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FLDM - Q2 2019 Fluidigm Corp Earnings Call

EVENT DATE/TIME: AUGUST 01, 2019 / 9:00PM GMT



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PRESENTATION

Operator

Good afternoon. My name is Celine, and I will be your conference operator today. At this time, I would like to welcome everyone to the Fluidigm Second Quarter 2019 Financial Results. (Operator Instructions) As a reminder, this conference call is being recorded.

I would now like to turn the conference over to your host, Ms. Agnes Lee. Please go ahead.

Agnes Lee - Fluidigm Corporation - VP of IR

Thank you. Good afternoon, everyone. Welcome to the Fluidigm Second Quarter 2019 Earnings Conference call. At the close of the market today, Fluidigm released its financial results for the quarter ended June 30, 2019. During this call, we will review our results and provide commentary on recent commercial activity, market trends and our strategic business initiatives.

Presenting for Fluidigm today will be Chris Linthwaite, our President and Chief Executive Officer; and Vikram Jog, our Chief Financial Officer.

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 anticipated launches and customer adoption of new products, anticipated sales trends for the second half of 2019 and guidance for revenue, operating expenses and cash flow for the second quarter of 2019. 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, 2018, 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 maybe 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

Thanks, Agnes. Good afternoon, everyone. Thank you for joining our second quarter 2019 earnings call. We had continued revenue growth, highlighted by significant new customer wins and impactful new product development to extend reach in the immunome market, a \$3 billion plus market opportunity. Our strategy is differentiated and our traction is clear with 5 consecutive quarters of revenue growth. We are combining new products with commercial execution to extend our growth into the second half of 2019 and beyond.

I'm excited to share the details with you. First, a few takeaways on Q2. Mass cytometry adoption is robust. We saw broad global customer adoption of the technology, including significant placements in Germany and Austria. The APAC region delivered growth with particular strength in China and Korea. Competitive dynamics in all regions remained consistent with our prior commentary. Mass cytometry consumables strengthened as many customers return to buying patterns from Q4 against the larger installed base. In absolute terms, we had fantastic growth in mass cytometry consumables. The Americas lagged other regions in mass cytometry primarily due to timing of orders. However, it is worth mentioning that first half growth in mass cytometry products exceeded 35%.

During the quarter, our overall mass cytometry funnel expanded, and we added a new cancer center to our customer base, which takes us above a 50% penetration level. Mass cytometry is now integrated into 50 clinical trials, including 4 trials using Hyperion. One Hyperion-supported trial is a Phase II perspective, which is especially exciting. We crossed the 850 publication threshold in the period, including 15 Hyperion publications year-to-date and more than 30 overall. We anticipate a continuation of this trend in the second half.

We also announced multiple product introductions to sustain our competitive advantages in mass cytometry. Our microfluidics business underperformed relative to our expectations. Clearly, mass cytometry is thriving, but our efforts to generate new growth in microfluidics has so far been insufficient to offset legacy customer dynamics. But we are very excited about new developments in the microfluidics franchise. This morning, we issued a press release announcing the introduction of RNA-seq library prep on microfluidics, part of the next phase of our content strategy. I will walk you through the potential for the RNA-seq product a little later, particularly the market potential because we see it as a very big opportunity.

Finally, earlier this afternoon, we announced the appointment of an exceptional commercial leader for the Americas region, a role that has been open since our prior Chief Commercial Officer retired at the end of Q1. Jonathan Day started with us this week and fits well with our long-term multi-omics growth strategy.

Turning to details on the Q2 performance. Overall, we had a good quarter, delivering 7% top line growth over Q2 2018 with total revenue of \$28.2 million. However, we acknowledge this performance was at the lower end of our expectations as well as the consensus midpoint. The weaknesses or weakness in microfluidics was the primary headwind and was offset by mass cytometry. Mass cytometry powered the overall performance with strong sales of instrument systems, Helios and Hyperion, with the majority of units delivered to new users of the technology, the continuation of a promising trend. We secured placements across all regions, in pharma/bio and translational research centers.

Mass cytometry consumables grew in strong double digits on a year-over-year basis. Total consumables growth delivered above our pull-through in Q2 2018 but lower than our 2019 pull-through guidance. Most important, we saw a resumption of purchases from many accounts who appear to have stocked up in advance of our 2019 price increase. We anticipate continued strength in pull-through for the second half on a larger installed base.

We experienced notable uptake of our Maxpar immune profiling assay, which was launched at the end of March, and there has been extraordinary customer feedback on this product, particularly for clinical trial research that requires high data quality and push-button analytics. I will touch on this topic again a little later since our progress is really exciting and a unique feature of the Helios platform. We believe this product configuration, especially for new users, will unlock tremendous growth in clinical trials participation for mass cytometry in 2020 and beyond.

We've asked for patience while we reposition our microfluidics business for sustained growth. When we started, we were lacking a major new catalyst for growth, namely a new product pipeline with big revenue potential. We believe we are starting to see our efforts bearing fruit, and we're very excited about the powerful RNA-seq library prep solution match to our unique Juno platform.



Overall, for microfluidics and mass cytometry consumables, we are optimistic for a strong growth trajectory due to continued growth of our active installed base of mass cytometry instruments, accelerating adoption of our Maxpar direct immune profiling assay and new clinical trials as well as deployment of the panel for patient screening in areas such as cell therapy and organ transplantation. Growth in revenue per mass cytometry panel by virtue of the 7 new metals we will ship this quarter and commercialization of the 3 new imaging panel configurations we've announced, plus the release of 25 new preconjugated antibodies, a significant expansion of content. Increasing adoption of our microfluidics oncology panels launched in Q2, coupled with RNA-seq library prep orders, will contribute.

Let's turn to our discussion of our revenue performance by geographic regions. First, we saw double-digit growth in 2 of the 3 regions compared to the second quarter of 2018. EMEA led the pack this quarter delivering 23% growth. In fact, this performance represented record net revenue for the European team. The team executed across multiple platforms, placing new systems and generating consumables growth. We reached an exciting milestone for mass cytometry, surpassing a 50% penetration of European-based cancer research centers. 30 of 55 institutions are hospitals we track in that region, including a growing number of multisystem cumulative installations.

In particular, we made major progress on our German-speaking territory, an area where we believe we have a significant opportunity to complement our strong adoption in the U.K., U.S., China and Japan. We added 3 new cancer centers, recruiting new users to the technology in one of the larger global markets where we are underpenetrated. We also placed additional units in the U.K. and Nordics at biopharma accounts. We are pleased with this execution and believe that the second half of the year should generate more positive results as we exit the normal summer slowdown of customer activity, particularly new system purchases.

Adoption of the direct immune profiling solution in Europe was excellent. Overall system pull-through for mass cytometry exceeded our projections in the U.K., which has the largest installed base in the region.

Rounding out our commentary for Europe is the progress in microfluidics. We continue to experience excellent growth at 1 European base customer with a novel application well matched to our technology value proposition, offsetting headwinds from some European agricultural-oriented accounts.

Asia Pacific performed well in the quarter with double-digit growth. Revenues were up 22% in that region as a whole, powered in particular by performance in China. Our APAC performance in the first half of the year has been exceptional. As I mentioned last quarter, the underlying health care research market for China remains robust. Translational hospital research centers, novel direct-to-consumer enterprises and CROs are fueling demand for mass cytometry and microfluidics solutions.

In Japan, after an incredible Q1 performance, we are seeing new programs on the horizon that could drive accelerating growth. The Japanese government is considering a major 5-year public-private IO or immuno-oncology biomarker program that will kick off in Q4. We are well positioned to participate in this program, which will include funds for incremental systems and consumable orders. We will share more news as these plans are finalized.

Finally, the Americas declined 11%. Speaking plainly, we were surprised and disappointed by this performance. We have focused our management attention and energy in this area. The key takeaway is we do not see a structural problem, and microfluidics is the challenged area. A few mass cytometry systems pushed out into the second half of the year, some linked to funding delays, but that funnel is, on the whole, very deep. Our microfluidics business was weak, but the drivers were not new. The RNA-seq product configuration is a great fit for the larger genomics cores, which could include new Juno placements.

Notably, mass cytometry consumables growth was excellent in terms of absolute revenue. Our new products are being adopted, particularly the products associated with the national immunotherapy network as well as our direct immune panel. We believe our mass cytometry consumable sales are poised for acceleration, and we think the Americas will be a big second half story with a major step-up in Q4. We saw a similar pattern last year linked to the release of year-end operating funds at many organizations.

Another minute or 2 on our progress in clinical trials penetration. Our strategy, in essence, has been to: one, secure initial placements in key translational research centers; two, leverage our field application scientists to support validation; and three, demonstrate reproducibility data. As



evidenced at the influential AACR conference last quarter, a leading scientist at the Mayo Clinic published data demonstrating reproducibility on our Helios platform, supporting its viability for clinical trial integration. This is a unique capability enabled by our technology. Our direct immune profiling panel kit is custom-designed for this application, demonstrating consistent lock-to-lock characterization, coupled with push-button analysis. Just add blood to our dried down solution and data can be generated in as little as 5 minutes. For multihospital networks such as the Mayo Clinic, we could become a standard platform. We are beginning to cross the chasm from academic early adopters to the next wave of users.

At the June CYTO meeting in Vancouver, Fluidigm was profiled in over 70 presentations and posters. Of note, several leading translational and clinical researchers led a workshop on using CyTOF for clinical studies. A Stanford medicine researcher presented data on predictive clinical outcomes from CyTOF data sets. We generated new leads for suspension, Imaging Mass Cytometry and our kits.

Finally, as I discussed last quarter, we are seeing an acceleration of publications on mass cytometry. At this point, we have over 850 publications across our mass cytometry franchise. During the first 6 months of this year, there have been 170 new publications using Helios with concentration in immunology, immune function, immuno-oncology and infectious disease. There have also been 34 peer-reviewed publications for Imaging Mass Cytometry since commercial launch.

An important pillar of future growth is innovation. At our Mass Cytometry User Group Meeting in June, we announced the introduction of 7 new metals to expand the plex of mass cytometry for suspension. With 135 channels available on Helios, we have room to scale for the future.

We've also announced the introduction of 3 new panels for Imaging Mass Cytometry. These new panels can be mixed and matched to profile tumor-infiltrating lymphocytes, immune cell activation states and tissue architecture at a single cell level or combined into a single 18-marker panel. We enable further customization with room for an additional 10 markers to support specific translational and clinical research studies, all in a single scan.

As mentioned earlier, I want to return to our RNA-seq library prep launch. Market studies indicate the overall RNA-seq market is greater than \$1.2 billion and growing at an annual growth rate of 15%. Library preparation in front of sequencing is a critical element of the workflow that we estimate at roughly \$300 million. Customers range in size and category from high-throughput pharmaceutical and translational sequencing labs to smaller genomics cores at academic and government facilities. The market is fragmented, and there are no competitors that combine an automated platform with reagents for an integrated solution.

Reagent costs and long hands-on time requirements consume 4 to 5 hours of a researcher's day in low value-added activities. Fluidigm's automated microfluidics solution can provide a significant cost advantage, perhaps as much as 2 to 3x less expensive than other offerings, reducing cost per sample and unlocking the potential for more sequencing and, therefore, more throughput. Initial interest in our product configuration has been outstanding. We will be metered in the scale of our launch to ensure maximum customer satisfaction, but the potential is very significant. We are convinced that reigniting robust microfluidic growth in 2020 and beyond is exactly what investors expect from this franchise.

Finally, I'm thrilled to announce the appointment of a new Board member. Bill Colston, that aligns with our ambitions to lead the immunome market. Bill is an accomplished scientist and life science entrepreneur, well matched to our growth vectors. He is President and a member of the Board of Directors for iCarbonX, a biomarker discovery and data sciences pioneer. He is the founder and CEO of HealthTell and the scientific founder and former CEO of QuantaLife, which was a pioneer in digital PCR and was acquired by Bio-Rad earlier this decade. He has over 30 years of experience of applying multi-omics, machine learning and a range of other disciplines to support health care decisions and a global network. He's an ideal addition to our Board, and we will partner to accelerate deployment of Fluidigm's long-term strategy, especially on the technical and applications vector. I couldn't be more excited.

I now turn the call over to Vikram, our CFO, for a complete review of our financial results.



Vikram Jog - Fluidigm Corporation - CFO & Principal Accounting Officer

Thanks, Chris, and good afternoon, everyone. Total revenue was \$28.2 million in Q2 2019, an increase of 7% year-over-year. For the first half of 2019, revenue grew 13% compared to 2018. Changes in foreign exchange rates negatively impacted our revenue by approximately 1 percentage point for both the second quarter and year-to-date period, respectively.

Mass cytometry revenue of \$17.5 million increased 28% year-over-year. We had strong sales of both Helios and Hyperion imaging systems in the second quarter, with most of our placements to new customers. About 1/3 of our instrument placements represented incremental units to existing customers.

Mass cytometry consumables and service revenue delivered strong double-digit year-over-year growth in the second quarter, with solid uptake of our Maxpar direct immune profiling assay that was launched at the end of March 2019. Consumables pull-through tracked above the prior year quarter but below our 2019 guidance of \$73,000 to \$78,000. We expect pull-through to be close to our guidance range by the fourth quarter of 2019 as customers ramp up usage of their instruments.

Microfluidics revenue of \$10.7 million decreased 16% year-over-year and 6% sequentially in the second quarter, driven by weakness at key high-throughput accounts. As a reminder, a significant portion of our microfluidics consumables revenue is tied to a small number of customers. We continue to expect quarter-over-quarter variability in microfluidics revenue as we execute on our strategy to focus on new key accounts and grow the business with new applications.

Looking at pull-through. Biomark, EP1 and Access Array, Juno pull-through were lower than our guidance range this quarter due to weakness in key accounts sales. From a regional perspective, in the second quarter, we recorded strong year-over-year revenue growth in Asia Pacific and EMEA, with weakness in the Americas. Specifically by region, EMEA and APAC grew 23% and 22%, respectively, primarily driven by mass cytometry instruments and consumables. The Americas declined 11%, driven by mass cytometry instruments and weakness in microfluidics, partially offset by mass cytometry consumables. Notably, mass cytometry consumables pull-through was significantly higher than our overall guidance range of \$73,000 to \$78,000. Mass cytometry instrument weakness this quarter was primarily due to funding delays and related extension of sales cycles.

Moving on now to our operating performance. GAAP gross margin was 54.5% in the second quarter of 2019 compared to 51.4% in the year ago period and 56.4% in the first quarter of 2019. Non-GAAP gross margin was 66.4% in the second quarter of 2019 compared to 64.8% in the year ago period and 67.7% in the first quarter of 2019. The year-over-year increase in gross margin was primarily due to higher instrument manufacturing capacity utilization, partially offset by lower instrument pricing. The sequential decrease in gross margin was primarily due to product mix and instrument pricing, offset by higher instrument manufacturing capacity utilization. In the case of GAAP margin, the year-over-year increase was coupled with fixed amortization over lower revenue.

Operating expenses in the second quarter increased approximately 14% year-over-year to \$30 million on a GAAP basis and increased 12% year-over-year to \$26.4 million on a non-GAAP basis. The non-GAAP increase was attributable to headcount-related expenses, R&D project costs and certain costs related to a new facility. In addition, the increase in GAAP operating expenses was due to higher stock-based compensation.

GAAP net loss for the second quarter was \$13.8 million compared to \$16.2 million for the same period last year and \$25.5 million in Q1 2019. The year-over-year decrease in GAAP net loss was primarily due to lower interest expense and higher gross profit, partially offset by higher operating expenses. GAAP net loss in the first quarter of 2019 included a debt extinguishment loss of \$9 million. The non-GAAP net loss for the second quarter was \$7.1 million compared to \$6.8 million for the year ago period. The lower net loss compared to the prior year quarter was primarily driven by higher gross profit, partially offset by higher operating expenses. Please note, reconciliation tables between our GAAP and non-GAAP measures are provided at the end of our earnings press release that we issued earlier today.

Moving on now to the balance sheet and cash flow. Accounts receivable were \$19.3 million at the end of the second quarter, in line with the end of the first quarter of 2019. DSO was 62 days at the end of the second quarter compared to 58 days at the end of the first quarter. Total cash outflow in the quarter was \$4.4 million, including cash proceeds of \$800,000 from stock option exercises. Cash, cash equivalents, restricted cash and short-term investments were \$70.9 million at the end of the second quarter compared to \$75.1 million at the end of the first quarter of 2019. At the end of Q2 2019, the borrowing base under our asset base revolving credit facility was \$12.5 million.



Moving on now to guidance for the third quarter of 2019. Total revenue is projected to be between \$27 million and \$30 million. GAAP operating expenses are projected to be between \$30 million and \$31 million. Non-GAAP operating expenses are projected to be \$26 million to \$27 million, excluding stock-based compensation of approximately \$3.5 million and depreciation and amortization expense of approximately \$1 million. Total cash outflow is projected to be between \$7 million and \$9 million, including a semi-annual interest payment of \$700,000 and working capital investments to support revenue growth.

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

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

Thank you, Vikram. We had strong execution with double-digit growth in the first half of 2019. There has been solid performance in instrument placements, and we see headroom for growth around the world. Early adoption has been strong with the Maxpar direct immune profiling assay. We've announced new product introductions for all of our major platforms with more to come.

As a major market participant in Immunome Research, we are advancing our core technology, building content and providing complete workflows with matched informatics. We are the clear market leader in multiplexed cellular analysis and multiplexed image analysis of tissue with demonstrated global adoption and a focus on translational and clinical research. Our innovations are complemented by an excellent operations and quality organization.

From a commercial perspective, Colin McCracken, our Chief Commercial Officer, has implemented enhanced operating mechanisms within our commercial operations and moved quickly to recruit a leader for the overall Americas region to support faster growth.

I personally would like to welcome Jonathan Day to the Americas leadership role. Jonathan brings more than 20 years of commercial leadership in life science tools, spanning research and regulated markets. He honed his skills at Agena, where he was Vice President, Americas, and led commercial programs and positions of increasing responsibility at Thermo Fisher Scientific as well as significant commercial and sales roles at Affymetrix and Arcturus Bioscience, all organizations with commercial and genomics excellence. Jonathan will guide us through the next phase of leading the Americas region for success. We've worked together before and achieved some great things. He is known to many of our team members, and we anticipate Jonathan will integrate quickly while adding his unique skills and network to help us drive scale. He is matched with our incredibly talented mass cytometry leader, and they will make a powerful team. You can tell I'm excited for the future.

From a shareholder perspective, I remain confident that our mix of innovation, revenue growth, financial discipline and operational excellence will drive tremendous value in the second half of 2019 and beyond.

And I would like to thank our over 500 employees for their contributions this past quarter as we executed on a robust product pipeline and an equally ambitious set of reagent manufacturing transfers. We have never been in a better position to prosper in the years ahead, providing customers with novel tools to drive new insights in health and disease, identify meaningful biomarkers and accelerate therapeutic development.

With that, I'd like to open the line for questions.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions) The first question comes from the line of Sung Ji Nam with BTIG.



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

Maybe starting out with the launch of the 7 new metal markers, Chris, for the mass cytometry platform. Do you have a sense of what's the average number of markers used by your customer base? I'm recognizing that depends on the applications. I'm just trying to figure out if your customers are utilizing the multi -- the capability at its max? And if an addition of 7 markers or additional markers could kind of also provide maybe another inflection point for the customer adoption.

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

Sung Ji, thanks for the questions. Absolutely. The 7 metals, I think, is an important additional milestone for us. Most users are in the high 30s for us or low 40s. This is a significant increase on a percentage basis on the number of channels we'll be opening up. So we do believe, over time, as we get this into their hands, this will open up certainly more revenue opportunity per test as well as accommodate addition markers that they'd like to introduce into their panels.

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

Okay. Great. And then, Chris, you talked about having their research synergies across your mass cytometry and microfluidics platforms. I was curious if you still see significant opportunities there and potential drivers of further stabilization for the microfluidics business, especially for platforms like the Biomark.

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

Yes. So I actually missed the very first part. It kind of broke for a second for me. What was the very beginning of your question again, Sung Ji?

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

Oh, I was just saying that in the past, you guys have talked about research synergies across the mass cytometry platform as well as your products under microfluidics side and was curious if you continue to see significant opportunities in the future in terms of some of your mass cytometry customers potentially also adding on the Biomark system, for example, for their research purposes.

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

We don't have, I would say, a huge trend in this area where we have POs in which we have customers that are adding systems across our entire network. As you are probably -- I know you're very familiar, so we have IO matched panel that's a gene expression panel, for instance, that sits on our Biomark platform. And then we offer mass cytometry, panels, either customization or you can use our direct immune monitoring panel. And then you can also do imaging work. In addition, we have customers who use via partner, Olink, do protein biomarker detection on all 3 platforms. The most common synergy relates to the use of biomarkers in multiple areas, so they would look at our Biomark platform using in the Olink technology or built on top of our platform. They would have imaging programs, and they'd have programs related to the suspension work. And you have examples. I think you have heard the talks from people like Petter Brodin from Karolinska as well as Amir Horowitz there in New York City.

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

Okay. Great. And then lastly, Vikram, if I heard correctly, I think you cited a few of your key customers contributing to the microfluidics weakness this quarter. Could you kind of provide more color in terms of what might be going on? Do you think -- is that temporary? Or are they switching to other types of strategies or platforms? Or do you expect that kind of potentially to return back to growth in the outer quarters?



Vikram Jog - Fluidigm Corporation - CFO & Principal Accounting Officer

Yes. Thanks for the question, Sung Ji. As we've been saying for the last couple of quarters, our entire microfluidics business is dependent on a few number of very high throughput customers, and there's a bit of both going on. There is migration to other technologies, but also, there's buying behavior. And particularly in the European ag-bio sector, which we have referred to in previous quarters, there was some bulk buying in the year ago quarters and maybe 5 quarters ago as well. And more recently, they have been reducing their inventories. So I would say it's a bit of both. And as Chris mentioned in his remarks, what we've been lacking in the microfluidic platform is a key value proposition and an application that would really address big markets, and the RNA-seq application that we just announced earlier today is one such application. It's really the first milestone in the plan to rejuvenate the microfluidic business. So that is part of the proposition here, to put new applications and recruit new key accounts to replace customers that are migrating to other technologies.

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

Yes. I like to just clarify just to touch on that point, just maybe to elaborate a little further. So in the ag-bio space in which we have a significant presence, there is an interplay between real-time PCR and next-generation sequencing. So it's true, this is a macro trend that's been going on with some migration to genotyping by sequencing. Now we can pick up that business in our Juno platform with -- and control that migration. And many people also use real-time PCR for then different crop sizes and different strategies in their breeding cycle. So there can be some play back and forth between the 2. And what we have -- the primary driver for us in the ag-bio space, though, has been the inventory buildup and then the workdown of that inventory. By far and away, that's the primary driver for us in the ag-bio space, which is why it's been the most problematic probably for us to forecast the projections for that particular customer segment.

There really hasn't been, outside of that, any major technology switch. There's only 1 account that I'm aware of that has gone through a related technology, of which we can participate. And in fact, I think we have a good position to claw back some of that business. So it's more of a characterization that their business models have been relatively flat. It hasn't been necessarily a transfer to another technology. It's been the unpredictability of their -- we've talked about their -- some of them are CROs. And so their CRO business itself has been struggling rather than our technology itself.

Operator

Our next guestion comes from the line of Dan Brennan with UBS.

Robert Amparo - UBS Investment Bank, Research Division

This is Rob on for Dan. I know you guys don't give a precise breakdown between Helios and Hyperion, but I was wondering if you could give us some directional commentary with how those are placed in the quarter? And also if you could provide some color about the sales funnel and kind of what the indicators you can share with us.

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

Yes. So thanks, Rob. So I mean I think one of the key things we've got to keep putting attention on is that the mass cytometry portfolio has done outstanding. When you step back and look at the performance through the first half of the year, mass cytometry is doing north of 60%, 65% growth, I think it's 67% specifically, but it's north of 65% growth. And we're seeing growth across both platforms. They're almost moving relatively lockstep. So we're seeing really tremendous sustained adoption for Helios. In particular, that driver relates to kind of things like our Maxpar Direct Immune Profiling Panel, which is doing extraordinarily well and is bringing new users to the platform. We had one of our recent user talks. We had a profile high-volume flow core that has now, I think, successfully increased their recruitment up until something north of 80-or-so principal investigators on that platform, and so they keep triggering new consumptions. Overall, we're really pleased with how unit volume on both platforms has been moving up. Unfortunately, we don't break out the 2 for you. So I think overall, that's kind of how the status is on units.



Now as far as the funnel looks like, it's been really strong. It's in all 3 geographies. So as we continue to reinforce, I mean, we saw net growth in the first half through the Americas. We saw net growth in all 3 regions. We had extraordinary growth in APAC. You remember last quarter, Greater China and Japan had just extraordinary eye-popping numbers in the first quarter -- correction, in the first quarter. And in the second quarter, we had Europe that did extraordinarily well, and China continued to do very well, and we placed new units in Korea in addition. So our funnel continues to mirror that pattern. We're seeing really strong global funnel development across both platforms, both imaging and suspension.

Operator

(Operator Instructions) Our next question comes from the line of Bill Quirk with Piper Jaffray.

William Robert Quirk - Piper Jaffray Companies, Research Division - MD and Senior Research Analyst

Vikram, I guess first question for you on guidance. At the midpoint for the third quarter, you're forecasting \$28.5 million. The Street is a little over \$4 million higher than that. And I appreciate that you guys don't get -- don't tend to guide beyond the quarter, but that's a pretty big disconnect. So help us understand, I guess I'm just struggling here with that disconnect. And appreciate that there's some order slippage and such, but can you elaborate here on kind of, I guess, when you guys think that you could get some of these orders that slipped into the quarter. And if it's not the third, is it the fourth? Again, help us get comfortable with that.

Vikram Jog - Fluidigm Corporation - CFO & Principal Accounting Officer

Yes. I can start and maybe Chris can jump in here. So just to set things in perspective, Bill, we've had 5 quarters of revenue growth, including 4 quarters of double-digit revenue growth. I would like to reiterate that the mass cytometry franchise has grown extremely strongly. As Chris pointed out, even in this year, we've grown over 60% for the year-to-date period. And we've grown strongly 28% in the most recent quarter. So we are now crossing the chasm and engaging a new class of customers that are — that have longer decision cycles. So that is something that we have factored in. And on the other hand, mass microfluidics remains volatile, and we are conscious of the volatility of that particular product.

I'd also like to point out that the issues that we are addressing are fairly localized. It's in the Americas. The other regions, Europe and EMEA, grew very strongly even in this quarter. But regardless, I think from a quarter-over-quarter basis, things are harder to predict given our unit pricing of our instruments, but we remain confident about the growth prospects for the business overall.

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

Yes. I think, Vikram, you covered most of it. The primary thing for Q3 is it's typically not a super large instrument placement cycle. So given the swings in 1, 2 or 3 systems, that's solid. I think you're really reflecting here, I think we're seeing no real trend change in the mass cytometry business overall. When we step back, we've got uncertainty related to end-of-year funding for the NIH, which will wrap up, as you know, in September, end of September. And then we think Q4, given what's setting up right now, is going to be a very strong cycle for placements of instruments and order placements for overall based upon end of year money.

William Robert Quirk - Piper Jaffray Companies, Research Division - MD and Senior Research Analyst

And Chris, is there anything going -- I don't think there is, but obviously, we do have a couple of new competitive entrants. Is that causing your customer base to slow down their ordering patterns or the deal funnel just because they're simply kicking the tires on some of these alternatives?



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

As always, this is very hard in the fog of war to understand exactly what's happening. We've had tremendous instrument placement cycle with mass cytometry, 67% growth to the first half of the year. These market entrants have been in place during that cycle and have been marketing their products. So there's not a fundamental change in the overall competitive landscape as we see it right now.

So I don't -- I can't -- we can't say that there's many new competitors that are necessarily extending out the ordering cycle. Our ordering cycle does tend to be 6 to 9 months, and that's been what our historic trends have been, and I think it's kind of -- and we're also seeing one of the changes from last year to this year, which I think is actually more -- perhaps contributing more than the mix or the -- those competitive dynamics, is the mix between new users to our technology and people who are buying incremental capacity. New people and technology take a little bit longer typically in the ordering cycle in the -- from the first meeting until the close and getting them up and running. And we saw a shift, as Vikram summarized, to the first half. We effectively saw about 2/3 of our instrument placements were new to the technology. I think that's fantastic. I think that bodes exceptionally well for the setup for the business over the long term. But in the near term, it could have some impact on the close cycle.

Operator

(Operator Instructions) Next question comes from the line of Doug Schenkel from Cowen and Co.

Adam Joseph Wieschhaus - Cowen and Company, LLC, Research Division - Associate

This is Adam Wieschhaus on for Doug. I just want to clarify an earlier question about the mass cytometry instrument that are pushed out of Q2. Do you expect those slipped Q2 orders will fall into Q3 or will take longer? And are they contractually complete at this point or there's still risk they may not close?

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

Adam, this is Chris. So I think the better way to characterize this, it's not many systems we're talking about. The systems that were involved happen to be in government institutions, and so some of them are waiting for final funding, I think, from the NIH, as I suspect. So — and they have options for operating funds that they can use in the fourth quarter. So we see multiple shots on goal for how that may play out. Whether it's Q3 or Q4, we're not certain, but they certainly signaled their intent to purchase this year.

Adam Joseph Wieschhaus - Cowen and Company, LLC, Research Division - Associate

Okay. And I just want to clarify on your guidance, I believe you indicated that you do not expect mass cytometry pull-through to be within the guided pull-through range in Q3. Is that correct? And if so, is that due to the stocking dynamic you mentioned in your prepared remarks? Or is it another issue?

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

So stocking is certainly the dominant narrative from the first quarter. We saw evidence as we prepare -- or we presented our prepared remarks on -- we've seen a significant number of those accounts resume ordering patterns. When we step back, mass cytometry consumables growth isn't fantastic overall. We've got probably a larger installed base than we initially protected also. So the combination of a larger installed base and the combination of these people still starting to -- they've been working through their stock-up cycle, is probably combining. I think -- well, we think Q3 could be below that range of guidance, but Q4 looks like we're really setting up just to be right where we want to be.



Vikram Jog - Fluidigm Corporation - CFO & Principal Accounting Officer

But we still expect very strong year-over-year growth in Q3.

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

That's correct. So we see -- we think those are continued setup from mass cytometry consumables. It's only as we focus on the pull-through per system metric.

Adam Joseph Wieschhaus - Cowen and Company, LLC, Research Division - Associate

Okay. Great. And over the last few months, you appointed a new CCO, CSO and just today, a new VP of Commercial Operations. So this signaled that a new operational and commercial strategy may be underway. And do you expect to provide a new long-term strategic plan maybe in the next few months?

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

We're super excited to add these 3 new talented individuals to the team. I think for all the reasons you've talked about, the Chief Commercial Officer is purpose-built or purpose-selected to drive a much scaler -- a broader-scale business. Our VP for the Americas is a role that we've had open, and it's great to have that in place. And I think in his particular situation, Jonathan brings such a great mix of multi-omics experience both in the genomics space as well as in the protein space. And so I think he's really going to help us reaccelerate our growth in the Americas overall for the 2 combined businesses.

And of course, the Chief Science Officer reflects the thrust of where we want to head with the technology. We're looking more and more at how we can better position the company from therapeutic areas and from application content across multiple platforms. And in that case, Andrew Quong is perfect for that.

And as I said also, I think this should not be underappreciated, I think, the addition of an additional Board member who has deep expertise in this area and has tremendous insights for us. So you are absolutely seeing a new alignment around where the company is headed.

Operator

Your last question comes from the line of CaseyWoodring.

Paul Richard Knight - Janney Montgomery Scott LLC, Research Division - MD, Head of Healthcare Research & Senior Equity Research Analyst

It's Paul Knight calling. Can you talk about -- I missed the very first part of this call, but is this cytometry a little slower due to the academic or private sector? And can you talk to the tone of either group of buyers right now?

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

I guess, well, it's good, first of all, Paul, not [Casey]. So second, mass cytometry reinforced over 65% growth through the first half of the year, and we're seeing tremendous or 68% -- 6-0 percent, sorry. I had to phone a friend there for a second.

Vikram Jog - Fluidigm Corporation - CFO & Principal Accounting Officer

28% for the quarter.



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

For this quarter. Mass cytometry vector, both biopharma companies as well as academic and cancer research centers, both of them are progressing, I won't say exactly on lockstep, but they're both growing very, very nicely for us.

As we highlighted in the prepared remarks, which you may not have a chance to hear or listen to, we both placed a new comprehensive cancer center -- new cancer centers in the United States as well as placements in Europe. So we're seeing a good continued trend there as well as their equivalents in areas such as China.

Paul Richard Knight - Janney Montgomery Scott LLC, Research Division - MD, Head of Healthcare Research & Senior Equity Research Analyst

And the nanoscale -- you had mentioned in this press release the library prep solution on a nanoscale RNA-seq. Is that shipping now? And what's your view on second half genomics revenue? Is it growing? Is it stabilizing? Where are we with the genomics part of your business in 2H?

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

Well, hopefully, if I -- you took away, we spend a fair amount of time talking about RNA-seq, and I think that this is just a tremendous market opportunity for us at north of \$300 million. And our value proposition with an integrated automated platform, that is unique in the marketplace to have an integrated platform and a chemistry solution, the 2 of them coming together. We anticipate shipping that in this quarter, start shipping and doing the first installations we've had tremendous inbound interest. And so we're just trying to be metered in our response as to kind of how to set expectations in the third quarter. We anticipate shipping beginning later -- in the later half of this particular quarter, which is why we're not modeling a huge amount of impact in the Q3 time period.

And then we've got to see -- to set expectations correctly, we've got a lot of [short-end rule] controls on how we want to measure the ramp-up from those centers. But you know as well as I knew the scale and size of the genomics opportunity and the number of cores and areas that will fit this value proposition.

So kind of building, along with the other point we made with one of the earlier questions that we had, the balance of the genomics business has been more challenging for us to model, and I think it's because of that uncertainty and the signals we're getting from our customer base make it difficult for us to kind of put the 2 together and say conclusively we're calling 1 particular turning point. But I -- we sure believe that RNA-seq is setting us up really well for the future. And it's not the only thing, but it's the primary one that we think is a new piece of information that needs to be factored in. Some of them has the potential to totally change the dynamic for this business.

Operator

There are no further question at this time. I will now turn the call back over to Ms. Agnes Lee.

Agnes Lee - Fluidigm Corporation - VP of IR

Thank you, Celine. We like to thank everyone for attending our call. 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 of 2019. Please reach out to us if there are further questions. Good afternoon, everyone. Celine, you may now close the call.



Operator

This concludes today's teleconference. You may now disconnect.

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