



DIVISION OF
CORPORATION FINANCE

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

November 5, 2014

Via E-mail

Vikram Jog
Chief Financial Officer
Fluidigm Corporation
7000 Shoreline Court, Suite 100
South San Francisco, CA 94080

**Re: Fluidigm Corporation
Form 10-K for the Fiscal Year ended December 31, 2013
Filed March 12, 2014
Form 10-Q for the Quarterly Period ended June 30, 2014
Filed August 4, 2014
File No. 001-34180**

Dear Mr. Jog:

We have reviewed your filing and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Fiscal Year Ended December 31, 2013

Comparison of the Years Ended December 31, 2013 and December 31, 2012

Product Revenue, page 49

1. We note the reference to "IFC pull-through" for your analytical and preparatory systems. Please explain to us the meaning of this term and how it is determined and considered the need to provide additional disclosure in future filings to assist investor understanding.

Note 2. Summary of Significant Accounting Policies

Product Revenue page, 73

2. We note that you have certain customer agreements that are multiple-element arrangements. Please tell us how you considered the disclosures required by FASB ASC 605-25-50, including the requirement to disclose the nature of the arrangement, the significant deliverables within the arrangement and the general timing of delivery or performance of the service for the deliverables.

Form 10-Q for the Quarterly Period ended June 30, 2014

Note 4. Acquisitions, page 9

3. We see that on February 13, 2014, you acquired DVS Sciences, Inc. through the issuance of your common shares and cash. Please address the following:
 - Tell us and revise future filings to disclose a qualitative description of the factors which lead to the significant amount of goodwill in the transaction, as required by FASB ASC 805-30-50-1(a). Please provide additional details beyond “expected synergies” as disclosed on page 11.
 - Describe for us in additional detail the intangible asset “Developed technology” recorded as part of the acquisition including how you determined the 10 year useful life was appropriate.
 - Please explain for us the reason that the original preliminary allocation of \$17.5 million for in-process research and development was changed to developed technology.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and
- the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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You may contact Kevin Kuhar at (202) 551-3662 or me at (202) 551-3676 if you have questions regarding comments on the financial statements and related matters. You may also contact Martin James, Senior Assistant Chief Accountant, at (202) 551-3671 with any other questions.

Sincerely,

/s/ Brian Cascio

Brian Cascio
Accounting Branch Chief