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PRESENTATION

Operator

Good afternoon, ladies and gentlemen, and welcome to the Fluidigm Second Quarter 2020 Financial Results Conference Call. (Operator Instructions) As a reminder, this conference call is being recorded.

I would now like to hand over the conference to your host, Ms. Agnes Lee, [VP] (corrected by company after the call) of Investor Relations.

Agnes Lee - *Fluidigm Corporation - VP of IR*

Thank you, Christian. Good afternoon, everyone. Welcome to Fluidigm's Second Quarter 2020 Earnings Conference Call.

At the close of the market today, Fluidigm released its financial results for the quarter ended June 30, 2020. During this call, we will review our results and provide commentary on our financial and operational performance, market trends, strategic initiatives and our response to the COVID-19 pandemic. Presenting for Fluidigm today will be Chris Linthwaite, our President and CEO; and Vikram Jog, our CFO.

During the call and subsequent Q&A session, we will make forward-looking statements about events and circumstances that have not yet occurred, including plans and projections for our business, future financial results and market trends, and opportunities. Examples include statements about expected financial performance, the anticipated positive impact of various strategic and operational initiatives, funding expectations under various agreements, regulatory processes, prospects for our products and technologies, potential customers and collaborators and trends in competition, markets, research funding and customer demand.

These statements are subject to substantial risks and uncertainties that may cause actual events or results to differ materially from current expectations. Information on these risks and uncertainties and other information affecting our business and operating results is contained in our annual report on Form 10-K for the year ended December 31, 2019, as well as our other filings with the SEC. The forward-looking statements in this call are based on information currently available to us and Fluidigm disclaims any obligation to update these forward-looking statements, except as may be required by law.

During the call, we will also present some financial information on a non-GAAP basis. Non-GAAP information is not prepared under a comprehensive set of accounting rules and should only be used to supplement an understanding of the company's operating results as reported under U.S. GAAP. We encourage you to carefully consider our results under GAAP as well as our supplemental non-GAAP information and the reconciliation between these presentations. Reconciliations between GAAP and non-GAAP operating results are presented in the table accompanying our earnings release, which can be found in the Investors section of our website.

I will now turn the call over to Chris, our President and CEO.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Thank you, Agnes. Good afternoon. The last 90 days have presented an incredibly challenging operating environment with lab closures rippling across the globe and impacting every facet of our business. In the face of these challenges brought by the pandemic, our team has been both creative and resilient, exceeding our business performance expectations despite disruptive shelter-in-place mandates and new complexities in our personal lives. I'm extremely proud of the commitment and dedication of our team members who have risen to the occasion, serving both our direct customers struggling to adapt as well as the global population they support.

Since the early hours of the crisis, we've deployed a simple 3-part daily operating plan. First, we have focused on employee health and safety. I'm pleased to report we have not had a single confirmed COVID-19 infection among our employees. Second, we've aligned much of our organizational energy on COVID-19 market needs, which has allowed us to be focused, nimble and move fast. Third, we've implemented a prudent cash conservation model that included cost-saving measures and the redirection of internal resources to a streamlined set of key objectives while we pursued nondilutive funding. This playbook delivered results. I will focus my prepared remarks on our market-facing activities and core strategy, while Vikram will cover the details of our quarterly performance.

Fortunately, Fluidigm pivoted in recent years from a general-use analytical instrument orientation to a business model more focused on commercializing solutions linked to key biological questions, especially questions relating to the immune system. We believe that understanding and harnessing the power of the immune system is critical to disease research, diagnosis and treatment. Our thesis remains intact for oncology and hundreds of other diseases. And in fact, the SARS-CoV-2 outbreak has illustrated the relevance of our strategy.

At its core, this virus is a pathogen that induces a complex immune response. The technology toolkit we built in the last few years, coupled with our infrastructure investments in commercial operations, manufacturing, regulatory affairs and quality systems, provided us a perfect launching pad to support clinical diagnostics and population-scale infectious disease research. We made tremendous progress on these strategies in the span of 90 days, including filing an emergency use authorization with the FDA, without compromising our business proposition in oncology or other diseases.

The COVID-19 molecular diagnostic screening, surveillance and testing market has grown dramatically with 700,000 to 800,000 tests per day being conducted in the United States alone. However, testing supply side constraints have impacted daily testing volume, and clinical reference lab turnaround times reflect growing backlogs. We and others believe that the United States should be testing 3 million people or more a day to fully contain and monitor infection. Plus, new market needs are emerging for return to work and school screening and pan-respiratory panels to delineate between multiple circulating pathogens. More tests and suppliers are needed to rebalance the equation.

Recently, the FDA has published guidelines for developing these panels. To achieve these ambitious targets, more tests are required, especially tests that increase accessibility and patient compliance, such as our saliva-based approach. Furthermore, our approach radically reduces pressure on the industrial supply chain for reagents and swab collection kits.

Taking a small step back, I'd like to provide a thumbnail sketch of our molecular testing strategy. We are deploying a hub-and-spoke strategy for panel expansion, giving us multiple shots on goal in this rapidly growing market. At the hub, the Biomark-Juno platform, coupled with our unique integrated fluidic circuits, enables small labs to operate as medium-scale labs and medium-scale labs to absorb testing volumes that previously were the domain of the top 20 clinical labs, all for a fraction of the capital and labor costs of many alternative solutions. The largest labs may benefit from our value proposition as they consider capacity or menu expansion.

The first spoke on our business flywheel is the often misunderstood laboratory-developed test model. LDTs are the workhorses of many labs. Our microfluidic solutions are flexible. Our instruments IFCs and reagents can be mixed and matched to lab-specific needs as well as mated to diverse test samples: nasopharyngeal, anterior nasal, saliva and others. In the U.S. and many other markets for COVID-19 testing, the labs complete validation of the configured solution, file for emergency use authorization or the local equivalent, and unless instructed otherwise, they can initiate clinical testing. The biggest obstacle is generally the time to validate and deploy the test. As an example, in the U.S., we reported 5 customers filed EUAs

during Q2. We enabled more than 100,000 COVID-19 tests in the second quarter, with notable acceleration exiting the quarter. We expect these early adopter accounts to further ramp, and we anticipate scaling up more customers in this model throughout the second half of the year. Many of these customers were new to the Fluidigm platform and spent the quarter setting up their systems, validating their tests, and we now see them ramping up their consumables volumes. This was borne out with a number of new Biomark-Juno installations in the quarter.

The second spoke is commercializing a Fluidigm-designed singleplex COVID-19 test kit. We filed our Advanta Dx SARS-CoV-2 test for emergency use authorization on June 12, as previously announced. Our collaboration with Washington University accelerated development of a novel extraction-free saliva test, combining their access to clinical samples with our technology, producing a full EUA submission package in a matter of weeks. We remain in close communication with the FDA, and given our pioneering technology and extraction-free saliva test, we are pleased with the level of engagement we have received from the FDA as they complete their review. We are prepared for immediate commercialization and ramp up upon authorization. In addition, we are positioned to service the emerging population screening market.

In the month of July, shipments of our COVID-19-associated reagents and IFCs exceeded the number we sold last quarter, and we anticipate accelerating demand. But the third spoke in our wheel is a constructive partnership with the Defense Advanced Research Projects Agency, or DARPA, within the Department of Defense, and Mount Sinai's Icahn School of Medicine. Our previously announced partnership focuses on an Epigenetic Characterization and Observation, or ECHO, program, and includes financial support for development of pathogen detection solutions based on our technology. The ECHO program progressed in Q2, and consortium members have provided updates to government stakeholders and regulators. Communication details are being coordinated by DARPA. This program is independent of our other EUA programs. However, the assay will run on our Biomark platform and represents a future menu expansion. We are grateful for this partnership and excited about the future.

We envision adding more spokes on the wheel as the year progresses, including panels for pan-respiratory screening. Our recent RADx award includes funding for a novel bar coding method that will further enhance our market-leading test throughput per system. This approach could increase the throughput per IFC into the range of 24,000 to 48,000 tests per day on a single Biomark-Juno combination, allowing labs to flex across a continuum of testing volumes without changing platforms. This innovation could be a game changer for the largest labs, and we believe our approach could have significant advantages over other pooling methods.

With this level of extraordinary throughput, we believe our technology will help address the massive number of samples inundating reference labs as return to work and other population surveillance programs pick up steam. We anticipate the new bar coding, COVID-19 configuration will have research use only and clinical versions and may be applicable across multiple testing sample types beyond saliva.

Our COVID-19 initiatives extend beyond virus detection testing. Induced immune response in the COVID-19-infected population is an important medical scientific question. We are engaged on multiple fronts. Our technology is being used for protein-based biomarker research, combining Biomark-powered microfluidics with Olink proteomics panels. Furthermore, our mass cytometry platforms, both suspension and imaging, are generating impactful data. We have enabled government and medical institutions in North America, Europe, the Middle East and Asia to initiate immune profiling studies of thousands of COVID-19-infected cohorts. For suspension mass cytometry, the Maxpar Direct Immune Profiling Assay, the 2019 best new product in cell biology, provides an amazing backbone for the large multi-site studies required to assess immune response in the COVID-infected population, providing common reagent kits in a simple format. The same assay provides a useful tool for supporting vaccine and therapy strategies by providing immune profiling data. Our focus over the last few years on unit placements in NCI-designated research centers and top global research organizations is paying dividends. A notable example of this trend is the recent announcement of a 10-institution NIH prospective study of 2,000 infected people using our technology.

We've continued to build on our mass cytometry product line. In Q2, we added 6 Maxpar direct expansion panels that are tailored for infectious disease and immuno-oncology research. These panels can be combined with the Maxpar Direct Immune Profiling Assay in the same dry format in a single tube and offering data analysis in as little as 5 minutes. Tuesday, we announced a collaboration with De Novo Software to offer a new streamlined software package for mass cytometry data analysis. And in June, we announced a collaboration with Bethyl Laboratories to expand our antibody catalog.

On the imaging side, we see meaningful opportunities as researchers study post-mortem tissue samples using our panels and catalog antibodies. Through our custom panel service and therapeutic insights, we can provide data for those customers who do not have access to an instrument or

reagents. The speed and breadth of this COVID-related research is evident with 13 COVID-19 publications and 5 clinical trials using CyTOF technology underway through July.

On the cash management front, we did an effective job of reducing cash burn through OpEx initiatives despite lower revenues compared to Q2 2019 and Q1 2020. We benefited from cash inflows based on milestones from our ongoing DARPA contract and a non-COVID-related program. We are keeping a close eye on cash management, but not at the expense of growth. More recently, in Q3, we unlocked nondilutive funding for investment in critical capabilities that will enable us to quickly scale and support this massive COVID-19-related revenue opportunity while providing new assets for further expansion in the diagnostics market over the long term. Last Friday, we announced a letter contract with the NIH, Rapid Acceleration of Diagnostics program, or RADx. We were among 7 companies to be selected under this $1.5 billion program funded through the CARES Act. Fluidigm was awarded an up to $37 million project under the NIH RADx initiative. An initial $12 million is available upon achievement of milestones under the existing letter contract, and the remaining funds are linked to performance targets in the definitive contract, a process called definitization in government parlance.

The award supports 2 discrete activities: one, a major expansion of our manufacturing capacity; and two, commercialization of a novel bar coding COVID-19 testing method on the Biomark. The full project scope unlocks Fluidigm production capacity of more than 1 million COVID-19 tests per day by the end of the first quarter of 2021. The RADx advanced tech program fast tracks development and commercialization of innovative technologies to significantly increase the U.S. testing capacity for SARS-CoV-2. Their ambitious goal envisions 6 million tests each day in the United States by December 2020. We are very proud to have been successfully vetted in the rigorous RADx selection or shark tank process emerging from a pool of 640 applications. We have kicked off the project and anticipate initial funding in August, pending achievement of a validation milestone. I look forward to providing updates as we meet major project milestones, and I anticipate adding testing capacity throughout the next 6 months.

Overall, we accomplished a great deal in 90 days. Our COVID-19 business initiatives generated new revenue streams and expanded our customer base. These accomplishments, particularly, partially mitigated the headwinds to our core business in Q2. Due to the pandemic, we did see a direct impact on new mass cytometry unit sales and consumables usage in our installed base. But our business dashboards suggest customers are returning to their labs with notable upticks in service calls and reagent orders in June. If these trends continue, we could have new tailwinds later in the year.

Turning to longer-term opportunities. Our work in testing is opening up new corridors for us with relationships in public health and government agencies as well as CLIA testing labs, both public and private sector. We have all the ingredients for a durable infectious disease business. Our team continues to iterate on a long-term infectious disease strategy, but a number of elements are clear. Increasing our instrument installations, pursuing new recurring revenue streams and broadening our customer base continue to be the key elements of our microfluidics turnaround story. The pandemic has accelerated this process and is sharpening our focus in infectious disease. We will target the laboratory-developed test market and steadily expand our Fluidigm-branded testing menu, more broadly to CLIA labs. We will add product line extensions to service emerging market segments such as population surveillance, bar coding and syndromic panels. And in time, we will likely continue the regulatory journey into the 510(k) and CE-IVD markings.

The acceleration in Biomark-Juno instrument placements provides us with a foothold for future real-time PCR testing and next-generation sequencing library prep revenue. Furthermore, growth in our installed base with increased exposure to CLIA labs allows us to recruit new partners for future clinical and research applications after the pandemic subsides.

The COVID-19 clinical testing opportunity represents a large serviceable market for us of $1 billion to $2 billion, and general population screening could add billions more. With modest market penetration, we believe that we can deliver significant revenue growth in our franchise. We are well positioned to execute on a product road map to meet testing needs as we enter the fall and winter and beyond, and we will provide updates in the future as we hammer out the details of a durable long-term strategy.

In summary, we envision an even stronger business when we emerge from this pandemic. I now turn the call over to Vikram, our CFO, for a complete review of our financial results.

Vikram Jog - *Fluidigm Corporation - CFO*

Thanks, Chris, and good afternoon, everyone. Total revenue was $26.1 million in Q2 2020, an 8% decline compared to Q2 2019. Changes in foreign exchange rates had minimal impact on revenues for the second quarter of 2020. Product and service revenue of $22.5 million declined 20% compared to Q2 2019.

At the beginning of the second quarter, we estimated approximately 60% to 70% of our global academic research community was either closed or working at a slower pace. As we entered the latter part of Q2, we experienced a limited amount of customer reopenings and exited June with an estimated 30% to 40% of our global academic research community either remaining closed or working at a slower pace. Many basic research projects remain on hold, but have not been canceled. Customer activities still depend on when the community returns to a new normal and the availability of budgets.

Second quarter revenues reflected significant headwinds from customer lab closures, slowdown in ordering patterns, reprioritization and increased customer oversight of budgets in some cases, and slowdowns in some of our key accounts. We also saw the beginnings of COVID-19 tailwinds in the quarter. While both mass cytometry and microfluidics revenues declined year-over-year, the decline in microfluidics revenue was significantly tempered by these tailwinds. We saw growth in overall bookings and revenue in July 2020, compared to the prior year, primarily attributable to COVID-19-related opportunities for microfluidic products.

Excluding these opportunities, our base business in both mass cytometry and microfluidics continued to experience headwinds from the pandemic in July. With that context, I will move into the details of our second quarter financial performance.

Mass cytometry product and service revenue of $12.5 million in the second quarter decreased 28% year-over-year, mainly due to lower instrument revenues. We continued to experience delays in orders and constrained sales due to lab closures that began in Q1 and extended through much of Q2. In addition, we are facing budget and funding constraints with some budgets being prioritized for COVID-19 activities. Consumable sales decreased year-over-year and were slightly down sequentially but were helped by record sales of our Maxpar Direct Immune Profiling Assay related to COVID-19 immune profiling studies. Microfluidics product and service revenue of $10 million decreased 8% year-over-year. A slowdown in key account activity was significantly offset by COVID-19 testing-related tailwinds that benefited both instrument and consumables revenue. Microfluidic instrument revenue grew year-over-year.

Turning now to a regional perspective and the main drivers for the Q2 2020 performance compared to the prior year period. Asia Pacific revenue declined 5% to $5.6 million, driven by lower microfluidics and mass cytometry instrument revenues. Americas revenue grew 25% to $13.9 million, including $3.5 million of development grant and license revenue. Product and service revenue declined 6% to $10.4 million, driven by lower mass cytometry revenue, offset by higher microfluidics revenue related to COVID-19 testing. The majority of our COVID-19 microfluidics sales this quarter were in the U.S. EMEA revenue declined by 42% to $6.6 million, driven by lower mass cytometry instrument and microfluidics consumables revenues. The decline in microfluidics consumables was partially offset by a modest tailwind from consumable sales related to customer-developed COVID-19 tests. As you may remember, we had a notably strong Q2 last year in EMEA due to imaging mass cytometry instrument placements and microfluidics consumables.

To round out my commentary on the regions, in the second quarter, foreign exchange rates had less than a 1% negative impact on EMEA revenues. As I noted earlier, we reported development grant and license revenue of $3.5 million in Q2. This included $3 million of development revenue associated with an OEM supply and development agreement with the customer. Under this agreement, which provides upfront and periodic milestone payments of up to $11.7 million during the development stage, Fluidigm is developing products based on our microfluidics technology for this customer.

Moving now to operating performance. Product and service margin was 52.5% in the second quarter of 2020 compared to 54.5% in the year ago period and 53.8% in the first quarter of 2020. GAAP product and service margin, both sequentially and year-over-year was negatively impacted by fixed amortization over lower revenue, which more than offset lower service costs and improved manufacturing efficiencies. Non-GAAP product and service margin was 67.1% in the second quarter of 2020 compared to 66.4% in the year ago period and 67.3% in the first quarter of 2020. The year-over-year increase in non-GAAP product and service margin was primarily due to lower service costs and improved manufacturing efficiencies

across microfluidics and mass cytometry consumables. This was partially offset by an unfavorable product mix and higher mass cytometry instrument costs due to lower factory utilization.

Operating expenses on a GAAP basis in the 2020 second quarter decreased by 3% year-over-year to $29.1 million. Operating expenses on a non-GAAP basis of $24.7 million decreased by 7% compared to the year ago period. The decrease in GAAP and non-GAAP operating expenses was due primarily to the implementation of cost reduction programs in response to the impact of the COVID-19 pandemic on our business. GAAP operating loss for the 2020 second quarter was $13.7 million compared to $14.6 million for the same period last year. The year-over-year decrease in GAAP operating loss was primarily due to the decrease in operating expenses and the margin impact of other revenue in the second quarter of 2020, partially offset by lower product and service revenue. The non-GAAP operating loss for the second quarter was $6.1 million compared to $7.7 million for the year ago period. Please note that the reconciliation tables between our GAAP and non-GAAP measures are provided at the end of our earnings press release that was issued earlier today.

Moving on now to cash flow and the balance sheet. Cash and cash equivalents, term investments and restricted cash at the end of the second quarter of 2020 totaled $46.5 million compared to $49.6 million at the end of the first quarter of 2020, reflecting a net decrease of $3.1 million in the second quarter. Cash flow in the second quarter of 2020 included $4 million related to the development agreement noted earlier and reflected strong collections of customer receivables. Days sales outstanding declined to 34 days at the end of the second quarter compared to 47 days at the end of the first quarter. Accounts receivable declined by $4.4 to $10 million at the end of the second quarter. Net inventory increased by $2.6 million to $18.9 million due to higher-than-expected mass cytometry inventory as well as microfluidics inventory builds to support the COVID-19 testing opportunity.

Last week, we announced that Fluidigm was selected for a $37 million project under the NIH RADx initiative that Chris has already discussed. We have executed a letter contract with the NIH, providing for initial funding of up to approximately $12 million, subject to the completion and delivery of certain validation milestones prior to execution of a definitive contract. This project seeks to expand production capacity and throughput capabilities for COVID-19 testing using Fluidigm's microfluidics technology.

At quarter end, the borrowing base under our asset-based revolving credit facility was $7.3 million, none of which was utilized. We continue to be focused on preserving our liquidity through cost control measures. In addition, we have secured access to nondilutive sources of funding, as noted earlier. We are expecting our net cash burn to be between $9 million and $12 million for the rest of the year, excluding the cash flow effects of the RADx project and assuming that DSO returns to historical levels. Based on historical seasonality patterns, we expect the majority of this outflow to occur in the third quarter.

We have withdrawn our annual guidance in light of the uncertainty surrounding the ongoing and evolving COVID-19 pandemic. We expect to update our outlook at such time as the effects of the pandemic on our business becomes clearer. To help guide investors on revenue, we can provide a little color on our thinking as of today. As Chris mentioned in his remarks, we believe we have a large market opportunity for our COVID-19 clinical testing and population screening solutions.

The adoption of our platform for customer-developed tests has already begun, mainly in the Americas, and we saw strong placements of microfluidics instruments and consumable sales in the second quarter. There is significant upside revenue and cash flow potential in the second half of 2020, and we expect to have better visibility on our outlook over the next several months. In addition, we believe that the trend of reopenings that we saw at the end of the second quarter will continue into the third quarter. As customers return to work, we expect to pick up in orders followed in subsequent periods by revenue increases. However, the timing of this recovery remains uncertain. We continue to expect that due to the length of the selling cycle, some capital purchases in our base that is non-COVID-related business that were expected to have been made in 2020 would move to 2021. We do not expect to catch up the lost consumables business.

Based on these assumptions, we expect 2020 product and service revenue to be lower than in 2019, but improving sequentially in the second half. 2021 should be a stronger year as our customers come back to a more normal state with their current projects, assuming vaccines and patient treatments are in place. Of course, our outlook and all of these expectations depend on the outcome of many factors, including the timing and pace of our customers' return to work and the timing of FDA emergency use authorizations.

And with that, I will turn the call back to Chris for closing remarks.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Great. Thank you, Vikram. This pandemic has completely transformed our world in the blink of an eye, and our hearts go out to all the global citizens impacted. However, it has created an opportunity for us to showcase the power of Fluidigm's technologies, products and solutions for the greater good. We are well positioned to be at the forefront of addressing population-scale testing needs as well as enabling a deeper understanding of the human immune system's response to infection. We trust there will be a durable response from all governments and public health agencies to monitor, contain and treat future pathogen outbreaks, and Fluidigm will be a trusted partner in these efforts in the years to come.

We are unwavering in our fundamental business thesis. Understanding and unlocking the power of the immune system is critical to improving life for all. Fluidigm is uniquely positioned to measure essential genomic and proteomic information and transition these insights into new health care paradigms.

From an operational perspective, we had success in the last quarter. We've unlocked multiple sources of nondilutive funding while prudently managing our liquidity. We implemented cost-savings initiatives to see us through this pandemic without compromising on growth initiatives. We are building a strong foundation to meet diverse COVID-19 testing needs across large market segments.

In parallel, we are extending our mass cytometry franchise into immune response profiling of infectious disease populations. We remain committed to important disease markets, including cancer. We believe that our investments in infectious disease strengthen our entire innovation portfolio and improve the risk/reward of the company for investors.

We are grateful for the incredible determination and tireless efforts of global researchers, health care workers, public health organizations, private sector life sciences employees and government agencies, who are all working together for the common good.

As always, I thank our more than 500 employees for their contributions this past quarter. I'm proud of how the team has risen to the challenge.

With that, I'll open the line for questions.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) Our first question is from Sung Ji Nam from BTIG.

Sung Ji Nam - *BTIG, LLC, Research Division - Director and Life Science & Diagnostic Tools Analyst*

Maybe starting with the mass cytometry business, specifically the Therapeutic Insights services, I was wondering if you could maybe give us an update on how that's progressing, if you're making a lot of traction there and if there was any contribution to revenues this quarter from that.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Sure. No problem. Maybe, Vikram, I'll start with that, and you can add some color, if you'd like. So yes, thank you, first, for the question, Sung Ji. Therapeutic Insights did contribute in the quarter measurement period, and we did conduct a number of projects for customers, including programs related to COVID-related research. So I think we're very pleased, and we've clearly, in my mind, at least validated the market opportunity that exists and the need -- and the opportunity in front of us for expanding on the promise of the services business. And we've also expanded the similar operation into the Japanese market. And so I think we're very pleased with where we are today. Anything else you'd like to add, Vikram?

Vikram Jog - *Fluidigm Corporation - CFO*

Sorry, I was on mute. No, we had some marginal revenue impact in the quarter, not significant.

Sung Ji Nam - *BTIG, LLC, Research Division - Director and Life Science & Diagnostic Tools Analyst*

Okay. Great. And was -- I know there's probably not an easy answer here, but in terms of the FDA EUA for your Advanta assay, how should we think about the time line? Have you gotten any feedback? And given your -- the RADx grant, could this prioritize the review of your product in this environment?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Maybe I'll start with that, Vikram, and you can add additional color, if you like. The conversations with the FDA are ongoing. So there's not a direct correlation or a straight line to draw between RADx and our ongoing conversations with the FDA with regards to our current singleplex emergency use authorization submission. I think we're very comfortable with the tone and tenor of the dialogue that's occurring as they enter the final stages of review.

Sung Ji Nam - *BTIG, LLC, Research Division - Director and Life Science & Diagnostic Tools Analyst*

Okay. And then lastly, for the pan-respiratory panel that you were talking about earlier, would you be able to comment on kind of what the time line for the availability of that panel? Could that be available before the next flu season?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Yes. The goal of this program for pan-respiratory is to have it in place for the current oncoming -- upcoming flu season in North America. So that is the program goal.

Operator

The next question is from Dan Brennan from UBS.

Nathan Treybeck - *UBS Investment Bank, Research Division - Associate Analyst*

This is Nathan on for Dan. So my first question would be on what type of COVID testing volume do you envision in the second half and then going into 2021? And then I guess, is it fair to assume like a $10 to $15 ASP range for the test?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

I'll take the second one first. So we've given some indication of where our range of pricing is for the emergency use configuration of our product. That product is approximately in the $17 to $22 range. And so it just depends on volumes, supply contract agreements, et cetera, et cetera. And the laboratory developed test version or configuration of our product is generally at a little bit lower price point, but it's not dramatically lower. So generally, those fall within the $7 to $12 range on a blended basis.

As far as testing volumes and modeling, I think that's probably the most challenging obstacle, and I'll certainly want to encourage Vikram to weigh in as he sees fit. And so we had very good seeding of accounts in the Q2 time period. We began to see those opportunities ramp in the back half

as we exited the Q2 period. And we've seen good strength through the first month of the current quarter. And on top of that, we continued to layer on and stand up more accounts. So kind of anticipating what their relative ramp rates, any influence on their acquisition of samples and each of their business models makes it pretty challenging for us to forecast. What we have given a good suggestion is that the capacity currently is not a constraint for us to deliver test into the marketplace.

And the RADx investments is a really critical -- is a really incredibly important part of the story because what RADx has done and they've recognized and gotten very intimately familiar with the potential of the technology, the traction of the technology, they have stepped in to ensure that we can provide continuous increasing amounts of tests into the marketplace as the -- as our installed base grows and we activate even more accounts within our existing installed base. So I think it's very difficult for you, unfortunately, to forecast, which is part of the reason why I think Vikram has provided a wide range of outcomes and made it very difficult for us to provide forward-looking guidance. Is there anything you'd like to add, Vikram?

Vikram Jog - *Fluidigm Corporation - CFO*

Yes. Sure. So without quantifying the opportunity, we can say that we are developing a funnel. We continued to increase the size of the funnel. Right now much of the activity is on supporting the lab-developed tests that we talked about as one of the spokes in the hub-and-spoke model. The other spoke, we have started placing instruments, even on the EUA spoke, the second spoke. And both of them are resulting in customers kicking the tires and getting ready. We stand ready to start commercialization of the EUA product upon receiving FDA authorization. However, the lab-developed test has no such dependency, and they are proceeding apace.

So we're very satisfied with the pace of the funnel development. And we see that there is a large potential. There's a big shortage of tests right now in the United States. There is a supply chain issue with many of the tests that are currently being offered in the market because of the solution that we are presenting that is based on saliva. So therefore, it does not include swabs, and also it does not depend on RNA extraction reagents. So we believe our solution offers a very attractive alternative value proposition here that solves some of the supply chain issues and also we believe could increase testing compliance on the part of the patients because saliva is such a -- much easier sample to give compared to nasopharyngeal swabs.

So in summary, I would say, we perceive a large market opportunity and a large revenue potential in the second half of this year. The timing is based on a variety of factors, including the timing of the authorization of the various EUAs from the FDA as well as the product development that we have alluded to from the point of view of starting with a singleplex product, then moving on to multiplex and then moving on further to panels.

Nathan Treybeck - *UBS Investment Bank, Research Division - Associate Analyst*

Okay. Great. In terms of the DARPA ECHO program, can you provide an update where that stands? I believe press reports back in April said that DARPA is expected to file an EUA in 2Q, and that obviously hasn't happened. So like, can you provide just an update on where that program is right now?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Sure, Nathan. I'd love to be able to elaborate in greater context beyond what I shared in the prepared remarks. I think the Department of Defense has been posting updates on their website as things progress. And so unfortunately, that organization owns the primary communication to the markets, but we continue to provide all updates to all stakeholders involved and are pleased with the progress.

Nathan Treybeck - *UBS Investment Bank, Research Division - Associate Analyst*

Okay. And if I can just squeeze one more in. What is like the customer demand for Biomark currently looking like given that the COVID test is rolling out on that platform? Have you placed incrementally more increments in 2Q? And kind of what's your outlook for the second half for Biomark placement?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Yes, it was a little bit distorted, but Vikram, I think you got what he's asking. Would you like to take it?

Vikram Jog - *Fluidigm Corporation - CFO*

Yes. I can start off, Chris, and then you can add some color. Yes, we are seeing strong placements of Biomarks in -- both in the second quarter and in the pipeline that we are developing in advance of the COVID-19 testing and related thereto in Q2 itself. So the answer, in short, is yes, we are seeing stronger demand for both Biomarks as well as Junos in this field.

Operator

Next question is from Steven Mah from Piper Sandler.

Steven Mah - *Piper Sandler & Co., Research Division - Director & Senior Research Analyst*

Just a few questions, mostly follow-up questions from the prior people, but speaking about the Biomark and Junos for COVID-19, can you give us a sense of the consumables pull-through from these users versus maybe other users, non-COVID users?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Yes, we can give you some sense. I mean the pull-through for the COVID users is going to -- has a significant headroom, obviously, from what we've illustrated. So I think we're very much in the early days of the ramp-up in those customers achieving the full theoretical capacity or functional capacity of the system. But we have other high-throughput applications. There's ones in agricultural biosciences and genotyping, et cetera. The Olink application is also quite -- it's a different chipset, but it's also -- it all depends on if we're optimizing by the number of samples or the number of targets that you're trying to interrogate. So as you know, this is a 192.24 chip that's optimized for throughput of samples. So on the basis of pure samples, this has significant upside potential for -- and the COVID application has -- will push the upper limits of the system.

And I think as you probably recognize with the discussion on bar coding, the bar coding throughput could be 4 to 8x expansion of testing throughput per system per day on the platform, which would far exceed anything we've ever realized on this technology stack.

Steven Mah - *Piper Sandler & Co., Research Division - Director & Senior Research Analyst*

Okay. That's helpful. And maybe just a follow-up question on that bar coding. Is the intent then to get that bar coding done and then you're going to upgrade the installed base? Is it a kit? Or is it software? I appreciate any answer.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Yes. So we'll have to say with one caveat is that because of the proprietary nature and the uber competitiveness right now, we're not going to provide probably many details for you. But what we can kind of landscape for you is a couple of key things. One is, first off, it provides -- will not require any hardware changes, won't require any software changes and have some very modest modifications to the existing kits. It also has the potential to work across the continuum, so not just for our saliva application and EUA, but potentially for other product configurations. So it's a pretty powerful approach and a very novel approach. And there's also a number of very interesting technical advantages that our approach is going to provide compared to the pooling approaches that have so far been through with the FDA. So I think we could afford potentially very significant advantages and limits of detection as well as the ability to kind of avoid dropout rates and not have to optimize for prevalence rates in various geographies around the country.

So I think it's -- we can't share many details at this moment, but that was certainly an area that the RADx team was quite keen on capitalizing on and can go directly at addressing what's going to be, I think, an amazing story that's going to come out of -- there's the clinical testing market just now that's flowing through all the labs, which is quite an impressive number. But the population screening sample volume, that requires a step function increase in testing capacity and supply into the market. And so novel approaches like this are going to be critical for meeting the nation's needs for this very important application.

So I think until these technologies have been coming to market, there's -- it's going to be -- it's a bit of an enabling of this market. So this market will take off as these technologies come into the market and enable that capability. So we're very excited about it. Clearly, it provides for the common good. And it will provide across a continuum. So it may be that there are new customer segments that are going to appear that are not necessarily upgrade kits and maybe different types of customers that are attracted to these various segments, clinical testing versus population screening, for instance, that may end up being different types of labs.

So I think the future that's obvious to do some upgrading, your words, but essentially introducing this technology or this process to existing installed customers, but I think it's going to depend on their specific business model and whether or not they're going to be looking to capture that many samples a day and if they're optimized for accessioning and processing of that many samples a day versus some of the other larger established players and maybe some new market participants that are going to come in specifically for this application.

Steven Mah - *Piper Sandler & Co., Research Division - Director & Senior Research Analyst*

Okay. No, it sounds like an exciting new development there. Maybe just to stay on the RADx funding. Can you tell us what the time frame is on the -- and the breakdown of the remaining $25 million?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Vikram, do you want to take that?

Vikram Jog - *Fluidigm Corporation - CFO*

Yes. So the RADx is following a very optimized approach right now given the tremendously urgent need for expanding testing. So what they have done is to facilitate the immediate commencement of project. They've entered into this 2-step formula, which has not typically been the case with NIH and, broadly speaking, government contracting in the past. So what they've done is had an initial letter contract that allows the project to commence, and it's subject to certain milestones that have to be met. But in parallel, we are working on what they call definitization, and we will work on definitizing the contract, but we have to go through a couple of steps prior. So that's, I think, as much as we can say. The whole project itself runs about, I would say, roughly speaking, about a year into 2021 from where we are right now.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

About 9 months, right? More like 9 months, I think, or a little less than 9 months.

Vikram Jog - *Fluidigm Corporation - CFO*

More like 9 months, yes.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Yes. So we should anticipate being complete towards the end of the first quarter.

Operator

We have a follow-up question from Dan Brennan.

Daniel Gregory Brennan - *UBS Investment Bank, Research Division - Senior Equity Research Analyst of Healthcare Life Sciences*

I just wanted to follow up around -- so I believe you have 500 Biomarks installed currently. How many labs realistically can or would consider doing COVID testing on those boxes? Like what percentage of those boxes would be shipped for COVID testing?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

I guess -- this is Chris. I'll start and maybe Vikram can comment on it. I think the key question, I guess, I have to kind of rephrase your question, is sort of which aspect of COVID-based testing. So there's the clinical testing and there's the surveillance and monitoring aspect of the COVID market. And so return to school, et cetera, there are different types of applications for COVID testing. So what do you have in mind? Is it the clinical question you're winnowing in on? Or, I don't want to put words in your mouth, what are you thinking?

Daniel Gregory Brennan - *UBS Investment Bank, Research Division - Senior Equity Research Analyst of Healthcare Life Sciences*

Yes. Basically, what you said, the clinical question.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Okay. Well, so for the current clinical market, I would anticipate that a smaller percentage of our platform of the existing installed base will be migrated to clinical-based applications. I think a lot of the clinical story is coming out of new placements. And -- but we, as Vikram has already commented on, had quite an acceleration of new unit placements tied to clinical applications of this and then have a very robust pipeline continuing throughout each of the quarter or each quarter through the balance of the year. So that number is accelerating very quickly. As far as the conversion of the existing installed base for clinical-based testing, I suspect it will be a relatively small portion of it. The reason why I parsed out the question is because I have a point of view, I think we have a point of view that population screening, it doesn't necessarily require a CLIA lab. And so activating the nascent or, actually, in our case, a very large academic and research community that needs to serve needs such as the return to school, return to work and community-based monitoring, potentially presents an incredible national asset for activation. So I think it depends on which kind of use case we're talking through, and so that's something we'll probably see as the year plays out.

Daniel Gregory Brennan - *UBS Investment Bank, Research Division - Senior Equity Research Analyst of Healthcare Life Sciences*

Okay. That's helpful. And if I could just shift to the LDT test kit. Can you -- I don't recall if you said how many labs are actually running the LDT test currently. And how do you expect that to trend through 2020? Do you expect a doubling? Or if you could just give any quantitative guidance for that?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

So the question is about out of the existing installed base or the number of people that stood up in the second quarter on LDTs, what would be the acceleration?

Daniel Gregory Brennan - *UBS Investment Bank, Research Division - Senior Equity Research Analyst of Healthcare Life Sciences*

Yes. Like how many labs are currently running the LDT test and how many do you expect by year-end?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

I'm not sure we're in a position to give a lot more color on that at this time. I don't know, Vikram, if you have any additional comments.

Vikram Jog - *Fluidigm Corporation - CFO*

No. No exactly. We -- I would say that we see a lot of potential, number one. Number two, beyond potential, we are actually building a firm pipeline. The timing remains somewhat uncertain. And over the next few months, I think we'll have a lot more clarity on the timing. I think the issue is timing. It's not a question of whether there's potential or not. We have a fairly high degree of confidence about the test, the utility, the value proposition that's very differentiated from whatever is out in the market, the significant unmet need from a testing perspective. I think where we are right now is we are simply not in a position to give a definitive timeline as to how quickly the market adoption would take place. So I think that will become clear over the next few months.

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

Yes. And the only other thing I wanted to add on this is that it's kind of tricky because many people started in the laboratory-developed test path because we did not have an emergency use authorization product in place. So these labs have the flexibility to run either the LDT configuration. In some cases, some of them started with nasopharyngeal, which was the more conventional approach at the moment in which they started out on that journey. And as the saliva product becomes available, then they already have the infrastructure. They don't require any changes so they can adopt the emergency use authorization. So from our perspective, it's very difficult to anticipate what the mix shift will look like between laboratory-developed test versus our EUA singleplex product or any of the follow-on products that we've already talked about.

Daniel Gregory Brennan - *UBS Investment Bank, Research Division - Senior Equity Research Analyst of Healthcare Life Sciences*

Okay. And if I could just ask one more. This kind of goes back to the DARPA program and the epigenetic testing. I believe the uniqueness of this approach is about -- to detect the virus on day 1. Recently, we've done some diligence, and I don't -- we haven't run it completely, but some diligence suggests that individuals that don't become contagious until around day 3, which we think could limit the opportunity for this test. Is that your understanding? Or are we just not looking at this correctly?

Stephen Christopher Linthwaite - *Fluidigm Corporation - President, CEO & Director*

I can't comment on that particular question that you're asking. I can only say that what we seem to know about COVID changes virtually every day. So I don't know how to respond in that regard. I think that as we've kind of reinforced all the elements, I think we're proposing and we are delivering a whole continuum of different molecular testing technologies that -- and tests that are designed to answer different questions, address different use cases, different prevalence rates in different communities and potentially adapt around emerging strains and changes -- basically new markers as we learn more about the virus. So I think that one of the powers of our platform is that there's a -- it's very flexible and rapidly adaptable to as we learn new information. And we continue to learn new things every day.

So I think with that, we're probably going to have to wrap up the line, but really appreciate the questions.

Operator

I'm showing no further questions at this time. I would like to turn the conference back to Ms. Agnes Lee for closing.

Agnes Lee - *Fluidigm Corporation - VP of IR*

Thank you, Christian. We'd like to thank everyone for attending our call today. A replay of this call will be available on the Investors section of our website. This concludes the call, and we look forward to the next update following the close of the third quarter 2020. Please reach out to us if there are further questions. Good afternoon, everyone. Christian, you may now close the call.

Operator

Thank you, ma'am. Ladies and gentlemen, this concludes today's conference. Thank you for your participation, and have a wonderful day. You may all disconnect.