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PRESENTATION

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

Welcome. Dan Brennan on Day 2 of our Global Healthcare Conference for UBS. Really pleased to be joined with me here at 2:00 p.m. virtual presentation slot with Chris Linthwaite, CEO of Fluidigm. We might be having Vikram, CFO, join as well. We'll hear from them in a moment. But nonetheless, having Chris on stage with me, will be terrific, particularly following their event yesterday, their Investor Day and they're hosting, I believe, a user or a customer group meeting today. So maybe with that introduction, Chris, welcome.

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

Thanks, Dan. I want just to thank you again for you and UBS for including us in your health care conference.

QUESTIONS AND ANSWERS

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

Awesome. So series of questions to go through. Feel free, anyone watching the webcast, if you want to try to shoot me an e-mail. We'll try to look at it here during the presentation, and I'll try to get to a question or 2 if we see them come through. But I've got a long list here, so happy to kind of rip through them.

So maybe, Chris, obviously, a lot going on at the company right now, particularly with the new product announcement yesterday and continuing today, I'm sure with a lot more details. Maybe could you just walk us through the new product, the XT? And I know you also are expecting or talking about a new imager product as well. Walk us through the new product highlights from yesterday, how investors should be thinking about them?

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

Yes. As you said, Dan, there's a much more thorough product launch that's going on right now concurrently today. I think it just started in the last hour that's full day of talks, key opinion leaders, early user feedback, features and benefits, all the programs. So that's a lot more context that's out in parallel. But from an investor perspective, what I hope people took away from yesterday, is the work on the CyTOF XT really reflects where we think the puck is going in the field. And so you see us kind of taking multiple facets of improvements on the technology. So you can see us targeting ease of use, which is one of the key features and feedback. This is our fourth generation platform. And we felt that it was really important to go after -- we've established through the Maxpar Direct Immune Profiling Assay, the fundamental strength of the CyTOF technology is its reproducibility and its suitability to create standard panels and large panels that other technologies such as fluorescent based approaches really struggle, and we don't think have a really strong road map for how they can create a like same as reproducibility site-to-site to site. So what we wanted to supplement is our progress on the consumable side, with looking at the instrument and saying, well, how can we look at the instrument and go -- just tick off a list of things we'd love to get to. So how can we reduce the operating cost and the total cost of ownership for the system? For some user environments, in particular, having an operator and experienced operator is important. And there's a lot of nuance in how the system was run, so meaning that there was, you would run it 8 or 9, 10 hours, and then there was -- it was -- you couldn't run it overnight. There was a cleanup cycle and then a large cleaning that occurs at least once a week for heavier users. All of this eats up the amount of potential utilization -- it's up to the

total run time potential and pull-through potential for the system. So we -- that's why getting this to a stage, why we made it with a loaded carousel. That allows for samples to be introduced continuously. We also added a purging feature, which -- a de-clogging feature, which so cells of all types can get very sticky. We knew that, that was sometimes required user intervention. So we created an automated approach to de clog the system. We also created notifications that could be sped for remote monitoring. We thought that was going to be important. Again, we're all anticipating the needs for more industrial type uses, less basic research and more towards industrialization and steady and timely, continuous operation of the instrument. So we went after operational costs. The automated loader allows in the sample introduction process and the ability to run 23 hours. All goes at delighters, in our opinion, for reducing the need for operator intervention and supervision of the platform. And then the net effect of both the increased unlocking the, if you will, the latent potential of throughput for the platform for the technology. It wasn't a technology, meaning the detector itself was the right limiting. It was all these other components that fed into the detector. This allows us to perhaps as much as triple the amount of throughput on the platform on a weekly basis as compared to the Helios type end operating environment. And we delivered all of this and included that with an instrument price that we think is hopefully a delighter, which is a pricing structure that's 35% below the Helios reference price, legacy Helios market price.

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

Interesting. In terms of the setup there, you talked about the anti clogger, and I've never been in the lab to watch the CyTOF which I should. But in terms of the instrument being installed and the room and kind of the other features to it. So how simplified -- so automatic loading, you've got this anti clog, which I'm not very familiar with how much that's been in the issue. Maybe speak to that a little bit? And any other color that you would provide in terms of the room set up or just the operational features, because it sounds like this could be a big deal. Maybe it was a little lost on us yesterday because you did have it in the slide deck yesterday, you talked about the a 30% lower operational cost. You talked about 50% reduction in operated time, but maybe we didn't really feel how important those were. So any additional features around that?

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

Yes. There's a couple of other things you also jog my memory. We tried to position that meeting yesterday at really, kind of, the highest level i.e. investor communication versus the detailed operator delighters. But there's a couple of other elements. I'll get into the de-clogging back in a second. We also -- we had an external chiller. We now put that on board on the instrument, which reduces the footprint. And then we had exhausting -- exhaust requirements. So part of what's embedded in the total cost of ownership. And I know you know this is there for most labs need at least some modest refurb or modification, depending on what their exhaust capabilities already in the lab space they want to drop it into. And then some labs required a significant amount of retrofitting. -- And some labs, needed significant refurbish. They were a very old building. If you were trying to put into a lab on the 14th floor inside of a high rise, these were things that could drive complexity in cost from a user's perspective when they were -- they wanted the technology, but they had retrofitting, they had to do to get the equipment in the space. We also reduced the need for exhaust and venting. So we went from 2 tubes, one of them, which was a 4 centimeter tube, if I remember correctly, another one is a 2-millimeter or 2 centimeter, down to a single tube with a 2 centimeter requirements. And that means that you can also now fit potentially 2 systems of the XTs in the same space that's already been refurbed for a single system in the past. So it reduces, if it's a new buyer, reduces their outfitting cost. And generally, in a typical lab hood environment, they would have access to -- it doesn't require a special ventilation to get to that 2 centimeter. That's more standard -- in most standard labs. So we're really trying to make this as conventional and easy to drop in, reduce the refurb costs or any outfitting costs that are required. And then potentially, we are opening up the potential for existing users who have already outfitted the space to add incremental capacity with very little marginal expense. The other point we brought up was you brought up earlier, which I didn't address was the de-clogging feature. So all cells have -- cells are not monolithic. So you have all different cell sizes. And even the medium in which the cells are collected can have other trace elements included in the sample substrates that you're introducing into the reader. And this is true for all technologies. And there's -- so you have to constantly modify, even in flow cytometry, you're adjusting different settings for flow rates based upon the types of cells you have. There's a lot more user intervention than people appreciate even in flow cytometry. And in our case, you have cell types that sometimes gets stuck in the introduction features. You have to purge them or clog them. So experienced practitioners learn over time, which of their cell types, the mediums, they receive those cell types in, how to try to adjust all detection platforms to accommodate these types of impurities or nuances to the sample type. So in our case, we just added a de-clogging feature, which is intended, in particular, for people for when they're in the remote monitoring mode. So when they're running it overnight, or they're walking away to go to coffee or whatever or going about other business in the lab that the system identifies a clogging event has occurred and then begins a protocol to purge the system and then get it started

and operational again. That was something that would have required operator intervention in the past. And that was part of why you didn't need to have an operator to baby-sit the instrument. But when a clogging event occurred, you weren't there and didn't know about it, you would have thought the experiment was running and been running for an hour, and it actually stopped after 10 minutes because of a clogging event. So now we've automated that process. So that's what allows more of a walk away for the operator. Does that make sense? A little more nuance than I normally talk to investors.

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

No, no, it sounds pretty material. Just maybe one more on that front then we'll get into more of the market opportunity question. Just on that chiller that's on board, like is that because we heard from somewhat like, for existing CyTOF what would have to be in the room? And now with that show on board, what does that remove for be in the room? Because most of the investors we're in front of aren't really familiar with the actual setup.

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

Yes. That's -- yes, there's a lot -- there's -- we have -- remember, it's a torch that lights up and incinerates the heat of the moon or the heat of the sun on the surface of the sun when we incinerate the cell. So there's a chilling requirement to keep the instrument within a range of operating temperatures. So there's -- and in the past, for the prior 3 generations of this platform, you had the chiller was external to the instrument. And so it's a -- we don't market it. The users and the user group meeting are going to be excited about this because it reduces the sound in the room, too. So it reduces the whole dBs in the room and the background. In addition, removes another piece of equipment on the floor. So these are all kind of -- I didn't anticipate that investors will be interested in these things, but it is spot on. We're reducing both the needs for external venting, ventilation, we bring the chiller on board, it quiets down the instruments in addition to the de-clogging features and some other things. So that's why this is -- we didn't put a lot of -- we showed a road map for increasing parameters and all the other things that have been generally been associated with the company for the last 3 cycles. But we felt that it's even more important today to show the industrialization and stability of the platform, reducing the -- moving it from a research-type first generation product, to one that's more suitable for sustained and long-term operation. And therefore, you need to shift and -- lift and shift your focus on other areas that make the platform suitable for long-term scalability over the years to come, in particular, for the clinical and translational settings that we believe the market is moving towards.

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

Any -- I know the summit today for customers. Obviously, it's 2:00 in the afternoon East Coast Time. So it's only been going on for a few hours this morning. Just any formal comments about the participation? Like obviously, this is going to be a virtual someone I assume, but any flavor for any early feedback or for participation? Any color you want to highlight from that day?

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

I'm embarrassed to say, we had our annual stockholder meeting first thing this morning, focused on that, and then I came right into your conference and so I have -- I don't know what the full live attendance is. It's in the hundreds or hundred -- I don't know. I shouldn't even put a number. I feel very comfortable with the preregistration. And then how many people will pull it down on remote, I have no idea. But I can see the -- we have just like you probably do the team's chatting, the thing keeps lighting up among the threat. So I'm not reading it deliberately, but it seems like it's positive.

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

Maybe give a little bit of color in terms of the development of the XT, like how many years, I guess this is the fourth generation product. So there's a cadence to what Fluidigm has done. Although one than the last update was, I can't recall. But just give us a sense of the R&D that had to go into this latest product update.

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

The predecessor, so with the Helios, which will continue to stay in the market, and we talked about that yesterday, was a 2015 release to give you a sense. So that's -- so we've when we had 2 systems. So as you know, the Helios is the detector platform that also powers the Hyperion, which we make the laser ablation module. So soon after we finished the work on launching the Hyperion, which was in 2017, early 2017. We began to work on all the components that would represent both our suspension version, which is the detector, which is now manifested as the XT as well as started working in parallel on the imaging, next-generation platform, which is a derivative of it. So that's part of it trying to make the story really simple, but we've been working on 2 basic systems for the last -- since 2017 in parallel inter-related.

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

Got it. Okay. Maybe switching gears for a moment for like some of the other metrics you had in the deck assays, which you discussed. You kind of outlined these penetration outlook. And I think -- I presume those we commiserate with your 2025 vision, which came out, I guess, on the 4Q call. I don't know if this was updated those or new slides, I think they would do, but the meditation you're expecting is not insignificant for some of the end markets. So just maybe what gives you confidence in your ability to kind of set the penetration targets out there?

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

Well, I think, first and foremost, we need to set targets. And you know the importance of setting metrics and targets, whether they're external or internal. And so we've landscaped. We've been in the market for a number of years. You've seen the publications growing. It's a real word facing metric. You've seen double-digit growth in publications, and you've seen a steady shift in those publications to -- from basic research type questions to applied questions. So things related to oncology questions or infectious disease or cardiovascular health to reproductive get on the list. That's one piece of data. The second is you've seen the emergence of clinical studies and clinical trials on our platform. That's been a rearward facing number. We've shared that number, I think, is on the call. I share updated, I think 150. So we've added another, what, I think, 10 or so since I gave the last update, a month ago. So we can see the patterns of those types of studies, the areas of their focus. All this kind of informs us that -- and for a while, we've been talking about the conventional approach to a new technology at least in my experience in the analytical instruments and Life Sciences and Tools space has been starting in academic and basic research. And when it's a new technology, you tend to have those applications more around methods. They're testing the limits of the technology, trying to characterize the technology. We've seen a steady migration and shift into more clinical oriented work. So we know that there's a there's a process in which this over time moves, ultimately, the whole goal, so holy grail for all of us, is to have it in clinical in some form of clinical application. What we're trying to convey is we're seeing steady progress of the migration of our -- not every technology makes it, as you well know, in the life sciences tool space. We're trying to show we're actually seeing clear evidence in our minds that we're making steady progress into clinic, into to the health care decision, early health care decision-making, clinical studies and in clinical trials support.

In the background, that means there's a slight -- there's a shift in your customer mix that will begin to occur. And I know it's not a one-sentence answer. But starting with the academic medical centers, which what we focused on in the early days, that was in critical because that produced the seminal papers, the deep insights to particular diseases and pathways. And the pharmaceutical companies look at those publications, those research groups and say, they don't want to take the time generally, 9 months to a year, to bring in a new technology and hire operators begin to spool up on it. They tend to engage with these leading academic centers and consortia in order to sponsor work that's focused on areas of their interest. So we see it -- we've actually seen good evidence of continued increase in the academic and research space with more and more early studies occurring in that space. So when you see our -- it makes sense to us that the CROs would not jump into this market out of the gate. They want to see the early -- a core lab in an academic medical center is the CRO. They are the key partner to the pharmaceutical companies in the early stage studies and trials. What we're starting to foreshadow is we believe there's going to be a migration to larger and larger studies and more drugs that are interested or more drug companies that are interested in creating like same as modules or arms in their study design. As that occurs, we believe there'll be a steady migration from the academic centers more into for profit or for purpose CROs. And so what we tried to set is kind of what our targets are for a migration of the technology of placements of systems into those segments of the market over a 5- year time period. That's the story we're trying to communicate. And we're trying to use unit placements, our proxy for -- everyone wants to distill down to modeling, how we can how many systems will you place into what segments. That's why we try to present some penetration targets. The people that are

interested, and pharma has been interested in us for some time. They just been active -- they've been participating in it through academic collaborations. So we do believe, over time, they'll bring some of those capabilities in house, and you heard a few of the speakers yesterday talk about this in our Investor Day.

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

Okay. Getting back to the first quarter, I know when you provided your -- or your 2021 guide, you did discuss new products were a function of that. I don't think you quantified how much. Is there a way for us to think through what benefit for this year's guidance incorporates new products?

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

Yes, it's true. We have not broken out the new product contribution into the forward guide that we provided. What I can tell you is that we're exactly where we thought we'd be from a product launch perspective for the mass cytometry platform. And we've incorporated that into the guide, the most recent guide that we provided. So we've attempted to -- there is contribution from the XT launch in the guide we have today out on the street. As we learn more, then we'll revisit that guide appropriately. So we've tried to kind of handicap what's going to be the rate of upgrades, what's going to be the rate of new system opportunities that come in, availability of the technology at the time they want to have the system delivered and try to roll all that in and then have the COVID overhang to see what the impact might have on new product placements. So as we learn more, we'll update you on our forward guide to reflect more contribution from these new products. But the early signals are really positive. It's just, we're trying to set expectations appropriately right now. I think you've highlighted it really well in your notes that trying to find the right Goldilocks approach to one of optimism, but is setting really reasonable, not aspirational with setting kind of key metrics and just delivering on those metrics. And if we beat, that's great.

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

Got it. Are you limited in terms of your capacity and ability to deliver the XT this year?

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

I think we should -- what we're trying to think about, there's always a finite amount of capacity, but I believe we have sufficient capacity to meet what we believe to be -- we anticipate to be demand. There is with a new product launch. We have to activate new components of the supply chain. Supply chain, there is a COVID overhang that's sitting around us in the world today. So I -- we have tried to factor that in, all of this into our estimations of the contributions of new placements against the total revenue guide for the year. But the challenges we're facing are probably no different than a lot of other tools. So I haven't heard it come up very often in calls. But we all have challenges in our -- I believe, in our supply chain, things like the semiconductor chip availability that's hitting the car industry and everything else. That's an area that we could have constraints. I don't know of any constraints at the moment, but we have to keep a close eye on key components and the availability of those components. In addition, we manufacture our products, assemble and manufacture in Canada. And Canada has lagged its vaccination rates and has been more restrictive as an operating environment. So we -- at this moment, our job is to take orders, launch the product and we'll have to work through, just like everybody else, the COVID overhang on the delivery of those systems over the course of the year. But based upon what we know today, I mean we've rolled all that in and given the guide based upon all these risk adjustments.

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

Got it. Okay. And in terms of the -- sorry, one more on the XT. In terms of the R&D customer base versus the clinical customer base, I know you gave penetration data in your slide deck as well across both of those venues. The research customer base, like I guess, is it more so that it's penetrated today, or is it just what is your clinical starting from a smaller point? Because I could easily -- listen, it's a protein tool, so that definitely lends itself to translational. But I would think there's still a lot of room left on the research side. So I'm just trying to think about, there was definitely suggested

on clinical and translational. Just maybe give an update on like where the research penetration is, and like how do you think about that opportunity going forward?

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

Yes. I agree with you. I think there's opportunity in the academic space, incremental opportunity, both in terms of capacity expansion as well as new opportunities. I think we took the point of view on penetration to be what it sounds like. That's one system. So how do you get initial penetration doesn't reflect how many of those academic or medical centers have multiple systems. We just gave the penetration number. And in our forward guide, we have a target, I think, of 50% increase on a relative basis, so going from roughly 19% to 30% penetration in the academic and medical centers specifically. And then I would anticipate that we'll have incremental unit placements inside those accounts too. So expansion in 2 dimensions. Number of expansions as well as additional incremental penetration.

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

Got it. Okay. Okay. So the XT clearly is going to be a huge focus right now will be monitoring the kind of the launch and any other metrics you guys can provide on orders a funnel or visibility, anything. I'm sure investors will definitely want to see how you guys execute against that. You obviously talked about as well that it's going to be another imager, sounds like that's first part of 2022. And then you've also discussed, you're going to host an Investor Day probably later this year to discuss the new IFC, right? So maybe give a little bit of color. Obviously, you confirm on those launches. But just from a high level, how do we think about the relative potential impact or benefit that those new products could basically deliver?

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

Can I go back one more second before I go on that one? So on the prior one, you asked about research penetration. And I immediately took a break literal by the segmentation, but hopefully, it came up pretty clearly that we see the type of work transitioning more and more to translational and clinical applications. So even the mix within those centers, so I wasn't sure if I actually hit exactly what you were trying to get at.

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

I think so. I mean it was -- I wasn't looking for a quid pro quo like an exact number. I would just think there's still a lot more room on the research market. So I was just wondering, while clinical translation was going from a smaller to bigger base. So there's fully a lot of growth I just wanted to make sure like that the research market wasn't stalled for some reason.

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

Yes. I don't think it's fully saturated, but what gets me even more excited is the ability to attach to larger and larger studies and to work towards becoming a standard that gets integrated into as many drug development programs and patient stratification and eventually work up. That's where we think there's a huge growth potential. And I think that's a little bit of what Dr. Bodenmiller was highlighting in his particular portion of the talk, which is why the need for both suspension-based proteomic analysis and imaging is going to potentially the story he created, I think, or framed is that needs to be hand-in-glove with genomics based data and that's a very important macro trend. So I -- we definitely want to see more and more of that work and attach, and that should be a neater that has a lot more acceleration and is even more attractive from a business model perspective than incremental penetration in the academic space from my perspective.

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

Okay. Great.

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

Can you redirect on that last question then so we'll get back to...

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

Yes. I'm just wondering, I mean, you're not going to be able to talk about product features for these products that haven't been announced yet but we're going to have a new imager at some point early next year, and you're going to be having it a day later this year to discuss an upgrade to the Biomark. So just when we think about we sit here and say, we'll have to wait until what the features look like. But any way to characterize the relative degree of impact on the business. Are these going to be incremental changes? Could they be more meaningful? Just how would you characterize expectations about these new products?

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

Yes. I hope we're clearly excited about each of them, and I'll touch on microfluidics here in a second, but since imaging kind of fits within the story we've been talking about so far about mass cytometry. I reflect on things like the Dr. Bodenmiller presentation also. So he made a number of comments about how this was suitable today. I mean, he was already talking about -- there's a narrative around whole slide imaging versus regions of interest. That's one of the key things. I think there's a goal, and I think it's an important one for us is to continue to speed up the system. But whether or not we have to be able to do whole slide imaging or be able to do faster interest, I think, is a really fertile area for discussion based on the work that Dr. Bodenmiller has presented, for instance, that speeding up the instrument is always going to be attractive. He talked about -- for him, we've actually done a custom automated loader. So he has a unique setup in which -- because he's running such large studies where we developed a robotic system for automated loading. Integrating that in the future would be probably very highly attractive, right? Anything we can do to further automate and reduce any manual intervention steps and then fundamentally take advantage of even the cost structure improvements of the detector, which you just heard about in the XT. These would be all kind of the fertile raw material, I think, for the next-generation imager without talking about specific details. We want to continue to -- we talked about a multi-dimensional picture. We want to continue to add parameters for repeat testing. So we can see the market separating. There'll be a basic discovery, and that's always going to be a hypothesis free, looking for infinite number of unknowns and then doing informatic analysis to see what signature is going to be most important. I don't think we're going to chase that market indefinitely. I think we'll continue to make improvements in that area, but we're not going to race to do 10,000 or 20,000 markers simultaneously. That doesn't suitably fit probably the sweet spot of our technology. But what -- our technology really does, we think, extremely well, is going to be look at the combination of larger panel sets and then doing that in a reproducible way and looking at the optimal number of markers in a single experiment, and doing a repeatable process suitable for panel development. So I anticipate that we'll add more panels, more disease-specific panels, more biological mechanisms of action or pathway specific panels, match that with improved informatics. And then the underlying technology were is going to try to reduce all of the obstacles for a user, trying to make it easier to add delighters from an operating environment, total cost of ownership, reliability, robustness, speed, things like that. I mean those are -- I think those are the dimensions that we'll get the most benefit on from an instrumentation platform improvements and then couple it with our ecosystem build-out. Absolutely the road map I see for the mass cytometry imaging technology for the coming years.

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

Okay. Well, the Biomark, you've already discussed a little bit.

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

Yes, we didn't touch on Biomark.

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

Yes. But it sounds like...

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

Yes, I mean, the biomarkers...

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

The box is smaller, but just what are the insights of it?

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

For me, the delighter is on Biomark. And ultimately, we got to keep coming back to microfluidics is the core technology platform. We use microfluidics and then apply it into applications. Initially, a killer app as and single cell genomics. Another is in sample and library prep in front of next-generation sequencing. Another version of microfluidics for us is using in real time PCR, which we did for genotyping and gene expression and then added diagnostics capabilities to it. And then we've added a proteomics application. The Biomark X is a 12-year upgrade on the underlying detector. It's not a change in the microfluidics technology, but it's the infrastructure to read and take advantage of that microfluidics architecture on the chips. We've been making steady improvements in the microfluidics component. But what we're really excited about is having a box that goes from a 2 box down to a single box. It's 1/6th the size and the footprint. It's got really modern user interface. It's suitable for many different types of applications, proteomics type applications. That will be suitable for next-generation diagnostics applications. And it will serve the research markets and prior markets, but I think we're more excited about the applications in proteomics and diagnostics overall. I think that's probably the area that creates the most -- the biggest supermarkets that we could penetrate and expanded to. And the micro -- the sample-to-answer cartridge is a part of our continuous evolution of the underlying chips themselves. So that's why I love that 1 2 punch. It's a combination of improving the detection kind of generic platform for how to access the technology and then making a significant improvement in the microfluidics chip that addresses issue -- or it's more purpose-built, it reduces and more automates it. It takes even further steps that are off chip that might be on a big automation deck that takes maybe it obviates have the need for a large Tecan or Hamilton workstation that eats up half of room, and we put it all on a single chip. Those are the things that -- it's hard to minute to conceptualize the miniaturization advantage, but really, our core microfluidics technology is, if you think about the chip, the chip is taking things that you would do on a big Tecan or Hamilton and putting it into a 1 centimeter square space. That's our technology. And then the more and more steps that we can take that someone might have had to do on a Tecan or manually intervene outside of it and put it on the chip technology is what's going to continue to propel microfluidics over the long term. The box is just another is a use case. So we can take the things like the -- conceptually, you might have had to commit to a cobas system or something, a very large, expensive and fills up a big chunk of your lab. And instead, you're going to get that same capability to detect on a modern box that's a fraction of a fraction of the size of one of those technologies. And so that opens up the flexibility to do it in more distributed operating environments to make smaller labs, function like bigger labs, reduces their capital equipment acquisition costs, and similarly in the proteomics space. So you're seeing what the strategies are for Olink. Olink is going, straddling a central lab and now beginning to talk about what their signature product distributed market strategy. And so that's why we need -- we wanted to build for them the next-generation box that takes advantage of a decentralized strategy. It just shrinks the footprint. Does that make sense?

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

Yes. Would it also do multiplexing, you think, like BIOFIRE, Luminex, the gen marks of the world that do multifunction. I know your chip allows you to put a lot more targets in a well. I think that was one of the features during COVID. But is that something else that we would expect?

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

Yes. Both dimensions are possible. So multiplexing is one dimension. And then the other is we can attack multiplexing through utilization of additional channels. So in the case of some applications, you may or may not want to multiplex in the same well, that's conventional PCR. You may want to take advantage of it by running the same experiment in parallel and its own unique well. So that's one of the things that gets regulators excited and uniquely looks at, say, in COVID. And COVID has always been kind of a means to an end is a great example of what our technology can do rather than us being a COVID company. In the COVID example, you can do both native COVID detection. And then you can run not in a multiplexed multi color, you can actually run in its own individual experiment simultaneously for Variant 1, Variant 2, Variant 3, Variant 4. And that allows to kind of avoid a lot of concerns about the co-mingling of these strains in the same experiment itself. So you can run those independent experiments. So I think there's a lot of ways at microfluidics. Our microfluidics version is very unique. It's -- the world conventionally has looked at multiplexing, multicolor strategies, but that's required innately co-mingling in the same well. We actually open up the potential -- not the potential capability to do simultaneous experiments against the same sample, which is pretty cool.

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

Got it. Okay. We got like about 6 minutes left. So a question I actually didn't have on the list, but I'll ask it, hopefully not too tricky is, I don't expect you to go into any detail here, Chris, but just wondering from a high level, shareholder now owns more than 10% of the stock. I guess, they have an activist title associated with that. But I'm just wondering, you're not going to share any of your discussions with them. But for one what you've done since you've come on board versus what could be done differently or more. Now innovation is really beginning to come out here more aggressively. Are there some other areas or features of the business that you feel are right for you guys to improve upon and do things differently. And just kind of think outside the box about the stock is trading at a depressed valuation. What are some of the things you think that are on your target list of things to do, that might also align with someone who has -- who wants a company who became a different approach or a different road.

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

Yes. I mean, as you said, I mean there's no commenting on any one particular conversation with investors, not appropriate. I mean I know you weren't asking that. So I -- hopefully, what you've seen from us is, and we completely agree with your thesis that we're undervalued. And so we have to kind of revisit all the reasons why. Part of the reasons why we felt is we haven't communicated sufficiently where the vision of the company was going. So where -- we went through the single cell genomics era, okay, what is Fluidigm going forward? How does mass cytometry fit? How is the technology road map going to evolve? What is microfluidics have any other applications in which it's useful for? What we've tried to do is take input from investors and try to synthesize all of that, and come out with a coherent strategy and story that reflects what we think -- where this business is going over the next 5 years. And that's the beginning of the Vision 2025 communication stream. That then followed with proof points, specific execution oriented proof points, talks about the role of innovation in our strategy, where these beachheads are going to take us. And our role for partnerships and where we think partnerships can leverage this platform. So in that context, as people fully understand that strategy, we want to get feedback on it. We'll be completely open to feedback on additional leverage points as, is there are more commercial channel leverage that we can get, what's the incremental benefits of -- or how should we think about OpEx and burn rate, is there infrastructure investments that we can get leverage through a partnership strategy. How do we pierce the myth that we're going to try to scale a massive diagnostics selling organization that would drive a lot of cost into the business? I think these are all the basis for a good constructive dialogue with investment community. And that's our belief that as we communicate this and show the proof points that we'll start to see a return, a reflection of the fair value of the company in these activities, and we'll remain open to all feedback along the way.

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

Got it. Okay. Maybe going back to the XT for a moment. So I know in 1Q, you guys gave a snapshot of the installed base. I think you had 228 Helios at that time. We gave obviously market penetration numbers throughout the deck. But when you think about just the actual boxes that you have, obviously, transitional is a new big market clinical, I don't know where how would you characterize the box growth opportunity if you look out

over the next 1 to 2 years. We're coming out of COVID, there should be a nice tailwind from more capital to be spent. You have new product. Just any way for us to think about that kind of installed base on Helios?

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

Yes. I just want to clarify, and I should go back and look at what we had in the deck, but I believe we had more than 300 systems that were part of our installed base, maybe it was 330, but...

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

330 in total, maybe that was just our own assessment. We had 228 in Helios at 102 Hyperion. And I know you now have the image of broken out separately to stand-alone images, but it's a small number. But inclusive in the Hyperion, I believe, is some imagers as well.

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

Yes. I think this is -- it feels like it's always a quest to try to get clarity on this. So every system is a suspension system. So we have more than 300 suspension systems. When an imaging module is added to it, it becomes imaging enabled. That's the 113. So out of the 300, if 20 is the right number, I got to look it up. There's a 113 of them that have imaging modules attached to them. In our customer base, some people use only the system for imaging. Some use it only for suspension, if they don't have an imaging module and some flip back and forth between the 2 imaging modes or suspension modes. So that can create a bit of confusion understandingly we're trying to break it out so that people can track, but also create a distortion in the ASPs and understanding how your modeling work. So, okay, specific question, and I'm not in a position here to give you the exact unit placements, but what we've signaled, hopefully very clearly is double-digit growth for this portfolio. And double-digit growth historically has been in the 20s. I think it was 26% pre-COVID approximately on the slides. And we have signaled as part of Vision 2025 that we see double-digit growth for the combined portfolio and each individual franchise. In order to deliver on that growth rate, we need contribution from all portions of the business, not just the instruments line or the consumables line or the services line. So we do see that consumables and services are likely to probably be above the median growth rate or average growth rate for the franchise. But we do believe we're going to see instrument growth in the forecast period, including in this model for this year. And in addition, we signaled to the ASPs coming down. So I would imagine you'll model that to anticipate more unit placements. And so that's how we're thinking about it. I think we do anticipate incremental unit placements. We anticipate net-net incremental growth for the franchise, and we're steadily moving back to the trend lines that we've established historically as we -- not all the way through the COVID mess, but as we start to come out of the full COVID situation to see that as the trajectory of the business. And XT should be a big contributor to that, and we need to -- and we're looking forward to the next-generation imaging platform.

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

So any final comment, would just be as we're out of time here. Just I think you characterize a lot of different aspects of the business. But, in closing, you would say -- what do you think is most misunderstood about Fluidigm by investors either with Fluidigm or those who may be haven't done enough digging as of late?

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

I guess a couple of things. One, I did get a phone a friend, it is 330 detectors, but you'll reference that back off of our website. Not 320. I'd like to believe that the key thrust of our -- and most recent Investor Day yesterday reflects addresses key concerns of the business. So one concern, and I think it's dispelling a myth that the technology somehow has a natural ceiling to it or we've already reached our best days. Our best days are behind us. And that's why we're trying to pierce the veil there and show that this is -- there's a road map of innovation here, of which we just gave the next installment of that road map of innovation that's improvements on the detector platform and the ecosystem that we're building around it. I think that, combined with this transition that's occurring into more clinical and translational is not easily understood by a generalist. And so I think that's not fully resonating the proof points and the progress that we're seeing in this portfolio. And I can appreciate intellectually why the

COVID overlay of 2020 created a really confusing story for the company because it just raised more specter of Is there a problem somewhere in mass cytometry. And so my hope is, is that by laying out the 2025 strategy and breaking in the chunks that we did that we signaled that our commitment is, yes, to innovation, first and foremost. Second is we're already establishing the beachheads of where the business is growing to, and we're moving to over the coming years. And the third, as you see more partnerships announced, you see a commitment to us open to new ideas and to working with others to achieve the future of this particular platform. When you step back and look at Fluidigm as a whole, for a relatively small company, we're relatively complex. And so I appreciate it's not easy from a generalist perspective, to understand microfluidics, mass cytometry, imaging versus suspension. So we're trying to -- the best we can simplify the story in a way that makes it easy for people to get their arms around the business and can kind of understand what are the key levers that we're driving. And ultimately, it's about innovation. And it starts with instrument placements that drive a recurring revenue stream with very attractive gross margins. We're moving with one foot starting in the research, where we started in the research space, and we're steadily moving into diagnostics and health care decision-making. And I think it's really lost about multiomics and how important it's going to be to have a complementary set of measurement technologies that are going to be needed for the health care decision-making of the next decade.

And we're starting to see those early proof points. But I started in genomics, and I believe that you're going to have genomics and proteomics, you're going to have to have a suspension and imaging. You're going to have to have genomics readouts. And all of this is going to need to be combined in the data legs, predictive algorithms, tools a future that's going to be, that means that a Fluidigm is sitting right in the middle of a set of key technologies that are going to feed these health care decision-making in the future. And it's going to be a number of us that are winners. There's not just a one-winner-takes-all that's going to happen. And I just -- I hope those are some of the key messages that come out of it.

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

Great. Well, Chris, thank you for that. I appreciate, obviously, you guys being here at the conference, and hope you have a good set of meeting and good luck with the rest of the user group meeting today and look forward to the next update.

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

Thank you, as always, Dan.

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

All right. Take care.
