest in and to the PATENT RIGHTS.

10.2 HARVARD EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE PATENT RIGHTS OR INFORMATION SUPPLIED BY HARVARD, LICENSED PROCESSES OR LICENSED PRODUCTS CONTEMPLATED BY THIS AGREEMENT.

10.3 (a) LICENSEE shall indemnify, defend and hold harmless HARVARD and its current or former directors, governing board members, trustees, officers, faculty, medical and professional staff, employees, students, and agents and their respective successors, heirs and assigns (collectively, the "INDEMNITEES"), from and against any claim, liability, cost, expense, damage, deficiency, loss or obligation of any kind or nature (including, without limitation, reasonable attorney's fees and other costs and expenses of litigation) (collectively, "Claims"), based upon, arising out of, or otherwise relating to this Agreement, including without limitation any cause of action relating to product liability concerning any product, process, or service made, used or sold pursuant to any right or license granted under this Agreement, provided, however, that such indemnification shall not apply to any liability, damage, loss, or expense to the extent directly attributable to the negligent activities, reckless misconduct or intentional misconduct of Indemnitees.

(b) Each Indemnitee that intends to claim indemnification under Section 10.3(a) shall promptly notify LICENSEE of any claim or action in respect of which the Indemnitee intends to claim such indemnification, and LICENSEE shall assume the defense thereof with counsel mutually satisfactory to LICENSEE and HARVARD. The failure to deliver notice to LICENSEE within a reasonable time after the

commencement of any such claim or action, if materially prejudicial to its ability to defend such action, shall relieve LICENSEE of any liability to the Indemnitee under Section 10.3(a) with respect to such action, but the omission so to deliver notice to LICENSEE will not relieve it of any liability that it may have to any Indemnitee otherwise than under Section 10.3(a). HARVARD and any other Indemnitee, and their respective employees and agents, shall cooperate fully with LICENSEE and its legal representatives in the investigation of any claim or action covered by the indemnification under Section 10.3(a).

(c) Beginning at the time any such product, process or service is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in amounts not less than [* * *] per incident and [* * *] annual aggregate and naming the Indemnitees as additional insureds. During clinical trials of any such product, process or service, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in such equal or lesser amount as HARVARD shall require, naming the Indemnitees as additional insureds. Such commercial general liability insurance shall provide: (i) product liability coverage; and (ii) broad form contractual liability coverage for LICENSEE's indemnification under this Agreement. If LICENSEE elects to self-insure all or part of the limits described above (including deductibles or retentions which are in excess of [* * *] annual aggregate) such self-insurance program must be acceptable to HARVARD and the Risk Management Foundation of the Harvard Medical Institutions, Inc. in their sole discretion. The minimum amounts of insurance coverage required shall not be construed to create a limit of LICENSEE's liability with respect to its indemnification under this Agreement.

(d) LICENSEE shall provide HARVARD with written evidence of such insurance upon request of HARVARD. LICENSEE shall provide HARVARD with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance; if LICENSEE does not obtain replacement insurance providing comparable coverage within such fifteen (15) day period, HARVARD shall have the right to terminate this Agreement effective at the end of such fifteen (15) day period without notice or any additional waiting periods.

(e) LICENSEE shall maintain such commercial general liability insurance beyond the expiration or termination of this Agreement during: (i) the period that any product, process, or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE; and (ii) a reasonable period after the period referred to in Subsection (e)(i) above which in no event shall be less than fifteen (15) years.

10.4 LICENSEE shall not use HARVARD's name or insignia, or any adaptation of them, or the name of any of HARVARD's inventors in any advertising, promotional or sales literature without the prior written approval of HARVARD.

10.5 Without the prior written approval of HARVARD in each instance, neither this Agreement nor the rights granted hereunder shall be transferred or assigned in whole or in part by LICENSEE to any person whether voluntarily or involuntarily, by operation of law or otherwise, except that each of LICENSEE and its AFFILIATES may assign this Agreement in connection with a merger, consolidation or sale or transfer of all or substantially all of its assets. This Agreement shall be binding upon the respective successors, legal representatives and assignees of HARVARD and LICENSEE.

10.6 The interpretation and application of the provisions of this Agreement shall be governed by the laws of the Commonwealth of Massachusetts.

10.7 LICENSEE shall comply with all applicable laws and regulations. In particular, it is understood and acknowledged that the transfer of certain commodities and technical data is subject to United States laws and regulations controlling the export of such commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce. These laws and regulations among other things, prohibit or require a license for the export of certain types of technical data to certain specified countries. LICENSEE hereby agrees and gives written assurance that it will comply with all United States laws and regulations controlling the export of commodities and technical data, that it will be solely responsible for any violation of such by LICENSEE or its AFFILIATES or SUBLICENSEES, and that it will defend and hold HARVARD, CHILDREN, and MIT harmless in the event of any legal action of any nature occasioned by such violation.

10.8 LICENSEE agrees: (i) to obtain all regulatory approvals required for the manufacture and sale of LICENSED PRODUCTS and LICENSED PROCESSES; and (ii) to utilize appropriate patent marking on such LICENSED PRODUCTS. LICENSEE also agrees to register or record this Agreement as is required by law or regulation in any country where the license is in effect.

10.9 Any notices to be given hereunder shall be sufficient if signed by the party (or party's attorney) giving same and either: (i) delivered in person; (ii) mailed certified mail return receipt requested; or (iii) faxed to other party if the sender has evidence of successful transmission and if the sender promptly sends the original by ordinary mail, in any event to the following addresses:

If to LICENSEE:
Mycometrix Corporation
213 E. Grand Ave.
South San Francisco, CA 94080
Attention:
Fax: (650)-

If to HARVARD:

Office for Technology and Trademark Licensing
Harvard University
Holyoke Center, Suite 727
1350 Massachusetts Avenue
Cambridge, MA 02138
Fax: (617) 495-9568

By such notice either party may change their address for future notices.

Notices delivered in person shall be deemed given on the date delivered. Notices sent by fax shall be deemed given on the date faxed. Notices mailed shall be deemed given on the date postmarked on the envelope.

10.10 Should a court of competent jurisdiction later hold any provision of this Agreement to be invalid, illegal, or unenforceable, and such holding is not reversed on appeal, it shall be considered severed from this Agreement. All other provisions, rights and obligations shall continue without regard to the severed provision, provided that the remaining provisions of this Agreement are in accordance with the intention of the parties.

10.11 In the event of any controversy or claim arising out of or relating to any provision of this Agreement or the breach thereof, the parties shall try to settle such conflict amicably between themselves. Subject to the limitation stated in the final sentence of this Section 10.11, any such conflict which the parties are unable to resolve promptly shall be settled through arbitration conducted in accordance with the rules of the American Arbitration Association. The demand for arbitration shall be filed within a reasonable time after the controversy or claim has arisen, and in no event after the date upon which institution of legal proceedings based on such controversy or claim would be barred by the applicable statute of limitation. Such arbitration shall be held in Boston, Massachusetts. The award through arbitration shall be final and binding. Either party may enter any such award in a court having jurisdiction or may make application to such court for judicial acceptance of the award and an order of enforcement, as the case may be. Notwithstanding the foregoing, either party may, without recourse to arbitration, assert against the other party a third-party claim or cross-claim in any action brought by a third party, to which the subject matter of this Agreement may be relevant.

10.12 This Agreement constitutes the entire understanding between the parties and neither party shall be obligated by any condition or representation other than those expressly stated herein or as may be subsequently agreed to by the parties hereto in writing.

[The remainder of this page is intentionally blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives.

President And Fellows of Harvard College		Mycometrix Corporation
/s/ Joyce Brinton		/s/ Gajus Worthington
Joyce Brinton, Director Office for Technology and Trademark Licensing		President
12/7/00		12/10/00
Date		Date

The following comprise PATENT RIGHTS:

[* * *]

[* * *]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.7

4060.LICI.008 Harvard

CO-EXCLUSIVE LICENSE AGREEMENT

Between

President and Fellows of Harvard College

And

Mycometrix Corporation

Effective as of October 15, 2000

Re: Harvard Case #[***]

In consideration of the mutual promises and covenants set forth below, the parties hereto agree as follows:

ARTICLE I
DEFINITIONS

As used in this Agreement, the following terms shall have the following meanings:

1.1 ACADEMIC RESEARCH PURPOSES: use of PATENT RIGHTS for academic research or other not-for-profit scholarly purposes which are undertaken at a non-profit or governmental institution that does not use the PATENT RIGHTS in the production or manufacture of products for sale or the performance of services for a fee.

1.2 AFFILIATE: any entity which controls, is controlled by, or is under common control with a party by ownership or control of at least fifty percent (50%) of the voting stock or other ownership. Unless otherwise specified, the term LICENSEE includes AFFILIATES.

1.3 FIELD: use of PATENT RIGHTS to develop, manufacture, use, offer for sale, sell, or import components and products in FIELD I and/or FIELD II:

FIELD I: [***]

FIELD II: [***]

1.4 HARVARD: President and Fellows of Harvard College, a nonprofit Massachusetts educational corporation having offices at the Office for Technology and Trademark Licensing, Holyoke Center, Suite 727, 1350 Massachusetts Avenue, Cambridge, Massachusetts 02138.

1.5 LICENSED PROCESSES: the processes covered by at least one VALID CLAIM included within the PATENT RIGHTS.

1.6 LICENSED PRODUCTS: products covered by at least one VALID CLAIM included within the PATENT RIGHTS or products made or services provided in accordance with or by means of LICENSED PROCESSES.

1.7 LICENSEE: Mycometrix Corporation, a corporation organized under the laws of Califonia having its principal offices at 213 East Grand Avenue, South San Francisco, CA 94080.

1.8 NET SERVICE INCOME: SERVICE INCOME less LICENSEE'S actual direct and indirect cost for research, development and/or services provided.

1.9 NET SALES: the amount actually received for sales, leases, or other transfers of LICENSED PRODUCTS, less:

(i) customary trade, quantity or cash discounts and non-affiliated brokers' or agents' commissions actually allowed and taken;

(ii) amounts repaid or credited by reason of rejection or return;

(iii) to the extent separately stated on purchase orders, invoices, or other documents of sale, taxes levied on and/or other governmental charges made as to production, sale, transportation, delivery or use and paid by or on behalf of LICENSEE; and

(iv) reasonable charges for delivery or transportation provided by third parties and cost of insurance in transit, if separately stated.

NET SALES also includes the fair market value of any non-cash consideration received by LICENSEE for the sale, lease, or transfer of LICENSED PRODUCTS.

If a LICENSED PRODUCT is sold as a combination product containing the LICENSED PRODUCT and one or more other components, NET SALES shall be calculated by multiplying the gross amount invoiced for the sale of the combination product by the fraction A/A+B where A is the average gross selling price of the LICENSED PRODUCT sold separately by LICENSEE and B is the average gross selling price of such other components of the combination products sold separately by LICENSEE during the relevant royalty payment period.

In the event that LICENSEE grants a sublicensee hereunder, and receives payments based upon SUBLICENSEE's sales of LICENSED PRODUCTS, LICENSEE may upon approval from HARVARD (which shall not be unreasonably withheld) modify the definition of NET SALES for the purposes of calculating royalties payable to HARVARD on such SUBLICENSEE's sales to be the same as the definition of NET SALES on which such royalties to LICENSEE are calculated.

1.10 SERVICE INCOME: the total financial consideration received by LICENSEE for commercial services performed on a fee-for-service basis using the LICENSED PRODUCTS or LICENSED PROCESSES by LICENSEE under a contract with a third party, where such services are based primarily on the use of fully functional LICENSED PRODUCTS or LICENSED PROCESSES (as applicable) for their intended commercial use (such as, for example, where LICENSEE performs commercial-scale genotyping services for a pharmaceutical company on a fee-for-service basis using fully developed microfluidics chips comprising LICENSED PRODUCTS). SERVICE INCOME shall not include amounts received in connection with research and/or development of LICENSED PRODUCTS or LICENSED PROCESSES themselves.

1.11 PATENT RIGHTS: The applications and patents filed on the basis of the disclosure attached in Appendix A of this Agreement, the allowed claims of such applications, the inventions described and claimed therein, and any divisions or continuations of the applications and patents, and specific claims of any continuations-in-part of such applications to the extent the specific claims are directed to subject matter described in the applications and patents in a manner sufficient to support such specific claims under 35 U.S.C., patents issuing thereon or reissues thereof, and any and all foreign patents and patent applications corresponding thereto, all to the extent owned or controlled by HARVARD.

1.12 SUBLICENSE INCOME: the amount paid to LICENSEE by a third party (other than an AFFILIATE of LICENSEE) (a) for the sublicening of PATENT RIGHTS to a third party as well as (b) for the related licensing of LICENSEE's own patent rights or know-how or LICENSEE's in-licensed non-HARVARD technologies, including but not limited to (i) license fees, (ii) milestone payments, (iii) royalties, (iv) the fair market value in cash of any non-cash consideration for such sublicense, and (v) in the event that LICENSEE receives any payment for equity in consideration for the grant of sublicense rights that included a premium over the fair market value of such equity, the amount of such premium. LICENSEE shall be responsible for determining such fair market value with reasonable business judgment.

1.13 SUBLICENSEE: any non-AFFILIATE granted a sublicense of any of the rights HARVARD has granted to LICENSEE under Section 3.1.

1.14 TERRITORY: Worldwide.

1.15 VALID CLAIM: either (i) a claim of an issued patent that has not been held unenforceable or invalid by an agency or a court of competent jurisdiction in any unappealable or unappealed decision or (ii) a claim of a published, pending patent application, which claim is substantially identical to a corresponding claim in a subsequently issued patent having priority to the patent application.

1.16 The terms “Public Law 96-517” and “Public Law 98-620” include all amendments to those statutes.

1.17 The terms “sold” and “sell” include, without limitation, leases and other transfers and similar transactions.

Article II
Representations

2.1 HARVARD is or will be owner by assignment from [***] in the US and foreign patent applications corresponding thereto, and in the inventions described and claimed therein. Inventorship will be finalized at the time of the US utility filing or in the near future when it is necessary.

2.2 HARVARD has authority to issue licenses under PATENT RIGHTS.

2.3 HARVARD is committed to the policy that ideas or creative works produced at HARVARD should be used for the greatest possible public benefit, and believes that every reasonable incentive should be provided for the prompt introduction of such ideas into public use, all in a manner consistent with the public interest.

2.4 LICENSEE is prepared and intends to diligently develop the invention and to bring products to market which are subject to this Agreement, specifically including one or more products in the FIELD selected from a [***].

2.5 LICENSEE is desirous of obtaining a co-exclusive license in the FIELD and in the TERRITORY in order to practice the PATENT RIGHTS in the United States and in certain foreign countries, and to manufacture, use and sell in the commercial market the products made in accordance therewith, and HARVARD is desirous of granting such a license to LICENSEE in accordance with the terms of this Agreement.

Article III
Grant of Rights

3.1 HARVARD hereby grants to LICENSEE and LICENSEE accepts, subject to the terms and conditions hereof, in the TERRITORY a co-exclusive commercial license under PATENT

RIGHTS in FIELD I and in FIELD II to make and have made, to use and have used, to sell and have sold, and to offer for sale and have offered for sale the LICENSED PRODUCTS, and to practice the LICENSED PROCESSES, for the life of the PATENT RIGHTS. HARVARD will grant no more than two commercial licenses in FIELD I at any time and will grant no more than two commercial licenses in FIELD II at any time and HARVARD will not grant other licenses in the FIELD except as required by HARVARD's obligations in Section 3.2(a) or as permitted Section 3.2(b). Such co-exclusive license shall include the right to grant sublicenses under the following circumstances: (i) LICENSEE can demonstrate that it has added significant value to the PATENT RIGHTS to be sublicensed, and that such a sublicense also contains a substantial and essentially simultaneous license of LICENSEE owned intellectual property, or (ii) LICENSEE grants a sublicense under other HARVARD patent rights licensed exclusively to LICENSEE which are dominated by PATENT RIGHTS, and such sublicense under PATENT RIGHTS is necessary to practice such other HARVARD patent rights.

3.2 The granting and exercise of this license is subject to the following conditions:

(a) HARVARD's "Statement of Policy in Regard to Inventions, Patents and Copyrights," dated August 10, 1998, Public Law 96-517, Public Law 98-620. In addition, this Agreement is subject to HARVARD's obligations under agreements with other sponsors of research, provided that such obligations are not in conflict with the rights granted hereunder. Any right granted in this Agreement greater than that permitted under Public Law 96-517, or Public Law 98-620, shall be subject to modification as may be required to conform to the provisions of those statutes.

(b) HARVARD reserves the right to make and use, and grant to others non-exclusive licenses to make and use solely for ACADEMIC RESEARCH PURPOSES the subject matter described and claimed in PATENT RIGHTS.

(c) LICENSEE shall use commercially reasonable efforts to effect introduction of the LICENSED PRODUCTS into the commercial market as soon as practicable, consistent with sound and reasonable business practice and judgment; thereafter, until the expiration of this Agreement, LICENSEE shall endeavor to keep LICENSED PRODUCTS reasonably available to the public.

(d) At any time after three years from the effective date of this Agreement and as HARVARD's sole remedy for such non-performance, HARVARD may increase the license maintenance royalty under Section 4.4 to [***] dollars each in FIELD I and in FIELD II in year 2004 and [***] dollars each in FIELD I and in FIELD II per year each year beginning in 2005, if in HARVARD's reasonable judgment, the Progress Reports furnished by LICENSEE do not demonstrate that LICENSEE has satisfied at least one of the following conditions, which non-performance is not cured within ninety (90) days following the written notification of such by HARVARD to LICENSEE:

(i) has put the licensed subject matter into commercial use in at least one of the countries hereby licensed, directly or through a sublicense, and is keeping the licensed subject matter reasonably available to the public; or

(ii) is engaged in research, development, manufacturing, marketing or sublicensing activity appropriate to achieving 3.2(d)(i).

(e) In all sublicenses granted by LICENSEE hereunder, LICENSEE shall include a requirement that the SUBLICENSEE use commercially reasonable efforts to bring the subject matter of the sublicense into commercial use. LICENSEE shall further provide in such sublicenses that such sublicenses are subject and subordinate to the terms and conditions of this Agreement, except: (i) the SUBLICENSEE may not further sublicense; and (ii) the rate of royalty on NET SALES paid by the SUBLICENSEE to the LICENSEE. Copies of the relevant provisions of all sublicense agreements shall be provided promptly to HARVARD. HARVARD agrees to maintain any information contained in such provisions in confidence, except as otherwise required by law, however, HARVARD may include in its usual reports annual amounts of royalties paid.

(f) A license in any other field of use in addition to the FIELD shall be the subject of a separate agreement and shall require LICENSEE's submission of evidence, satisfactory to HARVARD, demonstrating LICENSEE's willingness and ability to develop and commercialize in such other field of use the kinds of products or processes likely to be encompassed in such other fields.

(g) To the extent that federal funds are used to support research leading to a patent or patent application in the PATENT RIGHTS, LICENSEE shall cause any LICENSED PRODUCT produced for sale by LICENSEE or SUBLICENSEES in the United States to be manufactured substantially in the United States during the period of exclusivity of this license in the United States.

3.4 All rights reserved to the United States Government and others under Public Law 96-517, and Public Law 98-620, shall remain and shall in no way be affected by this Agreement.

ARTICLE IV
ROYALTIES

4.1 LICENSEE shall pay to HARVARD a non-refundable license royalty fee in the sum of [***] payable within thirty (30) days of the execution date of this Agreement.

4.2 (a) In consideration of the right and license granted herein, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty of [***] on NET SALES of LICENSED PRODUCTS sold by LICENSEE.

(b) In the event that a single LICENSED PRODUCT or LICENSED PROCESS is covered by HARVARD intellectual property in addition to PATENT RIGHTS, which is licensed to LICENSEE under other agreements as of the date of this Agreement, then the total royalty payment due HARVARD under all such agreements including this Agreement shall be [***] of NET SALES. LICENSEE shall notify HARVARD of the identity of each license agreement that includes patent rights covering the product or process, and HARVARD shall distribute the royalties evenly among such agreements.

(c) As consideration for the rights granted hereunder, LICENSEE shall pay to HARVARD during the term of this Agreement a royalty in the form of stock of LICENSEE as follows:

(i) LICENSEE shall issue to HARVARD [***] shares of the Common Stock of LICENSEE ("Shares") pursuant to the terms of a mutually acceptable Stock Subscription Agreement, provided, however, that HARVARD shall be subject to and enter into appropriate agreements and related documents as required of other stockholders of LICENSEE.

(ii) HARVARD represents and warrants to LICENSEE that:

(1) HARVARD is acquiring the Shares for its own account for investment and not with a view to, or for sale in connection with any distribution thereof, nor with any present intention of distributing or selling the same; and HARVARD has no present or contemplated agreement, undertaking, arrangement, obligation, indebtedness or commitment providing for the disposition thereof.

(2) HARVARD has full power and authority to enter into and to perform this Agreement in accordance with its terms.

(3) HARVARD has sufficient knowledge and experience in investing in companies similar to LICENSEE so as to be able to evaluate the risks and merits of its investment in LICENSEE and is able financially to bear the risks thereof.

(iii) Each certificate representing the Shares shall bear a legend substantially in the following form:

"The shares represented by this certificate have not been registered under the Securities Act of 1933 or any state securities law and they may not be sold or otherwise transferred by any person, including a pledgee, unless (1) either (a) a registration statement with respect to such shares shall be effective under the Securities Act of 1933, as amended, or (b) the Corporation shall have received an opinion of counsel satisfactory to the Corporation that an exemption from registration under such Act is then available, and (2) there shall have been compliance with all applicable securities laws."

"The shares represented by this certificate are subject to a mutually agree-upon Stock Purchase and Right of First Refusal Agreement with this Corporation, a copy of which Stock Purchase and Right of First Refusal Agreement is available for inspection at the offices of the Corporation or may be made available upon request."

The foregoing legend shall be removed from the certificates representing any Shares, at the request of the holder thereof, at such time as they become eligible for resale pursuant to the Securities Act of 1933, as amended.

If at any time prior to the time the Shares are eligible for resale pursuant to an exemption from registration under the Securities Act of 1933, as amended, LICENSEE proposes to register any of its Common Stock, under the Securities Act of 1933, except at LICENSEE's initial public offering or any offering pursuant to Forms S-4 or S-8, LICENSEE shall offer HARVARD the opportunity to have its Shares registered under the registration statement to be filed at such time. HARVARD will be offered the right to register its Shares under the same terms, conditions and restrictions as other shareholders with piggyback registration rights and the inclusion of any Shares in such registration statement shall be subject to the approval of the underwriters of such offering

(iv) HARVARD's ownership rights to Shares shall not be affected should the license pursuant to this Agreement be converted to a nonexclusive one.

(d) In the case of sublicenses, LICENSEE shall also pay to HARVARD a royalty of [***] of SUBLICENSE INCOME. If compensation for such a sublicense of PATENT RIGHTS is bundled with compensation received for the sublicensing of the other HARVARD patent rights licensed to LICENSEE under other agreements as of the date of this Agreement, LICENSEE shall pay HARVARD only [***] of the total compensation received no matter how many license agreements from HARVARD are involved. In such a case, LICENSEE shall notify HARVARD of the identity of each license agreement involved and HARVARD shall distribute its [***] of

compensation equally among those license agreements, including this Agreement.

(e) LICENSEE shall pay HARVARD [***] of NET SERVICE INCOME. If SERVICE INCOME is bundled with service income under another license to LICENSEE as of the date of this Agreement, LICENSEE shall pay a royalty of [***] of NET SERVICE INCOME received from each and every third party ("Third Party") to which services are provided. LICENSEE shall notify HARVARD of the identity of each license agreement involved in the services and HARVARD shall distribute its [***] of compensation equally among those license agreements, including this Agreement.

(f) If other co-exclusive licenses in the same FIELD and TERRITORY are granted after the date this Agreement is executed, the above financial compensation shall not exceed the financial compensation to be paid by other licensees in the same FIELD and TERRITORY during the term of the co-exclusive license provided LICENSEE accepts any less favorable terms included in such other license.

If stock is part of the financial compensation to be paid by other licensees in the same FIELD and TERITORY, the fair market value of the stock shall be the same as the price per share which other investors paid in the last round of financing unless the stock is publicly traded.

4.3 On sales between LICENSEE and its AFFILIATES for resale or incorporation into products, the royalty shall be paid on the NET SALES of the AFFILIATE. On sales between LICENSEE and sublicensees for resale, the royalty shall be paid on the SUBLICENSE INCOME.

4.4 No later than January 1 of each calendar year indicated below, LICENSEE shall pay to HARVARD the following non-refundable license maintenance royalty and/or advance on royalties. Such payments shall be credited against running royalties due for that calendar year and Royalty Reports shall reflect such a credit. Such payments shall not be credited against milestone payments (if any) nor against royalties due for any subsequent calendar year nor against such payments due under any other agreements with HARVARD.

	FIELD I	FIELD II
January 1, 2002	[***]	[***]
January 1, 2003	[***]	[***]
January 1, 2004	[***]	[***]
each year thereafter	[***]	[***]

ARTICLE V
REPORTING

5.1 Prior to signing this Agreement, LICENSEE has provided to HARVARD a written business plan under which LICENSEE intends to bring the subject matter of the licenses

granted hereunder into commercial use upon execution of this Agreement. Such plan includes proposed marketing efforts.

5.2 No later than sixty (60) days after June 30 of each calendar year, LICENSEE shall provide to HARVARD a written annual Progress Report describing progress on research and development, regulatory approvals, manufacturing, sublicensing, marketing and sales during the most recent twelve (12) month period ending June 30 and plans for the forthcoming year. If multiple technologies are covered by the license granted hereunder, the Progress Report shall provide the information set forth above for each technology. If progress differs from that anticipated in the plan required under Section 5.1, LICENSEE shall explain the reasons for the difference and propose a modified plan for HARVARD's review. LICENSEE shall also provide any reasonable additional data HARVARD requires to evaluate LICENSEE's performance.

5.3 LICENSEE shall report to HARVARD the date of first sale of LICENSED PRODUCTS (or results of LICENSED PROCESSES) in each country within thirty (30) days of occurrence.

5.4 (a) LICENSEE shall submit to HARVARD within sixty (60) days after each calendar half year ending June 30 and December 31, a Royalty Report setting forth for such half year at least the following information:

(i) the number of LICENSED PRODUCTS sold by LICENSEE in each country;

(ii) total billings and amounts actually received for such LICENSED PRODUCTS;

(iii) an accounting for all LICENSED PROCESSES used or sold;

(iv) deductions applicable to determine the NET SALES thereof;

(v) the amount of SERVICE INCOME received by LICENSEE and an accounting of all deductions to yield NET SERVICE INCOME;

(vi) the amount of SUBLICENSE INCOME received by LICENSEE; and

(vii) the amount of royalty due thereon, or, if no royalties are due to HARVARD for any reporting period, the statement that no royalties are due.

Such report shall be certified as correct by an officer of LICENSEE and shall include a detailed listing of all deductions from royalties.

(b) LICENSEE shall pay to HARVARD with each such Royalty Report the amount of royalty due with respect to such half year. If multiple technologies are covered by the license granted hereunder, LICENSEE shall specify which PATENT RIGHTS are utilized for each LICENSED PRODUCT and LICENSED PROCESS included in the Royalty Report.

(c) All payments due hereunder shall be deemed received when funds are credited to HARVARD's bank account and shall be payable by check or wire transfer in United States dollars. Conversion of foreign currency to U.S. dollars shall be made at the conversion rate existing in the United States (as reported in the New York Times or the Wall Street Journal) on the last working day of each royalty period. No transfer, exchange, collection or other charges shall be deducted from such payments.

(d) All such reports shall be maintained in confidence by HARVARD except as required by law; however, HARVARD may include in its usual reports annual amounts of royalties paid.

(e) Late payments shall be subject to a charge of one and one-half percent (1.5%) per month, or $250, whichever is greater.

5.5 In the event of acquisition, merger, change of corporate name or change in make-up, organization, or identity, LICENSEE shall notify HARVARD in writing within thirty (30) days of such event.

5.6 If by law, regulation or fiscal policy of a particular country, conversion into United States dollars or transfer of funds of a convertible currency to the United States is restricted or forbidden, LICENSEE shall give HARVARD prompt notice in writing and shall pay the royalty and other amounts due through such means or methods as are lawful in such country as HARVARD may reasonably designate. Failing the designation by HARVARD of such lawful means or methods within thirty (30) days after such notice is given to HARVARD, LICENSEE shall deposit such royalty or other payment in local currency to the credit of HARVARD in a recognized banking institution designated by HARVARD, or if none is designated by HARVARD within the thirty (30) day period described above, in a recognized banking institution selected by LICENSEE and identified in a written notice to HARVARD by LICENSEE, and such deposit shall fulfill all obligations of LICENSEE to HARVARD with respect to such royalties. When in any country in which the law or regulations prohibit both the transmittal and deposit of royalties on sales in such country, royalty payments shall be suspended for as long as such prohibition is in effect, and as soon as such prohibition ceases to be in effect, all royalties which LICENSEE would have been under obligation to transmit or deposit, but for the prohibition, shall be deposited or transmitted promptly to the extent allowable.

ARTICLE VI
RECORD KEEPING

6.1 LICENSEE shall keep, and shall require its SUBLICENSEES to keep, accurate records (together with supporting documentation) of LICENSED PRODUCTS made, used or sold under this Agreement, and SERVICE INCOME and SUBLICENSE INCOME received by LICENSEE under this Agreement, appropriate to determine the amount of royalties due to HARVARD hereunder. Such records shall be retained for three (3) years following the end of the reporting period to which they relate. For such three year period, they shall be

available during normal business hours upon reasonable advance notice for examination by a certified public accountant selected by HARVARD, and reasonably acceptable to LICENSEE, for the sole purpose of verifying reports and payments hereunder. In conducting examinations pursuant to this Section 6.1, HARVARD's accountant shall have access to all records which HARVARD reasonably believes to be relevant to the calculation of royalties under Article IV. HARVARD agrees to maintain any information contained in such records in confidence, except as otherwise required by law and except information in regarding the amount of royalties due.

6.2 HARVARD's accountant shall not disclose to HARVARD any information other than information relating to the accuracy of reports and payments made hereunder.

6.3 Such examination by HARVARD's accountant shall be at HARVARD's expense, except that if such examination shows an underreporting or underpayment in excess of five percent (5%) for any twelve (12) month period, then LICENSEE shall pay the cost of such examination as well as any additional sum that would have been payable to HARVARD had the LICENSEE reported correctly, plus interest on said sum at the rate of one and one-half percent (1.5%) per month.

Article VII
Domestic and Foreign Patent Filing and Maintenance

7.1 Upon execution of this Agreement, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all reasonable expenses HARVARD has incurred for the preparation, filing, prosecution, maintenance and counseling with respect to PATENT RIGHTS. Such expenses total [***] as of October 1, 2000. Thereafter, LICENSEE shall reimburse HARVARD for fifty percent (50%) of all such future reasonable expenses prior to the termination of this Agreement upon receipt of invoices from HARVARD.

7.2 HARVARD shall be responsible for the preparation, filing, prosecution and maintenance of any and all patent applications and patents included in PATENT RIGHTS. HARVARD will instruct counsel to directly notify HARVARD and LICENSEE and provide them copies of any official communications from the United States and foreign patent offices relating to said prosecution, and to provide LICENSEE with advance draft copies of all relevant communications to the various patent offices, so that LICENSEE may be informed and apprised of the continuing prosecution of patent applications in PATENT RIGHTS. LICENSEE shall have reasonable opportunities to participate in decision making on all key decisions affecting filing, prosecution and maintenance of patents and patent applications in PATENT RIGHTS. HARVARD will use reasonable efforts to incorporate LICENSEE's reasonable suggestions regarding said prosecution. HARVARD shall use all reasonable efforts to amend any patent application to include claims reasonably requested by LICENSEE to protect LICENSED PRODUCTS.

7.3 HARVARD and LICENSEE shall cooperate fully in the preparation, filing, prosecution and maintenance of PATENT RIGHTS and of all patents and patent applications licensed to LICENSEE hereunder, executing all papers and instruments or requiring members of

HARVARD to execute such papers and instruments so as to enable HARVARD to apply for, to prosecute and to maintain patent applications and patents in HARVARD's name in any country. Each party shall provide to the other prompt notice as to all matters which come to its attention and which may affect the preparation, filing, prosecution or maintenance of any such patent applications or patents.

7.4 LICENSEE may elect to surrender its PATENT RIGHTS in any country upon sixty (60) days written notice to HARVARD. Such notice shall not relieve LICENSEE from responsibility to reimburse HARVARD for patent-related expenses incurred prior to the expiration of the (60) day notice period.

7.5 If HARVARD elects not to prosecute or maintain any of the patents or patent applications relating to PATENT RIGHTS or any portion thereof in any country, LICENSEE shall be given sufficient notice of HARVARD's decision so that LICENSEE may request that HARVARD continue prosecuting or maintaining such patents or patent applications, at LICENSEE's expense. If HARVARD elects not to prosecute or maintain such patents or patent applications after such request by LICENSEE, then LICENSEE shall have the right, but not the obligation, at its own expense to prosecute and maintain such patents and patent applications or portion thereof in such country and in HARVARD's name. If LICENSEE assumes 100% of the costs to file, prosecute, and maintain certain patents and patent applications relating to the PATENT RIGHTS pursuant to this Section 7.5, and, if HARVARD licenses the PATENT RIGHTS to one or more co-exclusive licensees designated in Section 3.1 after such time, then HARVARD will credit LICENSEE with the costs LICENSEE has paid in excess of 50% if one other licensee, due for the preparation, filing, prosecution and maintenance of patents and patent applications relating to PATENT RIGHTS pursuant to Section 7.1 above.

7.6 If LICENSEE can demonstrate that it is not being adequately informed or apprised of the continuing prosecution of patents or patent applications in PATENT RIGHTS, or that it is not being provided with reasonable opportunities to participate in decision making or that its interests are not being adequately protected, LICENSEE shall be entitled to engage, at LICENSEE's expense, independent patent counsel to review and evaluate patent prosecution and filing of patents and patent applications included in PATENT RIGHTS.

ARTICLE VIII
INFRINGEMENT

8.1 With respect to any PATENT RIGHTS that are licensed to LICENSEE pursuant to this Agreement, LICENSEE shall have the right to prosecute in its own name and at its own expense any infringement of such patent. HARVARD agrees to notify LICENSEE promptly of each infringement of such patents of which HARVARD, as applicable, is or becomes aware. Before LICENSEE commences an action with respect to any infringement of such patents, LICENSEE shall give careful consideration to the views of HARVARD and to potential effects on the public interest in making its decision whether or not to sue.

8.2 LICENSEE acknowledges that other co-exclusive licensees of PATENT RIGHTS designated in Section 3.1 shall have rights identical to LICENSEE to prosecute infringers and that co-exclusive licensees will be bound by the identical terms of this Section 8.2. In any prosecution instigated by LICENSEE and in which HARVARD, as necessary, is also named plaintiff as owner of the PATENT RIGHTS, LICENSEE must notify other co-exclusive licensees of the existence of such legal action and allow other co-exclusive licensees to join as a plaintiff upon co-exclusive licensees' request. In addition, in the event other co-exclusive licensees instigate an infringement prosecution, LICENSEE hereby consents to being joined as a plaintiff in such suit solely for the purpose of procuring standing to bring the action and at the sole expense of the instigating co-exclusive licensee. To the extent that LICENSEE desires to participate in any strategic decisions affecting the prosecution of the action brought by other co-exclusive licensees, LICENSEE acknowledges that it and co-exclusive licensees will necessarily have to reach a mutual agreement concerning litigation expenses and strategy. In no event shall HARVARD incur any liability or expense in connection with any action of co-exclusive licensees, joint or otherwise.

During any such litigation, HARVARD will agree to not license any defendant or accused infringer of the PATENT RIGHTS in the litigation, without LICENSEE'S prior written consent.

8.3 (a) If LICENSEE elects to commence an action as described above, HARVARD may, to the extent permitted by law, elect to join as parties in that action. Regardless of whether HARVARD elects to join as parties, HARVARD shall cooperate fully with LICENSEE in connection with any such action.

(b) HARVARD agrees to join as a party in any action if required by law to do so in order to bring an action under the PATENT RIGHTS.

(c) LICENSEE shall reimburse HARVARD for any costs incurs with LICENSEE's approval, including reasonable attorneys' fees, as part of an action brought by LICENSEE, irrespective of whether HARVARD becomes a co-plaintiff.

8.4 If LICENSEE elects to commence an action as described above, LICENSEE may deduct from its royalty payments to HARVARD with respect to the patent(s) subject to suit an amount not exceeding fifty percent (50%) of LICENSEE's expenses and costs of such action, including reasonable attorneys' fees; provided, however, that such reduction shall not exceed fifty percent (50%) of the total royalty due to HARVARD with respect to the patent(s) subject to suit for each calendar year. If such fifty percent (50%) of LICENSEE's expenses and costs exceeds the amount of royalties deducted by LICENSEE for any calendar year, LICENSEE may to that extent reduce the royalties due to HARVARD from LICENSEE in succeeding calendar years, but never by more than fifty percent (50%) of the total royalty due in any one year with respect to the patent(s) subject to suit.

8.5 No settlement, consent judgment or other voluntary final disposition of the suit may be entered into without the prior written consent of HARVARD which consent shall not be unreasonably withheld.

8.6 Recoveries or reimbursements from actions commenced by LICENSEE pursuant to this Article shall first be applied to reimburse LICENSEE, HARVARD for litigation costs not paid from royalties and then to reimburse HARVARD for royalties deducted by LICENSEE pursuant to Section 8.4. Any remaining recoveries or reimbursements shall be shared as follows:

(a) If the amount is lost profits or lost royalties, LICENSEE shall receive an amount equal to the damages the court determines LICENSEE has suffered as a result of the infringement less the amount of any royalties that would have been due HARVARD on sales of LICENSED PRODUCTS lost by LICENSEE as a result of the infringement had LICENSEE made such sales, and HARVARD shall receive an amount equal to the royalties it would have received if such sales had been made by LICENSEE, and

(b) As to awards other than lost profits or lost royalties, fifty percent (50%) to LICENSEE and fifty percent (50%) to HARVARD.

(c) If two or more co-exclusive licensees undertake the suit, the provision of this Section 8.6 will be modified to take into account each co-exclusive licensee's expenses and lost profits.

8.7 If LICENSEE elects not to exercise its right to prosecute an infringement of the PATENT RIGHTS pursuant to this Article, HARVARD may do so at its own expense, controlling such action and retaining all recoveries therefrom. LICENSEE shall cooperate fully with HARVARD in connection with any such action.

8.8 If a declaratory judgment action is brought naming LICENSEE as a defendant and alleging invalidity of any of the PATENT RIGHTS, HARVARD may elect to take over the sole defense of the action at its own expense. LICENSEE shall cooperate fully with HARVARD in connection with any such action. HARVARD shall consult with LICENSEE regarding such defense.

ARTICLE IX
TERMINATION OF AGREEMENT

9.1 This Agreement, unless terminated as provided herein, shall remain in effect until the last patent or patent application in PATENT RIGHTS has expired or been abandoned.

9.2 HARVARD may terminate this Agreement as follows:

(a) If LICENSEE does not make a payment due hereunder and fails to cure such non-payment (including the payment of interest in accordance with Section 5.4(e)) within

thirty (30) days after the date of notice in writing of such non-payment by HARVARD.

(b) If LICENSEE defaults in its obligations under Sections 10.3(c) and 10.3(d) to procure and maintain insurance.

(c) If LICENSEE shall become insolvent, shall make an assignment for the benefit of creditors, or shall have a petition in bankruptcy filed for or against it. Such termination shall be effective immediately upon HARVARD giving written notice to LICENSEE.

(d) If an examination by HARVARD's accountant pursuant to Article V shows an underreporting or underpayment by LICENSEE in excess of twenty percent (20%) for any twelve (12) month period, provided that such underreporting or underpayment is not determined to be inadvertent or the result of an honest mistake.

(e) If LICENSEE is convicted of a felony relating to the manufacture, use, or sale of LICENSED PRODUCTS.

(f) Except as provided in Subsections (a), (b), and (c) above, if LICENSEE defaults in the performance of any material obligations under this Agreement and the default has not been remedied within forty-five (45) days after the date of notice in writing of such default by HARVARD.

9.3 LICENSEE shall provide, in all sublicenses granted by it under this Agreement, that LICENSEE's interest in such sublicenses shall at HARVARD's option terminate or be assigned to HARVARD upon termination of this Agreement; however, LICENSEE shall have the option to nominate one of its sublicensees as a substitute for LICENSEE. The proposed substitute must (i) have a net worth of at least equivalent to the net worth LICENSEE had as of the date of this Agreement and (ii) have available resources and sufficient scientific, business and other expertise comparable to LICENSEE in order to satisfy its obligations under this Agreement. At least sixty (60) days prior to termination of this Agreement, LICENSEE shall provide HARVARD with written notice of LICENSEE's nominee together with documentation sufficient to demonstrate the requirements set forth in subparagraphs (i) and (ii) above for HARVARD's approval, which shall not be unreasonably withheld. HARVARD shall notify LICENSEE in writing of its decision prior to termination of this Agreement. If HARVARD approves LICENSEE's nominee, LICENSEE shall assign this Agreement to its nominee and its nominee shall accept the assignment no later than thirty (30) days after the termination date of this Agreement.

In the event that HARVARD disapproved LICENSEE's first nominee, prior to the termination date of this Agreement, LICENSEE shall have the option to nominate one of its other sublicensees for HARVARD's approval which shall not be unreasonably withheld.

9.4 LICENSEE may terminate this Agreement by giving ninety (90) days advance written notice of termination to HARVARD. Upon termination, LICENSEE shall submit a final Royalty Report to HARVARD and any royalty payments and unreimbursed patent expenses invoiced by HARVARD shall become immediately payable.

9.5 Sections 6.1, 6.2, 6.3, 7.1, 9.4, 9.5, 10.2, 10.3, 10.4, and 10.7 of this Agreement shall survive termination.

ARTICLE X
GENERAL

10.1 HARVARD does not warrant the validity of the PATENT RIGHTS licensed hereunder and make no representations whatsoever with regard to the scope of the licensed PATENT RIGHTS or that such PATENT RIGHTS may be exploited by LICENSEE, an AFFILIATE, or SUBLICENSEE without infringing other patents, provided, however, HARVARD represents that it has no knowledge of any facts or circumstances as of the execution date of this Agreement that would render any of the PATENT RIGHTS invalid or unenforceable. HARVARD represents and warrants, to the best of its knowledge, that HARVARD will own all right, title and interest in and to the PATENT RIGHTS.

10.2 HARVARD EXPRESSLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES AND MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF THE PATENT RIGHTS OR INFORMATION SUPPLIED BY HARVARD, LICENSED PROCESSES OR LICENSED PRODUCTS CONTEMPLATED BY THIS AGREEMENT.

10.3 (a) LICENSEE shall indemnify, defend and hold harmless HARVARD and its current or former directors, governing board members, trustees, officers, faculty, medical and professional staff, employees, students, and agents and their respective successors, heirs and assigns (collectively, the "INDEMNITEES"), from and against any claim, liability, cost, expense, damage, deficiency, loss or obligation of any kind or nature (including, without limitation, reasonable attorney's fees and other costs and expenses of litigation) (collectively, "Claims"), based upon, arising out of, or otherwise relating to this Agreement, including without limitation any cause of action relating to product liability concerning any product, process, or service made, used or sold pursuant to any right or license granted under this Agreement, provided, however, that such indemnification shall not apply to any liability, damage, loss, or expense to the extent directly attributable to the negligent activities, reckless misconduct or intentional misconduct of Indemnitees.

(b) Each Indemnitee that intends to claim indemnification under Section 10.3(a) shall promptly notify LICENSEE of any claim or action in respect of which the Indemnitee intends to claim such indemnification, and LICENSEE shall assume the defense thereof with counsel mutually satisfactory to LICENSEE and HARVARD. The failure to deliver notice to LICENSEE within a reasonable time after the commencement of any such claim or action, if materially prejudicial to its ability to

defend such action, shall relieve LICENSEE of any liability to the Indemnitee under Section 10.3(a) with respect to such action, but the omission so to deliver notice to LICENSEE will not relieve it of any liability that it may have to any Indemnitee otherwise than under Section 10.3(a). HARVARD and any other Indemnitee, and their respective employees and agents, shall cooperate fully with LICENSEE and its legal representatives in the investigation of any claim or action covered by the indemnification under Section 10.3(a).

(c) Beginning at the time any such product, process or service is being commercially distributed or sold (other than for the purpose of obtaining regulatory approvals) by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in amounts not less than $2,000,000 per incident and $2,000,000 annual aggregate and naming the Indemnitees as additional insureds. During clinical trials of any such product, process or service, LICENSEE shall, at its sole cost and expense, procure and maintain commercial general liability insurance in such equal or lesser amount as HARVARD shall require, naming the Indemnitees as additional insureds. Such commercial general liability insurance shall provide: (i) product liability coverage; and (ii) broad form contractual liability coverage for LICENSEE's indemnification under this Agreement. If LICENSEE elects to self-insure all or part of the limits described above (including deductibles or retentions which are in excess of $250,000 annual aggregate) such self-insurance program must be acceptable to HARVARD and the Risk Management Foundation of the Harvard Medical Institutions, Inc. in their sole discretion. The minimum amounts of insurance coverage required shall not be construed to create a limit of LICENSEE's liability with respect to its indemnification under this Agreement.

(d) LICENSEE shall provide HARVARD with written evidence of such insurance upon request of HARVARD. LICENSEE shall provide HARVARD with written notice at least fifteen (15) days prior to the cancellation, non-renewal or material change in such insurance; if LICENSEE does not obtain replacement insurance providing comparable coverage within such fifteen (15) day period, HARVARD shall have the right to terminate this Agreement effective at the end of such fifteen (15) day period without notice or any additional waiting periods.

(e) LICENSEE shall maintain such commercial general liability insurance beyond the expiration or termination of this Agreement during: (i) the period that any product, process, or service, relating to, or developed pursuant to, this Agreement is being commercially distributed or sold by LICENSEE or by a SUBLICENSEE, AFFILIATE or agent of LICENSEE; and (ii) a reasonable period after the period referred to in Subsection (e)(i) above which in no event shall be less than fifteen (15) years.

10.4 LICENSEE shall not use HARVARD's name or insignia, or any adaptation of them, or the name of any of HARVARD's inventors in any advertising, promotional or sales literature without the prior written approval of HARVARD.

10.5 Without the prior written approval of HARVARD in each instance, neither this Agreement nor the rights granted hereunder shall be transferred or assigned in whole or in part by LICENSEE to any person whether voluntarily or involuntarily, by operation of law or otherwise, except that each of LICENSEE and its AFFILIATES may assign this Agreement in connection with a merger, consolidation or sale or transfer of all or substantially all of its assets. This Agreement shall be binding upon the respective successors, legal representatives and assignees of HARVARD and LICENSEE.

10.6 The interpretation and application of the provisions of this Agreement shall be governed by the laws of the Commonwealth of Massachusetts.

10.7 LICENSEE shall comply with all applicable laws and regulations. In particular, it is understood and acknowledged that the transfer of certain commodities and technical data is subject to United States laws and regulations controlling the export of such commodities and technical data, including all Export Administration Regulations of the United States Department of Commerce. These laws and regulations among other things, prohibit or require a license for the export of certain types of technical data to certain specified countries. LICENSEE hereby agrees and gives written assurance that it will comply with all United States laws and regulations controlling the export of commodities and technical data, that it will be solely responsible for any violation of such by LICENSEE or its AFFILIATES or SUBLICENSEES, and that it will defend and hold HARVARD, CHILDREN, and MIT harmless in the event of any legal action of any nature occasioned by such violation.

10.8 LICENSEE agrees: (i) to obtain all regulatory approvals required for the manufacture and sale of LICENSED PRODUCTS and LICENSED PROCESSES; and (ii) to utilize appropriate patent marking on such LICENSED PRODUCTS. LICENSEE also agrees to register or record this Agreement as is required by law or regulation in any country where the license is in effect.

10.9 Any notices to be given hereunder shall be sufficient if signed by the party (or party's attorney) giving same and either: (i) delivered in person; (ii) mailed certified mail return receipt requested; or (iii) faxed to other party if the sender has evidence of successful transmission and if the sender promptly sends the original by ordinary mail, in any event to the following addresses:

If to LICENSEE:

Mycometrix Corporation
213 E. Grand Ave.
South San Francisco, CA 94080
Attention:
Fax: (650)-

If to HARVARD:

Office for Technology and Trademark Licensing
Harvard University
Holyoke Center, Suite 727
1350 Massachusetts Avenue
Cambridge, MA 02138
Fax: (617) 495-9568

By such notice either party may change their address for future notices.

Notices delivered in person shall be deemed given on the date delivered. Notices sent by fax shall be deemed given on the date faxed. Notices mailed shall be deemed given on the date postmarked on the envelope.

10.10 Should a court of competent jurisdiction later hold any provision of this Agreement to be invalid, illegal, or unenforceable, and such holding is not reversed on appeal, it shall be considered severed from this Agreement. All other provisions, rights and obligations shall continue without regard to the severed provision, provided that the remaining provisions of this Agreement are in accordance with the intention of the parties.

10.11 In the event of any controversy or claim arising out of or relating to any provision of this Agreement or the breach thereof, the parties shall try to settle such conflict amicably between themselves. Subject to the limitation stated in the final sentence of this Section 10.11, any such conflict which the parties are unable to resolve promptly shall be settled through arbitration conducted in accordance with the rules of the American Arbitration Association. The demand for arbitration shall be filed within a reasonable time after the controversy or claim has arisen, and in no event after the date upon which institution of legal proceedings based on such controversy or claim would be barred by the applicable statute of limitation. Such arbitration shall be held in Boston, Massachusetts. The award through arbitration shall be final and binding. Either party may enter any such award in a court having jurisdiction or may make application to such court for judicial acceptance of the award and an order of enforcement, as the case may be. Notwithstanding the foregoing, either party may, without recourse to arbitration, assert against the other party a third-party claim or cross-claim in any action brought by a third party, to which the subject matter of this Agreement may be relevant.

10.12 This Agreement constitutes the entire understanding between the parties and neither party shall be obligated by any condition or representation other than those expressly stated herein or as may be subsequently agreed to by the parties hereto in writing.

[The remainder of this page is intentionally blank.]

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives.

President And Fellows of Harvard College		Mycometrix Corporation
/s/ Joyce Brinton		/s/ Gajus Worthington
Joyce Brinton, Director Office for Technology and Trademark Licensing		President
12/7/00		12/18/00
Date		Date

APPENDIX A

The following comprise PATENT RIGHTS:

[***]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.8

PATENT LICENSE AGREEMENT 3950.LICI.001 Gyros AB

This Agreement, effective as of January 9, 2003, is made by and between **GYROS AB** having its principal office at Uppsala Science Park, SE-751 83 Uppsala, Sweden, a corporation organized and existing under the laws of Sweden (hereinafter referred to as **"Licensor"),** and **FLUIDIGM Corporation** having its principal office at 7100 Shoreline Court, South San Francisco, CA 94080, a corporation organized and existing under the laws of the state of California, U.S.A (hereinafter referred to as the **"Licensee").**

RECITALS

WHEREAS, the Licensor is the holder of intellectual property pertaining to, and possesses a special expertise in the field of fluidic microsystems.

WHEREAS, the Licensor is active in the field of microfluidics and microfluidic applications, primarily within the Life Sciences and Diagnostics.

WHEREAS, the Licensor is the owner of certain patents and patent applications pertaining to microfluidics and microfluidic applications.

WHEREAS, Licensor is willing to grant Licensee a royalty-bearing non-exclusive licence to such patents on the terms and conditions given below.

NOW, THEREFORE, in consideration of the promises and the faithful performance of the covenants herein contained IT IS AGREED;

ARTICLE 1 DEFINITIONS

1.1 **"Affiliate"** shall mean any corporation, partnership, or other business entity controlled by, or controlling, or under common control with any party or signatory to this Agreement, with "control" meaning direct or indirect beneficial ownership of more than fifty percent (50%) of the voting power, or of the interest in the income of such corporation, partnership or other entity, or having the power to appoint the majority of its directors or otherwise having the power to direct its business activities.

1.2 **"Competitor of Licensor"** shall mean a company in the business of making and selling compact disc-like structures in which fluids are moved by centrifugal force.

1.3 **"Net Sales"** shall mean the gross selling price charged by Licensee for Products manufactured or sold by the Licensee in a country in which the Product is covered by a Patent (i.e., a country in which, but for the license granted herein, the Product would infringe a valid, enforceable, unexpired claim of a Patent) less:

(a) allowances for damaged and returned goods;

(b) discounts actually credited to customers or commissions paid to third parties in amounts customary in the trade;

(c) custom duties, forwarding insurance premiums, sales, excise, and other taxes actually paid by the Licensee or otherwise included in the gross selling price with respect to the sale of Products;

A Product shall be considered sold hereunder in accordance with extant GAAP accounting procedures and guidelines.

If the Products are sold in combination with, or as a component of, other products not licensed hereunder, Net Sales for purposes of determining royalty hereunder shall be calculated by multiplying the Net Sales from the combined product by the fraction A/B, where A is the invoice price of the Products sold separately and B is the invoice price of the combined product. If the Products are not sold separately, the Net Sales for purposes of calculating royalties hereunder shall be reasonably determined by agreement of Licensor and the Licensee promptly after such combination products are sold by Licensee. The parties agree to use good faith in negotiating the appropriate adjustment to Net Sales of any combined product within thirty (30) days after the Licensee notifies Licensor of sales of a combination product. The Net Sales of any Products sold by the Licensee to any Affiliate of the Licensee or any other person or organization enjoying a special course of dealing with the Licensee, shall be determined by reference to the Net Sales which would be applicable under this Article 1.2 in an arm's length sale of such Products by the Licensee to a third party.

1.4 **"Patents"** shall mean the patents listed in Exhibit A, attached hereto, together with any other corresponding patents/ patent applications in any country owned or controlled by the Licensor.

1.5 **"Covered Products"** shall mean all products now or hereafter manufactured, assembled, used or sold by or on behalf of the Licensee or its Affiliates and which are covered by any of the Patents.

It is hereby acknowledged that any and all products consisting of compact discs ("CD's") and CD-like structures where a centrifugal force is utilized to move the liquids within the CD are explicitly excluded from this definition.

1.6 **"Option Field of Use"** means each of (i) [***] and (ii) [***].

"Licensed Fields of Use" means [***] and each Option Field of Use for which Licensee exercises the option as set forth in Section 5.2 below.

1.8 **"Product"** means each Covered Product useful, used, or for use in a Licensed Field of Use.

ARTICLE 2 GRANT

2.1 Upon the terms and subject to the conditions of this Agreement, Licensor hereby grants to the Licensee and its Affiliates, and the Licensee and its Affiliates accept from Licensor, a restricted, perpetual, irrevocable (except as set forth in Section 9.1), non-exclusive, non-transferable (except as set forth in Section 7.4), royalty-bearing license under the Patents for the term hereof solely to make, have made, import, use, offer for sale, and sell Products. No other license is granted to the Licensee expressly, impliedly or by estoppel, except as explicitly set forth in Section 5.2 below.

The Licensee expressly acknowledges and agrees that the Licensee shall have no right to sublicense, assign, or otherwise transfer any or all of the license granted to it under the Patents, except as set forth in Section 9.1, provided that Licensee can sublicense Patents to a third party other than a Competitor of Licensor (as defined in Section 7.4) in conjunction with a license from Licensee to make and sell any of Licensee's Products. Licensor reserves the right to practice the Patents itself, and to sublicense, assign or otherwise transfer the Patents to others for any purposes whatsoever, provided that such transfer or assignment shall be subject to the licenses granted to Licensee in this Agreement.

2.3 Licensor hereby irrevocably releases Licensee and its Affiliates, and each of their subcontract manufactures and direct and indirect customers, of and from all claims of infringement of Patents, known or unknown, which claims have been made or might have been made at any time, with respect to any apparatus made, used, imported, offered for sale, or sold, or any method or process practiced, before the effective date of this Agreement, which apparatus, method, or process would have been licensed had it been made, used, imported, offered for sale, or sold, or practiced after effective date of this Agreement. A corresponding release will be deemed made in relation to each of the Option Fields of Use when and if exercised under Section 5.2 below.

ARTICLE 3 PATENT MARKING

Beginning two (2) years after the effective date of this Agreement, Licensee shall display or cause to be displayed proper patent notices on the documentation, inserts, packages or containers of all Products which shall indicate that the Product is sold or manufactured under a patent license from Licensor. The Licensee shall provide Licensor for its review prior to use,

representative samples containing such patent notices and the parties agree to use good faith in determining the requirements for and adequacy of such notices under the controlling patent laws.

ARTICLE 4 RESTRICTIONS ON PUBLICATION

Upon the signing of this Agreement and upon exercise of any of the Option Fields of Use under 5.2, both parties shall be entitled to make public — through a press release or otherwise - that Licensee has taken a license to the Patents from the Licensor. Such press-release or similar shall be in a form reasonably acceptable to the other party and shall not disclose any of the financial terms agreed in this Agreement. Within thirty (30) days of the effective date of this Agreement, Licensee will publish on its corporate website that it has taken a license from Licensor under the Patents. Under all other circumstances, neither party shall use the other's name nor any variation thereof, nor any emblem, logo, trademark or variation thereof, nor the name of any employee in any press releases, advertising, promotional or sales literature, or in any securities reports required by the Securities and Exchange Commission, without the prior written consent of the other party in each case; provided however, that both parties (a) may refer to publications by employees of the other party in the scientific literature, (b) may only state that a non-exclusive, royalty-bearing patent license from Licensor to Licensee has been granted (excluding financial terms) and (c) may make such disclosures as required by law.

ARTICLE 5 ROYALTIES AND PAYMENT

5.1 In consideration of the rights granted by Licensor to the Licensee under this Agreement, the Licensee agrees to pay to Licensor:

(a) a non-refundable sum of [***] payable on March 31, 2003 ("Annual Payment Date"). The foregoing payment includes full payment for all sales by the Licensee of Products before the effective date of this Agreement;

(b) a sum of [***] payable on each anniversary of the Annual Payment Date during the term of this Agreement; and

(c) a royalty of [***] of the Net Sales of all Products sold by the Licensee during the term of this Agreement. Sums paid under Subsections 5.1 (a) and (b) above, and Section 5.2 below, shall be fully creditable against such royalties, regardless of the year in which such royalties accrue.

5.2 At any time(s) during the first twelve (12) months of the term of this Agreement, Licensee shall be entitled, at its option, to add one or both Option Fields of Use to the Licensed Field of Use under this Agreement, and upon each such exercise, each such Option Field of Use shall become a Licensed Field of Use under this Agreement. If Licensee has not, during the first

twelve (12) month period of the term of this Agreement, added both Option Fields of Use to the Licensed Field of Use, then during the second twelve (12) month period of the term of this Agreement, Licensee shall be entitled, at its option, to add one Option Field of Use to the Licensed Field of Use under this Agreement. Each such exercise of this option by Licensee shall be by written notice to Licensor, referencing this Agreement and specifying the Option Field(s) of Use to be added. Within thirty (30) days after such exercise, Licensee shall pay an additional [***] license fee for the first added Option Field of Use, and an additional [***] license fee for the second added Option Field of Use. For the avoidance of doubt, during the first twelve (12) month period of the term of this Agreement, Licensee may exercise this option for one or both Option Fields of Use and on one or two occasions.

5.3 Within thirty (30) days of the end of each calendar quarter the Licensee shall pay to Licensor the royalty having accrued on the Products sold during such calendar quarter to the extent the royalty exceeds the credited sums paid by Licensee. Such payments shall be made in US Dollars by wire transfer, at the Licensee's cost, to such bank as shall be notified by Licensor. Payments of royalties accrued on sales in other currencies than US Dollars shall be made in US Dollars at the rate of exchange quoted by a first class commercial bank in the Licensee's country on the last day of the relevant calendar quarter.

5.4 If the Licensee fails to make the payments as provided for herein, such amounts shall bear interest from and after the due date at the rate of [***] above the one month LIBOR for the currency of payment.

5.5 Withholding or other taxes assessed on Licensor in connection with the payment of royalties and other consideration due hereunder and which the Licensee is required by law to deduct and withhold when making payments, may be deducted from royalty payments hereunder (including without limitation payments under Sections 5.1(a), 5.1(b), and 5.2) and shall be paid by the Licensee to the competent authority on behalf of Licensor. The originals of the official government receipt for such taxes paid by the Licensee on Licensor's behalf, shall so indicate such fact and shall be sent by the Licensee to Licensor not later than fifteen (15) working days after the date of payment, indicating net payment of royalties to which such taxes relate, and in accordance with the instructions given by Licensor. The sums so paid by the Licensee shall be credited by Licensor in partial discharge of the Licensee's obligation for gross royalties as provided for herein.

ARTICLE 6 RECORDS, AUDITS AND REPORTS

6.1 The Licensee agrees to maintain accurate, complete and up to date records, until five (5) years after a royalty payment has been made, in sufficient detail to enable the royalties payable by the Licensee to be determined. Licensor shall have the right, at its own expense and during regular business hours, at any time upon sixty (60) days prior written notice to Licensee, during the term of this Agreement and for one (1) year thereafter, to have such records examined, in its own discretion, by an independent auditor of its own choice, provided such auditor is bound by confidentiality in writing to Licensee and reasonably acceptable to the

Licensee. The auditor shall not disclose the contents of the examination to any other entity and shall use the information only to verify proper reporting and payment of royalties under this Agreement.

6.2 Once Licensee's royalty obligations have exceeded the sums paid under Subsections 5.1(a) and (b) above or in the event of a completed initial public offering of Licensee's common stock, then Licensee agrees to deliver to Licensor within forty-five (45) days of the end of each subsequent calendar quarter a confidential written report, in a format to be agreed by the parties and made an exhibit to this Agreement, of all Products sold by it during such quarter in sufficient detail to permit a calculation of the royalties due thereon. Licensor shall not disclose the contents of the report to any other entity and shall use the information only to verify proper reporting and payment of royalties under this Agreement. Such report shall include, but not be limited to, information of the total quantities of Products sold and the Net Sales thereof on a country by country basis, and the amount of royalties due.

ARTICLE 7 TERM AND TERMINATION

7.1 Unless otherwise terminated as provided for in this Agreement, the license shall run to the end of the life of the last to expire of the Patents.

7.2 The Licensee shall have the right to terminate this Agreement and surrender the license granted hereunder at any time by giving thirty (30) days' written notice to Licensor.

7.3 If Licensor or the Licensee is in default in the performance of any of its respective obligations under this Agreement, including the failure by the Licensee to make any of the payments provided for at the times specified herein, and such default is not cured within ninety (90) days after the aggrieved party has given to the other a written notice specifying the nature of the default, the aggrieved party shall have the right to terminate this Agreement by giving written notice of termination to the other, subject to the remainder of this section. Upon the giving of such notice this Agreement shall terminate; provided, however, that if there is a dispute as to the alleged default (including as to whether there is a default, or whether it has been cured), the aggrieved party alleging the default shall not be entitled to terminate unless and until a further notice of termination after (i) an agreed dispute resolution entity has determined that there was a default, as specified in the aggrieved party's notice of default, that was not cured within the applicable cure period and (ii) the defaulting party does not cure the default within thirty (30) days after such determination.

7.4 If during the term of this Agreement, Licensee effects a Competitor Assignment (as defined in Section 9.1), or a change of control over Licensee takes place meaning that fifty percent (50%) or more of the shares in Licensee come under common control of a third party Competitor of Licensor or Affiliates of such Competitor of Licensor, or if Licensee and/or certain of its shareholders enter into an arrangement of a similar effect, Licensor shall be entitled to terminate this Agreement on sixty (60) days prior written notice to Licensee. Upon such termination by Licensor, Licensor shall promptly refund to Licensee (or its successor) a

pro rata (on a day for day basis) the annual payment made by Licensee for that year under Section 5.1(a), 5.1(b), or 5.2, as applicable.

7.5 If during the term of this Agreement, the Licensee becomes bankrupt or insolvent, or if the business of Licensor or the Licensee is placed in the hands of a receiver or trustee, whether by voluntary act or otherwise, this Agreement shall immediately and automatically terminate.

7.6 The following rights and obligations shall survive any termination to the degree necessary to permit their complete fulfilment or discharge:

(a) the Licensee's obligation to supply a final report on each impacted Product in accordance with Section 6.2 above with respect to the terminated license;

(b) Licensor's right to receive or recover and the Licensee's obligation to pay royalties, including minimum royalties, if any, accrued or accruable for payment at the time of any termination;

(c) the Licensee's obligation to maintain records and to allow Licensor to audit such records as provided for herein.

ARTICLE 8 RESTRICTED WARRANTY AND INDEMNITY

8.1 The Licensor represents and warrants that it has full authority to enter into this Agreement, that it has not granted, and will not grant, any rights or licenses that would conflict with the rights and licenses granted in this Agreement, that it is not aware of any third party claims with respect to any Patent, and that it has no knowledge of any third party rights that would affect its ability to grant the license hereunder. Licensor further represents and warrants that the Patents are the only patent filings owned or controlled by Licensor or its Affiliates, or which Licensor or its Affiliates otherwise have the right to enforce, license or sublicense, which pertain to microfluidics based on multilayer soft lithography or its uses. However, the Licensor makes no representation or warranty, express or implied, as to the validity of the Patents nor to the merchantability or satisfactory quality of the Products that are or may be sold by the Licensee. Licensor does not assume any liability for any infringement or alleged infringement of any patent or other rights of third parties due to the Licensee's activities under the license set forth herein.

8.2 The Licensee shall assume full responsibility for its use of the Patents and shall defend Licensor and its officers, directors, agents, and employees ("Indemnified Parties") against any claims or actions arising out of this Agreement by reason of death, personal injury, illness or property damage, or any other injury or damage arising out of the use by the Licensee of the Patents or the preparation of, use or sale of Products, including but not limited to, use or reliance upon such Products by the Licensee's customers, and Licensee shall indemnify the Indemnified Parties against all liability, costs, damages, and expenses awarded against the Indemnified Parties with respect to such claims or actions.

ARTICLE 9 MISCELLANEOUS

9.1 Assignment. This Agreement is personal to the Licensee who shall not have any right to assign or transfer the Agreement, in whole or in part, or the license granted hereunder, without the prior written consent of Licensor, which shall not be unreasonably withheld; provided, however, that Licensee may transfer or assign its rights and obligations under this Agreement to a successor to all or substantially all of Licensee's Product business relating to one or more Licensed Fields of Use, whether by sale, merger or otherwise, provided further that that Licensee shall not have the right to transfer or assign this Agreement to a Competitor of Licensor ("Competitor Assignment") without the prior written consent of Licensor . Notwithstanding the foregoing, Licensor shall have the right to assign or transfer this Agreement, in whole or in part, to any Affiliate.

9.2 Entire Agreement. This Agreement constitutes the entire agreement between the parties as to the subject matter hereof, and all prior negotiations, representations, agreements and understandings are merged into, extinguished by and completely expressed by it. This Agreement may be modified or amended only by a writing executed by authorized officers of each of the parties.

9.3 Waiver. The waiver by either Licensor or the Licensee of any right or failure to perform or of any breach by the other shall not be deemed as a waiver of any other right hereunder or of any other breach or failure by the other, whether of a similar nature or otherwise.

9.4 Notices. Any notice or other communication relating to this Agreement shall be sent registered mail or overnight express prepaid or telefax/telecopier to the address of the party to be served therewith which is shown below and shall be deemed to have been given upon the date the notice or communication was sent:

If to Licensor:	**Gyros AB**	Att: Maris Hartmanis President & CEO Uppsala Science Park S-751 83 Uppsala, Sweden [***]
with a copy to:	rambe legal consultants	Att: Lars J. Rambe, LL.M Telefax +46-8-6508835
If to the Licensee:	**Fluidigm Corporation**	

Att: Gajus Worthington
President & CEO
7100 Shoreline Court
South San Francisco
CA 94080

Telefax: (650) 871-7152

with a copy to: Fluidigm General Counsel Att: William M. Smith

Telefax: (650) 871-7195

Such addresses may be changed by notice so given.

9.5 Severability. If any provision of this Agreement is held to be unenforceable for any reason, it shall be adjusted rather than voided, if possible, in order to achieve the intent of the parties to the extent possible. In any event, all other provisions of this Agreement shall be deemed valid and enforceable to the full extent possible consistent with the intent of the parties.

9.6 Governing Law. This Agreement and its effects shall be subject to and shall be construed and enforced in accordance with the laws of the state of New York, U.S.A.

9.7 Disputes. Any dispute in connection with this Agreement shall be first elevated to each party's respective President for a period of thirty (30) days prior to giving a notice of default under section 9.3 above, who shall convene a face-to-face meeting prior to pursuing any legal courses of action.

IN WITNESS WHEREOF, the parties hereto have caused their respective duly authorized representatives to execute this Agreement the day and year first above written.

Gyros AB

By: /s/ Maris Hartmanis
Maris Hartmanis

By: /s/ (ILLEGIBLE)

Fluidigm Corporation

By: /s/ Gajus Worthington
Gajus Worthington

By:

Exhibit A

Patent family:

[***]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.8A

AMENDMENT NO. 1 TO
PATENT LICENSE AGREEMENT

This Amendment No. 1 (the "Amendment") to the parties' January 9, 2003 Patent License Agreement is entered into as of the date of the latter signature below by and between **GYROS AB** having its principal office at Uppsala Science Park, SE-751 83 Uppsala, Sweden, a corporation organized and existing under the laws of Sweden (hereinafter referred to as **"Licensor")**, and **FLUIDIGM Corporation** having its principal office at 7100 Shoreline Court, South San Francisco, CA 94080, a corporation organized and existing under the laws of the state of California, U.S.A (hereinafter referred to as the **"Licensee").**

RECITALS

A. The parties have entered into a January 9, 2003 Patent License Agreement (the "Agreement"); and

B. The parties desire to amend the Agreement to include an additional Option Field of Use, and to extend Licensee's time period for exercising the remaining, unexercised Option Fields of Use, on the terms and conditions set forth herein.

NOW, THEREFORE, the parties agree that the Agreement is amended as follows:

1. In order to add "protein analysis" as an additional Option Field of Use, Section 1.6 of the Agreement is amended to read in its entirety as follows:

"1.6 **'Option Field of Use'** means each of (i) [***] (ii) [***] and (iii) [***]"

It is acknowledged that Licensee has previously exercised its option in accordance with Section 5.2 of the Agreement for the Option Field of Use "nucleic acid analysis," and made the required payment with respect thereto, and that therefore "nucleic acid analysis" is already a Licensed Field of Use.

2. Section 5.1(b) of the Agreement is amended by adding the following at the end: ", in consideration of the rights granted to Licensee pursuant to Amendment No. 1 to this Agreement, on or before February 9, 2005 Licensee shall pay to Licensee an additional, one time license fee of [***] and".

3. With respect to the remaining two Option Fields of Use (i.e. cell assays, and protein analysis), Section 5.2 of the Agreement is amended to read in its entirety as follows:

"5.2 At any time(s) until and including January 9, 2007 (Pacific Standard Time), Licensee shall be entitled, at its option, to add one or both of the remaining, unexercised Option Fields of Use to the Licensed Field of Use under this Agreement, and upon each such exercise, each such Option Field of Use shall become a Licensed Field of Use under this Agreement. Each such exercise of this option

by Licensee shall be by written notice to Licensor, referencing this Agreement and specifying the Option Field(s) of Use to be added. Within thirty (30) days after each such exercise, Licensee shall pay an additional [***] license fee for each added Option Field of Use. For the avoidance of doubt, until and including January 9, 2007 (Pacific Standard Time), Licensee may exercise this option for one or both of the remaining, unexercised Option Fields of Use and on one or two occasions."

4. All payments designated to be made in Swedish kronor shall be made by Licensee in Swedish kronor by wire transfer to a Licensor account designated by Licensor, including all necessary information, in writing to Licensee.

5. Except as expressly provided in this Amendment, the Agreement shall remain unmodified and in full force and effect. In the event of any inconsistency or conflict, the provisions of this Amendment shall control and govern over the provisions of the Agreement. The Agreement, as amended herein, shall constitute a single, integrated contract.

Gyros AB

By: /s/ Rolf Ehmstrom

Print Name: Rolf Ehmstrom

Title: CEO (acting)

Date: 2005-01-09

Fluidigm Corporation

By: /s/ Gajus Worthington

Print Name: Gajus Worthington

Title: CEO

Date: 01/04/05

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.9

MASTER CLOSING AGREEMENT

By and Among

FLUIDIGM CORPORATION,
a California corporation,

OCULUS PHARMACEUTICALS, INC.,
a Delaware corporation,

and

THE UAB RESEARCH FOUNDATION

dated

March 7, 2003

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EXHIBITS AND SCHEDULES

Exhibit	Description
A	Amended and Restated Articles of Incorporation of Fluidigm
B	Form of New License Agreement
C	Form of Sponsored Research Agreement
D	Description of Technology

Schedule	Description
4.6	Pending Litigation

MASTER CLOSING AGREEMENT

THIS MASTER CLOSING AGREEMENT is entered into as of March 7, 2003 by and among FLUIDIGM CORPORATION, a California corporation ("Fluidigm"), OCULUS PHARMACEUTICALS, INC., a Delaware corporation ("Oculus"), and THE UAB RESEARCH FOUNDATION ("UABRF").

RECITALS

A. Oculus and UABRF have entered into a license agreement dated September 21, 2001 (together with all amendments and modifications thereto, the "License Agreement") under which Oculus was granted an exclusive license to practice the intellectual property and technology relating to nanovolume crystallization arrays described in Schedule A to the License Agreement.

B. The parties hereto have entered into a binding letter agreement dated December 19, 2002 (the "Letter Agreement") under which Oculus and UABRF have agreed to terminate the License Agreement, UABRF has agreed to grant to Fluidigm an exclusive license to practice the intellectual property and technology relating to nanovolume crystallization arrays covered by the License Agreement, and Fluidigm and UABRF have agreed to enter into a sponsored research agreement. In exchange for the rights to be acquired by Fluidigm as contemplated by the Letter Agreement, Fluidigm has paid cash in the amount of [***] pursuant to the Letter Agreement and has agreed to the payment of additional cash and securities as specified in the Letter Agreement.

C. The parties desire to enter into this Agreement to set out additional terms and conditions related to the closing of the transactions, and the payments to be made by Fluidigm, contemplated by the Letter Agreement.

NOW, THEREFORE, in consideration of the representations, warranties and agreements herein contained, the parties agree as follows:

ARTICLE I

DEFINITIONS

As used in this Agreement, the following terms shall have the meanings set forth or referenced below:

1.1 "Affiliate" of any specified person shall mean any other person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified person. For purposes of this definition, "control" when used with respect to any specified person means the power to direct or cause the direction of the management and policies of such person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms "controlling" and "controlled" have meanings correlative to the foregoing.

1.2 "Ancillary Documents" shall mean all documents or agreements required by this Agreement to be executed or delivered by any party hereto.

1.3 "Assigned Rights" shall mean any intellectual property rights owned by Oculus that pertain in any way to the Technology, including without limitation any Inventions (as such term is defined in Section 11 of the License Agreement) and any other patent rights and other intellectual property rights therein owned by Oculus.

1.4 "Cash Consideration" shall mean the sum of cash in the amount of [***] paid in accordance with the Letter Agreement and the Closing Cash Consolidation.

1.5 "Closing" shall mean the closing of the transactions contemplated by this Agreement.

1.6 "Closing Cash Consideration" shall mean cash in the amount of [***].

1.7 "Closing Date" shall mean March 7, 2003, or such other date to which the parties shall mutually agree in writing.

1.8 "Encumbrances" shall mean restrictions on or conditions to transfer or assignment, claims, liabilities, licenses, immunities from lawsuits to third parties, liens, pledges, mortgages or security interests of any kind, whether accrued, absolute, contingent, or otherwise.

1.9 "Fluidigm Series C Preferred Stock" shall mean the Series C Preferred Stock of Fluidigm having the rights, preferences and privileges set forth in Fluidigm's Articles of Incorporation attached hereto as Exhibit A.

1.10 "License Agreement" shall mean the license agreement between Oculus and UABRF as described in Recital A.

1.11 "New License Agreement" shall mean the license agreement between Fluidigm and UABRF in the form of Exhibit B attached hereto.

1.12 "Sponsored Research Agreement" shall mean the sponsored research agreement between Fluidigm and UABRF in the form of Exhibit C attached hereto.

1.13 "Technology" shall mean all intellectual property and other rights relating to nanovolume crystallization arrays described in Exhibit D attached hereto.

1.14 "Transfer Taxes" shall mean all sales taxes, use taxes, conveyance taxes, transfer taxes, filing fees, recording fees, reporting fees and other similar duties, taxes and fees, if any, imposed upon, or resulting from, the transfer of the Assigned Rights hereunder, except federal, state or local income or similar taxes based upon or measured by revenue, income, profit or gain from the transfer of the Assigned Rights or the operation of Oculus' business prior to the Closing or by any increase in the value of any of the Assigned Rights through the Closing Date.

ARTICLE II

TRANSFER OF ASSIGNED RIGHTS AND LICENSE OF TECHNOLOGY

2.1 Transfer of Rights and License of Technology. Oculus and UABRF have mutually terminated the License Agreement as of January 30, 2003 and Oculus has surrendered all rights under the License Agreement to UABRF. Subject to and upon the terms and conditions of this Agreement, effective as of the Closing, Fluidigm and UABRF will enter into the New License Agreement. It is the intent of the parties that all intellectual property rights subject to the License Agreement as of November 27, 2002 shall be transferred and/or assigned to Fluidigm, and that all such rights owned by UABRF shall be licensed to Fluidigm under the New License Agreement, subject to the reservation by UABRF of certain rights as set forth in the License Agreement.

2.2 Excluded Assets and Liabilities. Notwithstanding the provisions of Section 2.1, (a) Fluidigm and Oculus expressly acknowledge and agree that Oculus shall not sell, transfer, assign, convey or deliver to Fluidigm, and Fluidigm shall not purchase, acquire or accept from Oculus, any right, title or interest of Oculus in or to any other property or assets of Oculus, and (b) Fluidigm does not assume, and Oculus does not transfer or assign, any liabilities or obligations, whether presently fixed and determined, contingent or otherwise, of Oculus.

2.3 Payment. In consideration of the execution of the New License Agreement and the transfer of the rights thereunder, Fluidigm will deliver to UABRF the Closing Cash Consideration and [* * *] shares of Fluidigm Series C Preferred Stock valued at 2.58 per share, the price at which Fluidigm sold and issued shares of its Series C Preferred Stock to other investors.

2.4 Taxes. Fluidigm and Oculus shall each pay (or reimburse the other for) one-half of all Transfer Taxes, whether imposed by law on Fluidigm and Oculus or otherwise.

2.5 Assigned Rights. Oculus hereby sells, assigns and transfers to Fluidigm all Assigned Rights, free and clear of all Encumbrances (except to the extent that the settlement agreement pertaining to the Lawsuit (as such term is defined in Section 6.3) may include an immunity from lawsuits for conduct arising prior to the date of the settlement agreement).

2.6 Unassignable Rights.

(a) Notwithstanding any provision of this Agreement or any of the Ancillary Documents, but subject to Section 11.3(c), to the extent that any of the Assigned Rights are not assignable or otherwise transferable to Fluidigm, or if such assignment or transfer would constitute a breach thereof or a violation of any applicable law, then neither this Agreement nor such Ancillary Documents shall constitute an assignment or transfer (or an attempted assignment or transfer) thereof until such consent, approval or waiver of such party or parties has been duly obtained.

(b) If any consent required to transfer the Assigned Rights to Fluidigm has not been obtained as of the Closing Date and Fluidigm nevertheless determines to proceed with the

Closing, Oculus and UABRF shall, at their own expense, continue to cooperate with Fluidigm and use commercially reasonable efforts to obtain such consent after the Closing.

(c) If any Assigned Right is not transferred to Fluidigm at the Closing pursuant to this Agreement, Oculus and Fluidigm shall cooperate with each other in any reasonable arrangement designed to provide for Fluidigm all of the benefits of such Assigned Rights. At Fluidigm's request, Oculus shall take all reasonable actions requested by Fluidigm to enforce for the benefit of Fluidigm any and all rights of Oculus with respect to any such Assigned Right that is not otherwise transferred pursuant to the provisions of this Agreement. Oculus agrees to hold in trust for, and remit promptly to, Fluidigm all future collections or payments received by Oculus in respect of all such Assigned Rights (net of all costs and expenses incurred by Oculus in respect thereto); provided, however, that nothing herein shall create or provide any rights or benefits in or to third parties.

(d) If any intellectual property rights that are described in the New License Agreement cannot be licensed to Fluidigm by UABRF under the New License Agreement without the consent of any third party or without resulting in a breach or default of any agreement affecting such rights, UABRF covenants and agrees that it shall not sue or otherwise take any legal action to restrict or prevent Fluidigm and Fluidigm's permitted assignees and sublicensees from practicing such intellectual property rights as purported to be granted under the terms of the New License Agreement.

(e) If, subsequent to the Closing, a claim brought by any party challenging any of the transactions contemplated hereby results in any ruling or order which has the result of frustrating in a material way the transfer of any of the Assigned Rights hereunder to Fluidigm or the grant of rights to Fluidigm under the New License Agreement or Fluidigm's use thereof as provided herein, Oculus and UABRF shall cooperate with Fluidigm in any reasonable arrangement designed to give Fluidigm, as nearly as practicable, the same economic benefits as if such transfer or license, as the case may be, had been consummated in accordance with the provisions hereof.

(f) Nothing in this Section 2.6 shall be deemed to modify in any respect any of the representations or warranties of Oculus and UABRF set forth herein or the conditions to Fluidigm's obligations contained in this Agreement, be deemed a waiver by Fluidigm of its right to have received on or before the Closing Date an effective assignment of all of the Assigned Rights or be deemed to constitute an agreement to exclude any assets from the Assigned Rights.

ARTICLE III

THE CLOSING

3.1 The Closing. The Closing shall take place at the offices of Gray Cary Ware & Freidenrich LLP, 400 Hamilton Avenue, Palo Alto, California, at 11:00 a.m., Pacific Time, on the Closing Date, or at such other time and place as Oculus, Fluidigm and UABRF may agree.

3.2 Termination of License Agreement. On or before the Closing, Oculus and UABRF shall deliver to Fluidigm an agreement and acknowledgment that the License

Agreement has been terminated and such other agreements and instruments as may be necessary or appropriate to evidence the return by Oculus to UABRF of all rights under the License Agreement.

3.3 Agreements Between Fluidigm and UABRF. At the Closing, Fluidigm and UABRF shall execute and deliver the New License Agreement and the Sponsored Research Agreement.

3.4 Other Documents. Each party shall deliver to the other at the Closing such other documents, certificates, schedules, agreements and instruments required by this Agreement to be delivered at such time.

ARTICLE IV

REPRESENTATIONS AND WARRANTIES OF OCULUS

Oculus hereby represents and warrants to Fluidigm as follows:

4.1 Organization. Oculus is a corporation duly incorporated, validly existing and in good standing under the laws of the State of Delaware and has all requisite corporate power to own, lease and operate its properties and to conduct its business as it is currently being conducted. Oculus is duly qualified or licensed to do business as a foreign corporation in each jurisdiction in which the failure to be so qualified or licensed would have a material adverse effect on Oculus.

4.2 Authorization. This Agreement and all of the Ancillary Documents to which Oculus is or will be a party have been, or upon their execution and delivery hereunder will have been, duly and validly executed and delivered by Oculus and constitute, or will constitute, valid and binding agreements of Oculus, enforceable against Oculus in accordance with their respective terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally or by principles of public policy or general equitable principles or the exercise of judicial discretion in accordance with such principles. Oculus has the requisite corporate power and authority to execute and deliver this Agreement and the Ancillary Documents to which Oculus is or will be a party and, at the time of the Closing, will have the requisite corporate power and authority to carry out the transactions contemplated by this Agreement and the Ancillary Documents. The execution, delivery and performance by Oculus of this Agreement and the Ancillary Documents have been duly and validly approved and authorized by the Board of Directors and shareholders of Oculus.

4.3 No Conflicts; Consents. The execution and delivery by Oculus of this Agreement and the Ancillary Documents to which Oculus is or will be a party do not, and the consummation of the transactions contemplated hereby and thereby and compliance by Oculus with the provisions hereof and thereof will not, contravene, conflict with, result in a breach of, constitute a default (with or without notice or lapse of time, or both) under or violation of, or result in the creation of any Encumbrance pursuant to, (i) any provision of the Certificate of Incorporation or Bylaws of Oculus, (ii) any judgment, order, decree, rule, law or regulation of any court or

governmental authority, foreign or domestic, applicable to Oculus or to any of the Assigned Rights, except where any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's ownership of the Assigned Rights, or (iii) any provision of any material agreement, instrument or understanding to which Oculus is a party or by which Oculus is bound or any of the Assigned Rights are affected, except where any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's ownership of the Assigned Rights, nor will such actions give to any other person or entity any interests or rights of any kind, including rights of termination, acceleration or cancellation, in or with respect to any of the Assigned Rights, or result in the creation of any Encumbrance on any of the Assigned Rights. No consent, approval, order or authorization of, or registration, declaration or filing with, any third party or any governmental authority is required to be obtained on the part of Oculus to permit the consummation of the transactions contemplated by this Agreement or the Ancillary Documents.

4.4 Title to Assigned Rights. Oculus has good and marketable title to all of the Assigned Rights. All of the Assigned Rights are free and clear of any Encumbrances (except to the extent that the settlement agreement pertaining to the Lawsuit (as such term is defined in Section 6.3) may include an immunity from lawsuits for conduct arising prior to the date of the settlement agreement). At the Closing, Oculus will sell, convey, assign, transfer and deliver to Fluidigm good, valid and marketable title and all right and interest in and to all of the Assigned Rights, free and clear of any Encumbrances.

4.5 No Assignment. Oculus has not sublicensed or otherwise transferred any material rights under the License Agreement to any third party. As of December 19, 2002, the License Agreement was in full force and effect in accordance with its terms. Prior to the termination of the License Agreement, no provisions of the License Agreement had been waived in any material respect. Exhibit D lists all of the patent filings subject to the License Agreement. To the knowledge of Oculus, UABRF is the owner of the patent rights within the technology and inventions subject to the License Agreement and has not granted a license to such technology and inventions to any person or entity other than Oculus.

4.6 Litigation and Claims. Except as set forth on Schedule 4.6 attached hereto, there are no claims, actions, suits, proceedings arbitrations or investigations in progress or pending (or, to the knowledge of Oculus, threatened) before any court, tribunal or governmental agency against Oculus that relate to any of the Assigned Rights. Oculus is not a party to any judgment, decree, order or arbitration award (or agreement entered into in any administrative, judicial or arbitration proceeding with any governmental authority) with respect to any of the Assigned Rights.

4.7 Distribution Agreement. Oculus has entered into a mutually acceptable agreement with UABRF regarding the distribution of any and all consideration to be paid by Fluidigm in connection with the transactions contemplated by this Agreement.

ARTICLE V

REPRESENTATIONS AND WARRANTIES OF FLUIDIGM

Fluidigm hereby represents and warrants to Oculus and UABRF as follows:

5.1 Organization. Fluidigm is a corporation duly organized, validly existing and in good standing under the laws of the State of California and has all requisite corporate power to own, lease and operate its properties, to conduct its business as it is currently being conducted. Fluidigm is duly qualified or licensed to do business as a foreign corporation in each jurisdiction in which the failure to be so qualified or licensed would have a material adverse effect on Fluidigm.

5.2 Authorization. This Agreement and all of the Ancillary Documents to which Fluidigm is or will be a party have been, or upon their execution and delivery hereunder will have been, duly and validly executed by Fluidigm and constitute, or will constitute, valid and binding agreements of Fluidigm, enforceable against Fluidigm in accordance with their respective terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally or by principles of public policy or general equitable principles or the exercise of judicial discretion in accordance with such principles. Fluidigm has the requisite corporate power and authority to execute and deliver this Agreement and the Ancillary Documents to which Fluidigm is or will be a party and, at the time of the Closing, will have the requisite corporate power and authority to sell, issue and deliver the Securities pursuant to this Agreement and to carry out the other transactions contemplated by this Agreement and the Ancillary Documents. The execution, delivery and performance by Fluidigm of this Agreement and the Ancillary Documents have been duly and validly approved and authorized by Fluidigm's Board of Directors and by all requisite action of Fluidigm's stockholders.

5.3 No Conflicts; Consents. The execution and delivery by Fluidigm of this Agreement and the Ancillary Documents to which Fluidigm is or will be a party do not, and the consummation of the transactions contemplated hereby and thereby and compliance by Fluidigm with the provisions hereof and thereof will not, contravene, conflict with, result in a breach of, constitute a default (with or without notice or lapse of time, or both) under or violation of, or result in the creation of any Encumbrance pursuant to, (i) any provision of the Articles of Incorporation or Bylaws of Fluidigm, (ii) any judgment, order, decree, rule, law or regulation of any court or governmental authority, foreign or domestic, applicable to Fluidigm except where such any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on the consummation of the transactions contemplated hereby, or (iii) any provision of any agreement, instrument or understanding to which Fluidigm is a party or by which Fluidigm is bound, except where such any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on the consummation of the transactions contemplated hereby. No consent, approval, order or authorization of, or registration, declaration or filing with, any third party or any governmental authority is required to be obtained on the part of Fluidigm to permit the consummation of the transactions contemplated by this Agreement or the Ancillary Documents.

5.4 Litigation and Claims. There are no claims, actions, suits, proceedings, arbitrations or investigations in progress or pending (or, to Fluidigm's knowledge, threatened, other than potential claims relating to the Interfering Patent (as such term is defined in Section 12.1(a) below), including, but not limited to, a possible interference) before any court, tribunal or governmental agency, against or relating to Fluidigm, which, if determined adversely to Fluidigm, would be likely to have a material adverse effect upon Fluidigm's financial condition or materially impair its ability to carry out and perform its obligations hereunder.

5.5 Securities Laws Exemptions. Based in part on the representations of UABRF contained in Section 6.5, the issuance of the Securities pursuant to the terms of this Agreement will be exempt from the registration requirements of the Securities Act and the regulations thereunder, and the registration, permit or qualification requirements of any applicable state securities laws.

ARTICLE VI

REPRESENTATIONS AND WARRANTIES OF UABRF

To the best knowledge of the UABRF Director and Dr. Larry DeLucas, UABRF hereby represents to Fluidigm as follows:

6.1 Authorization. This Agreement and the Ancillary Documents to which UABRF is or will be a party have been, or upon their execution and delivery hereunder will have been, duly and validly executed and delivered by UABRF and constitute, or will constitute, valid and binding agreements of UABRF, enforceable against UABRF in accordance with their respective terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting creditors' rights generally or by principles of public policy or general equitable principles or the exercise of judicial discretion in accordance with such principles. UABRF has full power and authority to execute and deliver this Agreement and the Ancillary Documents to which UABRF is or will be a party and, at the time of the Closing, will have all requisite power and authority to carry out the transactions contemplated by this Agreement and the Ancillary Documents. All university, foundation and other internal approvals necessary for UABRF to consummate the transactions contemplated by this Agreement and the Ancillary Documents to which UABRF is or will be a party have been obtained.

6.2 No Conflicts; Consents. The execution and delivery by UABRF of this Agreement and the Ancillary Documents to which UABRF is or will be a party do not, and the consummation of the transactions contemplated hereby and thereby and compliance by UABRF with the provisions hereof and thereof will not, contravene, conflict with, result in a breach of, constitute a default (with or without notice or lapse of time, or both) under or violation of, or result in the creation of any Encumbrance pursuant to, (i) any provision of the charter documents of UABRF, (ii) any judgment, order, decree, rule, law or regulation of any court or governmental authority, foreign or domestic, applicable to UABRF or to the Technology, except where any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's rights under the New License Agreement or the consummation of the transactions contemplated hereby, or (iii) any provision of any agreement, instrument or understanding to which UABRF is a party or by which UABRF is bound or any of

the Technology is affected, except where such any such contravention, conflict, breach or default could not reasonably be expected to have a material adverse effect on Fluidigm's rights under the New License Agreement or the consummation of the transactions contemplated hereby, nor will such actions give to any other person or entity any interests or rights of any kind, including rights of termination, acceleration or cancellation, in or with respect to any of the Technology, or result in the creation of any Encumbrance on any of the Technology. No consent, approval, order or authorization of, or registration, declaration or filing with, any third party or any governmental authority is required to be obtained on the part of the UABRF to permit the consummation of the transactions contemplated by this Agreement or the Ancillary Documents.

6.3 Title to Technology. UABRF is the sole owner of the technology, inventions and patent rights in the Technology and subject to the License Agreement and has not granted a license to such technology, inventions and patent rights to any person or entity other than Oculus. The License Agreement has been mutually terminated by UABRF and Oculus and neither Oculus nor any other party has any rights thereunder. UABRF has the right to grant an exclusive license to the technology, inventions, patent rights and other rights under the New License Agreement to Fluidigm, free and clear of any Encumbrances of any nature whatsoever, subject to those liens, encumbrances or restrictions which may arise as a result of the settlement of the litigation between Oculus and Syrrx, Inc. ("Syrrx") described in Schedule 4.6 (the "Lawsuit"), provided that Syrrx shall have no rights that may be exercised after the Closing to practice the technology, inventions, patent rights and other rights subject to the New License Agreement, and the potential infringement by Diversified Scientific, Inc. of the Licensed IP Rights (as such term is defined in the New License Agreement) described in Section 2.2.3 of the New License Agreement. Exhibit D lists all of the patent filings subject to the License Agreement. UABRF is not aware of any third-party challenges to the ownership, validity or entitlement to priority date of any of the patent filings subject to the License Agreement or the New License Agreement, except for the Lawsuit between Oculus and Syrrx and the settlement agreement related to said Lawsuit provided to Fluidigm pursuant to Section 7.2 of this Agreement.

6.4 Litigation and Claims. Except as set forth on Schedule 4.6 attached hereto, there are no claims, actions, suits, proceedings, arbitrations or investigations in progress or pending (or, to the knowledge of UABRF, threatened) before any court, tribunal or governmental agency
against UABRF that relate to any of the Technology. UABRF is not a party to any judgment, decree, order or arbitration award (or agreement entered into in any administrative, judicial or arbitration proceeding with any governmental authority) with respect to any of the Technology, except to the extent that UABRF may be deemed to be a party thereto as a result of UABRF's status as a shareholder of Oculus and having a member on the Board of Directors of Oculus as well as the status of Dr. Larry DeLucas as a member of the Board of Directors of Oculus and a shareholder of Oculus.

6.5 Distribution Agreement. UABRF has entered into a mutually acceptable agreement with Oculus regarding the distribution of any and all consideration to be paid by Fluidigm in connection with the transactions contemplated by this Agreement.

6.6 Investment Representations

(a) UABRF is acquiring the shares of Fluidigm capital stock to be issued hereunder (the "Securities") for investment and not with the view to the public resale or distribution thereof, and UABRF has no present intention of selling, granting any participation in, or otherwise distributing the Securities, other than in accordance with the terms of a Termination Agreement dated as of ____, 2003 between UABRF and Oculus. UABRF understands that the Securities have not been registered under the Securities Act by reason of a specific exemption thereunder, which depends upon, among other things, the bona fide nature of UABRF's investment intent as expressed herein.

(b) UABRF acknowledges that the Securities must be held indefinitely unless they are subsequently registered under the Securities Act or Fluidigm receives an opinion of counsel satisfactory to Fluidigm that such registration is not required. UABRF is aware of the provisions of Rule 144 promulgated under the Securities Act which permit limited resale of stock purchased in a private placement subject to the satisfaction of certain conditions.

(c) UABRF understands that no public market now exists for the Securities and that there can be no assurance that a public market will ever exist for the Securities.

(d) UABRF is an "accredited investor" as defined in the Securities Act, and has such knowledge and experience in financial and business matters that it is capable of evaluating the merits and risks of the investment in the Securities.

(e) UABRF has been given the opportunity to obtain any information or documents related to, and ask questions and receive answers about Fluidigm and its business, prospects and risks which UABRF deems necessary, to evaluate the merits and risks related to UABRF's investment in the Securities and to verify the information UABRF received.

(f) UABRF's financial condition is such that it can afford to bear the economic risk of holding the Securities for an indefinite period of time, and it has adequate means of providing for its current needs and contingencies and to suffer a complete loss of its investment in such Securities.

6.7 Restrictions. No Securities shall be sold, assigned, transferred or pledged except upon the conditions specified in this Agreement. UABRF will cause any proposed purchaser, assignee, transferee or pledgee of the Securities to agree in writing to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement.

6.8 Restrictive Legend. Each certificate representing the Securities shall (unless otherwise permitted by the provisions of Section 6.9 below) be stamped or otherwise imprinted with a legend in the following form (in addition to any legend required under applicable state securities laws):

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED (THE "SECURITIES ACT"). SUCH

SECURITIES MAY NOT BE SOLD, TRANSFERRED OR PLEDGED IN THE ABSENCE OF SUCH REGISTRATION OR UNLESS THE COMPANY RECEIVES AN OPINION OF COUNSEL (WHICH MAY BE COUNSEL FOR THE COMPANY) OR OTHER EVIDENCE REASONABLY ACCEPTABLE TO IT STATING THAT SUCH SALE OR TRANSFER IS EXEMPT FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF THE SECURITIES ACT."

"THE SECURITIES REPRESENTED BY THIS CERTIFICATE ARE SUBJECT TO A MARKET STAND-OFF AGREEMENT IN THE EVENT OF A PUBLIC OFFERING, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY."

UABRF consents to Fluidigm making a notation on its records and giving instructions to any transfer agent of the Securities in order to implement the restrictions on transfer established in Sections 6.7 through 6.10 of this Agreement.

6.9 Notice of Proposed Transfers. UABRF and any transferee of any certificate representing the Securities, by acceptance thereof, agrees to comply in all respects with the restrictions on transfer contained in Sections 6.7 through 6.10 of this Agreement. Prior to any proposed sale, assignment, transfer or pledge of any Securities (other than any transfer not involving a change in beneficial ownership), unless there is in effect a registration statement under the Securities Act covering the proposed transfer, the holder thereof shall give written notice to Fluidigm of such holder's intention to effect such transfer, sale, assignment or pledge. Each such notice shall describe the manner and circumstances of the proposed transfer, sale, assignment or pledge in sufficient detail, and shall be accompanied at such holder's expense by either (i) a written opinion of legal counsel who shall, and whose legal opinion shall be, reasonably satisfactory to Fluidigm, addressed to Fluidigm, to the effect that the proposed transfer of the Securities may be effected without registration under the Securities Act, or (ii) a "no action" letter from the Securities and Exchange Commission (the "Commission") to the effect that the transfer of such Securities without registration will not result in a recommendation by the staff of the Commission that action be taken with respect thereto, or (iii) any other evidence reasonably satisfactory to counsel to Fluidigm, whereupon the holder of such Securities shall be entitled to transfer such Securities in accordance with the terms of the notice delivered by the holder to Fluidigm; provided, however, that no such legal opinion, "no action" letter or other evidence shall be required with respect to a transfer to an affiliate of the holder. Each certificate evidencing the Securities transferred as above provided shall bear, except if such transfer is made pursuant to Rule 144, the appropriate restrictive legend set forth in Section 6.8 above, except that such certificate shall not bear such restrictive legend if, in the opinion of counsel for such holder and Fluidigm, such legend is not required in order to establish compliance with any provisions of the Securities Act or this Agreement.

6.10 Standoff Agreement. UABRF agrees in connection with Fluidigm's initial sale of securities pursuant to an effective registration statement, upon notice by Fluidigm or the underwriters managing such offering, not to sell, make any short sale of, loan, pledge (or

otherwise encumber or hypothecate), grant any option for the purchase of, or otherwise directly or indirectly dispose of any Securities (other than those included in the registration) without the prior written consent of Fluidigm and such managing underwriters for such period of time as Fluidigm's Board of Directors establishes pursuant to its good faith negotiations with such managing underwriters; provided, however that:

(i) such agreement shall not exceed one hundred eighty (180) days;

(ii) such agreement shall not apply to transfers to an affiliate, provided that such affiliate agrees to be bound by the terms of such agreement, to the same extent as if such transferee were the original party thereunder;

(iii) UABRF shall not be subject to such agreement unless (A) all executive officers and directors of Fluidigm, (B) all shareholders of Fluidigm holding more than 1% of Fluidigm's outstanding capital stock and (C) all holders of registration rights, are subject to or obligated to enter into similar agreements; and

(iv) if and when any person identified in clause (iii) is released, in whole or in part, from such agreement (whether or not such release is contemplated at the time of the offering) or if any such agreement is terminated, UABRF shall be concurrently released on a pro rata basis based on the number of Securities held by such person and UABRF.

(b) UABRF agrees that prior to the initial public offering it will not transfer securities of Fluidigm unless each transferee agrees in writing to be bound by all of the provisions of this Section 6.10, provided that this Section 6.10 shall not apply to transfers pursuant to a registration statement.

UABRF hereby consents to the placement of stop transfer orders with Fluidigm's transfer agent in order to enforce the foregoing provision and agrees to execute a market standoff agreement with said underwriters in customary form consistent with the provisions of this Section 6.10.

ARTICLE VII

COVENANTS OF OCULUS

7.1 Conduct of Business. During the period from the date of this Agreement to the Closing, Oculus will conduct its business in the ordinary course consistent with past practices. During the period from the date of this Agreement to the Closing, Oculus will not without the prior written consent of Fluidigm:

(a) encumber or permit to be encumbered any of the Technology or Assigned Rights;

(b) dispose of any of the Technology or Assigned Rights;

(c) waive or release any right or claim relating to any Technology or Assigned Rights; or

(d) agree to do any of the things described in the preceding clauses of this Section 7.1.

Fluidigm agrees that the foregoing restrictions will not prevent Oculus from entering into a settlement agreement with Syrrx to settle the Lawsuit, provided that such settlement does not involve the sale, transfer or assignment of the Technology or the Assigned Rights, or any rights in any of the foregoing, or result in the creation of any Encumbrance on the Technology, the Assigned Rights, or any rights in any of the foregoing.

7.2 Access to Information. Until the earlier of the termination of this Agreement or the Closing, Oculus will allow Fluidigm and its agents reasonable access upon reasonable notice and during normal working hours to its files, books, records, and offices relating to the Technology and Assigned Rights, except where prohibited by contract or protected by privilege. In furtherance of the above, Fluidigm and its counsel and advisors shall have reasonable access during normal business hours to pertinent contracts of Oculus, including an unsigned final version of the settlement agreement between Oculus and Syrrx related to the Lawsuit, and drafts of such settlement agreement (to the extent it is permissible under applicable confidentiality terms and with the understanding that Oculus may be required to obtain the return or destruction by Fluidigm of the final version and drafts of such settlement agreement prior to its execution), as well as all scientific notebooks, invention records and other documents related to the conception and reduction to practice and prosecution of the patent filings listed on Exhibit D, including, without limitation, all patent searches, patent file wrappers, legal and scientific investigations and research related to the Technology, the License Agreement and the New License Agreement.

7.3 Regulatory Approvals. Prior to the Closing, Oculus will execute and file, or join in the execution and filing of, any application or other document that may be reasonably necessary in order to obtain the authorization, approval or consent of any governmental entity that may be required in connection with the consummation of the transactions contemplated by this Agreement. Oculus will use commercially reasonable efforts to obtain all such authorizations, approvals and consents.

7.4 Satisfaction of Conditions Precedent. Oculus will use commercially reasonable efforts to satisfy or cause to be satisfied all the conditions precedent to the Closing hereunder, and to cause the transactions contemplated hereby to be consummated, and, without limiting the generality of the foregoing, to obtain all consents and authorizations of third parties and to make all filings with, and give all notices to, third parties which may be necessary or reasonably required on its part in order to effect the transactions contemplated hereby.

ARTICLE VIII

COVENANTS OF UABRF

8.1 Conduct of Business. During the period from the date of this Agreement to the Closing, UABRF will not without the prior written consent of Fluidigm:

(a) encumber or permit to be encumbered any of the Technology;

(b) dispose of any of the Technology;

(c) waive or release any right or claim relating to any Technology; or

(d) agree to do any of the things described in the preceding clauses of this Section 8.1.

Fluidigm agrees that the foregoing restrictions will not prevent UABRF from consenting to a settlement agreement between Oculus and Syrrx to settle the Lawsuit, provided that such settlement does not involve the sale, transfer or assignment of the Technology or the Assigned Rights, or any rights in any of the foregoing, or result in the creation of any Encumbrance on the Technology, the Assigned Rights, or any rights in any of the foregoing.

8.2 Access to Information. Until the earlier of the termination of this Agreement or the Closing, UABRF will allow Fluidigm and its agents reasonable access upon reasonable notice and during normal working hours to its files, books, records, and offices relating to the Technology and Assigned Rights, except where prohibited by contract or protected by privilege. In furtherance of the above, Fluidigm and its counsel and advisors shall have reasonable access during normal business hours to pertinent scientific notebooks, invention records and other documents related to the conception and reduction to practice and prosecution of the patent filings listed on Exhibit D, including, without limitation, all patent searches, patent file wrappers, legal and scientific investigations and research related to the Technology, the License Agreement and the New License Agreement.

8.3 Regulatory Approvals. Prior to the Closing, UABRF will execute and file, or join in the execution and filing of, any application or other document that may be reasonably necessary in order to obtain the authorization, approval or consent of any governmental entity that may be required in connection with the consummation of the transactions contemplated by this Agreement. UABRF will use commercially reasonable efforts to obtain all such authorizations, approvals and consents.

8.4 Satisfaction of Conditions Precedent. UABRF will use commercially reasonable efforts to satisfy or cause to be satisfied all the conditions precedent to the Closing hereunder, and to cause the transactions contemplated hereby to be consummated, and, without limiting the generality of the foregoing, to obtain all consents and authorizations of third parties and to make all filings with, and give all notices to, third parties which may be necessary or reasonably required on its part in order to effect the transactions contemplated hereby.

ARTICLE IX

COVENANTS OF FLUIDIGM

9.1 Regulatory Approvals. Prior to the Closing, Fluidigm will execute and file, or join in the execution and filing of, any application or other document that may be reasonably necessary in order to obtain the authorization, approval or consent of any governmental entity that may be required in connection with the consummation of the transactions contemplated by this Agreement. Fluidigm will use its commercially reasonable efforts to obtain all such authorizations, approvals and consents.

9.2 Satisfaction of Conditions Precedent. Fluidigm will use commercially reasonable efforts to satisfy or cause to be satisfied all the conditions precedent to the Closing hereunder, and to cause the transactions contemplated hereby to be consummated, and, without limiting the generality of the foregoing, to obtain all consents and authorizations of third parties and to make all filings with, and give all notices to, third parties which may be necessary or reasonably required on its part in order to effect the transaction contemplated hereby.

ARTICLE X

MUTUAL COVENANTS

10.1 Confidentiality. The parties acknowledge that the Confidential Disclosure Agreement dated as of October 8, 2002 between Fluidigm and Oculus and the Confidential Disclosure Agreement dated December 19, 2002 between Fluidigm, Oculus and UABRF are binding upon the parties hereto and in full force and effect, except to the extent that the provisions hereof supersede provisions to similar effect contained in the Confidential Disclosure Agreements. The terms of the Confidential Disclosure Agreements (exclusive of such superseded provisions) are incorporated in this Agreement by this reference.

10.2 Publicity. Except as may otherwise be required by law, none of the parties hereto shall make or cause to be made any public announcements in respect of this Agreement or the transactions contemplated herein or otherwise communicate with any news media without the prior written consent of the other party, provided, however, that following the Closing Fluidigm may issue a press release to announce the closing of the transactions contemplated hereby and the execution and delivery of the New License Agreement and Sponsored Research Agreement with UABRF provided that such press release shall not be issued prior to the execution by Syrrx of a settlement agreement with Oculus to settle the litigation described in Schedule 4.6 but in any event the press release may be issued no later than 30 days from the execution date of the New License Agreement. Except for the press release issued by Fluidigm, none of the parties hereto will make any public disclosure prior to the Closing or with respect to the Closing unless all parties agree on the text and timing of such public disclosure, except as required by law. Nothing contained in this Section shall prevent any party at any time from furnishing any information pursuant to the requirements of any governmental entity; provided, however, that if such party is required to furnish such information, it will provide a copy to the other parties.

10.3 Governmental Filings. As promptly as practicable after the execution of this Agreement, each party shall make any and all governmental filings required with respect to the transactions contemplated in this Agreement and the Ancillary Documents.

ARTICLE XI

CONDITIONS TO CLOSING

11.1 Conditions to Each Party's Obligations. The respective obligations of each party to effect the transactions to be performed by such party at the Closing are subject to the satisfaction at or prior to the Closing of the following conditions any of which may be waived in writing by each party:

(a) No order shall have been entered, and not vacated, by a court or administrative agency of competent jurisdiction, in any action or proceeding which enjoins, restrains or prohibits the sale of the Assigned Rights, the grant of rights under the New License Agreement or the consummation of any other transaction contemplated hereby.

(b) All permits, authorizations, approvals and orders required to be obtained under all applicable statutes, codes, ordinances, rules and regulations in connection with the transactions contemplated hereby shall have been obtained and shall be in full force and effect at the Closing Date.

(c) There shall be no litigation pending or threatened by any regulatory body or private party in which (i) an injunction is or may be sought against the transactions contemplated hereby, or (ii) relief is or may be sought against any party hereto as a result of this Agreement and in which, in the good faith judgment of the Board of Directors of either Fluidigm, Oculus or UABRF (relying on the advice of their respective legal counsel), such regulatory body or private party has the probability of prevailing and such relief would have a material adverse affect upon such party.

11.2 Conditions to Obligations of Oculus and UABRF. The obligations of Oculus and UABRF to effect the transactions to be performed by Oculus and UABRF at the Closing are subject to the satisfaction at or prior to the Closing of the following additional conditions any of which may be waived in writing by Oculus and UABRF:

(a) All of the representations and warranties of Fluidigm set forth in Article V hereof shall be true in all material respects on and as of the Closing Date with the same force and effect as if they had been made at the Closing, except for changes contemplated by this Agreement.

(b) All of the terms, covenants and conditions of this Agreement to be complied with and performed by Fluidigm at or prior to the Closing shall have been duly complied with and performed in all material respects.

11.3 Conditions to Obligations of Fluidigm. The obligations of Fluidigm to effect the transactions to be performed by it at the Closing are subject to the satisfaction at or prior to the Closing of the following additional conditions any of which may be waived in writing by Fluidigm:

(a) All of the representations and warranties of Oculus and UABRF set forth in Articles IV and VI hereof shall be true in all material respects on and as of the Closing Date with the same force and effect as if they had been made at the Closing, except for changes contemplated by this Agreement.

(b) All of the terms, covenants and conditions of this Agreement to be complied with and performed by Oculus and UABRF at or prior to the Closing shall have been duly complied with and performed in all material respects.

(c) All required consents from third parties required to allow the consummation of the sale of the Assigned Rights, the grant of rights under the New License

Agreement and the other transactions contemplated hereby shall have been obtained and delivered to Fluidigm.

(d) Fluidigm shall have received an opinion from the attorney(s) prosecuting the patent filings listed on Exhibit D, in form and substance reasonably acceptable to Fluidigm, as to the following matters: (i) assignments of the inventions covered by the patent filings to UABRF have been properly filed with the United States Patent and Trademark Office ("USPTO"), (ii) UABRF is named as the sole owner of the inventions covered by the patent filings listed on Exhibit D, (iii) a declaration of interference was timely requested with at least one of the pending U.S. patent applications listed on Exhibit D and U.S. Patent No. 6,296,673 with the USPTO in accordance with U.S.C. Section 135, (iv) none of the patents listed on Exhibit D have been held to be permanently revoked, unenforceable or invalid by a decision of a court or other governmental agency of competent jurisdiction, unappealable or unappealed within the time allowed for appeal, and none of the patents listed on Exhibit D have been admitted to be invalid or unenforceable through reissue or disclaimer or otherwise, and (v) the patent applications listed on Exhibit D were filed in good faith and have not been abandoned or finally disallowed without the possibility of appeal or refiling of such application.

ARTICLE XII

POST-CLOSING MATTERS

12.1 Additional Payments by Fluidigm. In addition to the consideration delivered by Fluidigm at the Closing, Fluidigm will pay the following amounts to UABRF upon the achievement of the following milestones:

(a) Milestone 1. Milestone 1 shall be satisfied [***]. Within [***] days after [***], Fluidigm will issue shares of its stock having a value of [***] (based on the fair value of the stock at the time Milestone 1 is achieved), subject to compliance with applicable securities laws.

(b) Milestone 2. Milestone 2 shall be satisfied [***]. Within [***] days after [***], Fluidigm will issue shares of its stock having a value of [***] (based on the fair value at the time Milestone 2 is achieved), subject to compliance with applicable securities laws. In addition, (i) [***]

[***]

(c) Stock to be Issued. If Fluidigm is a private company at the time a milestone is achieved, upon achievement of a milestone Fluidigm will issue shares of the series of Fluidigm Preferred Stock that was issued in Fluidigm's most recent financing and the shares will be valued at the price at which the shares were sold in such financing. If Fluidigm is a public company at the time a milestone is achieved, upon achievement of a milestone Fluidigm will issue shares of Fluidigm Common Stock and the shares will be valued at the average closing price of Fluidigm's Common Stock over the five trading days preceding the achievement of the milestone.

12.2 Settlement of Lawsuit. If the Lawsuit has not been settled or dismissed as of the Closing Date:

(a) Oculus agrees that Fluidigm and its counsel and advisors shall have reasonable access during normal business hours to the final version of the settlement agreement between Oculus and Syrrx related to the Lawsuit, and drafts of such settlement agreement (to the extent permissible under applicable confidentiality terms), in the manner contemplated by Section 7.2 of this Agreement, until the Lawsuit is settled or dismissed.

(b) Oculus and UABRF agree that if a settlement agreement related to the Lawsuit is entered into after the Closing Date, the settlement will not involve the sale, transfer or assignment of the Technology or the Assigned Rights, or any rights in any of the foregoing, or result in the creation of any Encumbrance on the Technology, the Assigned Rights, or any rights in any of the foregoing.

ARTICLE XIII

TERMINATION OF AGREEMENT

13.1 Termination by Fluidigm. This Agreement may be terminated at any time before the Closing by action of the Board of Directors of Fluidigm upon written notice to Oculus and UABRF, specifying the basis for such termination, if (i) Oculus or UABRF shall have breached in any material respect any of their covenants or agreements contained in this Agreement, or (ii) any representation or warranty of Oculus or UABRF contained in this Agreement shall have been materially inaccurate.

13.2 Termination by UABRF. This Agreement may be terminated at any time before the Closing by action of the Board of Directors or other governing body of UABRF upon written notice to Fluidigm, specifying the basis for such termination, if (i) Fluidigm shall have breached in any material respect any of its covenants or agreements contained in this Agreement, or (ii) any representation or warranty of Fluidigm contained in this Agreement shall have been materially inaccurate.

13.3 Mutual Consent. This Agreement may be terminated at any time before the Closing, by the mutual written consent of Fluidigm, Oculus and UABRF.

13.4 Effect of Termination. Upon any termination of this Agreement, all parties hereto shall be relieved of all further obligations under this Agreement, except for the provisions of Section 2.5 regarding the assignment by Oculus to Fluidigm of Assigned Rights, together with all patent rights and all other intellectual property rights therein, Section 15.6 regarding the payment of certain expenses and Section 10.1 regarding the continuing obligations of the parties under the Confidential Disclosure Agreements.

ARTICLE XIV

SURVIVAL OF REPRESENTATIONS AND WARRANTIES

14.1 Survival of Representations and Warranties. The representations and warranties set forth in this Agreement shall survive the Closing for a period equal to the greater of 12 months after the Closing Date or the date on which both Milestones specified in Section 12.1 have been achieved. After the expiration of such period, such representations and warranties shall expire and be of no further force and effect.

ARTICLE XV

GENERAL

15.1 Governing Law. It is the intention of the parties hereto that the internal laws of the State of California (irrespective of its choice of law principles) shall govern the validity of this Agreement, the construction of its terms, and the interpretation and enforcement of the rights and duties of the parties hereto; provided, however, that any disputes involving UABRF shall be governed by the internal laws of the State of Alabama (irrespective of its choice of law principles and any disputes involving UABRF shall be resolved Birmingham, Alabama in accordance with the provisions of Section 15.11 and UABRF shall have the right to raise all of the defenses available to the University of Alabama at Birmingham.

15.2 Assignment; Binding upon Successors and Assigns. None of the parties hereto may assign any of its rights or obligations hereunder (whether by operation of law or otherwise) without the prior written consent of the other party; provided, however, that any party may assign its rights and obligations under covenants and agreements to be performed after the Closing in connection with the sale of all or substantially all of such party's business. This Agreement will be binding upon and inure to the benefit of the parties hereto and their respective permitted successors and assigns.

15.3 Severability. If any provision of this Agreement, or the application thereof, becomes or is declared by a court of competent jurisdiction to be illegal, void or unenforceable, the remainder of this Agreement will continue in full force and effect and the application of such provision to other persons or circumstances shall be interpreted so as best to reasonably effect the intent of the parties hereto. The parties further agree to replace such illegal, void or unenforceable provision of this Agreement with a valid and enforceable provision which will achieve, to the extent possible, the economic, business and other purposes of the illegal, void or unenforceable provision.

15.4 Entire Agreement. This Agreement (including the Exhibits and Schedules hereto) the Ancillary Agreements, the documents and instruments and other agreements among the parties hereto referenced herein and therein, and the exhibits thereto, constitute the entire understanding and agreement of the parties hereto with respect to the subject matter hereof and thereof and supersede all prior and contemporaneous agreements or understandings, inducements or conditions, express or implied, written or oral, between the parties with respect hereto and thereto including, without limitation, the Letter Agreement. To the extent that any provision of this Agreement conflicts with any provision of the New License Agreement or the Sponsored Research Agreement between Fluidigm and UABRF, the applicable provision of the New License Agreement or the Sponsored Research Agreement, as the case may be, shall control and supersede the applicable provision of this Agreement.

15.5 Counterparts. This Agreement may be executed in any number of counterparts, each of which shall constitute an original and all of which together shall constitute one and the same instrument.

15.6 Expenses.

(a) The parties shall each pay their own legal, accounting and financial advisory fees and other out-of-pocket expenses incurred incident to the negotiation, preparation and carrying out of this Agreement and the transactions herein contemplated, whether or not the transactions contemplated hereby are consummated.

(b) Each party shall indemnify the other against, and agrees to hold the other harmless from, all liabilities and expenses (including reasonable attorneys' fees) in connection with any claim by any person for compensation as a broker, finder or in any similar capacity, by reason of services allegedly rendered to the indemnifying party in connection with the transactions contemplated hereby.

15.7 Other Remedies. Except as otherwise provided herein, any and all remedies herein expressly conferred upon a party shall be deemed cumulative with and not exclusive of any other remedy conferred hereby or by law on such party, and the exercise of any one remedy shall not preclude the exercise of any other.

15.8 Amendment. Any term or provision of this Agreement may be amended by a written instrument signed by Fluidigm, Oculus and UABRF; provided that any term or provision that pertains only to UABRF and Fluidigm may be amended by a written instrument signed by UABRF and Fluidigm.

15.9 Waiver. Any party hereto may, by written notice to the other party: (i) waive any of the conditions to its obligations hereunder or extend the time for the performance of any of the obligations or actions of another party; (ii) waive any inaccuracies in the representations of another party contained in this Agreement or in any documents delivered pursuant to this Agreement; (iii) waive compliance with any of the covenants of the other contained in this Agreement; or (iv) waive or modify performance of any of the obligations of another party. Except as specifically contemplated by this Agreement, no action taken pursuant to this Agreement, including without limitation any investigation by or on behalf of any party, shall be

deemed to constitute a waiver by the party taking such action of compliance with any representation, warranty, condition or agreement contained herein. Waiver of the breach of any one or more provisions of this Agreement shall not be deemed or construed to be a waiver of other breaches or subsequent breaches of the same provisions.

15.10 Informal Resolution. In the event of any controversy or claim arising under this Agreement, officers or comparable officials of UABRF, Oculus and Fluidigm shall promptly meet and attempt in good faith to reach a resolution of such controversy or claim.

15.11 Mediation. Any controversy or claim between any of the parties hereto arising out of or relating to this Agreement that is not resolved by the parties within thirty (30) days after delivery of notice of such controversy or claim, upon written notice of either Fluidigm, Oculus or UABRF, shall be submitted for resolution by mediation in accordance with commercial mediation guidelines. Any mediation proceeding shall be conducted in the County of Cook, City of Chicago, in the State of Illinois. The mediation shall be concluded within a ninety (90) day period after notice.

15.12 Notices. All notices and other communications hereunder will be in writing and will be deemed given (i) upon receipt if delivered personally (or if mailed by registered or certified mail), (ii) the next business day after dispatch if sent by overnight delivery service, (iii) upon dispatch if transmitted by facsimile (and confirmed by a copy delivered in accordance with clause (i) or (ii)), properly addressed to the parties at the following addresses:

Fluidigm:	Fluidigm Corporation 7100 Shoreline Court South San Francisco, CA 94080 Attention: President Facsimile No.: (650) 871-7192
with a copy to:	Fluidigm Corporation 7100 Shoreline Court South San Francisco, CA 94080 Attention: General Counsel Facsimile No.: (650) 871-7195
Oculus:	Oculus Pharmaceuticals, Inc. 1601 12th Avenue South Birmingham, AL 35205 Attention: B.J. Lehman Facsimile No: (216) 361-9495 and Oculus Pharmaceuticals, Inc. 3201 Carnegie Avenue Cleveland, OH 44115 Attention: B.J. Lehman Facsimile No.: (216) 361-9495

UABRF: The UAB Research Foundation
1120G Administration Building
701 20th Street South
Birmingham, AL 35294-0111
Attention: Director
Facsimile No.: (205) 975-5560

Any party may change its address for such communications by giving notice thereof to the other party in conformity with this Section.

15.13 Construction and Interpretation of Agreement.

(a) This Agreement has been negotiated by the parties hereto and their respective attorneys, and the language hereof shall not be construed for or against any party.

(b) The titles and headings herein are for reference purposes only and shall not in any manner limit the construction of this Agreement, which shall be considered as a whole.

(c) Any reference to a "material adverse effect" with respect to any entity or group of entities means a material adverse effect on the business, assets (including intangible assets), financial condition, properties, liabilities, results of operations or prospects of such entity.

(d) Any reference to a party's "knowledge means such party's actual knowledge after reasonable inquiry of its directors, officers and other management level employees that have responsibility for the referenced matters.

(e) When reference is made to a Section or Article, such reference shall be to a Section or Article of the Agreement, unless otherwise indicated.

15.14 No Joint Venture. Nothing contained in this Agreement shall be deemed or construed as creating a joint venture or partnership between any of the parties hereto. No party is by virtue of this Agreement authorized as an agent, employee or legal representative of any other party. No party shall have the power to control the activities and operations of any other and their status is, and at all times, will continue to be, that of independent contractors with respect to each other. No party shall have any power or authority to bind or commit any other. No party shall hold itself out as having any authority or relationship in contravention of this Section.

15.15 Absence of Third Party Beneficiary Rights. No provisions of this Agreement are intended, nor shall be interpreted, to provide or create any third party beneficiary rights or any other rights of any kind in any client, customer, affiliate, shareholder, partner of any party hereto or any other person or entity unless specifically provided otherwise herein, and, except as so provided, all provisions hereof shall be personal solely between the parties to this Agreement.

15.16 Further Assurances. In connection with this Agreement and the transactions contemplated hereby, each party shall execute and deliver any additional documents and instruments and perform any additional acts that may be reasonably necessary or appropriate to effectuate and perform the provisions of this Agreement and such transactions and the intention of the parties.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first set forth above.

FLUIDIGM CORPORATION

By: /s/ Gajus Worthington

Title: President & CEO

OCULUS PHARMACEUTICALS, INC.

By: /s/ (ILLEGIBLE)

Title: President & CEO

THE UAB RESEARCH FOUNDATION

By: /s/ (ILLEGIBLE)

Title: Director

Acknowledged and agreed to
this March 7, 2003.

/s/ Dr. Larry DeLucas
Dr. Larry DeLucas

SCHEDULE 4.6

[***]

EXHIBIT A

Amended and Restated
Articles of Incorporation of Fluidigm

EXHIBIT B

Form of New License Agreement

EXHIBIT C

Form of Sponsored Research Agreement

EXHIBIT D

PATENTS AND PATENT APPLICATIONS

[***]

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.9A

8805. LICI.001
UAB Research Foundation

LICENSE AGREEMENT

THIS LICENSE AGREEMENT (this "Agreement") dated as of March 7, 2003 (the "Effective Date"), is entered into between The UAB Research Foundation, an Alabama not for profit organization ("UABRF"), having a place of business at 1120G Administration Building, 704 20th Street, Birmingham, Alabama 35294, and Fluidigm Corporation, a California corporation ("Fluidigm"), having a place of business at 7100 Shoreline Court, South San Francisco, California 94080.

WHEREAS, UABRF owns or has rights in certain technology regarding nanovolume crystallization arrays.

WHEREAS, UABRF and Oculus Pharmaceuticals, Inc. ("Oculus") have entered into that certain License Agreement dated as of September 21, 2001 ("Oculus Agreement") pursuant to which UABRF has granted to Oculus an exclusive license to the Oculus Agreement Technology (as defined below), on the terms and conditions of the Oculus Agreement.

WHEREAS, UABRF and Oculus have terminated the Oculus Agreement effective as of January 30, 2003.

WHEREAS, UABRF has licensed to Diversified Scientific, Inc. ("DSI") rights in certain other technology, which certain technology is identified in the attached Exhibit A ("UABRF/DSI Technology").

WHEREAS, DSI is performing certain research pursuant to one or more grants, existing as of December 19, 2002, between UAB (as defined below) and DSI under Defense Small Business Innovation Research Program.

WHEREAS, Fluidigm desires to obtain an exclusive worldwide license under the Licensed IP Rights (as defined below), on the terms and conditions of this Agreement.

NOW, THEREFORE, in consideration of the foregoing premises and the mutual covenants herein contained, the parties agree as follows:

1. DEFINITIONS

1.1 "Affiliate" shall mean, with respect to any Person, any other Person which directly or indirectly controls, is controlled by, or is under common control with, such Person. A Person shall be regarded as in control of another Person if it owns, or directly or indirectly controls, at least forty percent (40%) of the voting stock or other ownership interest of the other Person, or if it directly or indirectly possesses the power to direct or cause the direction of the management and policies of the other Person by any means whatsoever.

1.2 "Confidential Information" shall mean, with respect to a party, all information of any kind whatsoever, and all tangible and intangible embodiments thereof of any

kind whatsoever, which is disclosed by such party to the other party and is marked, identified as or otherwise acknowledged to be confidential at the time of disclosure to the other party. Notwithstanding the foregoing, Confidential Information of a party shall not include information which the other party can establish by written documentation (a) to have been publicly known prior to disclosure of such information by the disclosing party to the other party, (b) to have become publicly known, without fault on the part of the other party, subsequent to disclosure of such information by the disclosing party to the other party, (c) to have been received by the other party at any time from a source, other than the disclosing party, rightfully having possession of and the right to disclose such information, (d) to have been otherwise known by the other party prior to disclosure of such information by the disclosing party to the other party, or (e) to have been independently developed by employees or agents of the other party without access to or use of such information disclosed by the disclosing party to the other party.

1.3 "Fluidigm Series C Preferred Stock" shall have the meaning set forth in Section 1.9 of the Master Closing Agreement.

1.4 "Licensed IP Rights" shall mean, collectively, the Licensed Patent Rights and the Licensed Know-How Rights.

1.5 "Licensed Know-How Rights" shall mean all trade secret and other know-how rights in all information and data disclosed on or before the Effective Date that (i) is not generally known (including, but not limited to, information and data regarding formulae, procedures, protocols, techniques and results of experimentation and testing), (ii) is developed by Dr. Larry DeLucas in his capacity as a UAB faculty member or by UAB personnel under the scientific direction and scientific supervision of Dr. Larry DeLucas, and (iii) is necessary or useful for Fluidigm to research, develop, make, use, sell or seek regulatory approval to market a composition, or to practice any method or process, at any time (a) comprising the Oculus Agreement Technology or (b) claimed or covered by in any issued patent or pending patent application within the Licensed Patent Rights.

1.6 "Licensed Patent Rights" shall mean (a) those certain patent applications and patents listed on Exhibit B hereto; (b) all patent applications heretofore or hereafter filed or having legal force in any country which claim any Oculus Agreement Technology; (c) all patents that have issued or in the future issue from the patent applications described in clauses (a) and (b) of this Section 1.6, including utility, model and design patents and certificates of invention; and (d) all divisionals, continuations, continuations-in-part, reissues, renewals, extensions or additions to any such patent applications and patents.

1.7 "Master Closing Agreement" shall mean a Master Closing Agreement between Fluidigm, UABRF and Oculus of even date hereof.

1.8 "NanoScreen Patent Rights" shall mean (a) those certain patent applications and patents listed on Exhibit B hereto; (b) all patents that have issued or in the future issue from any such patent applications, including utility, model and design patents and certificates of invention; and (c) all divisionals, continuations, continuations-in-part, reissues, renewals, extensions or additions to any such patent applications and patents.

1.9 “Oculus Agreement Technology” shall mean collectively, the technology, processes, inventions, trade secrets, know-how and other proprietary property described in Exhibit C hereto.

1.10 “Person” shall mean an individual, corporation, partnership, limited liability company, trust, business trust, association, joint stock company, joint venture, pool, syndicate, sole proprietorship, unincorporated organization, governmental authority or any other form of entity not specifically listed herein.

1.11 “Third Party” shall mean any Person other than UABRF, Fluidigm and their respective Affiliates.

1.12 “UAB” shall mean the University of Alabama at Birmingham.

1.13 “UABRF/DSI License Agreements” shall mean, collectively, [***].

1.14 “UAB Related Entities” shall mean and include UAB, UABRF, University Hospital, The University of Alabama Health Services Foundation (“UAHSF”), Southern Research Institute and all other entities within the UAB Medical Center, which are under the control of the Board of Trustees of The University of Alabama or are associated with said Board of Trustees through an affiliation agreement.

2. REPRESENTATIONS AND WARRANTIES

2.1 Mutual Representations and Warranties Each party hereby represents and warrants to the other party as follows:

2.1.1 Corporate Existence. Such party is a corporation duly organized, validly existing and in good standing under the laws of the state in which it is incorporated.

2.1.2 Authorization and Enforcement of Obligations. Such party (a) has the corporate power and authority and the legal right to enter into this Agreement and to perform its obligations hereunder, and (b) has taken all necessary corporate action on its part to authorize the execution and delivery of this Agreement and the performance of its obligations hereunder. This Agreement has been duly executed and delivered on behalf of such party, and constitutes a legal, valid, binding obligation, enforceable against such party in accordance with its terms.

2.1.3 No Consents. All necessary consents, approvals and authorizations of all governmental authorities and other Persons required to be obtained by such party in connection with this Agreement have been obtained.

2.1.4 No Conflict. The execution and delivery of this Agreement and the performance of such party’s obligations hereunder (a) do not conflict with or violate any

requirement of applicable laws or regulations, and (b) do not conflict with, or constitute a default under, any contractual obligation of it.

2.2 UABRF Representations and Warranties. UABRF represents and warrants to Fluidigm as follows:

2.2.1 Ownership. UABRF is the sole owner of the Licensed IP Rights (other than those listed under Item No. 3 of Exhibit B), and as of the Effective Date has no knowledge of any Third Party having any license or other interest in such Licensed IP Rights. UABRF shall use its commercially reasonable efforts to provide Fluidigm with (a) evidence of UABRF's sole ownership of those Licensed IP Rights listed under Item No. 3 of Exhibit B, and (b) a letter from DSI to Fluidigm stating that DSI has no license or other interest in NanoScreen Patent Rights except to the extent necessary for DSI to perform its research obligations pursuant to the SBIR Grants (as defined below).

2.2.2 No Injunction. No action, suit or proceeding before any court or government body is instituted (or is pending) by any government authority or any other Person to restrain or prohibit this Agreement or the consummation of the transactions contemplated hereby. No preliminary or permanent injunction or other order issued by any federal or state court of competent jurisdiction preventing this Agreement or the consummation of the transactions contemplated hereby is in effect.

2.2.3 No Infringement. As of the Effective Date, UABRF and Dr. Larry DeLucas (a) are not aware of any Third Party patent, patent application or other intellectual property rights that would be infringed by practicing any process or method or by making, using or selling any composition which is claimed or disclosed in the Licensed Patent Rights or which constitutes Licensed Know-How Rights; (b) are not aware of any infringement or misappropriation by a Third Party of the Licensed IP Rights; and (c) are not aware of any license or other right granted to DSI or any other Third Party under the NanoScreen Patent Rights. Provided however, UABRF has disclosed to Fluidigm the potential infringement by DSI of the Licensed IP Rights to the extent necessary for DSI to perform its research obligations pursuant to one or more grants (the "SBIR Grants"), existing as of December 19, 2002, between UAB and DSI under the Defense Small Business Innovation Research (SBIR) Program, with the understanding that neither DSI nor any other third party would have the right to commercialize any results of such SBIR grants that would infringe the Licensed IP Rights without first obtaining a license from Fluidigm under the Licensed IP Rights. Not later than ten (10) days following the Effective Date, UABRF shall provide Fluidigm with copies of all documents and instruments relating to such SBIR Grants.

3. LICENSE GRANT

3.1 Licensed IP Rights. UABRF hereby grants to Fluidigm an exclusive, perpetual, irrevocable, royalty-free, worldwide license (including the right to grant sublicenses) under the Licensed IP Rights. The license grant under the Licensed IP Rights (other than the NanoScreen Patent Rights) is subject to the licenses previously and expressly granted by UABRF to DSI pursuant to the UABRF/DSI License Agreements regarding the UABRF/DSI Technology only to the extent necessary for DSI to exercise its license rights under the

UABRF/DSI Technology granted thereunder. The license grant under the NanoScreen Patent Rights is not subject to any previously granted licenses other than those certain rights which may have been granted to DSI to the extent necessary for DSI to perform its research obligations pursuant to the SBIR Grants. To the extent any of the rights, title and interest in and to the Licensed IP Rights can be neither assigned nor licensed by UABRF to Fluidigm without (a) the consent of, or (b) breach by UABRF of any agreement with, any Third Party, UABRF hereby irrevocably waives and agrees never to assert such non-assignable and non-licensable rights, title and interest against Fluidigm or any of Fluidigm's successors in interest to such non-assignable and non-licensable rights during the term of this Agreement.

3.2 Sublicenses. Fluidigm shall not sublicense the Licensed IP Rights prior to the first (1st) anniversary of the Effective Date except in connection with settlement of any action or claim relating to the technology that is the subject of the Licensed IP Rights. Fluidigm shall give UABRF prompt written notice of each sublicense under this Agreement. Each sublicense shall be subject to the terms and conditions of this Agreement.

3.3 Availability of the Licensed IP Rights. UABRF shall provide Fluidigm with all information available to UABRF regarding the Licensed IP Rights.

3.4 Reservation of Rights.

3.4.1 Research Use. UABRF hereby retains the right to, and this Agreement shall not limit UABRF's ability to, utilize the Licensed IP Rights for internal research, academic and educational purposes at UAB, UAB Related Entities and academic institution collaborators of UAB, for patient care at UAB and UAB Related Entities, and/or for the performance of services for for-profit or not-for-profit institutions.

3.4.2 Obligations to U.S. Government. UABRF agrees that during the term of this Agreement UABRF shall not use the Licensed IP Rights in any manner except for internal research, academic and educational purposes at UAB, UAB Related Entities and academic institution collaborators of UAB, for patient care at UAB and UAB Related Entities, and/or for the performance of services for for-profit or not-for-profit institutions as provided in Section 3.4.1 above and as may be necessary or appropriate to fulfill the obligations of UABRF or UAB under the National Institutes of Health ("NIH") grant used to fund the research resulting in the development of certain portion of the Licensed IP Rights. In determining the actions required under such grant, UABRF shall consult with Fluidigm and keep Fluidigm informed, but UABRF shall have the ultimate right to determine the necessary and appropriate actions relative thereto. UABRF's rights to the Licensed IP Rights for use in fulfilling UAB's obligations under the NIH grant shall only relate to those portions of the Licensed IP Rights funded by such NIH grant.

3.5 Non-Assertion Covenant. To the extent the research activities of DSI conducted in accordance with the SBIR Grants infringe the rights granted to Fluidigm under this Section 3, Fluidigm agrees not to assert such rights against DSI. Fluidigm agrees not to assert against DSI such rights only to the extent expressly stated herein. No license or other right by Fluidigm in favor of DSI shall be created hereunder by implication, estoppel or otherwise.

4. LICENSE ISSUE FEE

Within thirty (30) days after the Effective Date Fluidigm shall (a) pay UABRF the sum in cash of [***] and (b) issue to UABRF such number of Fluidigm Series C Preferred Stock as provided in Section 2.3 of the Master Closing Agreement.

5. RESEARCH AND DEVELOPMENT OBLIGATIONS

5.1 Research and Development Efforts. Fluidigm shall use commercially reasonable efforts to research, develop and commercialize the Licensed IP Rights as Fluidigm determines commercially feasible. Appendix 1 of the Sponsored Research Agreement sets forth the components of Fluidigm's Topaz System which Fluidigm plans to release commercially.

5.2 Records. Fluidigm shall maintain records, in sufficient detail and in good scientific manner, which shall reflect all work done and results achieved in the performance of its research and development regarding the Licensed IP Rights (including all data in the form required under all applicable laws and regulations).

5.3 Reports. Within ninety (90) days following the end of each calendar year during the term of this Agreement, Fluidigm shall prepare and deliver to UABRF a written summary report which shall describe the research and development of the Licensed IP Rights during such year.

6. CONFIDENTIALITY

6.1 Confidential Information. During the term of this Agreement, and for a period of five (5) years following the expiration or earlier termination hereof, each party shall maintain in confidence all Confidential Information disclosed by the other party, and shall not use, disclose or grant the use of the Confidential Information except on a need-to-know basis to those directors, officers, employees, consultants, clinical investigators, contractors, (sub)licensees, distributors or permitted assignees, to the extent such disclosure is reasonably necessary in connection with such party's activities as expressly authorized by this Agreement. To the extent that disclosure is authorized by this Agreement, prior to disclosure, each party hereto shall obtain agreement of any such person or entity to hold in confidence and not make use of the Confidential Information for any purpose other than those permitted by this Agreement. Each party shall notify the other promptly upon discovery of any unauthorized use or disclosure of the other party's Confidential Information.

6.2 Terms of this Agreement. Except as otherwise provided in Section 6.1 or 6.3, neither party shall disclose any terms or conditions of this Agreement to any third party without the prior consent of the other party. Notwithstanding the foregoing, prior to execution of this Agreement, the parties have agreed upon the substance of information that can be used to describe the terms of this transaction, and each party may disclose such information, as modified by mutual agreement from time to time, without the other party's consent.

6.3 Permitted Disclosures. The confidentiality obligations contained in this Section 6 shall not apply to the extent that the receiving party (the "Recipient") is required (a) to disclose information by law, order or regulation of a governmental agency or a court of

competent jurisdiction, or (b) to disclose information to any governmental agency for purposes of obtaining approval to test or market a product, provided in either case that the Recipient shall provide written notice thereof to the other party and sufficient opportunity to object to any such disclosure or to request confidential treatment thereof.

7. PATENTS

7.1 Prosecution and Maintenance. Fluidigm shall be responsible for and shall control, at its sole cost, the preparation, filing, prosecution, defense (including without limitation prosecution, defense and settlement of any interference or opposition) and maintenance of the Licensed Patent Rights. Fluidigm shall give UABRF an opportunity to review and comment on the text of each patent application within the Licensed Patent Rights before filing, and shall provide UABRF with a copy of such patent application as filed, together with notice of its filing date and serial number. UABRF shall cooperate with Fluidigm, execute all lawful papers and instruments and make all rightful oaths and declarations as may be necessary in the preparation, prosecution and maintenance of the Licensed Patent Rights.

Enforcement.

7.2.1 Each party shall notify the other party of any infringement known to such party of any Licensed Patent Rights and shall provide the other party with the available evidence, if any, of such infringement.

7.2.2 Fluidigm, at its sole expense, shall have the right to determine the appropriate course of action to enforce the Licensed Patent Rights or otherwise abate the infringement thereof, to take (or refrain from taking) appropriate action to enforce the Licensed Patent Rights, to control any litigation or other enforcement action and to enter into, or permit, the settlement of any such litigation or other enforcement action with respect to the Licensed Patent Rights, and shall consider, in good faith, the interests of UABRF in so doing. UABRF shall cooperate with Fluidigm in the execution of any action to enforce the Licensed Patent Rights. Fluidigm shall retain all monies recovered upon the final judgment or settlement of any such suit to enforce the Licensed Patent Rights.

8. TERMINATION

8.1 Expiration. Subject to the provisions of Section 8.2 below, this Agreement shall expire on the expiration of the last to expire of the Licensed Patent Rights. Upon expiration of this Agreement under this Section 8.1, Fluidigm shall have a paid-up, exclusive, worldwide license under the Licensed Know-How Rights.

8.2 Termination by Fluidigm. Fluidigm may terminate this Agreement, in its sole discretion, upon thirty (30) days prior written notice to UABRF. Upon termination of this Agreement by Fluidigm under this Section 8.2, Fluidigm shall have a paid-up, non-exclusive, worldwide license under the Licensed Know-How Rights.

Effect of Expiration or Termination. Expiration or termination of this Agreement shall not relieve the parties of any obligation accruing prior to such expiration or termination, and the provisions of Sections 6, 7 and 9 shall survive the expiration or termination

of this Agreement. Except as the parties otherwise agree in writing, termination of this Agreement shall not affect the Master Closing Agreement.

9. INDEMNIFICATION

9.1 Indemnification. Fluidigm shall defend, indemnify and hold the UABRF harmless from all losses, liabilities, damages and expenses (including reasonable attorneys' fees and costs) resulting from any claims, demands, actions and other proceedings by any Third Party to the extent resulting from Fluidigm's use of the Licensed IP Rights under this Agreement.

9.2 Procedure. UABRF promptly shall notify Fluidigm of any claim, demand, action or other proceeding for which UABRF intends to claim indemnification. Fluidigm shall have the right to participate in, and to the extent Fluidigm so desires jointly with any other indemnitor similarly noticed, to assume the defense thereof with counsel selected by Fluidigm; provided, however, that UABRF shall have the right to retain its own counsel, with the fees and expenses to be paid by UABRF, if representation of UABRF by the counsel retained by Fluidigm would be inappropriate due to actual or potential differing interests between UABRF and any other party represented by such counsel in such proceedings. The indemnity obligations under this Section 9 shall not apply to amounts paid in settlement of any claim, demand, action or other proceeding if such settlement is effected without the prior express written consent of Fluidigm, which consent shall not be unreasonably withheld or delayed. The failure to deliver notice to Fluidigm within a reasonable time after notice of any such claim or demand, or the commencement of any such action or other proceeding, if prejudicial to its ability to defend such claim, demand, action or other proceeding, shall relieve such Indemnitor of any liability to UABRF under this Section 9 with respect thereto, but the omission so to deliver notice to Fluidigm shall not relieve it of any liability that it may have to UABRF other than under this Section 9. Fluidigm may not settle or otherwise consent to an adverse judgment in any such claim, demand, action or other proceeding, that diminishes the rights or interests of UABRF without the prior express written consent of UABRF, which consent shall not be unreasonably withheld or delayed. UABRF, its employees and agents, shall reasonably cooperate with Fluidigm and its legal representatives in the investigation of any claim, demand, action or other proceeding covered by this Section 9.

9.3 Insurance. Fluidigm shall maintain insurance with respect to the research, development and commercialization of products by Fluidigm pursuant to this Agreement in such amount as Fluidigm customarily maintains with respect to the research, development and commercialization of its similar products. Fluidigm shall maintain such insurance for so long as it continues to research, develop or commercialize any products pursuant to this Agreement, and thereafter for so long as Fluidigm customarily maintains insurance covering the research, development or commercialization of its similar products.

10. MISCELLANEOUS

10.1 Notices. Any consent, notice or report required or permitted to be given or made under this Agreement by one of the parties to the other shall be in writing and addressed to such other party at its address indicated below, or to such other address as the addressee shall

have last furnished in writing to the addressor, and shall be effective upon receipt by the addressee.

If to UABRF: UAB Research Foundation
1120G Administration Building
704 20th Street
Birmingham, Alabama 35294
Attention: Director

If to Fluidigm: Fluidigm Corporation
7100 Shoreline Court
South San Francisco, California 94080
Attention: President

with a copy to: Fluidigm Corporation
7100 Shoreline Court
South San Francisco, California 94080
Attention: General Counsel

10.2 Assignment. Except as otherwise expressly provided under this Agreement neither this Agreement nor any right or obligation hereunder may be assigned or otherwise transferred (whether voluntarily, by operation of law or otherwise), without the prior express written consent of the other party; provided, however, that either party may, without such consent, assign this Agreement and its rights and obligations hereunder in connection with the transfer or sale of all or substantially all of its business, or in the event of its merger, consolidation, change in control or similar transaction. Any permitted assignee shall assume all obligations of its assignor under this Agreement. Any purported assignment or transfer in violation of this Section 10.2 shall be void.

10.3 Applicable Law. This Agreement shall be governed by and construed in accordance with the laws of the State of Alabama, without regard to the conflicts of law principles thereof.

10.4 Entire Agreement. This Agreement and the Master Closing Agreement (together with the Ancillary Agreements, as defined in the Master Closing Agreement) contain the entire understanding of the parties with respect to the subject matter hereof. All express or implied representations, agreements and understandings, either oral or written, heretofore made are expressly superseded by this Agreement and the Master Closing Agreement. To the extent that any provision of this Agreement conflicts with any provision of the Sponsored Research Agreement between the parties of even date hereof ("Sponsored Research Agreement"), the applicable provision of this Agreement shall control and supersede the applicable provision of the Sponsored Research Agreement.

10.5 Independent Contractors. Each party hereby acknowledges that the parties shall be independent contractors and that the relationship between the parties shall not constitute a partnership, joint venture or agency. Neither party shall have the authority to make any

statements, representations or commitments of any kind, or to take any action, which shall be binding on the other party, without the prior consent of the other party to do so.

10.6 Waiver. The waiver by a party of any right hereunder, or of any failure to perform or breach by the other party hereunder, shall not be deemed a waiver of any other right hereunder or of any other breach or failure by the other party hereunder whether of a similar nature or otherwise.

10.7 Force Majeure. Neither party shall be held liable or responsible to the other party nor be deemed to have defaulted under or breached this Agreement for failure or delay in fulfilling or performing any term of this Agreement to the extent, and for so long as, such failure or delay is caused by or results from causes beyond the reasonable control of the affected party including but not limited to fire, floods, embargoes, war, acts of war (whether war be declared or not), insurrections, riots, civil commotions, strikes, lockouts or other labor disturbances, acts of God or acts, omissions or delays in acting by any governmental authority or the other party.

10.8 Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the Effective Date.

UAB RESEARCH FOUNDATION

By /s/ (ILLEGIBLE)

Title Director

FLUIDIGM CORPORATION

By /s/ Gajus Worthington

Title President & CEO

Acknowledged and agreed to
this March 7, 2003.

/s/ Dr. Larry DeLucas
Dr. Larry DeLucas

EXHIBIT A

UABRF/DSI TECHNOLOGY

[***]

EXHIBIT B

PATENT RIGHTS

1. [***]
2. [***]
3. [***]

4. [***]
5. [***]

EXHIBIT C

OCULUS AGREEMENT TECHNOLOGY

1. [***]
2. [***]
3. Copies of all documentation describing the foregoing, in particular, drawings, operations manuals.

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.10

COY-15-RISC/F269-1
S05/1-25730208

27 March 2008

Ms Grace Yow
General Manager
Fluidigm Singapore Pte Ltd
Block 1026, #07-3532
Tai Seng Avenue
Singapore 534413

Dear Ms Grace Yow,

APPLICATION FOR INCENTIVES UNDER THE RESEARCH INCENTIVE SCHEME FOR COMPANIES (RISC)

This is with reference to your application of 15 June 2005 and subsequent revisions for incentives under the Research Incentive Scheme for Companies. This letter amends, restates and replaces our original letter agreement dated 7 October 2005 (the "Prior Letter"), provided that the Supplement to the Prior Letter dated 11 January 2006 (the "Supplement") shall remain in full force and effect and all references in the Supplement to the Prior Letter or LOF shall be considered references to this amended and restated letter.

2 We are pleased to inform you that the Economic Development Board (hereinafter called "EDB") has agreed to provide a grant not exceeding S$9,926,000 in total to Fluidigm Singapore Pte Ltd (hereinafter called "the Company") under the RISC for your project on the development of the Fluidigm R&D centre (hereinafter called the "Development Project"), as described in your application. This grant shall be subject to the following conditions:

Project Implementation

(a) The Company shall implement the Development Project as indicated in the Company's application dated 15 June 2005 and subsequent revisions.

(b) The Development Project shall meet the project milestones, deliverables and headcount commitment as shown in Annex 1.

(c) The Company shall carry out the entire Development Project in Singapore unless otherwise stated.

(d) The Company shall employ at least [***] Research Scientists and Engineers in Singapore by 31 December 2007.

(e) The Company shall employ at least [***] Research Scientists and Engineers in Singapore by 31 December 2009.

(f) The Company shall incur annual R&D spending of at least [***] by 31 December 2008 and at least [***] by 31 December 2010.

(g) The Company shall be the legal and economic owner of all intellectual property (IP) arising from this project.

(h) The Company shall engage a Singapore-based IP or legal firm(s) to file, draft and manage all patent applications arising from this project.

(i) The Company shall manufacture all products developed from this RISC project in Singapore for the lifetime of the products.

Supported Period

(j) **Only expenses incurred during the qualifying period, which shall be from 1 August 2005 to 31 July 2010, will be supported.**

Grant Support

(k) All manpower, equipment, materials & software, professional services and intellectual property rights supported under this RISC grant shall be used exclusively for the Development Project and shall follow the administrative guidelines laid out in Annex 2.

(l) The Company shall not sell, lease, dispose or otherwise transfer the equipment & software supported under this RISC grant to another party during the execution of the Development Project without first obtaining the written approval of EDB, which if so granted, shall be on such terms as EDB deems fit. The Company shall at all times maintain proper records with respect to the assets acquired through the grant.

(m) The Company shall not seek or receive funds from any other incentives offered by other agencies of the Government of Singapore for funding of this Development Project.

(n) All grant monies received shall be used solely for the implementation of this Development project.

Project Management & Co-ordination

(o) The Company shall appoint a person (hereinafter called the "Principal Investigator") to lead the Development Project. The Principal Investigator shall be responsible for the proper management, co-ordination and progress of the Development Project, the management of grants disbursed and all other matters pertaining to the Development Project, including the preparation of claims, submission of audited statements and progress reports.

(p) The Principal Investigator shall be deemed as an agent of the Company throughout the Development Project and EDB shall at all times have access to the Principal Investigator with regards to all matters pertaining to the Development Project.

(q) The Company shall inform EDB in writing of any change in the Principal Investigator.

Other Conditions

(r) The Company shall permit EDB officers to inspect the premises where the development work is carried out, the Company's accounts on the development expenditures and the records on the progress of the Development Project.

(s) The Company shall be required to provide, through responses to surveys or any other such studies carried out by EDB, relevant information on the Development Project, as and when requested by EDB.

(t) If required by EDB, the Company shall submit a report comparing its projections in the application form with the actual realised figures. The template for this report and the timeline for submission will be provided by EDB.

3 In the event the Project is aborted, the Company is to inform EDB in writing immediately.

4 EDB reserves the right to recover from the Company the total amount of grant released to the Company for any breach of condition under which the RISC grant was approved.

5 The Company shall keep the terms and conditions of this RISC grant confidential. Such information shall not be released to any external party, the public or the press unless prior written consent from EDB is given.

6 EDB reserves the right to change the terms and conditions of this offer from time to time as may be specified and deemed necessary by EDB.

7 If you are prepared to accept this amended and restated offer of a grant under the conditions stipulated above, please sign below and return it to EDB within 1 month from the date of this letter, **failing which this offer shall be deemed to have lapsed**.

8 If you have any queries, please contact Ih-Ming CHAN at 6395 7794. For queries on claims, please call the EDAS hotline at 6832 6416. We wish you every success in this project.

Yours sincerely

DR BEH SWAN GIN
DIRECTOR
BIOMEDICAL SCIENCES CLUSTER

Enclosures:

Annex 1 Project Milestones and Deliverables

Annex 2 Administrative Guidelines

Accepted and Agreed

FLUIDIGM CORPORATION

_____

Name:
Title:

Annex 1

PROJECT MILESTONES AND DELIVERABLES

(a) The Company shall employ at least [***] Research Scientists and Engineers in Singapore by 31 December 2007.

(b) The Company shall employ at least [***] Research Scientists and Engineers in Singapore by 31 December 2009.

(c) The Company shall incur annual R&D spending of at least [***] by 31 December 2008 and at least [***] by 31 December 2010.

(d) The Company shall be the legal and economic owner of all intellectual property (IP) arising from this project. The economic benefits resulting from the exploitation of the IP arising from this project shall accrue to the Company.

(e) The Company shall engage a Singapore-based IP or legal firm(s) to file, draft and manage all patent applications arising from this project.

(f) The Company shall manufacture all products developed from this RISC project in Singapore for the lifetime of the products.

(g) The Company shall fulfil the following project milestones as indicated below:

Milestones	Date of Completion
TOPAZ Screening Chip	
[***]	[***]
[***]	[***]
TOPAZ Next Generation Screening Chip	
[***]	[***]
[***]	[***]
[***]	[***]
TOPAZ Diffraction Chip	
[***]	[***]
[***]	[***]
[***]	[***]

Milestones	Date of Completion
Dynamic Array IFCs	
[***]	[***]
[***]	[***]
[***]	[***]
Next Generation IFCs (Immunoassays, PET Synthesis, DID, Pathogen Detection)	
[***]	[***]

Annex 2

ADMINISTRATIVE GUIDELINES

1. The grant shall cover [***] of the actual qualifying manpower costs and [***] of the actual qualifying costs for equipment, materials & software, professional services and intellectual property rights incurred by the Company on the Development Project during the qualifying period. In the event where qualifying cost items are not used exclusively for the Development Project, the qualifying costs items shall be suitably pro-rated. The qualifying cost items are listed below, but shall be subject to a total maximum grant of S$9,926,000. Virement from one qualifying cost item to another will not be considered and the grant shall not cover GST payments.

Category	Approved Grant (S$)
Manpower	[***]
Equipment, Materials and Software	[***]
Professional services	[***]
Total	[***]

Total Approved Grant (Rounded down to nearest thousand dollars)	9,926,000

2. The qualifying cost for equipment (less its residual value, if any) is pro-rated based on the number of months the equipment is used for the project (this refers to the date of delivery to the end of qualifying period) over the approved useful life of equipment.

   The qualifying cost of equipment is based on the actual expenses, residual value, number of months that the equipment is used for the project and approved useful life of equipment.

   The qualifying cost for intellectual property rights (IPR) is pro-rated based on the project duration over the approved useful life of IPR.

   The qualifying cost of IPR is based on the cost of acquiring IPR, project duration and the approved useful life of IPR.

3. Disbursements shall be made on a reimbursement basis upon application by the Company at quarterly intervals. Claims must be submitted using the prescribed forms and shall be certified by the Company's Chief Financial Officer and the Principal Investigator. The amount disbursed shall be based on the actual qualifying cost item incurred by the Company on the Development Project during the qualifying period.

   The grant will be disbursed as follows:

   (i) Disbursements of up to a cumulative total [***] of the approved grant amount shall be made upon application by the Company.

   (ii) The remaining [***] of the grant may be released upon application by the Company on completion of the Development Project.

4. For all claims (except for the final claim), the first [***] of the amount claimed will be disbursed to the Company upon receipt of claim and the remaining [***] will be disbursed upon the completion of checks.

5. The final claim must be submitted within 6 months with complete documentation from the end of the qualifying period (31 July 2010), failing which any claim will be disqualified.

6. For total approved grant exceeding S$100,000, all claims must be externally audited. The audited statement of accounts shall be submitted on an annual basis, as well as when the Development Project is completed or terminated. The Company shall make available to its auditor this Letter of Offer and its accompanying annexes. The Company shall ensure that the external auditor forwards a copy of the audited accounts directly to EDB upon completion of the audit. In the event that the external auditor cannot issue an unqualified report, EDB shall have direct access to the external auditor to gather details with regard to the audit findings.

7. The Company shall submit progress reports to EDB at half-yearly intervals. The disbursement of any grant shall be subject to the Company achieving the project milestones as stated in the Offer Letter. The final report is to be submitted upon completion of the project.

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.10A

11 January 2006

Mr Gajus Worthington
CEO
Fluidigm Corporation
7100 Shoreline Court
South San Francisco, CA 94080

Re: Supplement to Letter Dated 7 October 2005 Relating to Application for Incentives under the Research Incentive Scheme for Companies (RISC)

Dear Gajus:

Reference is made to the Singapore Economic Development Board's ("***EDB***") Letter of Offer dated 07 October 2005 (the "***LOF***"), executed by EDB and relating to the application by Fluidigm Singapore Pte Ltd ("***Fluidigm Singapore***") for incentives under the Research Incentive Scheme for Companies ("***RISC***"). Fluidigm Singapore is a subsidiary of Fluidigm Corporation, a California corporation ("***Fluidigm Parent***"). This letter agreement, referred to as the "***Supplemental Agreement,***" is and shall be construed as supplemental to the LOF and every clause of the LOF shall continue in full force and effect and be binding on the parties thereto save as expressly amended and supplemented by this Supplemental Agreement. For the avoidance of doubt, except as specifically set forth in this Supplemental Agreement, clause 4 of the LOF shall apply to any breach of conditions under which the RISC grant was approved. For purposes of this Supplemental Agreement, a "***Business Day***" shall refer to any day that is not a Saturday, Sunday, or statutory holiday in Singapore. Consistent with the RISC grant, this Supplemental Agreement will be deemed effective as of 1 August 2005.

For good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, EDB, Fluidigm Singapore, and Fluidigm Parent agree as follows:

1. In addition to and based on the milestones and deliverables identified in Paragraph 2 and Annex 1 of the LOF, Fluidigm Singapore shall be required throughout the project development period, commencing from 1 January 2006, to furnish to EDB annually, quarterly milestones and deliverables for the forthcoming year in accordance with the relevant milestones and deliverables identified in Paragraph 2 and Annex 1 of the LOF (the "***New Milestone List***"). EDB shall be entitled to accept or reject such milestones and deliverables in accordance with paragraph 5 below. Fluidigm Singapore shall deliver the New Milestone List on or before January 31 of each year.

2. Fluidigm Singapore shall deliver to EDB on a quarterly basis evidence of the satisfaction of previously identified objective milestones and deliverables (as set forth in a New Milestone List) for the entire prior fiscal period of Fluidigm Parent (the "***Quarterly Update Reports***"). Quarterly Update Report submission shall take place no later than the fifth (5^{th}) Business Day after the end of each fiscal quarter and shall include Fluidigm Singapore's claims

for the entire prior fiscal quarter. The Quarterly Update Reports must be in sufficient detail to satisfy EDB that the milestones and deliverables identified in the applicable New Milestone List have been met. Scheduled quarterly update meetings or teleconference calls arranged between Fluidigm Singapore and EDB to review the progress of the development project will be held in advance of Quarterly Update Report submission.

3. If EDB objects to or otherwise disagrees with the conclusion of Fluidigm Singapore and Fluidigm Parent that the Quarterly Update Report evidences satisfaction in full of the milestones and deliverables previously identified in the New Milestone List for the period covered by such Quarterly Update Report, then EDB shall deliver a written notice to Fluidigm Singapore and Fluidigm Parent stating its objections or disagreement ("***Notice of Objection***"). In the event that EDB delivers a Notice of Objection, EDB, Fluidigm Singapore, and Fluidigm Parent will act in good faith to promptly resolve any such objection or disagreement. Fluidigm Singapore and Fluidigm Parent shall deliver to EDB a revised Quarterly Update Report which is satisfactory to EDB on or before the fifteenth (15^{th}) calendar day after the end of the fiscal quarter. If EDB is satisfied with the progress of the milestone completion and project achievements as set out in the Quarterly Update Reports, EDB will qualify in writing the company's quarterly claims for that quarter and limit its right of recovery set forth in paragraph 4 of the LOF to [***] of the qualified claim amount for that quarterly fiscal period.

4. EDB, Fluidigm Parent, and Fluidigm Singapore agree that Fluidigm may elect to conduct the audits contemplated pursuant to paragraph 2, subsection (t) of the LOF on a half-yearly (i.e., every six months) rather than on an annual basis. In the event that any such audit reveals inaccuracies or errors that would have resulted in a recovery pursuant to paragraph 4 of the LOF, EDB may effect such recovery, in all events subject to the [***] limitation set forth in paragraph 3 above, directly from Fluidigm Singapore or, at EDB's election, as an off-set against future reimbursements. EDB will fully qualify in writing the company's quarterly claim only upon the company's subsequent half-yearly submission of externally audited claims for the quarterly period(s) concerned and satisfactory verification by EDB.

5. On or before the tenth (10^{th}) Business Day following delivery of the New Milestone List, EDB shall deliver written notice (***"Notice of Objection on Milestone List***") to Fluidigm Singapore and Fluidigm Parent if EDB objects to or otherwise disagrees with the objective milestones and deliverables identified in any New Milestone List. In the event that EDB delivers a Notice of Objection on Milestone List within the prescribed period, EDB, Fluidigm Singapore, and Fluidigm Parent will act in good faith to promptly resolve any such objection or disagreement. Fluidigm Singapore and Fluidigm Parent shall, within ten (10) Business Days of the date of the Notice of Objection on Milestone List, deliver to EDB a New Milestone List which is satisfactory to EDB.

6. in the event of (i) fraud by Fluidigm Singapore or Fluidigm Parent or (ii) any intentional misrepresentation of a material fact by Fluidigm Singapore or Fluidigm Parent, in either case relating to Fluidigm Singapore's performance of the activities contemplated by the development project, then the limitations set forth in this Supplemental Agreement (including,

without limitation, paragraph 3 of this Supplemental Agreement) on EDB's right of recovery under paragraph 4 of the LOF shall not apply and EDB reserves the right to full recovery of any disbursed grant monies.

7. Neither the LOF nor this Supplemental Agreement may be amended or modified, nor may any provision of the LOF or this Supplemental Agreement be waived, except with the written consent of EDB, Fluidigm Singapore, and Fluidigm Parent or in the case of a waiver, the written consent of the party giving such waiver. Except to the extent the LOF is supplemented, amended, or superseded pursuant to this Supplemental Agreement, the LOF shall remain in full force and effect in accordance with its terms.

Yours Sincerely,

/s/ Dr Beh Swan Gin

Dr Beh Swan Gin
Director
Biomedical Sciences
EDB

Economic Development Board
250 North Bridge Road, #28-00 Raffles City Tower, Singapore 179101. Tel: 65 6832 6832 Fax: 65 6832 6565
www.sedb.com

COY-15-RISC/F269-1
S05/1-25730208

Chairman
Economic Development Board
250 North Bridge Road
#28-00 Raffles City Tower
Singapore 179101

Attention: DR BEH SWAN GIN

ACCEPTANCE OF SUPPLEMENTAL AGREEMENT TO THE LOF DATED 7 OCT 2005 PERTAINING TO RESEARCH INCENTIVE SCHEME FOR COMPANIES

1 I refer to your LOF dated 7 October 2005 and the Supplemental Agreement to the LOF dated 11 January 2006.

2 I confirm that my company will be undertaking the development project as submitted to the Board dated 15 June 2005 and subsequent revisions and that we accept the award of your grant not exceeding S$9,926,000 in aggregate, subject to the terms and conditions set out in the LOF dated 7 October 2005 and the above mentioned Supplemental Agreement to the LOF.

3 We understand the need for EDB to ensure good governance of public fund and hence will ensure that all claims for reimbursement of project expenditure are true and correct and all terms and conditions as set out in the LOF dated 7 October 2005 and the above mentioned Supplemental Agreement are complied with.

Signature : /s/ Gajus Worthington
Mr Gajus Worthington/ CEO Fluidigm Corporation

Signature : /s/ Grace Yow
Name:
Ms Grace Yow / General Manager

Company Stamp :
Fluidigm Singapore Pte Ltd

Date :

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Exhibit 10.11

COY-15-RISC/F269-2
S06/1-39831633

27 March 2008

Ms Grace Yow
General Manager
Fluidigm Singapore Pte Ltd
Block 1026, #07-3532
Tai Seng Avenue
Singapore 534413

Dear Ms Grace Yow,

APPLICATION FOR INCENTIVES UNDER THE RESEARCH INCENTIVE SCHEME FOR COMPANIES (RISC)

This is with reference to your application of 26 March 2006 and subsequent revisions for incentives under the Research Incentive Scheme for Companies. This letter amends, restates and replaces our original letter agreement dated 12 February 2007 (the "Prior Letter") and all references in the Prior Letter shall be considered references to this amended and restated letter.

2 We are pleased to inform you that the Economic Development Board (hereinafter called "EDB") has agreed to provide a grant not exceeding S$3,715,000 in total to Fluidigm Singapore Pte Ltd (hereinafter called "the Company") under the RISC for your project on the development of the Fluidigm Instrumentation R&D Project (hereinafter called the "Development Project"), as described in your application. This grant shall be subject to the following conditions:

Project Implementation

a) The Company shall implement the Development Project as follows:

(i) The Company shall implement the Development Project as indicated in the Company's application dated 26 March 2006 and subsequent revisions.

(ii) The Company shall manufacture all products developed from the Development Project in Singapore for the lifetime of the products.

(iii) The Company shall be the legal and economic owner of all intellectual property (IP) arising from the Development Project.

(iv) The Company shall engage a Singapore-based IP or legal firm(s) to file, draft and manage all patent applications arising from the Development Project.

(v) The Company shall employ at least [***] new Research Scientists and Engineers (RSEs) in Singapore by 31 May 2009 for the Development Project.

(vi) The Company shall employ at least [***] new RSEs in Singapore by 31 May 2011 for the Development Project.

(vii) The Company shall incur total annual R&D spending of at least [***] by 31 May 2009 for the Development Project.

(viii) The Company shall incur total annual R&D spending of at least [***] by 31 May 2011 for the Development Project.

(ix) The Company shall maintain at least [***] RSEs in total at its R&D Centre in Singapore until 31 May 2013.

(x) Fluidigm Corporation shall raise a minimum of [***] in new funding between 1 Jan 2006 and 31 Dec 2008.

(xi) The Development Project shall meet the project milestones and deliverables as shown in Annex 1.

b) The Company shall carry out the entire Development Project in Singapore unless otherwise stated.

Supported Period

c) Only expenses incurred during the qualifying period, which shall be from 1 June 2006 to 31 May 2011, will be supported.

Grant Support

d) All manpower, equipment, materials & software, professional services and intellectual property rights supported under this RISC grant shall be used exclusively for the Development Project and shall follow the administrative guidelines laid out in Annex 2.

e) The Company shall not sell, lease, dispose or otherwise transfer the equipment & software supported under this RISC grant to another party during the execution of the Development Project without first obtaining the written approval of EDB, which if so granted, shall be on such terms as EDB deems fit. The Company shall at all times maintain proper records with respect to the assets acquired through the grant.

f) The Company shall not seek or receive funds from any other incentives offered by other agencies of the Government of Singapore for funding of this Development Project.

g) All grant monies received shall be used solely for the implementation of this Development project.

Project Management & Co-ordination

h) The Company shall appoint a person (hereinafter called the "Principal Investigator") to lead the Development Project. The Principal Investigator shall be responsible for the proper management, co-ordination and progress of the Development Project, the management of grants disbursed and all other matters pertaining to the Development Project, including the preparation of claims, submission of audited statements and progress reports.

i) The Principal Investigator shall be deemed as an agent of the Company throughout the Development Project and EDB shall at all times have access to the Principal Investigator with regards to all matters pertaining to the Development Project.

j) The Company shall inform EDB in writing of any change in the Principal Investigator.

Other Conditions

k) The Company shall permit EDB officers to inspect the premises where the development work is carried out, the Company's accounts on the development expenditures and the records on the progress of the Development Project.

l) The Company shall be required to provide, through responses to surveys or any other such studies carried out by EDB, relevant information on the Development Project, as and when requested by EDB.

m) If required by EDB, the Company shall submit a report comparing its projections in the application form with the actual realised figures. The template for this report and the timeline for submission will be provided by EDB.

3 In the event the Project is aborted, the Company is to inform EDB in writing immediately.

4 EDB reserves the right to recover from the Company the total amount of grant released to the Company for any breach of condition under which the RISC grant was approved.

5 The Company shall keep the terms and conditions of this RISC grant confidential. Such information shall not be released to any external party, the public or the press unless prior written consent from EDB is given.

6 EDB reserves the right to change the terms and conditions of this offer from time to time as may be specified and deemed necessary by EDB.

7 If you are prepared to accept this amended and restated offer of a grant under the conditions stipulated above, please sign below and return it to EDB within 1 month from the date of this letter, **failing which this offer shall be deemed to have lapsed**.

8 If you have any queries, please contact Ih-Ming CHAN at 6395 7794. For queries on claims, please call the EDAS hotline at 6832 6416. We wish you every success in this project.

Yours sincerely

YEOH KEAT CHUAN
EXECUTIVE DIRECTOR
BIOMEDICAL SCIENCES CLUSTER

Enclosures:

Annex 1 Project Milestones and Deliverables

Annex 2 Administrative Guidelines

Accepted and Agreed

FLUIDIGM CORPORATION

/s/ Gajus Worthington
Name: Gajus Worthington
Title: President & CEO

Annex 1

PROJECT MILESTONES AND DELIVERABLES

The Company shall meet the following R&D milestones:

Milestones	Completion Date
AIX Gen II development	
[***]	[***]
[***]	[***]
BioMark II Chip Loader development	
[***]	[***]
[***]	[***]
[***]	[***]
BioMark II End Point Reader development	
[***]	[***]
[***]	
[***]	[***]
BioMark Next Generation Instrument Development	
[***]	[***]
[***]	[***]
[***]	[***]

Annex 2

ADMINISTRATIVE GUIDELINES

1. The grant shall cover [***] of the actual qualifying manpower costs and [***] of the actual qualifying costs for equipment, materials & software, professional services and intellectual property rights incurred by the Company on the Development Project during the qualifying period. In the event where qualifying cost items are not used exclusively for the Development Project, the qualifying costs items shall be suitably pro-rated. The qualifying cost items are listed below, but shall be subject to a total maximum grant of S$3,715,000. Virement from one qualifying cost item to another will not be considered and the grant shall not cover GST payments.

Category	Approved Grant (S$)
Manpower	[***]
Equipment, Materials and Software	[***]
Professional services	[***]
Total	[***]
Total Approved Grant (Rounded down to nearest thousand dollars)	**3,715,000**

2. The qualifying cost for equipment (less its residual value, if any) is pro-rated based on the number of months the equipment is used for the project (this refers to the date of delivery to the end of qualifying period) over the approved useful life of equipment.

   The qualifying cost of equipment is based on the actual expenses, residual value, number of months that the equipment is used for the project and approved useful life of equipment.

   The qualifying cost for intellectual property rights (IPR) is pro-rated based on the project duration over the approved useful life of IPR.

   The qualifying cost of IPR is based on the cost of acquiring IPR, project duration and the approved useful life of IPR.

3. Disbursements shall be made on a reimbursement basis upon application by the Company at quarterly intervals. Claims must be submitted using the prescribed forms and shall be certified by the Company's Chief Financial Officer and the Principal Investigator. The amount disbursed shall be based on the actual qualifying cost item incurred by the Company on the Development Project during the qualifying period.

   The grant will be disbursed as follows:

   (i) Disbursements of up to a cumulative total [***] of the approved grant amount shall be made upon application by the Company.

   (ii) The remaining [***] of the grant may be released upon application by the Company on completion of the Development Project.

4. For all claims (except for the final claim), the first [***] of the amount claimed will be disbursed to the Company upon receipt of claim and the remaining [***] will be disbursed upon the completion of checks.

5. The final claim must be submitted within 6 months with complete documentation from the end of the qualifying period (31 May 2011), failing which any claim will be disqualified.

6. For total approved grant exceeding S$100,000, all claims must be externally audited. The audited statement of accounts shall be submitted on an annual basis, as well as when the Development Project is completed or terminated. The Company shall make available to its auditor this Letter of Offer and its accompanying annexes. The Company shall ensure that the external auditor forwards a copy of the audited accounts directly to EDB upon completion of the audit. In the event that the external auditor cannot issue an unqualified report, EDB shall have direct access to the external auditor to gather details with regard to the audit findings.

7. The Company shall submit progress reports to EDB at half-yearly intervals. The disbursement of any grant shall be subject to the Company achieving the project milestones as stated in the Offer Letter. The final report is to be submitted upon completion of the project.

Exhibit 10.12

[***] Indicates text has been omitted from this Exhibit pursuant to a confidential treatment request and has been filed separately with the Securities and Exchange Commission.

Distribution Agreement

This Agreement, effective as of April 1, 2005 ("Effective Date"), is made by and between Fluidigm Corporation, a corporation of the State of California, having an office at 7100 Shoreline Court, South San Francisco CA 94080, United States of America ("FC"), and Eppendorf AG, a German corporation, having its headquarter at Barkhausenweg 1, D-22339 Hamburg, Germany ("EAG"), each hereinafter referred to as the "Party" or collectively called the "Parties".

WHEREAS, FC is specialized in development and manufacturing of systems with integrated fluidic circuits for life-science research,

WHEREAS, EAG is a biotechnology company with a broad range of applications and products, mainly in the fields of bio tools, molecular technologies and complementary products,

WHEREAS, the Parties intend to engage in a mutually beneficial relationship concerning new FC applications which include the Eppendorf product Mastercycler personal for thermal control of microfluidic components;

NOW, THEREFORE, in consideration of the premises and the mutual agreements and covenants contained herein, the Parties hereto hereby agree as follows:

§ 1 Subject Matter of the Agreement

The object of this Agreement is the development, manufacture and delivery by EAG to FC of a special brand version of Eppendorf Mastercycler personal for the exclusive handling of FC microfluidic chips and licensed for PCR thermocycling practiced in fields of research and development, quality assurance or control, environmental testing, plant diagnostics, identity testing (other than parentage testing for humans) and forensics ("PCR Field") and hereinafter referred to as "Product" - in accordance with the description of Product (Enclosure 1). EAG grants FC the right to commercially use, market, import, offer to sell, sell and/or distribute (including through one or more tiers of sub-distributors) the "Product" under the EAG label as an "Authorized Thermal Cycler" on a worldwide basis.

The use, marketing, distribution and/or selling of the Product (i) for PCR thermocycling outside the PCR Field as defined above and/or (ii) for real time PCR thermocycling as covered by United States Patent No. 6,814,934 (the "Higuchi Patent") is not authorized under this Agreement, whereas EAG does not restrict FC to use, market, distribute and sell the Product in all other fields of use outside the PCR thermocycling. It is the duty of FC to determine the freedom to operate the Product in such cases and not to infringe third party patents. The Parties acknowledge that FC acts as a distributor of the Product (including without limitation [***].

§ 2 Up-front payment

Up-front payment of FC for EAG R&D of the Product is EURO [***] and it is due as follows:

EURO [***] already received ([***] USD)

EURO [***] already received

EURO [***] due in July 2005 against separate invoice.

The up-front payment for R&D further includes manufacturing of [* * *]. One of these units will remain in its final serial execution in EAG's engineering as a basic reference unit. One unit will be a life unit in EAG's R&D used for measuring, testing, modification evaluation, etc. One licensed unit will be for FC for acceptance and release of serial production. It will also serve as a reference unit for Fluidigm.

§ 3 Execution and Delivery

Delivery of PRODUCT by EAG will be to a worldwide maximum of three (3) addresses, which are detailed below.

1- Fluidigm Corporation
7100 Shoreline Court
South San Francisco, CA 94080

United States of America

2- Fluidigm KK
Attn: Takeshi Iwabuchi
Ginza TK Building 5F
1-1-7 Shintomi
Chuo-ku, Tokyo 104-0041

Japan

3- Fluidigm Europe, BV
Attn: Anja Wienecke
Flughafenstrasse 52a, Haus C
D-22335 Hamburg

Germany

FC shall order the Product in a purchase order ("Purchase Order") and EAG shall confirm each order in writing, by e-mail or fax within 14 calendar days, provided that EAG must accept all Purchase Orders that fall within FC's forecast specified in Section 6 below. Each order shall identify the quantity of Products being ordered and the required delivery date and delivery address. Deliveries shall be within 6 weeks after the effective date of the order (or such longer period as may be specified in FC's order), unless a later date was previously agreed by the Parties in writing.

EAG is permitted to make partial deliveries and no penalty for minimum delivery will be applied in this case. EAG agrees to notify FC promptly of any factor, occurrence or event coming to its attention that may impact EAG's ability to meet any deliveries or other requirements set forth in this Agreement, particularly that may cause a material delay in delivery of Products, including any loss or reassignment of key employees, threat of strike or major equipment failure.

The Products manufactured and delivered by EAG will be inspected and tested, as required, by FC within forty-five (45) days of receipt (the "Acceptance Period"). If during the Acceptance Period any Products are found to be not new, defective in material or workmanship and/or fail to meet the specifications set forth in Enclosure 1 below, Reclaimed Products will be repaired or replaced, as outlined in Section 11 hereafter.

§ 4 Minimum Quantity and Minimum Delivery Lot

Subject to the terms and conditions of this Agreement, FC shall order, and subject to timely delivery of conforming units, will buy and take delivery of a total of [* * *]. The orders for the following minimum number of Products per calendar year are to be purchased by FC in good time to allow delivery before the end of the specified calendar year:

[* * *]

[* * *]

[* * *]

[* * *]

[* * *]

Minimum delivery lot per single order is [* * *]. In the event FC orders deliveries with fewer than [* * *] per delivery lot, each such delivery lot will be regularly invoiced plus a lump sum penalty of [* * *] per delivery lot.

EAG's sole remedy for FC's failure to meet the minimum purchase requirements as set forth in this Section 4 shall be as follows: Should the ordered number of units be less than [* * *] of the above minimum number for each of [* * *], then EAG shall have the right to terminate this Agreement on written notice to FC within [* * *] after the end of [* * *].

§ 5 Forecast

A revolving [* * *] forecast will be given from FC to EAG. The forecast covers [* * *] and will be given [* * *] before the [* * *] forecast period begins. It will be submitted on the appropriate form Enclosure 3 or a similar form.

The forecasted unit orders for the next [* * *] represent a firm order to be delivered in that [* * *]. The corresponding written order is to be enclosed with the forecast.

The figure forecasted for [* * *], may vary by [* * *] before used in next regular forecast as firm order.

The figure forecasted for [* * *], may vary by [* * *] before used in next regular forecast as figure for [* * *].

The figure forecasted for the [* * *], is considered [* * *]

The forecast is used by EAG to control the production of the Product and EAG agrees to delivery within [* * *] weeks of receiving FC's order (or such longer period as may be specified in FC's order).

§ 6 Conditions of Prices, Packaging and Payment

The prices are to be understood exclusive of VAT/sales tax, administrative or other fees, deductions, customs charges, transport and insurance. The prices are including solid cardboard packing and vary in accordance with the staggered price list (Enclosure 2).

Price conditions: net, for delivery EXW Hamburg (Incoterms 2000).

Export packing:	Product in cardboard box on a pallet suitable for airfreight, transportation by truck or by sea freight in an LCL container.
Payment:	net in EUROS by check or wire transfer, within 30 days from date of invoice.

Place of Delivery: EXW EAG warehouse (Incoterms 2000).

§ 7 Staggered Prices

The Product price depends on the effectively delivered quantity within a calendar year. The valid prices are shown in the staggered price list (Enclosure 2).

The first units to be delivered in each calendar year are invoiced at a unit price as per staggered price list for the number of units to be delivered. Each additional set of units to be delivered later within the same calendar year will be invoiced at an actual staggered unit price ("ASUP") resulting from the staggered price list for the sum of all units actually delivered in the respective calendar year.

ASUP will also be applied for all units having been delivered and invoiced earlier in that calendar year. For this purpose, each invoice for new orders within a calendar year will be accompanied by a credit note for the difference between previously invoiced prices and ASUP, if applicable.

§ 8 Price Adjustment to Cost Situation

Prices of Staggered Price List can be reviewed and adjusted once annually, beginning as of January 1, 2007. Thereafter, EAG is entitled to change prices if justified by a change in costs pertaining to the manufacture of the Product. Changes in price must be announced at least 3 months before the price change becomes effective.

Annual changes in price may not exceed the changes contained in the index published by the German Federal Office of Statistics (GFOS) as part of the specialist series 17, sub-series II, "Prices and price indices for commercial products (manufacturing prices)" under no. 33205 of the GP systematic "Instrument, apparatus and devices for certain chemical and physical measuring or examinations". The index multiplier is the change of the annual mean value, published each year by the GFOS.

§ 9 Documentation

FC shall be entitled to receive from EAG software files of user documentation in EAG's standard form, to enable FC to modify such software for its applications. After return of modified files to EAG, EAG will ensure that the modified documentation is included with the Product.

FC shall also receive software files of technical illustrations, test instructions, parts lists, etc., which pertain to the Product. The copyright remains with EAG, but is hereby licensed to FC in accordance with FC's distribution and other specified rights under this Agreement. FC shall use the documentation exclusively with respect to this Agreement.

Any Product supplied will be accompanied by a certificate as shown in Enclosure 4 (which Enclosure shall be updated from time to time to accurately reflect the then current situation). Any related marketing material produced by FC needs to show in prominent position the disclaimer as given in Enclosure 5 (which Enclosure shall be updated from time to time to accurately reflect the then current situation).

§ 10 Modifications

Applications for modifications to the Product must be made in writing to FC and the modifications must be authorized in writing by FC. Modifications carried out without prior written confirmation from FC are not permissible. FC shall not unreasonably withhold agreement to any reasonable proposal made by EAG for Product modifications.

Should FC make a written request for modifications to the Product, it is in EAG's discretion to effect these modifications, provided that EAG shall not unreasonably withhold agreement to any reasonable proposal made by FC for product modification. All pre-approved costs related to the modifications requested by FC will be covered by FC. EAG is not obliged to carry out modifications to Products which have already been manufactured or delivered.

§ 11 Warranty

EAG warrants to [***]. This includes [***] under all patent or contract rights controlled by [***] and/or [***] as defined in [***]. EAG is not aware of any third party patent rights that the sale or use of the Products may be infringing in view of the licenses granted hereunder.

EAG represents and warrants [***].

EAG shall have discretion as to [***]. This warranty does not cover [***].

FC will report all warranty and replaced service parts via [***] (as specified in Section 15 below) reporting to EAG.

Deliveries to EAG of [***] shall be made at FC expenses. Replacement deliveries [***] shall be made at [***] expense.

§ 12 Liability

12.1 IN NO EVENT WILL EITHER PARTY'S LIABILITY ARISING OUT OF THIS AGREEMENT EXCEED THE GREATER OF (a) [***] OR (b) [***]. IN NO EVENT SHALL EITHER PARTY BE LIABLE FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES, HOWEVER CAUSED, ON ANY THEORY OF LIABILITY AND WHETHER OR NOT SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES, ARISING OUT OF THIS AGREEMENT.

12.2 The limitations of Section 12.1, however, shall not apply to (i) [***] (ii) [***] or (iii) [***]

§ 13 No Compete Clause

FC shall refrain from manufacturing and/or selling products, in standalone form, of another make that are identical or similar to the Product. FC shall also abstain in every other respect from any direct or indirect competition for the Product, for sale in standalone form, with EAG, including by means of trusts or third parties, legal and commercial entities or private individuals; this includes any entity that is controlled by or controls FC including those, which are acquired at a later date or granted a controlling influence.

In particular FC shall not, directly or indirectly, act as distributor, dealer, commission merchant or commercial agent for a third party with regard to identical or similar products for sale in standalone form. Exceptions require the prior written consent of EAG. FC at the date hereof, is not preparing and not engaged in the production or distribution of other similar items to the Products.

Notwithstanding the foregoing in this Section 13, in the case of EAG's sustained inability to supply for reasons other than Force Majeure, as specified in Section 14, both Parties will co-operate in good faith to resolve the difficulty to both Parties' satisfaction, or if unable to so resolve the difficulty, to use the documentation and convey rights (only to the extent EAG is so able) necessary for production to enable FC or third party to make or have made the Product involved. It is the duty of FC to determine the freedom to operate in such cases and especially not to infringe ABI's IP rights.

EAG agrees not to sell or otherwise provide the Product (or any identical or similar product that has been specifically adapted to receive FC microfluidic chips) to any person or entity other than FC, during and two (2) years after the term of this Agreement.

§ 14 Force Majeure

No failure or omission by the Parties hereto in the performance of any obligation of this Agreement shall be deemed a breach of this Agreement or create any liability if the same shall arise from any cause or causes beyond the control of the Parties, including but not limited to the following: act of God; acts of omissions of any government; any rules, regulations or orders issued by any governmental authority or by any officer, department, agency or instrumentality thereof; fire; storm; flood; earthquake; accident; war; rebellion; insurrection; riot, strikes and lockouts; and invasion; and provided that such failure or omission resulting from one of the above causes is cured as soon as practicable after the occurrence of one or more of the above-mentioned causes.

This applies only if the disabled Party informs the other Party as soon as possible about the extent and the grounds of the disabling cause or causes.

Should the disabling circumstance(s) last longer than three (3) months, the other Party can terminate the Agreement without a period of notice and/or proceed in accordance with Section 13 Para. 3.

§ 15 Service, Spare Parts

FC is responsible for the service of the Products. FC may delegate service responsibility to its distribution partners. EAG will support service by training of the trainers of FC as per Section 16 below.

FC will purchase and keep on stock a sufficient number of spare parts to fulfill service needs. FC agrees to order minimum spare parts value of [***] - per spare parts shipment.

§ 16 Training of Service Trainers

Not later than the date of signature of this Agreement FC shall supply EAG with the names of up to three key service managers of FC with defined responsibilities for a training as service trainers. They will each receive a training course by EAG of the technical service for the Product in a way which enables them to commence service training themselves to service engineers of FC or to service engineers of international distribution partners of FC.

EAG shall provide this training course regarding the Product and regarding reporting system via [***] for such key service personnel of FC in Hamburg, Germany. EAG shall bear the cost of training, lodging and lunch within EAG's facilities. Other expenses, traveling fees and salary shall be borne by FC. Should a trained key service person leave FC then FC shall bear all costs for the renewed training of a successor.

Any training which may be requested by FC in addition to the aforesaid provision shall be at the expense of FC.

§ 17 Confidentiality - Publicity

17.1 A Confidential Disclosure Agreement ("CDA") has been signed by the Parties in Sept. 2004 (Enclosure 6). For purposes of this Agreement, the "Purpose" in the CDA shall include the performance of obligations and the exercise of rights pursuant to this Agreement. Additionally terms of this Agreement are confidential as set forth in Section 17.3. Information about this Agreement shall be released only after mutual agreement of the Parties, except as set forth in Section 17.3.

17.2 With respect to FC's distribution of any written information to third parties, including but not limited to advertising, brochures, catalogs, promotional and sales material, and public relations material, EAG shall only have the right to prescribe changes regarding references to, or descriptions of: Applied Biosystems, PCR, the amplification patent rights, the amplification system patent rights, the PCR instrument patents, PCR licenses or authorizations, or this Agreement. FC agrees to comply provided that such prescriptions are reasonable in nature and documented by EAG as appropriate for accuracy.

17.3 Except as provided in Enclosure 5 and Section17.2, each Party shall, to the extent reasonably practicable, maintain the confidentiality of the provisions of this Agreement in accordance with the CDA and shall refrain from disclosing the terms of this Agreement without prior written consent of the other Party, except (i) to the extent either Party concludes in good faith that such disclosure is required by any court or other governmental body or is otherwise required under applicable law or regulation, in which case the other Party shall be notified in advance; (ii)to legal counsel of the Parties; (iii) in connection with the requirements of a public offering or securities filing; (iv) in confidence, to accountants, banks, and financing sources and their advisors; (v) in confidence, in connection with the enforcement of this Agreement or rights under this Agreement; or (vi) in confidence, in connection with a merger or acquisition or proposed merger or acquisition, or the like.

§ 18 Compliance and Quality

It shall be the duty of each Party to comply fully with all applicable laws, regulations and ordinances and to obtain and keep in effect licenses, permits and other governmental approvals (federal, state or local) necessary or appropriate to carry on activities hereunder.

§ 19 Assignment

This Agreement shall not be assigned by either Party except in any assignment or transfer of all or substantially all of such Party's business related to this Agreement.

§ 20 Duration of Agreement, Termination of Agreement with Good Reason

20.1 This Agreement is valid as of Effective Date and will continue for a minimum of five (5) calendar years after Effective Date provided terms and conditions are met by both Parties. After five years from Effective Date, this Agreement may be terminated with a period of written notice of not less than six months.

20.2 The duration of Agreement automatically extends for another calendar year if not cancelled by FC at least [***] before the end of minimum duration date or at least [***] before the end of any Agreement extension period. Provided that FC meets or exceeds unit forecasts, EAG will give FC at least [***] notice of termination before the end of the minimum duration date or any Agreement extension period.

20.3 Either Party can terminate the Agreement with good reason especially in the event of the other Party not fulfilling one or more of its material contractual obligations and then not rectifying this situation within sixty (60) days of receipt of a written warning to this effect. Timely delivery of conforming Product units shall - amongst others – be deemed to be a material contractual obligation.

20.4 Each Party may also terminate this Agreement with immediate effect and with no liability for compensation in the event of the other Party becoming insolvent or filing for bankruptcy.

20.5 Should EAG terminate the Agreement with the reason of not having received orders for at least the agreed minimum number minus 25% as of Section 4, FC has the right to place, and EAG shall accept and fulfill, one final order for delivery within the commencing period of termination.

20.6 FC shall be entitled to terminate this Agreement for its convenience on at least sixty (60) days prior written notice to EAG, provided that no such termination shall be effective prior to the second anniversary of the Effective Date.

20.7 At the time of termination of this Agreement, FC will buy all Products still on stock, provided the stock is resulting from FC’s forecast (Enclosure 3)

20.8 The Parties’ rights and obligations pursuant to the following sections shall survive termination or expiration of this Agreement: Sections 1, 11, 12, 17, 18, 19, 21, 22, and 23. FC shall be entitled to distribute all Products purchased from EAG. All payment obligations of FC under this Agreement shall survive termination or expiration.

§ 21 Court of Jurisdiction and Applicable Law

21.1 This Agreement shall be governed by and interpreted in accordance with the laws of the State of New York, U.S.A. without reference to conflict of laws principles.

21.2 All disputes arising out of this Agreement shall be finally settled by final and binding arbitration in New York, New York before, and under the then current commercial arbitration rules of, the International Chamber of Commerce, subject to the additional limitations set forth herein. The arbitration shall be conducted by a single arbitrator appointed in accordance with such rules. No discovery (e.g., document production; depositions) will be permitted. The arbitration shall be conducted in the English language, and all documentary evidence shall be presented in English; documentary evidence not originally in English shall be presented both in the original language and in English translation. The Parties agree that the decision of the arbitrator shall be final and binding. The arbitration shall take no more than one day, and each Party shall have a total of up to four (4) hours to present/rebut its case on that day, with the arbitrator announcing the decision at the end of such presentations/rebuttals. Judgment on any decision made by the arbitrator may be entered and enforced in any court of competent jurisdiction. All fees and charges by the International Chamber of Commerce shall be shared equally by the Parties unless otherwise specified by the arbitrator; each Party shall be responsible for the payment of all fees and expenses

connected with the presentation of its respective case, provided that the arbitrator may in his/her discretion award to the prevailing Party the costs and expenses incurred by the prevailing Party in connection with the arbitration proceeding. The arbitration shall be confidential.

§ 22 Indemnification

22.1 EAG holds limited license rights under [***].

22.2 EAG shall defend FC or assist FC at its own discretion in defending FC against any claim or action, with the exemption of i) claims based on the [***] ii) the [***] and iii) [***] for: (a) [***] (b) [***] or (c) [***]

22.3 FC shall reasonably cooperate in EAG's defense of any such claim or action, and FC shall not engage in any actions or communications that negatively affect EAGs defense or settlement of the claim or action. [***]

22.4 (w) FC agrees [***] (a) [***] (b) [***] or (c) [***] with respect to the Products.

(x) FC shall pay [***] under (a), (b), or (c) of Section 22.2(w) above.

(y) As a condition of FC's liability and obligations under this Section 22.2, however, (i) [***] (ii) except as set forth hereinbelow, FC shall [***]

[***]. In no event shall [***].

Notwithstanding the foregoing, [***].

(z) Notwithstanding the foregoing, FC shall have no liability or obligation with respect to any claim or action resulting from an actual or alleged breach by EAG of the first paragraph of Section 11.

22.3 EAG represents and warrants that [***].

§ 23 Final Clauses

23.1 This Agreement contains the entire and only agreement between the Parties and supersedes and cancels all prior written and/or oral agreements, undertakings and negotiations between the Parties with respect to the subject matter hereof.

23.2 No amendments, changes, modifications or alterations of the terms and conditions of this Agreement shall be binding upon either Party unless in writing and signed by both Parties. Any waiver of this provision shall be made in each specific case in writing. Documents transmitted by fax are considered to be in writing.

23.3 Each Party represents and warrants that it has full power and authority to enter into this Agreement and to take all actions required by this Agreement and that each Party's obligations under the Agreement do not conflict with its obligations under any other agreement to which EAG or FC is a party.

23.4 The headlines are for orientation purposes only and do not form part of the Agreement.

23.5 Should any provision of this Agreement be invalid or unenforceable or should the Agreement contain an omission, the remaining provisions shall be valid. In the place of an invalid provision, a valid provision is presumed to be agreed upon by the Parties, which comes economically closest to the one actually agreed upon; the same shall apply in the case of an omission.

23.6 The Parties shall endeavor to settle amicably any disputes which result from the execution of this Agreement.

§ 24 Enclosures

The enclosures are integral part of the Agreement.
Enclosure 1 Description of Product
Enclosure 2 [***]
Enclosure 3 Forecast Form
Enclosure 4 [***]
Enclosure 5 Disclaimer
Enclosure 6 Confidential Disclosure Agreement
Enclosure 7 [***]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

South San Francisco, the 17 August 2005
Fluidigm Corporation
President / CEO

/s/ Gajus V. Worthington
Gajus V. Worthington

Hamburg, the 4 Aug. 2005
Eppendorf AG

/s/ Heinz Gerhard Koehn, Ph. D.
Heinz Gerhard Koehn, Ph. D.
Board Member, Technology

/s/ Michael Schroeder, Ph. D.
Michael Schroeder, Ph. D.
Board Member, Marketing and Sales

Description of Product and Specifications

[***]

[***]

[***]

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Enclosure 2

Staggered price list

Prices per number of products to be delivered within one Agreement Year

[***] and more units/a	*price per unit*	*Euro*	*[***]*
[***] and more units/a	*price per unit*	*Euro*	*[***]*
[***] and more units/a	*price per unit*	*Euro*	*[***]*
[***] and more units/a	*price per unit*	*Euro*	*[***]*
[***] and more units/a	*price per unit*	*Euro*	*[***]*
[***] and more units/a	*price per unit*	*Euro*	*[***]*
[***] and more units/a	*price per unit*	*Euro*	*[***]*
[***] and more units/a	*price per unit*	*Euro*	*[***]*

License condition of prices:

Prices include the newly reduced up-front-fee-component of PCR license (fixed license portion) as pre-announced by EAG's licensor. Possible reductions (or elimination) of this license fee by the PCR licensor shall result in reductions.

The prices include PCR license, neglecting a price value for a device providing vacuum. Should PCR license also be requested for a vacuum providing device by the licensor, the requested license has to be borne by FC and above staggered prices will be revised correspondingly.

The prices include PCR license for the Product calculated on basis of Enclosure 1, (Description of Product) with the chuck supplied and invoiced to EAG as specified. Should the licensor request another price value for the chuck for the calculation of the PCR license, the requested license has to be borne by FC and above staggered prices will be revised accordingly.

Enclosure 3

Forecast Form

Special brand version of Eppendorf Mastercycler personal — Quarterly Forecast

Forecast period (12 Months), revolving quarterly:

[***]

Confirmation:

Number of units forecasted above for delivery in 1. Quarter herewith are firmly ordered. The definitive composition of individual delivery lots and the delivery address for each lot must be conveyed to EAG with [6 weeks] notice.

Place / Date: _____

Fluidigm Corporation

_____

(Signature)

Our production planning is controlled by forecast instruments. For this purpose the above forecast system is used. Please return the completed form before the middle of running quarter, to ensure punctual delivery for the next quarter.

The form contains an overview about the coming [***]. The figures for the [***]. The figure for the following [***] with the following forecast as indicated. The figure for the [***].

Eppendorf AG

4.1 EAG will affix permanently and prominently to each Authorized Thermal Cycler the designation “Authorized Thermal Cycler”, its Serial Number and a direction to consult the user’s manual for the license information.

4.2 FC agrees to instruct the ultimate purchaser that transfer of the thermal cycler without the Serial Number or the Notice shall automatically terminate the authorization granted by this Agreement and the thermal cycler shall cease to be an Authorized Thermal Cycler.

Enclosure 5

Disclaimer

Wording of the Disclaimer

Practice of the patented polymerase chain reaction (PCR) process requires a license. The Mastercycler is an Authorized Thermal Cycler and may be used with PCR licenses available from Applied Biosystems. Its use with Authorized Reagents also provides a limited PCR license in accordance with the label rights accompanying such reagents.

Enclosure 6

Confidential Disclosure Agreement

Confidential Disclosure Agreement

This Agreement, effective as of 11 August 2004 (“Effective Date”), is made by and between Fluidigm Corporation a corporation of the State of California, having an office at 7100 Shoreline Court, South San Francisco, CA 94080. United States of America (“FLUIDIGM”), and Eppendort AG, a German corporation, having its headquarters at Barkhausenweg 1. D-22339 Hamburg. Germany (“EAG”), each hereinafter also referred to as the “Party” or collectively called the “Parties”.

WHEREAS, FLUIDIGM is specialised in development and manufacturing of systems with integrated fluid c circuits for life-science research with a concentration on protein structure determination.

WHEREAS, EAG is a leading biotechnology company with a broad range of applications and products, mainly in the fields of biotools, molecular technologies and complementary products.

WHEREAS, the Parties intend to engage in discussions concerning a co-operation for a new FLUIDIGM application which possibly may include components of the EAG product Mastercycler ep 18.Aug.04 (“Purpose”).

NOW, THEREFORE, in consideration of the premises and the mutual agreements and covenants contained herein the Parties hereto hereby agree as follows.

Confidential information (“Information“), as used herein, shall mean any and all information, know-how, data and experience in whatever form, be it verbally, in writing, in drawing, samples, displays, in software, on tapes, hard disks, diskettes or otherwise furnished by either Party (hereinafter referred to as the “Disclosing Party”) to the other Party (hereinafter referred to as the “Receiving Party”) either directly or indirectly and disclosed to the Receiving Party under this Agreement.

2. The Receiving Party undertakes to keep confidential any and all information, except

a. Information, which the Receiving Party can establish by competent proof was at the time of disclosure or became after disclosure, part of the public domain by publication, except by breach of the undertakings hereunder by the Receiving Party;

b. Information which the Receiving Party can establish by competent proof was in its possession already at the time of disclosure, and which was not acquired, directly or indirectly, from the Disclosing Party, and information which the Receiving Party can establish by competent proof was later received from a third party, provided, however, that such information was not obtained by said third party directly or indirectly from the Disclosing Party;

c. Information which the Receiving Party can establish by competent proof was independently developed by the Receiving Party without use of the Confidential Informal on of the Disclosing Party; or

d. Information which was required to be disclosed by law or court or governmental order;

3. The Receiving Party undertakes to use any and all information only for the Purpose agreed upon in writing with the Disclosing Party, and will not, directly or indirectly, exploit or otherwise use information for any other purpose, unless and until the Disclosing Party from case to case explicitly accepts in writing prior to the proposed use of information for such other purpose.

4. The Receiving Party undertakes only to disclose Information to those employees who need to make use of Information in order to carry out agreed upon work for the Purpose, and guarantees that every such employee is aware of and will respect the confidentiality of Information.

5. The Receiving Party agrees that its affiliates will treat Information as if they were themselves a Party to this Agreement. Affiliate in this Agreement means any and all company or individual related to the Receiving Party, whether the relationship be that of employment or ownership or other, including any company or organization owning, owned by or under common control with the Receiving Party.

6. Within thirty (30) days after the Disclosing Party's request, the Receiving Party shall return to the Disclosing Party all Information, including all copies thereof, unless another agreement covering the use of Information has been made between the Parties.

7. Nothing herein and nothing said or written in connection with the disclosure of Information constitutes a promise or an undertaking to enter into further cooperation between the Parties.

8. The Parties further agree that the furnishing of Information under this Agreement shall not constitute any grant or license of any rights now or hereafter held by the Parties.

9. All obligations of the Parties with respect to the confidential information disclosed under this Agreement shall cease five (5) years from the Effective Date.

This Agreement shall be construed in accordance with and governed by substantive German law. The place of jurisdiction is the place of business of the defendant.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized representatives.

FLUIDIGM	EAG	
/s/ Gajus Worthington	/s/ Dr. Heinz G. Kohn	/s/ Ernst Tennstedt
Gajus Worthington Chief Executive Officer	Dr. Heinz G. Kohn Board Member Technology	Ernst Tennstedt Head of Legal Department
Date:	Date: 20.8.2004	

Exhibit 10.14

2494.CNSLT.001
DeLateur, Richard

FLUIDIGM CORPORATION

CONSULTING AGREEMENT

This Consulting Agreement ("Agreement") is made and entered into as of February 29, 2008, by and between FLUIDIGM CORPORATION, a Delaware Corporation with place of business at 7100 Shoreline Court, South San Francisco, CA 94080 (the "Company"), and RICHARD DeLATEUR, residing at 1333 Jones Street, San Francisco, CA 94109 ("Consultant"). The Company desires to retain Consultant as an independent contractor to perform services for the Company and Consultant is willing to perform such services, on terms set forth more fully below. Consultant's specific services are not currently part of Company's core business and therefore Company needs to independently contract for Consultant's specific skill set, and the Company does not retain the authority to direct the day-to-day performance of Consultant's services, but rather is requesting certain tasks to be accomplished by Consultant based upon Consultant's specific skill set and expertise.

In consideration of the mutual promises contained herein, the parties agree as follows:

1. **SERVICES AND COMPENSATION**

(a) Services. Consultant agrees to perform for the Company the services described in Exhibit A attached hereto and incorporated herein ("Services") and any other such Services as the Company may prescribe.

(b) Compensation. The Company agrees to pay Consultant as set forth in Exhibit A attached hereto and incorporated herein

(c) Equity Incentives. Consultant agrees that he will not receive any stock options or other equity incentives as compensation for the Services provided hereunder. Consultant further acknowledges and agrees that as of February 29, 2008 (the effective date of this Agreement and the date Consultant terminated as an employee of the Company), Consultant held options to acquire 610,000 shares of the Company's Common Stock (the "Option") under the Company's 1999 Stock Option Plan (the "Plan"). Consultant agrees that (i) as of February 29, 2008, the Option was vested with respect to 324,582 shares of Common Stock (the "Vested Shares"); (ii) the Option will immediately terminate as of February 29, 2008 with respect to all shares that are not Vested Shares; and (iii) Consultant's right to exercise the Option with respect to Vested Shares will be governed by the terms of the Plan and the agreement between the Company and Consultant documenting the Option, which permits the Consultant limited rights to exercise the Option with respect to Vested Shares after the Consultant has ceased to be a "Service Provider" to the Company (e.g., ninety days from end of Service Provider period and as otherwise defined in the Plan). Consultant represents and warrants that he has read the Plan and such option agreement and understands his rights thereunder with respect to the exercise of Vested Shares. Consultant further represents and warrants that he has consulted or will consult with such tax and financial advisors as he deems appropriate with respect to any decision to exercise or not to exercise the Option.

2. **CONFIDENTIALITY**

(a) Definition. "Confidential Information" means any Company (including its parents, subsidiaries, or affiliates) proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customers, customer lists, markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances or other business information disclosed by the Company either directly or indirectly in writing, orally or by drawings or inspection of parts or equipment. Confidential Information does not include information which is known to Consultant at the time of disclosure to Consultant by the Company as evidenced by written records of Consultant, has become publicly known and made generally available through no wrongful act of Consultant, or has been rightfully received by Consultant from a third party who is authorized to make such disclosure.

(b) Non-Use and Non-Disclosure. Consultant will not, during or subsequent to the term of this Agreement, use the Company's Confidential Information for any purpose whatsoever other than the performance of the Services on behalf of the Company or disclose the Company's Confidential Information to any third party. It is understood that said Confidential Information shall remain the sole property of the Company. Consultant further agrees to take all reasonable precautions to prevent any unauthorized disclosure of such Confidential Information including, but not limited to, having each employee of Consultant, if any, with access to any Confidential Information, execute a nondisclosure agreement containing provisions in the Company's favor identical to Sections 2 (Confidentiality), 3 (Ownership) and 4 (Conflicting Obligations) of this Agreement. Without the Company's prior written approval, Consultant will not directly or indirectly disclose to anyone the existence of this Agreement or the fact that Consultant has this arrangement with the Company.

(c) Former Employer's Confidential Information. Consultant agrees that Consultant will not, during the term of this Agreement, improperly use or disclose any proprietary information or trade secrets of any former or current employer or other person or entity with which Consultant has an agreement or duty to keep in confidence information acquired by Consultant, if any, and that Consultant will not bring onto the premises of the Company any unpublished document or proprietary information belonging to such employer, person or entity unless consented to in writing by such employer, person or entity. Consultant will indemnify the Company and hold it harmless from and against all claims, liabilities, damages and expenses, including reasonable attorneys fees and costs of suit, arising out of or in connection with any violation or claimed violation of a third party's rights resulting in whole or in part from the Company's use of the work product of Consultant under this Agreement.

(d) Third Party Confidential Information. Consultant recognizes that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. Consultant agrees that Consultant owes the Company and such third parties, during the term of this Agreement and thereafter, a duty to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out the Services for the Company consistent with the Company's agreement with such third party.

(e) Return of Materials. Upon the termination of this Agreement, or upon Company's earlier request, Consultant will deliver to the Company all of the Company's property or Confidential Information that Consultant may have in Consultant's possession or control. Consultant agrees to sign and deliver the Termination Certification attached hereto as Exhibit B.

3. OWNERSHIP

(a) Assignment. Consultant has attached hereto, as Exhibit C, a list describing all inventions, original works of authorship, developments, improvements, and trade secrets, which were made by Consultant prior to the date of this Agreement, which belong to Consultant and which relate to the business of the Company. If no such list is attached or left blank, Consultant represents that there are no such inventions. Consultant agrees that all copyrightable material, notes, records, drawings, designs, inventions, improvements, developments, discoveries and trade secrets (collectively, "Inventions") conceived, made or discovered by Consultant, solely or in collaboration with others, during the period of this Agreement which relate in any manner to the business of the Company that Consultant may be directed to undertake, investigate or experiment with, or which Consultant may become associated with in work, investigation or experimentation in the line of business of Company in performing the Services hereunder, are the sole property of the Company. Consultant further agrees to assign (or cause to be assigned) and does hereby assign fully to the Company all Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto.

(b) Further Assurances. Consultant agrees to assist Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns and nominees the sole and exclusive right, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. Consultant further agrees that Consultant's obligation to execute or cause to be executed, when it is in Consultant's power to do so, any such instrument or papers shall continue after the termination of this Agreement.

(c) Pre-Existing Materials. Consultant agrees that if in the course of performing the Services, Consultant incorporates into any Invention developed hereunder any invention, improvement, development, concept, discovery or other proprietary information owned by Consultant or in which Consultant has an interest, (i) Consultant shall inform Company, in writing before incorporating such invention, improvement, development, concept, discovery or other proprietary information into any Invention; and (ii) the Company is hereby granted and shall have a nonexclusive, royalty-free, perpetual, irrevocable, worldwide license to make, have made, modify, use and sell such item as part of or in connection with such Invention. Consultant shall not incorporate any invention, improvement, development, concept, discovery or other proprietary information owned by any third party into any Invention without Company's prior written permission.

(d) Attorney in Fact. Consultant agrees that if the Company is unable because of Consultant's unavailability, dissolution, mental or physical incapacity, or for any other reason, to secure Consultant's signature to apply for or to pursue any application for any United States or foreign patents or mask work or copyright registrations covering the Inventions assigned to the Company above, then Consultant hereby irrevocably designates and appoints the Company and its duly authorized officers and agents as Consultant's agent and attorney in fact, to act for and in Consultant's behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of patents, copyright and mask work registrations thereon with the same legal force and effect as if executed by Consultant.

4. **CONFLICTING OBLIGATIONS**

Consultant certifies that Consultant has no outstanding agreement or obligation that is in conflict with any of the provisions of this Agreement, or that would preclude Consultant from complying with the provisions hereof, and further certifies that Consultant will not enter into any such conflicting agreement during the term of this Agreement.

5. **TERM AND TERMINATION**

(a) Term. This Agreement will commence on the date first written above and will continue until the earlier of (i) final completion of the Services or (ii) termination as provided below; provided, however, that the term will expire on May 17, 2008 unless agreed otherwise in writing by both parties.

(b) Termination. Without limiting any rights which either party to this Agreement may have by reason of any default by the other party, the Consultant reserves the right to terminate this Agreement at his convenience by written notice given to the Company, and the Company my terminate this Agreement for Cause immediately upon written notice to the Consultant. Any termination by the Consultant shall be effective upon the date not earlier than 30 days following the effective date of such notice as shall be specified in said notice, and any termination by the Company shall be effective immediately upon delivery of written notice thereof to the Consultant if personally delivered or forty-eight (48) hours after deposited in the United States mail, postage pre-aid, registered or certified mail, return receipt requested. For purposes of this Agreement, “Cause” shall mean (i) Consultant’s repeated failure to perform his duties or responsibilities as a Consultant as directed or assigned by an officer of the Company; (ii) Consultant’s personally engaging in knowing and intentional illegal conduct which is seriously injurious to the Company or its affiliates; (iii) Consultant’s being convicted of a felony, or committing an act of dishonesty or fraud against, or the misappropriation of property belonging to, the Company or its affiliates; or (iv) any breach by Consultant of any provision of this Agreement or any other agreement between Consultant and the Company.

(c) Survival. Upon such termination all rights and duties of the parties toward each other shall cease except:

(i) that the Company shall be obliged to pay, within thirty (30) days of the effective date of termination, all amounts owing to Consultant for satisfactory Services completed and accepted by the Company through the termination date and if a work in progress, Company shall be liable only for the pro rata portion of the completed work, and related expenses, if any, in accordance with the provisions of Section 1 (Services and Compensation) hereof; and

(ii) Sections 2 (Confidentiality), 3 (Ownership) and 7 (Independent Contractors) shall survive termination of this Agreement.

6. **ASSIGNMENT**

Neither this Agreement nor any right hereunder or interest herein may be assigned or transferred by Consultant without the express written consent of the Company.

7. **INDEPENDENT CONTRACTOR**

(a) Independent Contractor Status. It is the express intention of the parties that Consultant is an independent contractor. Nothing in this Agreement shall in any way be construed to constitute Consultant as an agent, employee or representative of the Company, but Consultant shall perform

the Services hereunder as an independent contractor. Consultant agrees to furnish (or reimburse the Company for) all tools and materials necessary to accomplish this contract, and shall incur all expenses associated with performance, except as expressly provided on Exhibit A of this Agreement. Consultant acknowledges and agrees that Consultant is obligated to report as income all compensation received by Consultant pursuant to this Agreement, and Consultant agrees to and acknowledges the obligation to pay all self-employment and other taxes thereon. Consultant further agrees to indemnify and hold harmless the Company and its directors, officers, and employees from and against all taxes, losses, damages, liabilities, costs and expenses, including attorney's fees and other legal expenses, arising directly or indirectly from (i) any negligent, reckless or intentionally wrongful act of Consultant or Consultant's assistants, employees or agents, (ii) a determination by a court or agency that the Consultant is not an independent contractor, or (iii) any breach by the Consultant or Consultant's assistants, employees or agents of any of the covenants contained in this Agreement.

(b) Consultation for Others. Consultant is free to perform work as a consultant or employee for any other entity and/or person provided that such engagement does not create a conflict of interest with Consultant's obligations to Company. Specifically, none of Consultant's services for any other entity and/or person shall compromise in any way the Company's "Confidential Information" as defined in Section 2 (Confidentiality). Further, Consultant must, at all times comply with Section 2 (Confidentiality).

(c) Employment of Assistants. Consultant may, at Consultant's own expense, employ such assistants as Consultant deems necessary to perform the services required of Consultant by this Agreement. Consultant assumes full and sole responsibility for the payment of all compensation and expenses of these assistants and for all federal, state and local income taxes, unemployment insurance, workers' compensation insurance, disability insurance, Social Security taxes, and other applicable withholdings.

(d) Time and Places of Providing Services. As long as Consultant delivers acceptable services to Company in a timely fashion, Consultant shall generally have the discretion to determine the location and times of rendering services as well as the method of accomplishing Consultant's Services.

(e) Records and Reports. Consultant shall keep complete and systematic written records of all work relating to the performance of Services by Consultant hereunder and shall submit invoices to Company's accounts payable for all services rendered monthly.

(f) Equipment, Documentation and Specifications. Consultant shall supply all equipment and instruments required to perform Services under this Agreement, except when such equipment or supplies are unique to Company in which case Company shall provide Consultant with such equipment, instruments, documentation and specifications as may reasonably be required by Consultant for performance by Consultant of duties set forth herein. Such equipment, instruments, documentation and specifications shall at all times remain the property of Company.

8. **NONSOLICITATION**

Consultant agrees that for a period of one (1) year after the termination of this Agreement, in any county in the United States or equivalent geographical subdivision in which Company does business, Consultant will not (i) solicit or induce employees of Company to terminate their employment with Company, or (ii) solicit any identified customers or identified potential customers of Company to induce such customers or potential customers to cease their relationship with Company, or any of its affiliated companies.

9. **BENEFITS**

Consultant acknowledges and agrees and it is the intent of the parties hereto that Consultant receive no Company-sponsored benefits from the Company either as a Consultant or employee. Such benefits include, but are not limited to, paid vacation, sick leave, medical insurance, and 401(k) participation. If Consultant is reclassified by a state or federal agency or court as an employee, Consultant will become a reclassified employee and will receive no benefits except those mandated by state or federal law, even if by the terms of the Company's benefit plans in effect at the time of such reclassification Consultant would otherwise be eligible for such benefits.

10. **ARBITRATION AND EQUITABLE RELIEF**

(a) Disputes. Except as provided in Section 10(d) below, the Company and Consultant agree that any dispute or controversy arising out of, relating to or in connection with the interpretation, validity, construction, performance, breach or termination of this Agreement ("arbitrable claims") shall be settled by binding arbitration to be held in San Francisco County, California, in accordance with the Commercial Arbitration Rules, supplemented by the Supplemental Procedures for Large Complex Disputes, of the American Arbitration Association as then in effect (the "Rules"). The arbitrator may grant injunctions or other relief in such dispute or controversy. The decision of the arbitrator shall be final, conclusive and binding on the parties to the arbitration. Judgment may be entered on the arbitrator's decision in any court of competent jurisdiction. This shall not apply to claims arising under Sections 2 (Confidentiality) and 3 (Ownership).

(b) Consent to Personal Jurisdiction. The arbitrator(s) shall apply California law to the merits of any dispute or claim, without reference to conflicts of law rules. Consultant hereby consents to the personal jurisdiction of the state and federal courts located in California for any action or proceeding arising from or relating to this Agreement or relating to any arbitration in which the parties are participants.

(c) Costs. The Company and Consultant shall each pay one-half of the costs and expenses of such arbitration, and each shall separately pay its counsel fees and expenses unless otherwise required by law.

(d) Equitable Relief. With the exception of "arbitrable claims," the parties may apply to any court of competent jurisdiction for a temporary restraining order, preliminary injunction, or other interim or conservatory relief, as necessary, without breach of this arbitration agreement and without abridgment of the powers of the arbitrator.

(e) Acknowledgment. CONSULTANT HAS READ AND UNDERSTANDS SECTION 9, WHICH DISCUSSES ARBITRATION. CONSULTANT UNDERSTANDS THAT BY SIGNING THIS AGREEMENT, CONSULTANT AGREES TO SUBMIT ANY CLAIMS ARISING OUT OF, RELATING TO, OR IN CONNECTION WITH THIS AGREEMENT, OR THE INTERPRETATION, VALIDITY, CONSTRUCTION, PERFORMANCE, BREACH OR TERMINATION THEREOF, TO BINDING ARBITRATION, EXCEPT AS PROVIDED IN SECTION 10 (d), AND THAT THIS ARBITRATION CLAUSE CONSTITUTES A WAIVER OF CONSULTANT'S RIGHT TO A JURY TRIAL AND RELATES TO THE RESOLUTION OF ALL DISPUTES RELATING TO ALL ASPECTS OF THE RELATIONSHIP BETWEEN THE PARTIES.

11. **GOVERNING LAW**

This Agreement shall be governed by the internal substantive laws, but not the choice of law rules, of the State of California. With the exception of "arbitral claims," the federal courts or state courts of

the State of California, County of San Mateo, shall have exclusive jurisdiction to adjudicate any dispute arising out of this Agreement, and the parties hereto consent to the jurisdiction of said court and waive any objection to said venue.

12. **ENTIRE AGREEMENT**

This Agreement is the entire agreement of the parties and supersedes any prior agreements between them, whether written or oral, with respect to the subject matter hereof. No waiver, alteration, or modification of any of the provisions of this Agreement shall be binding unless in writing and signed by duly authorized representatives of the parties hereto.

13. **ATTORNEY'S FEES**

In any court action at law or equity which is brought by one of the parties to enforce or interpret the provisions of this Agreement, the prevailing party will be entitled to reasonable attorney's fees, in addition to any other relief to which that party may be entitled.

14. SEVERABILITY

The invalidity or unenforceability of any provision of this Agreement, or any terms thereof, shall not affect the validity of this Agreement as a whole, which shall at all times remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed:

FLUIDIGM

By: /s/ Gajus Worthington
Name: Gajus Worthington
Title: CEO

Dated: 29 Feb 2008

PARTY

By: /s/ Richard DeLateur
Name: Richard DeLateur
Title: Self

Dated: 29 Feb 2008

Social Security or Tax Payer ID Number:

XXX-XX-XXXX

EXHIBIT A

SERVICES AND COMPENSATION

1. Contact. Consultant's principal Company contact:

   Name: Gajus Worthington

   Title: CEO

2. Services. Consultant will render to the Company the following Services:

   * Support 2007 audit
   * Assist new CFO
   * Prepare March stock valuation
   * Train Singapore and U.S. Company accounting personnel about cost and inventory accounting procedures

3. Compensation.

(a) The Company shall pay Consultant Two Hundred Dollars ($200.00) per hour during the term of this Agreement upon receipt of Consultant's invoice for Services rendered. Consultant shall be paid every two (2) weeks after receipt and approval of statements specified in section 3(c) below. Consultant will not work more than five (5) hours per week without written authorization from the Company.

(b) The Company shall reimburse Consultant for all reasonable travel and living expenses incurred by Consultant in performing Services pursuant to this Agreement, provided Consultant receives written consent from an authorized agent of the Company prior to incurring such expenses.

(c) Consultant shall submit all statements for the number of hours of service and expenses in a form prescribed by the Company every two weeks and such statement shall be approved by the contact person listed above or other designated agent of the Company.

/s/ Gajus Worthington	/s/ Richard DeLateur
Fluidigm Corporation	Consultant

[This page is to be signed ONLY at the termination of the Consulting Agreement]

EXHIBIT B

FLUIDIGM

CERTIFICATION OF RETURN OF COMPANY PROPERTY AND INFORMATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, software, data, notes, reports, proposals, lists, and sources of customers, lists of employees, proposals to customers, drafts of proposals, business plans and projections, reports, job notes, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items belonging to Fluidigm, its subsidiaries, affiliates, successors or assigns (together, the "Company").

I further certify that I have complied with all terms of the Company's confidential and proprietary information provisions in the Consulting Agreement signed by me, including the reporting of any inventions and original works of authorship (as defined therein) conceived or made by me (solely or jointly with others) covered by that Agreement.

I further agree that, in compliance with the Consulting Agreement, I will preserve as confidential all trade secrets, confidential knowledge, data or other proprietary information relating to products, processes, know-how, designs, formulas, developmental or experimental work, computer programs, data bases, other original works of authorship, customer lists, business plans, financial information or other subject matter pertaining to any business of the Company of any of its customers, consultants or licensees.

_____

Signature

_____

Date

EXHIBIT C

LIST OF PRIOR INVENTIONS
AND ORIGINAL WORKS OF AUTHORSHIP

TITLE	DATE	IDENTIFYING NUMBER OR BRIEF DESCRIPTION

Exhibit 10.15

EMPLOYEE LOAN AGREEMENT

THIS EMPLOYEE LOAN AGREEMENT (the "Agreement") is entered into as of January 20, 2004, by and between Fluidigm Corporation, a California corporation (the "Lender"), and Gajus V. Worthington ("Borrower").

RECITALS

A. Borrower is employed by the Lender as its Chief Executive Officer and President.

B. The Lender and Borrower desire that the Lender lend to Borrower the sum of Two Hundred Fifty Thousand Dollars ($250,000.00) for the purposes described in Section 1 below.

C. Borrower owns 2,447,000 shares of the Common Stock of the Lender, of which 833,334 shares, together with the other collateral described in the Stock Pledge Agreement, shall constitute security for the Loan (as defined below).

NOW, THEREFORE, the Lender and Borrower agree as follows:

AGREEMENT

1. PAYMENT: The Lender will lend to Borrower the amount of Two Hundred Fifty Thousand Dollars ($250,000.00) (the "Loan"), such Loan to be made for the purposes of assisting Borrower to pay any costs, fees, or expenses (including, without limitation, purchase consideration, broker's or agents commissions, mortgage points, closing costs, or similar costs or expenses) associated with Borrower's purchase of a principal residence in the San Francisco Bay Area (the "Property") and/or any improvements or other modifications made to any Property so purchased.

2. CONDITIONS PRECEDENT: The Lender's obligation to extend the Loan to Borrower pursuant to this Agreement is expressly conditioned upon the satisfaction of or waiver by the Lender of all of the following conditions precedent, each of which is exclusively for the benefit of the Lender:

2.1 Borrower shall have delivered to the Lender each of the following (herein collectively referred to as "Loan Documents"):

(a) One (1) original promissory note in the amount of Two Hundred Fifty Thousand Dollars ($250,000.00) in substantially the same form as Exhibit A attached hereto (the "Note"), with all uncompleted information fully completed;

(b) One (1) fully executed, validly acknowledged Stock Pledge Agreement, providing for the pledge of 833,334 shares of Common Stock of the Lender and certain other collateral as security for the Note (collectively, the "Pledged Collateral"), in substantially the same form as Exhibit B attached hereto, with all uncompleted information fully completed (the "Stock Pledge Agreement");

(c) Two (2) fully executed Stock Powers and Assignments Separate From Certificate attached as a part of Exhibit B hereto, with all uncompleted information fully completed, unless otherwise indicated thereon (the "Stock Power");

(d) All certificates representing the securities that constitute Pledged Collateral as of the date of the closing of the Loan; and

(e) Two (2) fully executed Spousal Consents, in substantially the same form as Exhibit C attached hereto, with all uncompleted information fully completed (the "Spousal Consent").

3. BORROWER'S REPRESENTATIONS AND WARRANTIES: Borrower hereby makes the following representations and warranties to the Lender, which representations and warranties shall be true and correct as of the date hereof and as of the date of the closing of the Loan, and Borrower acknowledges that the Lender is relying on such representations in making the Loan:

3.1 The Borrower has good and marketable title to the Pledged Collateral free and clear of any security interests, liens or encumbrances other than (i) joint ownership of the Pledged Collateral with Borrower's spouse, and (ii) a right of first refusal and certain repurchase rights in favor of Lender. All of the shares that constitute Pledged Collateral are fully vested.

3.2 Other than the consent of Borrower's spouse and the Lender, the consent of no other person or entity is required to grant the Lender the security interest in the Pledged Collateral.

3.3 There are no actions, proceedings, claims or disputes pending or, to Borrower's knowledge, threatened against or affecting Borrower, the Pledged Collateral, or any other properties of Borrower.

4. BORROWER'S ADDITIONAL OBLIGATIONS: Borrower shall take any and all further actions that may from time to time be required to ensure that the Stock Pledge Agreement creates a security interest in favor of the Lender, which shall secure the Note. Borrower shall not sell, hypothecate or otherwise dispose of any interest in the Pledged Collateral and shall not encumber the Pledged Collateral or permit any lien to encumber the Pledged Collateral.

5. REPAYMENT OF LOAN: Borrower shall pay to the Lender the outstanding principal balance of the Note, together with all accrued, but unpaid interest thereon, and all other sums due hereunder, under the Note, the Stock Pledge Agreement or under any other document executed by Borrower in connection herewith in accordance with the terms and conditions of this Agreement, the Note, the Stock Pledge Agreement or such other document.

6. MATURITY EVENT: The Note shall immediately become due and payable, without notice or demand, upon the earlier to occur of January 20, 2011 or the occurrence of any "Maturity Event" as defined in the Note.

7. INTEREST PAYABLE BY BORROWER: Interest shall accrue on the unpaid principal amounts of the Note at the rate specified in the Note.

8. ENTIRE AGREEMENT: This Agreement, together with the Loan Documents, constitutes the full and entire understanding and agreement between the parties hereto with regard to the subject matter hereof.

9. NO COVENANT FOR EMPLOYMENT OR ADVANCES: Borrower understands and acknowledges that neither this Agreement nor any other Loan Document modifies Borrower's at-will status at the Lender and does not constitute an employment agreement or a promise by the Lender to continue Borrower's employment. Either the Lender or Borrower may terminate such employment relationship at any time, with or without cause.

10. NOTICES: All notices and other communications required or permitted hereunder shall be in writing and may be given by (a) personal delivery, (b) certified mail, postage prepaid, return-receipt requested, (c) courier service, fully prepaid for next business day delivery, or (d) facsimile. Any such notice shall be properly addressed to the address of the parties set forth on the signature page hereof and shall be deemed to have been given (i) if personally delivered, when delivered, (ii) if by certified mail, return-receipt requested, when delivered or refused, (iii) if by courier service, on the next business day following deposit, cost prepaid, with Federal Express or similar private carrier, or (iv) if by facsimile, instantaneously upon confirmation of receipt of facsimile. The Lender or Borrower may change their respective addresses by giving notice of the same in accordance with this paragraph. The term "business day" shall mean a day on which national banks are open for business in San Francisco, California.

11. ASSIGNMENT: Borrower may not assign any of his rights and/or duties under this Agreement (or any other Loan Document) without the prior written consent of the Lender, which consent may be withheld in the sole discretion of Lender. All of the rights and/or duties of the Lender under the Loan Documents, or any of them, shall be freely assignable. Subject to the foregoing, the rights and obligations of the Borrower and Lender under the Loan Documents shall be binding upon and shall inure to the benefit of the Borrower and Lender and their respective personal representatives, successors, heirs, and permitted assigns.

12. INCOME TAX CONSEQUENCES: **Borrower hereby acknowledges that the Lender has made no representation or warranty to Borrower concerning the income tax consequences of the loan to Borrower and Borrower shall be solely responsible for ascertaining and bearing such tax consequences**.

13. GOVERNING LAW: This Agreement shall be governed in all respects by the laws of the State of California.

14. HEADINGS: The titles and headings of the various paragraphs hereof are intended for means of reference and are not intended to place any construction on the provisions hereof.

15. INVALIDITY: If any provision of this Agreement shall be invalid or unenforceable, the remaining provisions shall not be affected thereby and every provision hereof shall be valid and enforceable to the fullest extent permitted by law.

16. COUNTERPARTS: This Agreement may be executed in one (1) or more separate counterparts, each of which, when so executed, shall be deemed to be an original. Such counterparts, together, shall constitute one and the same instrument.

17. MISCELLANEOUS: Time is of the essence of this Agreement, the Loan Documents, and any other document executed by Borrower in connection therewith. If any action shall be commenced between the parties with respect to the Loan, the prevailing party shall be entitled to recover its reasonable attorneys' fees and expenses from the non-prevailing party or parties. Liability hereunder shall be joint and several among Borrower and all other persons and entities now or hereafter liable for all or any part of the Loan. **Notwithstanding any provision above to the contrary, the Lender may waive in writing or by notation initialed hereon any obligation of Borrower provided for herein.**

18. JURY TRIAL: EACH OF LENDER AND BORROWER TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW HEREBY IRREVOCABLY WAIVES ALL RIGHT TO TRIAL BY JURY AS TO ANY ISSUE RELATING HERETO IN ANY ACTION, PROCEEDING OR COUNTERCLAIM ARISING OUT OF OR RELATING TO THIS AGREEMENT, THE NOTE OR THE STOCK PLEDGE AGREEMENT.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first written above.

BORROWER:

/s/ Gajus V. Worthington
Gajus V. Worthington

Address: _____

Telephone: _____

Facsimile: _____

THE LENDER:

FLUIDIGM CORPORATION

By: /s/ Erik T. Engelson

Name: Erik T. Engelson

Title: Chief Financial Officer

Address: 7100 Shoreline Court
South San Francisco, California 94080

Telephone: (650) 266-6000

Facsimile: (650) 871-7152

Exhibit 10.15A

FLUIDIGM CORPORATION

STOCK REPURCHASE AGREEMENT

This agreement is made this 10th day of April 2008, between Fluidigm Corporation, a Delaware corporation (the "Company") and Gajus V. Worthington (the "Founder").

Recitals

WHEREAS, the Company and the Founder are parties to that certain Employee Loan Agreement (the "Loan Agreement"), Secured Promissory Note (the "Note") and Stock Pledge Agreement (the "Pledge Agreement" and together, the "Loan Agreements"), each dated January 20, 2004, pursuant to which the Company loaned the Founder $250,000 at an interest rate of 3.52% per annum (the "Loan");

WHEREAS, the Loan is secured pursuant to the Pledge Agreement by 833,334 shares of the Company's common stock;

WHEREAS, the Founder desires to repay the Loan in connection with the initial public offering of the Company's common stock in accordance with Section 2.2(d) of the Note by selling 90,913 shares of Company common stock (the "Shares") held by the Founder to the Company at purchase price of $3.19 per share (the "Share Price");

WHEREAS, the Share Price was agreed to pursuant to an independent valuation report received by the Company and prepared by VRC, with a valuation date of April 9, 2008, in which it determined the fair market value of the Company's common stock to be $3.19 per share.

WHEREAS, the Company desires to accept repayment of the Loan by repurchasing the Shares at the Share Price from the Founder and canceling the Note pursuant to the terms and conditions contained in this Agreement and the Loan Agreements.

Agreement

NOW THEREFORE, in consideration of the mutual promises made herein, the parties agree as follows:

1. Stock Repurchase. Upon the Closing Date (as defined below), the Company hereby agrees to repurchase from the Founder, and the Founder hereby agrees to sell to the Company, the Shares, at the Share Price and for an aggregate repurchase price specified in Section 2 below.

From and after the payment of the repurchase price by the Company in the manner set forth in Section 2 below, the Founder's rights as a stockholder with respect to the Shares, including without limitation the right to vote or receive cash or stock dividends, shall cease. Upon payment in full of such repurchase price as specified in Section 2 below, the Shares shall be retired and eliminated from the shares which the Company shall be authorized to issue.

2. Closing. The closing of the sale and purchase of the Shares (the "Closing") shall be on April 10, 2008 or on such other date as the parties may agree (the "Closing Date"). At or before the Closing, the Founder shall deliver the stock certificate representing the Shares, duly endorsed on the reverse side for transfer to the Company, and the Company shall deliver payment to the Founder of the aggregate repurchase price of $290,014.38 by canceling and delivering the Note marked "canceled" in the principal amount of $250,000, plus $40,014.38 as of April 10, 2008 in accrued interest.

3. Release. In exchange for the repurchase of the Shares described above, the Company hereby releases you from all obligations under the Loan Agreements. The Company acknowledges that the Note has been repaid in full and has been canceled.

4. Founder's Representations.

4.1. The Shares are duly authorized, validly issued and are fully paid and non-assessable. Founder is the sole owner of the Shares, and has good and marketable title to the Shares free and clear of any security interests, liens or encumbrances other than (i) joint ownership of the Shares with Founder's spouse; (ii) a right of first refusal and repurchase rights in favor of the Company entered into in connection with the purchase of the Shares; and (iii) the Stock Pledge Agreement in favor of Company's securing the Note. The Shares are fully vested.

4.2. Founder represents and warrants that the Founder has had the opportunity to consult with his own tax, legal and investment advisors regarding the sale of the Shares to the Company. Founder represents that he is familiar with the Company's business and financial conditions by virtue of position with the Company and has the capacity to protect his own interests in connection with the repurchase of the Shares. Founder acknowledges that the Share Price is fair and equitable to him. In addition, Founder acknowledges that the Company may effect an initial public offering or other financing in the future, and such financing may be at a price substantially greater than the Share Price. Founder acknowledges that this Agreement does not confer upon Founder any right with respect to continuing as an employee or other service provider of the Company, nor will it interfere in any way with the Founder's right or the Company's right to terminate such relationship at any time, with or without cause, to the extent permitted by applicable laws. Founder acknowledges that the Company has no obligation (past, present or future) to issue to Founder any shares of the Company's capital stock. Founder agrees that this Agreement represents a negotiated transaction and that no offering was conducted by the Founder in connection herewith.

5. General Provisions.

A. This Agreement shall be governed, construed and enforced in accordance with the laws of the state of California, except with respect to its choice of law provisions. In the event that any provision of this Agreement becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable, or void, this Agreement shall continue in full force and effect without such provision.

B. This Agreement represents the entire agreement between the parties with respect to the repurchase of the Shares by the Company from the Founder and supersedes any prior or concurrent representations or agreements with respect to such repurchase and the repayment of the Note. This Agreement may only be modified or amended by a writing signed by both parties.

C. The Company and Founder agree upon the request of either party to execute such further documents or instruments as may be necessary or desirable to carry out the purposes and intent of this Agreement.

D. This Agreement may be executed in any number of counterparts, each of which shall be an original, but all of which together shall constitute one instrument.

[Signature Page Follows]

IN WITNESS WHEREOF, the parties have duly executed this Agreement as of the first date above.

"**COMPANY**"

FLUIDIGM CORPORATION

By: /s/ Vikram Jog
Vikram Jog
Chief Financial Officer

"**FOUNDER**"

By: /s/ Gajus V. Worthington
Gajus V. Worthington

Exhibit 10.16

January 29, 2008

Vikram Jog
914 Lundy Lane
Los Altos, California 94024

Dear Vikram:

I am pleased to offer you a position with Fluidigm Corporation (the "Company") as Chief Financial Officer reporting to me commencing no later than Tuesday, February 19, 2008. You will receive a semi-monthly salary of $11,583.34 (equivalent to an annual salary of $278,000.00) less deductions required by law, which will be paid in accordance with the Company's normal payroll procedures.

In addition, you will receive a $20,000 signing bonus (subject to all applicable federal and state taxes and to full repayment if you terminate your employment with Fluidigm prior to your one-year anniversary) with your first payroll.

You will be eligible to participate in the Company's executive annual bonus program which is based on achievement of targets or performance criteria as may be specified by the Board. The terms and conditions of the executive annual program may be amended or varied from time to time at the sole discretion of the Board. The projected annual bonus for 2008 is estimated to be a maximum of 35% of the employee's annual base salary, subject to all applicable federal and state taxes, payable on February 13, 2009 and pro-rated on a monthly basis, if less than 12 months' service as of December 31st, 2008. The primary principle for payout of variable cash bonus is "pay for performance." Bonuses for executives will be 35% at 100%o of plan, payable as follows:

- 80% of bonus is for meeting corporate goals.
- 20% of bonus is for meeting departmental goals.
- The bonus will begin to be paid at meeting 80% of plan.

At the next Board meeting, or at the next committee meeting with requisite authorization, after you become an employee of the Company, the Company will grant you an option to purchase up to 500,000 shares of the Common Stock of the Company, at an exercise price equal to the fair market value of the shares at that time. 1/4th of said options will vest and become exercisable one year after the commencement of your employment with the Company and an additional 1/48th of said options will vest and become exercisable at the end of each month after said one year period. These options will be subject to Board approval and the terms of the Company's stock option plan.

Furthermore, at the same board meeting, or at the next committee meeting with requisite authorization, the Company will grant you additional options to purchase (i) 50,000 shares of the Common Stock of the Company, at an exercise price equal to the fair market value of the shares

at that time. These options will vest at the end of 2008 in conjunction with the company achieving its corporate goals (see Corporate Goals in the attached appendix A), and (ii) 50,000 shares of the Common Stock of the Company, at an exercise price equal to the fair market value of the shares at that time. These options will vest on the earlier of (a) achievement of departmental goals so long as the goals are achieved in 2008 (see Departmental Goals in the attached appendix A), or (b) December 31, 2011. Pay-out for partial achievement of goals will be at the discretion of the Compensation Committee. Goals can also be adjusted with approval by the CEO and the Compensation committee.

You are eligible to receive the Company's standard benefits package which includes medical, dental, vision, life and disability insurance benefits. Additional benefits, as the company may make generally available to its employees from time to time, will be made available to you. You will be entitled to 4 weeks paid vacation each year and such paid holidays as the Company gives to its employees generally.

You should be aware that your employment with the Company is for no specified period and constitutes at-will employment. As a result, you are free to resign at any time, for any reason or for no reason. Similarly, the Company is free to conclude its employment relationship with you at any time, with or without cause.

Your employment contract will also contain certain change of control and termination without cause provisions, summarized below:

- Termination "Without Cause" prior to a change of control results in: (i) 6 months severance paid as salary continuation, plus (ii) up to 6 months of reimbursement for COBRA expenses.
- Termination "Without Cause" after 12 months following a change of control results in: (i) 6 months severance paid as salary continuation, plus (ii) up to 3 months of reimbursement for COBRA expenses.
- Termination "Without Cause" or for "Good Reason" within 12 months following a change of control results in: (i) 6 months severance paid in lump sum, plus (ii) acceleration of all unvested options and restricted stock, and (iii) up to 6 months of reimbursement for COBRA expenses.
- If benefits are subject to 280G parachute payment excise taxes, then the executive will receive the "best of (i) the benefits delivered in full and subject to the excise tax, or (ii) reduced benefits such that no excise tax is applied.
- In the case of (i) death, (ii) disability, (iii) termination for cause, or (iv) termination that is voluntary and is not for Good Reason within 12 months of a change of control, then the executive gets no severance, and only salary and other employee benefits that are owing and due through date of termination of employment.

Notwithstanding the above, the final language and provisions of change of control clauses of your employment contract are subject to Board approval.

For purposes of federal immigration law, you will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States. Such documentation must be provided to us within three (3) business days of your date of hire, or our employment relationship with you may be terminated.

You understand that as a condition of your employment you will be required to sign the Company's standard proprietary information agreement which the Company will be providing you with shortly.

To indicate your acceptance of the Company's offer, please sign and date this letter in the space provided below and return/fax it to me at (650) 871-7192. This offer expires on Tuesday, January 29, 2008 at midnight. A copy is provided for your records. This letter, along with the agreement relating to proprietary rights between you and the Company, set forth the terms of your employment with the Company and supersede any prior representations or agreements, whether written or oral. This letter may not be modified or amended except by a written agreement, signed by the Company and by you.

Vikram, we look forward to working with you at Fluidigm Corporation.

Sincerely,

/s/ Gajus Worthington
Gajus Worthington
President and Chief Executive Officer
Fluidigm Corporation

Encl.

ACCEPTED AND AGREED TO:

/s/ Vikram Jog	1/29/2008
Vikram Jog	Date

2008 Fluidigm Corporate goals:

1) Revenues of $ 18M (>100% year-on-year growth)
2) 50%+ margins throughout the year
3) Conduct IPO in 2008 —$300M+ pre-money valuation, raising >$60M
4) Meet expense budget/cash burn

Finance Specific for 2008:

1) Revenue recognition

   a) No material changes upon quarterly reviews and annual audit.

2) Accurate (no material restatements), timely (within 3 to 4 weeks of quarter end) closing of books and reporting (timeliness as required by investors and SEC).
3) SEC and SOX compliance, as needed.
4) Produce audited financial statements for 2005, 2006 and 2007 (and Q1 2008, if necessary) to enable the filing of Form S-1 registration statement in 1H08 (together with legal).

FLUIDIGM CORPORATION

EMPLOYMENT, CONFIDENTIAL INFORMATION AND INVENTION ASSIGNMENT AGREEMENT

As a condition of my employment with FLUIDIGM Corporation, its subsidiaries, affiliates, successors or assigns (together the "Company"), and in consideration of my employment with the Company and my receipt of the compensation now and hereafter paid to me by the Company, I agree to the following:

1. **At-Will Employment**. I understand and acknowledge that my employment with the Company is for an unspecified duration and constitutes "at-will" employment. I acknowledge that this employment relationship may be terminated at any time, with or without good cause or for any or no cause, at the option either of the Company or myself.

2. **Confidential Information**.

(a) **Company Information**. I agree at all times during the term of my employment and thereafter, to hold in strictest confidence, and not to use, except for the benefit of the Company, or to disclose to any person, firm or corporation without written authorization of the Board of Directors of the Company, any Confidential Information of the Company. I understand that "Confidential Information" means any Company proprietary information, technical data, trade secrets or know-how, including, but not limited to, research, product plans, products, services, customer lists and customers (including, but not limited to, customers of the Company on whom I called or with whom I became acquainted during the term of my employment), markets, software, developments, inventions, processes, formulas, technology, designs, drawings, engineering, hardware configuration information, marketing, finances or other business information disclosed to me by the Company either directly or indirectly in writing, orally or by drawings or observation of parts or equipment. I further understand that Confidential Information does not include any of the foregoing items which has become publicly known and made generally available through no wrongful act of mine or of others who were under confidentiality obligations as to the item or items involved.

(b) **Former Employer Information**. I agree that I will not, during my employment with the Company, improperly use or disclose any proprietary information or trade secrets of any former or concurrent employer or other person or entity and that I will not bring onto the premises of the Company any unpublished document or proprietary information belonging to any such employer, person or entity unless consented to in writing by such employer, person or entity.

(c) **Third Party Information**. I recognize that the Company has received and in the future will receive from third parties their confidential or proprietary information subject to a duty on the Company's part to maintain the confidentiality of such information and to use it only for certain limited purposes. I agree to hold all such confidential or proprietary information in the strictest confidence and not to disclose it to any person, firm or corporation or to use it except as necessary in carrying out my work for the Company consistent with the Company's agreement with such third party.

3. **Inventions**.

(a) **Inventions Retained and Licensed**. I have attached hereto, as Exhibit A, a list describing all inventions, original works of authorship, developments, improvements, and trade secrets which were made by me prior to my employment with the Company (collectively referred to as "Prior inventions"), which belong to me, which relate to the Company's proposed business, products or research and development, and which are not assigned to the Company hereunder; or, if no such list is attached, I represent that there are no such Prior Inventions. If in the course of my employment with the Company, I incorporate into a Company product, process or machine a Prior Invention owned by me or in which I have an interest, the Company is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use and sell such Prior Invention as part of or in connection with such product, process or machine.

(b) **Assignment of Inventions**. I agree that I will promptly make full written disclosure to the Company, will hold in trust for the sole right and benefit of the Company, and hereby assign to the Company, or its designee, all my right, title, and interest in and to any and all inventions, original works of authorship, developments, concepts, improvements or trade secrets, whether or not patentable or registrable under copyright or similar laws, which I may solely or jointly conceive or develop or reduce to practice, or cause to be conceived or developed or reduced to practice, during the period of time I am in the employ of the Company (collectively referred to as "Inventions"), except as provided in Section 3(f) below. I further acknowledge that all original works of authorship which are made by me (solely or jointly with others) within the scope of and during the period of my employment with the Company and which are protectible by copyright are "works made for hire," as that term is defined in the United States Copyright Act.

(c) **Inventions Assigned to the United States**. I agree to assign to the United States government all my right, title, and interest in and to any and all Inventions whenever such full title is required to be in the United States by a contract between the Company and the United States or any of its agencies.

(d) **Maintenance of Records**. I agree to keep and maintain adequate and current written records of all Inventions made by me (solely or jointly with others) during the term of my employment with the Company. The records will be in the form of notes, sketches, drawings, and any other format that may be specified by the Company. The records will be available to and remain the sole property of the Company at all times.

(e) **Patent and Copyright Registrations**. I agree to assist the Company, or its designee, at the Company's expense, in every proper way to secure the Company's rights in the Inventions and any copyrights, patents, mask work rights or other intellectual property rights relating thereto in any and all countries, including the disclosure to the Company of all pertinent information and data with respect thereto, the execution of all applications, specifications, oaths, assignments and all other instruments which the Company shall deem necessary in order to apply for and obtain such rights and in order to assign and convey to the Company, its successors, assigns, and nominees the sole and exclusive rights, title and interest in and to such Inventions, and any copyrights, patents, mask work rights or other intellectual property rights relating thereto. I further agree that my obligation to execute or cause to be executed, when it is in my power to do so, any such instrument or papers shall continue after the termination of this Agreement. If the Company is unable because of my mental or physical incapacity or for any other reason to secure my signature to apply for or to pursue any application for any United States or foreign patents or copyright registrations covering Inventions or original works of authorship assigned to the Company as above, then I hereby irrevocably designate and appoint the Company and its duly authorized officers and agents as my agent and attorney in fact, to act for and in my behalf and stead to execute and file any such applications and to do all other lawfully permitted acts to further the prosecution and issuance of letters patent or copyright registrations thereon with the same legal force and effect as if executed by me.

(f) **Exception to Assignments**. I understand that the provisions of this Agreement requiring assignment of Inventions to the Company do not apply to any invention which qualifies fully under the provisions of California Labor Code Section 2870 (attached hereto as Exhibit B). I will advise the Company promptly in writing of any inventions that I believe meet the criteria in California Labor Code Section 2870 and not otherwise disclosed on Exhibit A.

4. **Conflicting Employment**. I agree that, during the term of my employment with the Company, I will not engage in any other employment, occupation, consulting or other business activity directly related to the business in which the Company is now involved or becomes involved during the term of my employment, nor will I engage in any other activities that conflict with my obligations to the Company.

5. **Returning Company Documents**. I agree that, at the time of leaving the employ of the Company, I will deliver to the Company (and will not keep in my possession, recreate or deliver to anyone else) any and all devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items developed by me pursuant to my employment with the Company or otherwise belonging to the Company, its successors or assigns. In the event of the termination of my employment, I agree to sign and deliver the 'Termination Certification" attached hereto as Exhibit C.

6. **Notification of New Employer**. In the event that I leave the employ of the Company, I hereby grant consent to notification by the Company to my new employer about my rights and obligations under this Agreement.

7. **Solicitation of Employees**. I agree that for a period of twelve (12) months immediately following the termination of my relationship with the Company for any reason, whether with or without cause, I shall not either directly or indirectly solicit, induce, recruit or encourage any of the Company's employees to leave their employment, or take away such employees, or attempt to solicit, induce, recruit, encourage or take away employees of the Company, either for myself or for any other person or entity.

8. **Conflict of Interest Guidelines**. I agree to diligently adhere to the Conflict of Interest Guidelines attached as Exhibit D hereto.

9. **Representations**. I agree to execute any proper oath or verify any proper document required to carry out the terms of this Agreement. I represent that my performance of all the terms of this Agreement will not breach any agreement to keep in confidence proprietary information acquired by me in confidence or in trust prior to my employment by the Company. I have not entered into, and I agree I will not enter into, any oral or written agreement in conflict herewith.

10. **Arbitration and Equitable Relief**.

(a) **Arbitration**. Except as provided in Section 10(b) below, I agree that any dispute or controversy arising out of or relating to any interpretation, construction, performance or breach of this Agreement, shall be settled by arbitration to be held in Santa Clara County, California, in accordance with the rules then in effect of the American Arbitration Association. The arbitrator may grant injunctions or other relief in such dispute or controversy. The decision of the arbitrator shall be final, conclusive and binding on the parties to the arbitration. Judgment may be entered on the arbitrator's decision in any court having jurisdiction. The Company and I shall each pay one-half of the costs and expenses of such arbitration, and each of us shall separately pay our counsel fees and expenses.

(b) **Equitable Remedies**. I agree that it would be impossible or inadequate to measure and calculate the Company's damages from any breach of the covenants set forth in Sections 2, 3, and 5 herein. Accordingly, I agree that if I breach any of such Sections, the Company will have available, in addition to any other right or remedy available, the right to obtain an injunction from a court of competent jurisdiction restraining such breach or threatened breach and to specific performance of any such provision of this Agreement. I further agree that no bond or other security shall be required in obtaining such equitable relief and I hereby consent to the issuance of such injunction and to the ordering of specific performance.

11. **General Provisions**.

(a) **Governing Law; Consent to Personal Jurisdiction**. This Agreement will be governed by the laws of the State of California, without reference to choice of laws or conflict of laws principles. I hereby expressly consent to the personal jurisdiction of the state and federal courts located in California for any lawsuit filed there against me by the Company arising from or relating to this Agreement.

(b) **Entire Agreement**. This Agreement sets forth the entire agreement and understanding between the Company and me relating to the subject matter herein and merges all prior discussions between us. No modification of or amendment to this Agreement, nor any waiver of any rights under this agreement, will be effective unless in writing signed by the party to be charged. Any subsequent change or changes in my duties, salary or compensation will not affect the validity or scope of this Agreement.

(c) **Severability**. If one or more of the provisions in this Agreement are deemed void by law, then the remaining provisions will continue in full force and effect.

(d) **Successors and Assigns**. This Agreement will be binding upon my heirs, executors, administrators and other legal representatives and will be for the benefit of the Company, its successors, and its assigns.

Date: 02/25/2008

Signature /s/ Vikram Jog

Name of Employee (typed or printed) Vikram Jog

/s/ Denise Jimenez
Witness

EXHIBIT A

LIST OF PRIOR INVENTIONS
AND ORIGINAL WORKS OF AUTHORSHIP

Title	Date	Identifying Number or Brief Description

_____No inventions or improvements

_____Additional Sheets Attached

Signature of Employee: _____

Print Name of Employee: _____

Date: _____ , _____

EXHIBIT B

CALIFORNIA LABOR CODE SECTION 2870
EMPLOYMENT AGREEMENTS; ASSIGNMENT OF RIGHTS

"(a) Any provision in an employment agreement which provides that an employee shall assign, or offer to assign, any of his or her rights in an invention to his or her employer shall not apply to an invention that the employee developed entirely on his or her own time without using the employer's equipment, supplies, facilities, or trade secret information except for those inventions that either:

(1) Relate at the time of conception or reduction to practice of the invention to the employer's business, or actual or demonstrably anticipated research or development of the employer.

(2) Result from any work performed by the employee for the employer.

(b) To the extent a provision in an employment agreement purports to require an employee to assign an invention otherwise excluded from being required to be assigned under subdivision (a), the provision is against the public policy of this state and is unenforceable."

EXHIBIT C

FLUIDIGM CORPORATION

TERMINATION CERTIFICATION

This is to certify that I do not have in my possession, nor have I failed to return, any devices, records, data, notes, reports, proposals, lists, correspondence, specifications, drawings, blueprints, sketches, materials, equipment, other documents or property, or reproductions of any aforementioned items belonging to **FLUIDIGM Corporation,** its subsidiaries, affiliates, successors or assigns (together, the "Company").

I further certify that I have complied with all the terms of the Company's Employment Confidential Information and Invention Assignment Agreement signed by me, including the reporting of any inventions and original works of authorship (as defined therein), conceived or made by me (solely or jointly with others) covered by that agreement.

I further agree that, in compliance with the Employment, Confidential Information and Invention Assignment Agreement, I will preserve as confidential all trade secrets, confidential knowledge, data or other proprietary information relating to products, processes, know-how, designs, formulas, developmental or experimental work, computer programs, data bases, other original works of authorship, customer lists, business plans, financial information or other subject matter pertaining to any business of the Company or any of its employees, clients, consultants or licensees.

I further agree that for twelve (12) months from this date, I will not solicit, induce, recruit or encourage any of the Company's employees to leave their employment.

Date: _____,__

_____
(Employee's Signature)

_____
(Type/Print Employee's Name)

EXHIBIT D

FLUIDIGM CORPORATION

CONFLICT OF INTEREST GUIDELINES

It is the policy of **FLUIDIGM Corporation** to conduct its affairs in strict compliance with the letter and spirit of the law and to adhere to the highest principles of business ethics. Accordingly, all officers, employees and independent contractors must avoid activities which are in conflict, or give the appearance of being in conflict, with these principles and with the interests of the Company. The following are potentially compromising situations which must be avoided. Any exceptions must be reported to the President and written approval for continuation must be obtained.

1. Revealing confidential information to outsiders or misusing confidential information. Unauthorized divulging of information is a violation of this policy whether or not for personal gain and whether or not harm to the Company is intended. (The Employment, Confidential Information and Invention Assignment Agreement elaborates on this principle and is a binding agreement.)

2. Accepting or offering substantial gifts, excessive entertainment, favors or payments which may be deemed to constitute undue influence or otherwise be improper or embarrassing to the Company.

3. Participating in civic or professional organizations that might involve divulging confidential information of the Company.

4. Initiating or approving personnel actions affecting reward or punishment of employees or applicants where there is a family relationship or is or appears to be a personal or social involvement (other than as officers of the Company appointed by the Board of Directors).

5. Initiating or approving any form of personal or social harassment of employees.

6. Investing or holding outside directorship in suppliers, customers, or competing companies, including financial speculations, where such investment or directorship might influence in any manner a decision or course of action of the Company.

7. Borrowing from or lending to employees, customers or suppliers.

8. Acquiring real estate of interest to the Company.

9. Improperly using or disclosing to the Company any proprietary information or trade secrets of any former or concurrent employer or other person or entity with whom obligations of confidentiality exist.

10. Unlawfully discussing prices, costs, customers, sales or markets with competing companies or their employees.

11. Making any unlawful agreement with distributors with respect to prices.

12. Improperly using or authorizing the use of any inventions which are the subject of patent claims of any other person or entity.

13. Engaging in any conduct which is not in the best interest of the Company.

Each officer, employee and independent contractor must take every necessary action to ensure compliance with these guidelines and to bring problem areas to the attention of higher management for review. Violations of this conflict of interest policy may result in discharge without warning.

SETTLEMENT AGREEMENT AND GENERAL RELEASE OF ALL CLAIMS

This Settlement Agreement and General Release of All Claims ("Agreement") is made and entered into as of March 20, 2008, by and between Michael Ybarra Lucero ("Employee"), on the one hand, and Fluidigm Corporation ("Employer"), on the other hand, for the purpose of settling any and all claims between them, as more specifically described below, including any and all claims arising from or in any way related to the Employee's employment by and cessation of employment with the Employer, except as noted below.

In consideration of the mutual promises and covenants contained herein, and in consideration of other good and valuable consideration, the adequacy of which is hereby acknowledged, the Employee and the Employer (hereinafter sometimes referred to individually as a "Party" or collectively as the "Parties"), and each of them, covenant and agree as follows:

1. Claims Pending and Agreement to Not Pursue Claims.

(a) The Employee represents that the Employee does not have pending against the Employer; against any of the Employer's parents, subsidiaries, affiliates, stock option plan, 401(k) or other retirement plans, directors, owners, shareholders, employees, members of the Employer's Board of Directors, attorneys, agents, owners, insurers and/or representatives; or against any of their predecessors, successors and assigns, and each of them (collectively the "Releasees"), any lawsuit, grievance, charge, claim, complaint, action, demand and/or petition, including any workers' compensation claim, in or with any federal, state or local court or administrative agency. The Employer represents that the Employer does not have pending any lawsuit, charge, claim, complaint, action, demand and/or petition against the Employee.

(b) The Employee and Releasees, and each of them, wish to resolve any and all existing and/or potential lawsuits, grievances, charges, claims, complaints, actions, demands, petitions and/or disputes between them, including any and all claims through March 14, 2008, (the "Date of Cessation of Employment"), arising from and/or in any way related to the Employee's employment by and cessation of employment with the Employer (the "Released Claims"), except as noted herein.

(c) The Employee agrees that the Employee shall not file or cause to be filed and shall not prosecute in any manner any lawsuits, grievances, charges, claims, complaints, actions, demands, petitions and/or disputes, against Releasees, or any of them, at any time hereinafter, with respect to any of the Released Claims; and that if any agency or court assumes jurisdiction of any such lawsuit, grievance, charge, claim, complaint, action, demand, petition and/or dispute against Releasees, or any of them, the Employee shall request that such agency or court dismiss such matter with prejudice, or if applicable, the Employee shall opt out of any actual or purported class action, and agrees that, in any event, the Employee shall not accept any remedy obtained through the efforts of any such agency or court.

2. Cessation of Employment, Return of Records and Continuing Obligation Regarding Confidential and/or Proprietary Information.

(a) Effective the Date of Cessation of Employment, the Employee's at-will employment with the Employer ceased and all benefit coverage also ceased. The Employee acknowledges and agrees that, after the Date of Cessation of Employment, the Employee shall not have any authority to represent or bind the Employer and shall not act or convey the impression that Employee is acting on behalf of the Employer.

(b) The Employee represents that, no later than the Date of Cessation of Employment, the Employee returned any and all property of the Employer, including, but not limited to, office keys, computer hardware and related accessories, software and the original and all copies (including electronic versions) of all files, including research, strategic, operational, technical, financial and confidential files, of the Employer and/or of its former, current and/or potential customers, suppliers, vendors, other independent contractors and/or others doing business with the Employer. The Employee agrees that the Employee remains bound by the obligation of the Employee to not reveal, use or disclose any research, strategic, operational, technical, financial and/or other confidential or proprietary information or trade secrets of the Employer, and/or of its former, current and/or potential customers, suppliers, vendors, other independent contractors and/or others doing business with the Employer. The Employee further covenants and agrees that the Employee will keep confidential any and all customer or client lists of the Employer, mailings and other business information that the Employee has acquired about the Employer and shall not disclose or reveal any of such information to any person or entity until, if ever, such information is published and becomes public knowledge (other than through acts by or on behalf of the Employee), or as required by legal process in a formal legal proceeding. The Parties further agree that despite the provisions of Paragraph 17 below, only injunctive relief can adequately remedy a violation of this Paragraph, that the Employer shall be entitled to injunctive relief to prevent any such violation, and, if successful in pursuing such an action, that the Employer shall be entitled to recover from the Employee its reasonable attorneys fees and costs.

(c) During the period of March 15 to July 15, 2008, the Employee shall be available to the Employer on an "as needed" basis, up to a maximum of five (5) hours per calendar month, shall at all times comply with any applicable policies and procedures of the Employer, shall comply fully with Paragraph 9(b) below, and shall conduct himself in a "professional' manner with respect to the Employer and the Releasees.

3. Transition Funds and Tax Liability.

(a) No later than the Date of Cessation of Employment, the Employer provided to the Employee a check, minus applicable taxes and deductions, for all accrued, but unused vacation and for all unpaid wages for the period up through and including the Date of Cessation of Employment.

(b) Assuming no revocation of this Agreement by the Employee, pursuant to Paragraphs 6 and 7 below, and assuming compliance by the Employee with Paragraphs 2(b), 2(c) and 9(d), then the Employer (i) shall pay the Employee, through July 15, 2008, on Fluidigm's

normal pay days, a sum, minus applicable taxes and deductions, equal to what the Employee would have received on that pay day based on an annual salary of Two Hundred Sixty-Five Thousand Dollars ($265,000.00); and (ii) shall reimburse the Employee, based on submitted receipts, for the Employee's COBRA costs, for the months of April, May, June and July, 2008, in an amount no greater than the amount the Employer contributed on behalf of the Employee for February, 2008 (collectively the "Transition Funds"); provided, however, that the obligation of the Employer to pay the Employee any of the Transition Funds, as set forth in this Paragraph 3(b)(i) and (ii), shall immediately cease prior to July 15, 2008 upon the Employee accepting any employment (self-employment, or as an employee) and further provided that the Employee is obligated to notify Annie Butler, Sr. Manager, Human Resources & Administration or person with equivalent title, in writing, within two (2) business days of accepting any such employment. Employee agrees that if he provides consulting services under section 2(c), five thousand dollars ($5,000) of the separation payment shall be considered compensation for any services provided. In addition to the Transition Funds, as additional consideration for the execution of this Agreement by Employee, the Employer shall pay Employee an amount equal to $90,000 (after all applicable withholding) (the "Special Bonus") within 10 days of the effective date of this Agreement. Employee is expected, but not required, to use the Special Bonus to exercise Employee's existing option to purchase 300,000 shares of Employer's Common Stock at $0.30 per share pursuant to option grant number 99-98.

(c) It is the intent of the Parties that the Transition Funds are not a "deferral of compensation" and are exempt from adverse taxation under Section 409A of the Internal Revenue Code pursuant to the exception from Section 409A provided under Treasury Regulations Sections 1.409A-l(b) (4) and 1.409A-l(b) (9) (iii) and (v). Notwithstanding the foregoing, and notwithstanding the Employer's withholding of applicable taxes as provided in Paragraph 3(a) and (b) above, the Employee agrees that, if it is determined that additional federal, state and/or local taxes are required to be levied against the Employee by any applicable local, state and/or federal taxing authority with respect to any or all of the sums described above in Paragraph 3(a) and/or the Transition Funds described above in Paragraphs 3(b), including penalties, interest and assessments thereon, the Employee agrees to be solely responsible for the taxes, penalties, interest and assessments and hereby agrees to release and indemnify Releasees, and each of them, from any and all claims by the Employee and by any local, state or federal governmental agency for any unpaid taxes, penalties, interest and assessments thereon.

(d) The Employee agrees that, upon payment of the funds set forth in Paragraph 3(a), the Employee will have received all wages, vacation, bonus and other benefits owed to the Employee by Releasees, or any of them. The Employee further agrees that the funds, as set forth above in Paragraph 3(b), constitute the entire financial consideration provided to the Employee under this Agreement and the Employee shall not seek any further compensation and/or consideration from Releasees, or any of them, and/or from any other person and/or entity, for any other claimed damages, costs or attorneys' fees with respect to the Released Claims.

4. No Admission of Liability.

This Agreement affects the settlement of claims, charges and disputes, all of which are denied and contested. Nothing contained in this Agreement or by compliance with this Agreement shall be construed as an admission in any manner by the Employee Parties (as defined below) or by

any of the Releasees of any liability whatsoever. The Releasees and the Employee Parties specifically deny any wrongdoing or liability for any alleged violation of the rights of the other or for any alleged violation of any order, law, statute, duty, contract, or public policy. Releasees and the Employee Parties continue to contest every claim, complaint, charge, grievance, action, petition and dispute resolved in this Agreement.

5. Release of Claims.

The Employee, individually and on behalf of the Employee's predecessors, successors, assigns, heirs, estates, executors, administrators, agents, representatives and attorneys (collectively, the "Employee Parties"), and each of them, voluntarily, irrevocably and unconditionally releases, acquits and forever discharges Releasees, and each of them, from any and all charges, complaints, claims, promises, agreements, controversies, suits, demands, costs, losses, debts, actions, causes of action, damages, judgments, obligations, liabilities, and expenses of whatever kind and character, known or unknown, suspected or unsuspected, including any claims for attorneys' fees and costs, which the Employee now has, owns, holds or claims to have, own or hold, or may have owned or held against any of the Releasees regarding events that have occurred through the Date of Execution in connection with or related to the Employee's employment by or with cessation of employment with the Employer, including, without limitation, any and all claims under the Age Discrimination in Employment Act of 1967, the Americans with Disabilities Act of 1990, the Vietnam Era Veterans' Readjustment Assistance Act of 1974, the Employee Retirement Income Security Act of 1974, the Civil Rights Act of 1991, Title VII of the Civil Rights Act of 1964, Sections 503 and 504 of the Rehabilitation Act of 1973, the California Labor Code, the California Government Code, any other applicable federal, state and/or local statute, ordinance, regulation and/or the common law, and/or any amendments to any of these federal, state and/or local statutes, ordinances and/or regulations (the "Released Claims"). The Employee hereby waives any right to assert a claim for any relief available under these acts, statutes and/or regulations (including, but not limited to, back pay, attorneys' fees, damages, lost benefits, reinstatement and/or other injunctive relief) the Employee may otherwise recover based upon any alleged violation(s) of these acts and/or statutes for causes of action that arose up to the Date of Execution of this Agreement. *The Employee understands and agrees that, notwithstanding any provisions and covenants in this Agreement, specifically in Paragraphs 5(a) and 5(b), nothing in this Agreement is intended to constitute an unlawful release and/or waiver of any of the Employee's ability and/or right to (i) provide truthful testimony if under subpoena to do so and/or (ii) participate in an investigation and/or proceeding conducted by the Equal Employment Opportunity Commission ("EEOC"), the California Fair Employment and Housing Commission ("FEHC") and/or any other governmental agency.* The Employer acknowledges that it has an ongoing obligation to comply with California Labor Code Section 2802, and the Parties acknowledge that the Employee is not releasing the Employee's right to indemnification by the Releasees pursuant to any indemnification insurance maintained by the Employer or pursuant to applicable law. The Employee further asserts and represents that the Employee is not aware of any facts giving rise to a basis for the Employee to file, and the Employee has no plans to file, a workers' compensation claim against the Employer and/or any of its subsidiaries and/or affiliates and is not aware of any pending claim and/or action that would require the Employer to defend and/or indemnify the Employee pursuant to California Labor Code Section 2802.

6. Acknowledgment of Waiver of Claims under ADEA

(a) The Employee specifically understands and acknowledges that the Age Discrimination in Employment Act of 1967, as amended, ("ADEA"), provides the Employee the right to bring a claim against the Employer if the Employee believes that the Employee has been discriminated against on the basis of age. Employee acknowledges that he is waiving and releasing any rights he may have under the Age Discrimination in Employment Act of 1967 ("ADEA"), and that this waiver and release is knowing and voluntary. Employee agrees that this waiver and release does not apply to any rights or claims that may arise under the ADEA after the Effective Date of this Agreements. Employee acknowledges that the consideration given for this waiver and release is in addition to anything of value to which Employee was already entitled. Employee further acknowledges that he has been advised by this writing that: (a) he should consult with an attorney prior to executing this Agreement; (b) he has twenty-one (21) days within which to consider this Agreement; (c) he has seven (7) days following his execution of this Agreement to revoke this Agreement; (d) this Agreement shall not be effective until after the revocation period has expired; and (e) nothing in this Agreement prevents or precludes Employee from challenging or seeking a determination in good faith of the validity of this waiver under the ADEA, nor does it impose any condition precedent, penalties, or costs for doing so, unless specifically authorized by federal law. In the event Employee signs this Agreement and returns it to the Company in less than the 21-day period identified above Employee hereby acknowledges that he has freely and voluntarily chosen to waive the time period allotted for considering this Agreement.

(b) This Agreement was delivered to the Employee on March 20, 2008. The Employee agrees to deliver or cause to be delivered any such revocation in writing to: Annie Butler, Fluidigm Corporation, 7000 Shoreline Court, Suite 100, So. San Francisco, CA 94080, within seven (7) calendar days of the Employee's execution of this Agreement. The Employee further understands and agrees that any such revocation of this Agreement by the Employee shall render this Agreement (including the release of the Releasees' Claims in Section 5(b)) wholly null and void, except as set forth below in Paragraph Seven.

7. Effect of Revocation.

If the Employee exercises the Employee's right to revoke this Agreement, pursuant to Paragraph 6 above, the Employee shall be deemed, effective as of the Date of Cessation of Employment, to have been terminated and the Employee shall not be entitled to any of the Transition Funds described above in Paragraph 3(b) and to the benefits set forth below in Paragraphs 9 (a), (b) and (c), and each of them.

8. Section 1542 Waiver.

With respect to any alleged claim of the Employee arising under any California statutory provision, the Employee agrees that all of the Employee's rights under Section 1542 of the Civil Code of the State of California which are related or in any manner incidental to the matters encompassed by this Agreement are hereby waived. Section 1542 provides as follows:

"A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR."

9. Public Statement.

The Employer and the Employee agree that:

(a) if asked about the outcome, resolution and/or status regarding the Employee's relationship with the Employer, the response of the Employee shall be to explain that, effective as of the Date of Cessation of Employment, the Employee left the employ of the Employer to pursue other professional and personal interests;

(b) absent a subpoena/court order, a written release executed by the Employee and/or a request by a governmental agency, the Employer shall provide any prospective employer of the Employee with confirmation of the Employee's dates of employment, the Employee's last position held with the Employer and the fact of the cessation of employment as described above in Paragraph 9(a);

(c) if the Employee ever requires employment references from the Employer for any prospective employer(s), the Employee shall refer the prospective employer(s) only to Annie Butler, Sr. Manager, Human Resources & Administration or person with equivalent title and to no one else and Annie Butler or person with equivalent title shall provide the information set forth above in Paragraph 9(b); and

(d) the Parties agrees that neither shall, orally or in writing, publicly or privately, post, publish, make or express any comment, view or opinion which criticizes, is adverse to, brings into disrepute in the eyes of the public, defames, derogates or disparages the other, nor shall the Party authorize any agent or representative to make or express any such comment, view or opinion. It is further agreed that providing any of the information as set forth in this Paragraph Nine, and testifying truthfully in a court of law or duly authorized arbitral forum, shall not be a violation of Paragraph 9(d). Employee agrees that the Company's obligations under this provision shall only extend to executives and members of the Board and only for so long as such individuals remain in service to the Company.

10. Confidentiality.

(a) The Employee agrees that the Employee shall keep all of the facts and terms of the settlement and the terms and conditions of the Transition Funds provided under this Agreement completely confidential and shall not disclose or allow the disclosure to any person or entity, unless expressly required by law to do so and except as to the Employee's spouse or registered domestic partner, if any) and persons assisting in legal, tax and financial preparation, provided, however, that any such person or entity shall first agree in writing to be bound by the

confidentiality terms as set forth in this Paragraph 10; that the Employee shall respond to any inquiry about the Employee's relationship with the Employer or the cessation of the Employee's employment with the Employer in accordance with the terms of Paragraphs 9(a) and 9(b) and 9(c) above.

(b) The Parties agree that a breach by the Employee of any of the provisions as set forth above in Paragraphs 9 and/or 10(a) would be a material breach of this Agreement. The Parties further agree that if any of these provisions are breached by the Employee, or any of the persons or entities to whom the Employee is authorized to disclose the terms of this Agreement, the Employee shall be obligated to return to the Employer all of the Transition Funds received by the Employee from the Employer pursuant to Paragraph 3(b) above and the Employee shall also be liable to any Releasee for any actual damages it suffers as a result of any such breach. The Employee further acknowledges and agrees that in the event of any threatened and/or actual breach as provided in this Section 10(a), the Employer shall be entitled to directly seek injunctive relief in any court of competent jurisdiction with respect to any threatened or actual breach of these provisions. The Parties further agree that this Agreement is fully admissible and enforceable in any judicial or arbitration proceedings.

11. Legal Counsel.

Each Party expressly warrants and agrees that the Party has had the opportunity to be represented by counsel and that each has been supplied with, has read and has had an opportunity, if the Party so desired, to discuss the terms of this Agreement with the Party's own legal counsel. Each Party further warrants and agrees that the Party fully understands the contents and effect of this document, approves and voluntarily accepts the terms and provisions of the Agreement with full knowledge of their significance, agrees to be bound by the Agreement and signs with the express intention of effecting the extinguishment of any and all claims.

12. Entire Agreement.

This Agreement incorporates the entire understanding between the Parties and recites the whole consideration for the promises exchanged herein. It fully supersedes any and all prior agreements or understandings, written or oral, between the Parties hereto pertaining to the subject matter hereof with the exception of the Employment, Confidential Information and Invention Assignment Agreement and the 1999 Stock Option Plan, Stock Option Agreement. The terms of this Agreement are contractual and not mere recitals.

13. Severability.

Should any term, clause or provision of this Agreement be determined by any final decision of any Court to be wholly or partially illegal or invalid, the validity of the remaining terms, clauses, and provisions shall not be affected thereby, and said illegal or invalid term, clause or provision shall be deemed not to be part of this Agreement.

14. Choice of Law.

This Agreement is made and entered into in the State of California and shall in all respects be interpreted, enforced, construed and governed under the laws of the State of California. Any court proceeding arising from this Agreement shall be filed in the County of San Mateo, State of California, except that the Parties agree that this Agreement may be pleaded as a full, final and complete defense to, and may be used as the basis for, an injunction against, any action, suit or other proceeding which may be instituted, prosecuted or maintained in any court in breach of this Agreement.

15. Modification.

This Agreement may not be amended or modified in any respect whatsoever except by a writing duly executed by the Parties, and the Parties agree that they shall make no claim(s) at any time that this Agreement has been orally amended or modified.

16. Reliance.

The Parties to this Agreement represent and acknowledge that in executing this Agreement, the Parties, and each of them, do not rely and have not relied upon any representation or statement made by any other Party to this Agreement with regard to the subject matter, basis or fact of this Agreement, other than the terms of this Agreement.

17. Arbitration.

In the event of any dispute between the Parties arising out of, relating to or in connection with any of the provisions of this Agreement, any documents executed and delivered pursuant to this Agreement, or compliance with this Agreement, the Parties hereby agree that any such dispute(s) shall be submitted to final and binding arbitration in the San Francisco Bay Area, California before an Arbitrator chosen mutually by the Parties or, absent such agreed choice within two (2) calendar weeks, from a list provided by the American Arbitration Association and under the California Employment Dispute Resolution Rules of the American Arbitration Association. The Arbitrator chosen shall be bound by the express terms of this Agreement except as necessary to comply with the requirements of applicable case law, such as *Armendariz v. Employer Health Psychare Services, Inc*. (2000) 24 Cal.4th 83 and *Nyulassy v. Lockheed Martin Corporation* (2004) 04 C.D.O.S. 6770; and shall hear and determine all disputes as presented to him or her as expeditiously and economically as possible. Any award of the Arbitrator shall be final and binding and may be confirmed as a final judgment in any Court of competent jurisdiction in California. To the extent consistent with applicable statutory and case law, the prevailing Party in any action, proceeding or arbitration shall be entitled to recover not only the amount of any damages, judgment, award or settlement in favor of said Party, if any, but also such other damages, costs and expenses as may be actually incurred by said Party, including Court costs, reasonable attorneys' fees, or expert witness or consultant fees incurred in connection with such action, proceeding or arbitration.

18. Authority to Execute.

Each individual signing this Agreement, whether signed individually or on behalf of any person or entity, warrants and represents that the individual has full authority to so execute this Agreement on behalf of the Party on whose behalf he or she signs. Each of the Parties separately acknowledges and represents that this representation and warranty is accurate and is an essential and material provision of this Agreement and shall survive the execution of this Agreement.

19. Voluntariness and Construction as a Whole.

The Employee acknowledges and agrees that the Employee is entering into this Agreement knowingly and voluntarily, that this Agreement is written in a manner understood by the Employee and that the Employee has been informed that the Employee may want to consider having this Agreement translated by an interpreter. The Employee further acknowledges and agrees that the language used in this Agreement shall be deemed to be the language chosen by the Parties to express their mutual intent, and no rule of strict construction shall be applied against any Party. The language of all parts of this Agreement shall be construed as a whole, according to fair meaning and not strictly for or against any Party, no matter which Party drafted the clause, term or provision. The Parties agree that the drafting and negotiating of this Agreement has been participated in by each of the Parties and their counsel, and for all purposes this Agreement shall be deemed to have been created by all Parties.

20. Facsimile and Execution in Parts.

The Parties agree that facsimile signatures are deemed to be originals and that this Agreement may be executed in counterparts each of which shall be deemed an original.

21. Failure to Enforce.

A failure by any Party to enforce at any time, or over a period of time, any provision of this Agreement shall not be construed to be a waiver of such provision or of the right to enforce such provision or any other provision in this Agreement.

22. Headings.

The headings in this Agreement are descriptive only.

23. Non-Assignability.

The Employee represents and warrants that the Employee has not heretofore assigned, transferred, conveyed, hypothecated, encumbered or purported to assign, transfer, convey, hypothecate or encumber to or in favor of any person or entity any claim or any portion thereof or interest herein released.

24. Date of Execution.

The date of the Employee's signature on this Agreement shall be known as the "Date of Execution" of this Agreement.

PLEASE READ CAREFULLY. THIS AGREEMENT INCLUDES A RELEASE OF CLAIMS KNOWN AND UNKNOWN.

Agreement on the date set forth below.

Dated: March 22, 2008

By /s/ Michael Ybarra Lucero
Michael Ybarra Lucero

FLUIDIGM CORPORATION

Dated: March 20, 2008

By /s/ Gajus Worthington
Gajus Worthington, President & CEO

Exhibit 21.1

Subsidiaries of Fluidigm Corporation (Delaware):

Fluidigm Japan K.K (Japan)
Fluidigm Singapore Pte. Ltd. (Singapore)
Fluidigm Europe, BV (Netherlands)

Subsidiaries of Fluidigm Europe, BV (Netherlands):

Fluidigm France SARL (France)

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” and to the use of our report dated April 12, 2008 in the Registration Statement (Form S-1) and related Prospectus of Fluidigm Corporation for the registration of shares of its common stock.

/s/ Ernst & Young LLP

Palo Alto, California
April 12, 2008