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

SCHEDULE 14A

**PROXY STATEMENT PURSUANT TO SECTION 14(a) OF THE  
SECURITIES EXCHANGE ACT OF 1934**

Filed by the Registrant

Filed by a party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))**
- Definitive Proxy Statement
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**Sema4 Holdings Corp.**  
(Name of Registrant as Specified In Its Charter)

(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

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#### EXPLANATORY NOTE

This Schedule 14A filing relates to the proposed acquisition of GeneDx, Inc., a New Jersey corporation (“GeneDx”), by Sema4 Holdings Corp. (“Sema4” or the “Company”) pursuant to that certain Agreement and Plan of Merger and Reorganization (the “Merger Agreement”) between the Company, GeneDx, and the other parties thereto (the transactions contemplated by the Merger Agreement, the “Acquisition”).

The following communications were distributed on February 18, 2022 and are filed herewith:

- Investor conference presentation transcript
- Investor presentation dated February 2022

## INVESTOR CONFERENCE TRANSCRIPT

*On February 18, 2022, Isaac Ro, Chief Financial Officer of Sema4 presented at the SVB Leerink 11th Annual Global Healthcare Conference, during which the current state of the business, the outlook for 2022, and the recently announced GeneDx acquisition was discussed. Below is a transcript.*

Company Name: Sema4 Holdings Corp. (SMFR)  
Event: SVB Leerink 2022 Global Healthcare Conference  
Date: February 18, 2022

<<Puneet Souda, Analyst, SVB Leerink>>

Okay, great. Welcome back everyone to the SVB Leerink Global Healthcare Conference. I am Puneet Souda. I cover the exciting world of life science tools and diagnostics. And I have an ex-life science tools and diagnostic analysts here as well, Isaac Ro, joining us from Sema4. Wonderful to have you Isaac on our – at our conference.

<<Isaac Ro, Chief Financial Officer>>

Hi. Thanks, Puneet. It's great to be here. I really appreciate the opportunity and really excited for this conversation.

<<Puneet Souda, Analyst, SVB Leerink>>

Okay, awesome. So as we go through the conversation, but if you have any questions, please submit it through – into the website. And we'll – I'll do my best to cover it during the conversation. So with that Isaac I believe you have a few slides and prepare remarks to cover. So let's jump into that and then we get to Q&A.

<<Isaac Ro, Chief Financial Officer>>

I do. Thank you. I will zip through these. So won't read the disclaimer slide, but leave it to your reading and wanted to give the audience here for those who don't know us a little bit of an introduction to the company. And so with that, let me just give you a bit of a snapshot on who we are today. So Sema4 is a company that spun-out of the Mount Sinai Health System in 2017. We went public in 2021. And today, we're standing with 1200 employees and revenue an excess of \$200 million last year and again this year with an unrivaled patient database that exceeds 12 million records and translates into over 46 petabytes of data managed per month and growing. And as a result of that enormous amount of scale not just on the data, but also on NGS where, on an annualized basis, we're doing an excess of a quarter of a million tests every, every year.

So really excited to take that running start and lean into it with what's new and in the last few weeks what's changed significantly for us was the pending acquisition of GeneDx. And that is going to be a transformative deal, not just for us, but we think for the industry, because it's going to create a complete powerhouse in the field of not just sequencing in a clinical context, but sequencing the exome. And exome sequencing, we believe, is going to be one of the foundational technological pillars of this market going forward and we intend to be the leader in

that space. And at the same time, continue to build on the leadership position we have on the data side. And when you translate all that into revenue, what that means is that in 2022 pro forma, the combined franchises will deliver \$315 million of revenue.

And so these are numbers that we shared when we announced the deal in mid-January, but from a growth standpoint we expect that the combined company will have a forward revenue CAGR of 30%. So, Sema4 standalone growing in the high 20s, GeneDx growing in the high – in above 30%, so together about 30% blended. That's sort of the number. And I am very excited about what that means. While I have this slide, I'll briefly mention on the deal specifics that we are really excited about not just the revenue growth, but also the potential to drive improved margin profile for the combined company as well as a path to profitability. So just looking briefly, we've committed to delivering 50% gross margin in 2025 and cash flow positivity in that year. So, very much something that we think is important to build a sustainable growth franchise and that's exactly what we're driving towards.

Now just zooming back out for a minute, the problems that we're trying to solve and how we aim to do that. There have clearly been an incredible amount of advances in the field of AI and genomics that are easily contemplated, but very hard to implement. And so that lack of implementation is something that we aim to achieve with a very different platform and go-to-market strategy. So we are taking as a result a very holistic approach and saying how can we take testing categories like carrier screening, hereditary cancer risk and so on, and build those into a seamless workflow that is engaged with physicians and patients in a way that really transforms their care, it does so in partnership with health systems. And if done correctly with the data, can start to create predictive risk models, algorithmic tools and ultimately a dataset that is really compelling to other constituencies, including the biopharma industry.

So we call our data platforms Centrellis. And as I mentioned that flywheel effect that we're aiming to build is really what we're trying to do. So, yes, we have a testing franchise that is scaled and significant and has leadership position. We're very proud of that and we intend to keep it that way, but really all that is meant to help underwrite a platform of data. And that is something that we are really focused. And from the inside out, we have an excess of 160 computational biologists on staff. That's an unusually large number and just wanted to give you that tidbit to emphasize what drives us, where we come from as a data company first with a great lab. And that's a bit different than maybe some of the other companies that you see in the space.

I mentioned earlier, the go-to-market strategy, and I want to talk a little bit about how that's really different. I think if you look in context the last decade or so, you've seen tremendous advances, companies building great labs, strong sales forces to drive product cycles through the marketplace, really through the lens of the individual practitioner calling doctors individually more or less. And while that's been a very successful model and one that I think is to be respected, we think the time has come for a different equation on how you engage with payers and providers. And so, that's why we're really focused on taking our platform Centrellis and driving it through health systems from the top down.

So we've got relationships with four major health systems today that together address more than 20 million patient visits a year and by name they are AdventHealth in Florida, Avera in the Midwest, NorthShore in the Chicago area and then Mount Sinai, of course, in the New York area. Those four systems have really come to be our closest relationships partners that we're

really proud of working with in very much a symbiotic way. We call them partners, not customers because it's a two-way suite where we're both making investments, both in people and in systems and architecture to bring our technology to their patients.

All of that is really meant to serve a long-term strategy of what we call a platform of algorithms that would be a new and different business model than, I think, many have seen in the past, but is really, we think the future of where precision medicine is going to go, because if you had enough data and you had enough of the right data, and you could dimensional-ize that over time, we think that you can translate that into a whole family of algorithms that can be used on a routine basis, reimbursed by insurance and therefore very impactful to the entire value chain of healthcare. So, we are working on building that platform over the next few years, and we expect to have some interesting progress towards that in 2022.

All of this sort of, I think, raises the question of, okay, there is a lot of data involved in this process and what's the data worth. And I think we're certainly at a point in time in this industry's evolution where lots of companies are thinking about the value of data as well. And so, what we wanted to do with this slide is to talk a little bit about how these data sets are different, the metrics that we think are important and why we think we're in a really great spot. And so couple items, we'd talk about.

Number one, today there is a lot of data being generated on what we would call an episodic basis. Right? There's an engagement between a patient and a testing platform that gives you a snapshot, a moment in time that can increasingly be enriched by the fact that sequencing makes it possible to look at more in that snapshot.

Now, having said that it's a moment in time that typically lacks clinical context, diagnosis, therapeutic outcomes, all that stuff. And so, we believe that it's important to think about a relationship with both the provider and the patient over time, longitudinally. And when you do that, I think, those snapshots start to become a lot more valuable. When you then think about enriching that relationship with data streams that are not just genomic profiles, but also curated medical records, multi-omic inputs, all those things, medical imaging, together can be extremely valuable. So that's another thing that we're trying to build with our platform is this enriched longitudinal data stream.

Finally, we are looking to do this across multiple diseases, right. So, there's lots of focus on oncology for good reason. But we are thinking much broader than that with efforts already underway in reproductive health, rare and inherited disease, and so on. So, this framework hopefully gives people a snapshot of where we're trying to take our platform. And I think it's very differentiating.

So just to give you a real-world example of how that's playing out with our partners today, we want to go back to talk about the relationship we have with Northshore, which is a health system again, outside of Chicago, that was one of the early partners that we built out last year. And what we're showing here is that in the first six months, we've had tremendous impacts in areas that you might think are very mature and well underway, but still lack the kind of adoption you would expect.

So, for example, Northshore had and continues to have a very big focus on women's health and wellness that is evidenced by their focus on assessing risk for hereditary cancer. And one of the things we did in the first six months was number one, get their PCPs connected and ordering with our platform. So after just six months over 90% of the PCPs in the system are ordering from us, which is a great starting point.

Now, within that, in this particular program, we've already been able to affect a more than 50% increase in the percentage of patients in their population that are getting screened for heritable cancer. And that's relative to what is recommended for NCCN guidelines. So, a really significant increase that's tied to guidelines, and these are exactly the kinds of things health systems are trying to do. So, it's one example of where we're trying to have influence with health system partners. We expect to have more stories like that in coming quarters that will talk about through earnings calls and the like. So, just a snapshot here that I wanted to show.

Before I kind of wind down here, I want to spend a few minutes talking about what we can do with this data outside of the traditional diagnostic testing. And this is where enablement of pharma drug development is really a big part of what we're trying to do. And so, this is something where you can really look at the entire discovery and development process and say, where can we help and come up with a bunch of opportunities.

But what I really want to focus on right now is sort of on the right-hand side of this slide, where there are a lot of things around optimization of clinical trial enrollment, generation of real-world evidence. Those types of things are things today that we think we can really have a big impact on. And if we do that well, I think, we'll also have the right to start talking a little bit more about discovery and how we can help drug companies discover new medicine.

So, this whole slide is something that is a big focus for us in 2022. It's something that we talked about in 2021, but I think evidence and validation of the strategy should be more of a story this year.

So, all of this again comes back to Centrellis and the value of it. The more we do the better. And I think the GeneDx acquisition is going to allow us to accelerate the speed of that flywheel, because they have the leadership position in clinical exome sequencing with what we think is a near best-in-class or best-in-class cost of goods, a purpose built facility, and they've got at this point over 300,000 exomes that they have sequenced with a repository of data that can immediately get downloaded into Centrellis and give us again, a big turbocharge for the work we're already doing with drug partners. So, that's sort of the merits of the deal. A bit of a summary here on what it's all about. I won't read all in the numbers.

And then of course, if you look at it therapeutically and what this means for our relationship with providers and patients, this is also important because sometimes we get asked, why did you start in women's health? And how does GeneDx fit into that franchise? And this slide is really meant to show that all these things go into a continuum of care where the patients and the physicians are very engaged and interested in working with the testing partner because they care a lot, right.

If you go into a situation where two adults are looking to conceive, they're going through the fertility process, they're going through the pregnancy experience and then the newborn comes

and there's a whole series of tests that you want to do. That's a moment in a family's lifetime when you really want to have good access and great support from the testing counterparty.

So we really aim to talk more broadly about this idea of being a family health company and being with a family through that critical part of their journey. And I think if we do that, then other parts of the journey that are further downstream, hopefully never like oncology start to become also more relevant. But that's sort of the way in which we seek to engage and build the relationship, because again, we're trying to do this with longitudinal access to the data.

So final thing I'll say is on the numbers. We pre-announced it in January that we had a very strong finish to the year in Q4 where our revenue will – we think be in the range of \$50 million to \$52 million that's well above the guidance that we set and we finished the year very strong with \$400 million of cash. And of course, liquidity is very important, probably more so than it's been in a long time. So very good about – feeling very good about our position financially and the opportunities to improve upon that.

And in order to sort of make some of those improvements come to reality, it's worth spending a minute talking about the operational improvements underway the company. So everything from lab operations to drive better margins, thanks in part to stronger leadership, our new leadership and then as well as on the commercial side, increasing our reach into the channel with a big increase in our sales force.

And then finally on the pharma side, adding both capabilities and increasing focus on monetizing the data with some large transactions that we hope to have in 2022. So that's kind of where we are. And we expect the GeneDx deal to close in Q2. So we look forward to that. It'll be a very busy spring for us. And I want thank you for your time.

<<Puneet Souda, Analyst, SVB Leerink>>

Great. Excellent overview. I think that was great. So maybe first one on GeneDx, absolutely a near-term focus for you closing in the second quarter. When you look at this market and you have looked at the space for a long time, I mean, we had panels where now doing more and more exomes. But maybe just tell us, how do you see the adoption of exomes? And then is there a sort of potential path to the genomes? Just walk us through sort of the dynamic there? And why do you think exome is necessary at a point when panels are just finally getting a meaningful adoption in the marketplace?

<<Isaac Ro, Chief Financial Officer>>

Yeah, it's a great question. I mean, it's one of the big questions to ask is, why the exome and when? And I think certainly GeneDx has tapped into one of the early killer apps for that, which is rare disease testing. And then there's lots of medical literature that shows that if you can, you should sequence the exome. And so this is why when an exome is ordered for the purposes of rare disease testing in the pediatric setting 70% of the time that test ends up with GeneDx. And so they've really done an incredible job cornering an early market that we think is going to grow for many, many years.

And they've also done a great job building, not just the product and the infrastructure, but also the reimbursement. And so from a financial standpoint, it's a very compelling business to be in. So, GeneDx will be margin accretive to Sema4 on day one. And part of the path to that 50% number I touched upon. From a clinical standpoint, I think there's already a lot of evidence as well in oncology for exome to be relevant.

So if we think about where we are with our somatic profiling test, one of the things that makes us different is that we're doing a tumor normal analysis with the exome scale review. And that also is being very well received. In fact, one of the reasons we've been successful with our health system partners, even though we're a smaller player on the global scale in oncology testing is because we had that better capability. And so I think there's already been a lot of validation in the market that there's a demand for exome testing in multiple therapeutic areas.

We think that's going to continue to expand, and we're going to certainly take the roots that we have as a academic spin out and really substantiate that with publications increasingly with Health Economics Outcomes Research or HEOR and we've tied all that together with the recent appointment of somebody by the name of Jerry Conway, who is going to lead our market access function. And that last part is really the business part that's critical to tying all this together because it's one thing to have great science is another thing to publish on it, but you need to engage with payers in a very different way in order to get them to cover it.

So this is an area that both we and GeneDx have been working on and really excited about having that function with a higher level of visibility across the company and more resourced. And so, again, a lot to come on in the near-term there. But I think the exome is an inevitable part of the future. We aim to be one of the industry drivers of making it happen as quickly as possible. And I will say that yes, panels have an important position in the market and they will continue to have an important – especially as you get into the broader marketplace with community physicians, docs that really rely on practice guidelines to make those types of decisions. There is still a lot of demand for not just panels, but like relatively narrow panels. So we want to service the market. I think what's important is that we bring everyone along for the ride and people adopt the cutting edge at different rates of change and the faster, the better for us. But we're certainly not trying to be exclusionary. We think you need to offer a broad portfolio.

<<Puneet Souda, Analyst, SVB Leerink>>

Got it. No, super helpful. On – you talked a little bit about revenue cycle a little bit. I mean, that was a question that we were getting – we were receiving sort of last quarter from some of the investors. Maybe just talk to us, what's been improvement on that? And how does GeneDx, sort of maybe help you in that process? Or how do you bring GeneDx as well into that mix?

<<Isaac Ro, Chief Financial Officer>>

So, I think the topic was gross margin in the beginning is that what you said?

<<Puneet Souda, Analyst, SVB Leerink>>

No, revenue, sorry, revenue cycle management, yeah.



<<Isaac Ro, Chief Financial Officer>>

Yeah. So not the most glamorous topic to the layperson, but extremely important. And I think the simple context is that we were as part of Mount Sinai, under a contract scheme where most of the reimbursement was with hospital rates. And of course, as we spun out, our contracting evolved towards commercial contracts, which tend to be different. And that process was all underway throughout the course of 2020 but was not complete. And when we went public, I think a big part of the higher visibility was to accelerate the rest of the transition.

And what ended up happening in Q2 and Q3 of last year is almost all the contracts that had not been reset, started getting reset. And that was a big surprise and lots of lessons learned. But I think we went through a very difficult period in the middle part of last year, digesting those transitions. And as we enter 2022 almost done with that, and as part of our guidance for this year, the \$220 million of revenue really tried to fully capture, the bear case scenarios on what's left so that we have a really good ability to under promise and over deliver on the top line.

Now, having said all of that, the reimbursement story for us is not all bad news in the sense that all of those contract changes are normalizing us to where the majority of our book of business already was, but it was just a sharp transition. And the bottom line is that we believe we are still materially under earning on the volume that we generate for billable tests. And so, as we move forward this year, the revenue cycle strategy for us is to meaningfully align where we have good coverage with the volume that we generate.

And there's a lot of opportunity for us to align those two things much better than we have in the past. And at the same time, do a better job collecting on the volume that we should get paid for more better than we have in the past. So between alignment with a volume, with our contracting, doing a better job, collecting, these are all things that are, I would call blocking and tackling good practice that a very mature public company would have that we are still developing. So it's low hanging fruit for us, and we've made a lot of changes on systems, leadership, and in focus that give us a high degree of confidence that this year is going to be a very constructive year.

And when you total it all up, I think what that will translate into is that our high level, our imputed ASP on just simply revenue versus volume will be relatively stable. Last year, it declined. And so that's sort of where we're at for 2022. And I think, as we digest GeneDx will be yet another step function, because they've got a very nice margin in their business and lots of opportunity to keep driving the clinical exome in rare disease, which is a very, very good business to be in.

<<Puneet Souda, Analyst, SVB Leerink>>

Got it. On margin maybe just talk to us sort of the – sort of near to medium term, and then how do you see the capability of both, one end you have some germline products and oncology products, and then Centralis in that offering, what does that all translate to longer term maybe on the gross margin line, maybe on the operating margin line, if you could elaborate, and I don't know if you provided any long-term view there?

<<Isaac Ro, Chief Financial Officer>>

Yeah, sure. So oncology at a high level is an important area of strategic focus for us because these tests tend to be very data rich and the clinical context tends to be pretty acute. And so you really want to, you can have a big impact for the better. You can do a lot to benefit both patients as well as drug companies in that area. So, we've been in that space, we continue to be focused on it. It's an important area for us going forward.

And as you suggested, our two major product lines are somatic profiling, and then the risk testing, hereditary risk. And those two areas are doing very well from a volume growth standpoint and there's room for reimbursement to be much better now. On the hereditary risk side, really the opportunity for better reimbursement has to do with revenue cycle, which is to say we need to do a better job collecting.

We probably need to do a little bit more expansion of our coverage and those processes are underway, oh, by the way, GeneDx has a similar business there. And so I think one of the benefits of this acquisition will be an opportunity to look at the – combined book of business and contracts and see where we can optimize and kind of pick up the best options that we have to grow that business in line, the volume growth with revenue, which is really the primary focus for that product line for this year.

At the same time, there's some opportunity to cross sell hereditary risk into the family health channels that we talked about earlier. And so I think there's really good opportunities to keep growing faster than the market in that category. On the – and if we do all that, the gross margin will be, I think a tailwind, not a headwind, which is what it was in 2021. And that's really a big part of the financial incentive for that business.

On the somatic profiling business, slightly different. As you may know, a lot of the companies in that business tend to work with the local max to get reimbursement. And that's an area where we've talked about wanting to do that. What's interesting is it's a very dynamic market because very recently there were some changes with our local MAC we're based in Connecticut and under the jurisdiction of a MAC called NGS. And they are becoming a little bit more supportive of reimbursement for somatic profiling, which is great.

At the same time, GeneDx is in a slightly different MAC jurisdiction, Noridian, and of course there's another MAC Palmetto, which tends to be the local carrier that most companies in this space try to work with, because they've been very progressive. So there are a couple ways in which we can improve our reimbursement for that business in the near to medium term. We're working on that. I think the balance point that we want to make sure we strike is doing that in a capital efficient way.

And of course, all of this is under the umbrella of, the most important thing is that we continue to serve our health system partners really well, give them access to these tests, because they want that and they love what we can do there. As CFO, if I can find a way for us to get paid better, I'm going to run through that door every time. So that's kind of what we're doing on the somatic side when you put it all together, I think what that means is, oncology will be a high volume growth business for us, probably the highest volume growth area for us in 2022.

The reimbursement will start to catch up to market rates. It's well below market rates and it's a gross margin drag. And if we can fix that, that will help the financial piece of it. Having said all

of that, it's still a single digit percentage of total revenue and volume. So I'd say the majority of our focus is on driving growth in the women's health, in the GeneDx business.

<<Puneet Souda, Analyst, SVB Leerink>>

Okay. Super. Competition question on oncology, this market as you've seen, has blossomed significantly over the last three to four years. Especially, starting out even from the early days from foundation medicine and therapy management now where an MRD, the screening more data you have being associated with screening and past with multi cancer screening at thrive. So when you look at the number of companies that are serving some of these oncology products, like how do you, how do you position it – how does Sema4 position into that? How do you take share in that market, which is some of it is, somewhat mature in the therapy management, race is just getting started in MRD.

<<Isaac Ro, Chief Financial Officer>>

Yeah. Great question. So I think important to remember and contextualize our ambitions in oncology, which are really to drive that business through health system partners that we already have. Right. So in that context, we're already gaining share because each of the oncology deals that we've won were takeaways. And so pretty interesting because as you pointed out, there are categories of testing that we don't provide today that are very high, right? So MRD, liquid biopsy, those are areas that are still gaps for us.

And so why is it that with, a somatic profiling product and a tissue product and hereditary risks with that limited portfolio we're able to be so successful? The reason is we've been able to show that our tests, especially with the whole exome level analysis are able to do a lot of things. You can't deal with a panel number one. And number two, the ability to integrate all those findings with the medical records, the algorithms that we've supported with, that also provides a very different user experience and patient experience on the backend, because the reality is many of these testing companies today, cutting-edge labs, cutting-edge assays, but the output of all that is a PDF report that is increasingly long, increasingly harder to interpret.

And it leaves the marginal oncologist, really struggling with what do I do with this? And the, what do I do with this is a big question because the therapeutic options are expanding. And, so just being overwhelmed by genomic data is not really a Panacea. And so I think that's where we've really been able to step in now having said that, still doesn't escape the fact that there's a lot of innovation to be had in the wet lab with liquid biopsy, whether it's for profiling, MRD or other things.

So we are interested in ways to do that. I think having said all of that; I'll go back to what we just did last month. We deployed a significant amount of our capital to do a transformative acquisition. So as I think about what the marginal use of capital is, we need to be thoughtful and how we get bigger into oncology. I think partnerships are probably a more likely avenue for us than acquisition right now. Because the first things first, we got to close the GeneDx deal do a great job with it.

You need to maintain a high degree of liquidity on the balance sheet. And with those two kind of framing statements, the hurdle to do a deal in oncology, I would say is pretty high. And so that's

sort of why I'm saying, what I'm saying. And, I'm super excited. I think that it, there's a lot of great innovation out there, a lot of public and private companies doing great things, so we're exploring a lot of avenues.

<<Puneet Souda, Analyst, SVB Leerink>>

So last question given the timing, what is expansion? What sort of expansion do you expect on the health system side of things, you have four, right now, what's the line of sight to, expanding that and obviously, sort of what are some of the things that we ought to be washing out for that gives us insights into how you are making progress there?

<<Isaac Ro, Chief Financial Officer>>

Yeah, absolutely. We at the beginning of last year, committed to having five health system partners signed by the end of 2023 and we had four at the end of 2021. So I would say last year was characterized by better than expected success signing on these partners. I think Eric's vision and our partnership model has really resonated, slightly better than we could have guessed. And so really credit to the team for getting us this far. So as we enter 2022, the pipeline remains very rich and we're extremely excited about who comes next.

And I think, what I would say is, is we look out to the end of 2023 with that prior guidance in mind. You know, I think we are thinking a little bit about, okay, is there room to do more than five? I think the answer is yes, but should how many more should we do? Because I think the, the key here is quality, not quantity. And we want to make sure that we're doing a really good job of executing with the handful of partners that we have.

And by the way, we don't need more than a handful to have a very long runway of growth in the core business and all the data that we could possibly need in order to really be compelling partners to help to pharma. So I think the health system piece is going really well. Stay tuned will have, hopefully some updates, in the months unfold here. But I think the, the primary focus has actually pivoted in the last couple months away from finding health systems to monetizing with pharma. And that's really what we're focused on right now.

<<Puneet Souda, Analyst, SVB Leerink>>

Okay, excellent. Isaac our time is up, wonderful to have you at our conference. Thanks for coming over.

<<Isaac Ro, Chief Financial Officer>>

Thank you so much. Great to see you. Take care.

<<Puneet Souda, Analyst, SVB Leerink>>

All right. Take care.

## **Cautionary Statement Regarding Forward Looking Statements**

This communication contains certain forward-looking statements within the meaning of the federal securities laws with respect to the proposed transactions, including statements regarding the anticipated benefits of the transactions, the anticipated timing of the transactions, expansion plans, projected future results and market opportunities of Sema4. These forward-looking statements generally are identified by the words “believe,” “project,” “expect,” “anticipate,” “estimate,” “intend,” “strategy,” “future,” “opportunity,” “plan,” “may,” “should,” “will,” “would,” “will be,” “will continue,” “will likely result,” and similar expressions. Forward-looking statements are predictions, projections and other statements about future events that are based on current expectations and assumptions and, as a result, are subject to risks and uncertainties. Many factors could cause actual future events to differ materially from the forward-looking statements in this communication, including but not limited to: (i) the risk that the transactions may not be completed in a timely manner or at all, which may adversely affect the price of Sema4’s securities, (ii) the risk that the transactions may not be completed by the acquisition deadline and the potential failure to obtain an extension of the acquisition deadline if sought by either of the parties, (iii) the failure to satisfy the conditions to the consummation of the transactions, including approval by the stockholders of Sema4 of the issuance of the stock consideration pursuant to the merger agreement, the ratification of the required consent condition, the satisfaction of the pre-closing restructuring conditions and the other conditions specified in the merger agreement, (iii) the inability to complete the private placement financing in connection with the transactions and the fact that Sema4’s obligation to consummate the mergers is not conditioned on the completion of the private placement financing, (iv) the occurrence of any event, change or other circumstance that could give rise to the termination of the merger agreement, (vi) the effect of the announcement or pendency of the transactions on Sema4’s or GeneDx’s business relationships, operating results and business generally, (vii) risks that the transactions disrupt current plans and operations of Sema4 or GeneDx and potential difficulties in Sema4 or GeneDx employee retention as a result of the transactions, (viii) the outcome of any legal proceedings that may be instituted against Sema4 or GeneDx related to the merger agreement or the transactions, (ix) the ability to maintain the listing of Sema4’s securities on the Nasdaq Global Select Market, (x) the price of Sema4’s securities may be volatile due to a variety of factors, including changes in the competitive and highly regulated industries in which Sema4 and GeneDx operate, variations in operating performance across competitors, and changes in laws and regulations affecting Sema4’s or GeneDx’s business, (xi) the ability to implement business plans, forecasts, and other expectations after the completion of the transactions, and identify and realize additional opportunities, (xii) the risk of downturns and a changing regulatory landscape in the highly competitive healthcare industry, and (xiii) the size and growth of the markets in which each of Sema4 and GeneDx operates. The foregoing list of factors is not exhaustive. You should carefully consider the foregoing factors and the other risks and uncertainties described in the “Risk Factors” section of Sema4’s Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2021, filed with the U.S. Securities and Exchange Commission (the “SEC”) and other documents filed by Sema4 from time to time with the SEC. These filings identify and address other important risks and uncertainties that could cause actual events and results to differ materially from those contained in the forward-looking statements. Forward-looking statements speak only as of the date they are made. Readers are cautioned not to put undue reliance on forward-looking statements, and Sema4 assumes no obligation and does not intend to update or revise these forward-looking statements, whether as a result of new information, future events, or otherwise. Sema4 gives no assurance that either GeneDx or Sema4 or the combined company will achieve its expectations.

## **Additional Information and Where to Find It / Non-Solicitation**

In connection with the proposed transactions, Sema4 intends to file a proxy statement with the SEC. The proxy statement will be sent to the stockholders of Sema4. Sema4 also will file other documents regarding the proposed transactions with the SEC. **BEFORE MAKING ANY VOTING DECISION, INVESTORS AND SECURITY HOLDERS OF SEMA4 ARE URGED TO READ THE PROXY**

STATEMENT AND ALL OTHER RELEVANT DOCUMENTS FILED OR THAT WILL BE FILED WITH THE SEC IN CONNECTION WITH THE PROPOSED TRANSACTIONS AS THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED TRANSACTIONS. Investors and security holders will be able to obtain free copies of the proxy statement and all other relevant documents filed or that will be filed with the SEC by Sema4 through the website maintained by the SEC at [www.sec.gov](http://www.sec.gov).

The documents filed by Sema4 with the SEC also may be obtained free of charge at Sema4's investor relations portion of its website at [www.sema4.com](http://www.sema4.com) or upon written request to Sema4 Holdings Corp., 333 Ludlow Street, North Tower, 8th Floor, Stamford, Connecticut, 06902.

#### **Participants in Solicitation**

Sema4 and GeneDx and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from Sema4's stockholders in connection with the proposed transactions. Information about Sema4's directors and executive officers and their ownership of Sema4's securities is set forth in Sema4's filings with the SEC. To the extent that holdings of Sema4's securities have changed since the amounts printed in Sema4's Registration Statement on Form S-1 (File No. 333-258467), such changes have been or will be reflected on Statements of Change in Ownership on Form 4 filed with the SEC. A list of the names of such directors and executive officers and information regarding their interests in the acquisition will be contained in the proxy statement when available. You may obtain free copies of these documents as described in the preceding paragraph.

#### **No Offer or Solicitation**

This communication does not constitute an offer to sell or the solicitation of an offer to buy any securities, or a solicitation of any vote or approval, nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction.

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# INVESTOR PRESENTATION



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## Investor Presentation

February 2022

### Disclaimer

This presentation contains forward-looking statements under the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements are statements that do not relate to historical facts and events and such statements and opinions pertaining to the future that, for example, contain wording such as "may," "might," "will," "could," "would," "should," "expect," "intend," "plan," "objective," "anticipate," "believe," "estimate," "predict," "potential," "continue," "ongoing," or the negative of these terms, or other comparable terminology intended to identify statements about the future. Forward-looking statements contained in this presentation include, but are not limited to, statements about: our expectations with respect to future performance and anticipated financial impacts of our pending acquisition (the "Acquisition") of GeneDx Inc. ("GeneDx"), the satisfaction of closing conditions to the Acquisition, the timing of the completion of the Acquisition, our estimates of our volumes and revenue for the fourth quarter and full year of fiscal year 2021, our addressable market, market growth, future revenue, key performance indicators, expenses, capital requirements and our needs for additional financing, our commercial launch plans, our strategic plans for our business and products, market acceptance of our products, our competitive position and developments and projections relating to our competitors, domestic and foreign regulatory approvals, third-party manufacturers and suppliers, our intellectual property, the potential effects of government regulation and local, regional and national and international economic conditions and events affecting our business. We cannot assure that the forward-looking statements in this presentation will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. These statements involve known and unknown risks, uncertainties and other important factors that may cause our or GeneDx's actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

The forward-looking statements and opinions contained in this presentation are based on our management's beliefs and assumptions and are based upon information currently available to our management as of the date of this presentation and, while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we or GeneDx will achieve our or its objectives and plans in any specified time frame, or at all. Actual results, performance or events may differ materially from those in such statements due to, without limitation, the risk that the Acquisition may not be completed in a timely manner or at all, the effect of the announcement or pendency of the Acquisition on our or GeneDx's business relationships, operating results and business generally, risks that the Acquisition disrupts current plans and operations of our company or GeneDx and potential difficulties in our or GeneDx's employee retention as a result of the Acquisition, the outcome of any legal proceedings that may be instituted against us or GeneDx related to the merger agreement or the Acquisition, risks generally associated with product development, including delays or challenges that may arise in the development, launch or scaling of our new products, programs or services, challenges in the commercialization of our products and services, the risk that we may not maintain our existing relationships with suppliers or enter into new ones, or that we will not realize the intended benefits from such relationships, any inability to protect our intellectual property effectively, changes in general economic conditions, in particular economic conditions in the markets on which we operate, changes affecting interest rate levels, changes affecting currency exchange rates, changes in competition levels and changes in laws and regulations. The information, opinions and forward-looking statements contained in this announcement speak only as of its date, and are subject to change without notice.

#### Use of Non-GAAP Financial Measures

This presentation includes non-GAAP financial measures, including Adjusted EBITDA, Adjusted Gross Profit and Adjusted Gross Margin. Adjusted EBITDA is defined as net loss adjusted for interest (income) expense, net, other (income) expense, net, provision for (benefit from) income taxes, gain on extinguishment of debt, depreciation and amortization and stock-based compensation expenses, and COVID-19 costs. Management believes that these non-GAAP measures of financial results are useful in evaluating the Sem4's operating performance compared to that of other companies in its industry, as this metric generally eliminates the effects of certain items that may vary from company to company for reasons unrelated to overall operating performance. Please refer to the Appendix for Non-GAAP to GAAP Reconciliation.

This presentation contains estimates, projections and other information concerning our and GeneDx's industry, our and GeneDx's business, and the markets for our and GeneDx's products and services. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties, and actual events or circumstances may differ materially from events and circumstances that are assumed in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from our own internal estimates and research as well as from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources. While we believe our internal company research as to such matters is reliable and the market definitions are appropriate, neither such research nor these definitions have been verified by any independent source.

We discuss these and other risks and uncertainties in greater detail in the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in our periodic reports and other filings we make with the SEC from time to time. Given these uncertainties, you should not place undue reliance on the forward-looking statements. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this presentation to conform these statements to actual results or to changes in our expectations.

#### Additional Information and Where to Find It / Non-Sollicitation

In connection with the Acquisition, Sem4 intends to file a proxy statement with the SEC. The proxy statement will be sent to the stockholders of Sem4. Sem4 also will file other documents regarding the proposed transactions with the SEC. BEFORE MAKING ANY VOTING DECISION, INVESTORS AND SECURITY HOLDERS OF SEM4 ARE URGED TO READ THE PROXY STATEMENT AND ALL OTHER RELEVANT DOCUMENTS FILED OR THAT WILL BE FILED WITH THE SEC IN CONNECTION WITH THE PROPOSED ACQUISITION AS THEY BECOME AVAILABLE BECAUSE THEY WILL CONTAIN IMPORTANT INFORMATION ABOUT THE PROPOSED ACQUISITION. Investors and security holders will be able to obtain free copies of the proxy statement and all other relevant documents filed or that will be filed with the SEC by Sem4 through the website maintained by the SEC at [www.sec.gov](http://www.sec.gov).

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# A Patient-Centered Health Intelligence Company Leveraging Genomics and AI



## Corporate Snapshot

<b>World-class team</b>	<b>2022 guidance</b>	<b>Unrivaled patient access</b>	<b>Massive scale in data</b>	<b>Massive scale in NGS</b>
1,200+ employees 160+ MDs/PhD's <sup>1</sup>	\$215-225M Sema4 standalone revenue <sup>2</sup>	12M de-identified records 500k+ w/ genomic profiles 300k+ clinical exomes sequenced	46+ petabytes managed growing at an accelerating rate	250,000+ <sup>3</sup> tests annually

<sup>1</sup> Headcount as of December 31, 2021

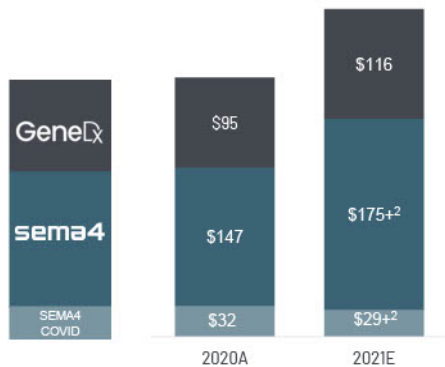
<sup>2</sup> Sema4's guidance is subject to certain assumptions, risks and uncertainties. See Disclaimer on slide 2.

<sup>3</sup> Annualized Run Rate as of September 30, 2021

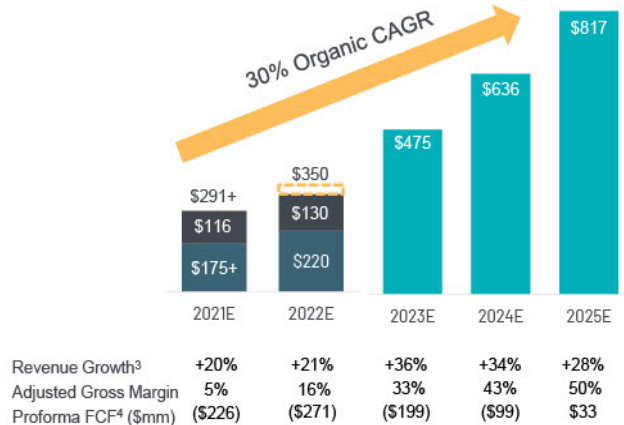


# Sema4 & GeneDx Combination Drives Growth & Profitability

**Standalone Revenue**  
(Historical and Estimated, \$ millions)



**Pro Forma (ex-COVID, \$ millions)**      **Long-Term Growth**



2022 GeneDx milestone target is \$163M vs GeneDx revenue guidance of \$130M<sup>5</sup>

<sup>1</sup> Estimated and pro forma results non-GAAP and are subject to certain assumptions, risks and uncertainties. See Disclaimer on slide 2.

<sup>2</sup> Based on Sema4's FY2021 Guidance of \$204-206M which includes COVID-19 revenue

<sup>3</sup> Revenue growth excludes COVID-19 revenue

<sup>4</sup> Proforma FCF excludes one-time transaction and integration expenses

<sup>5</sup> Milestone payment triggers at 90% of threshold

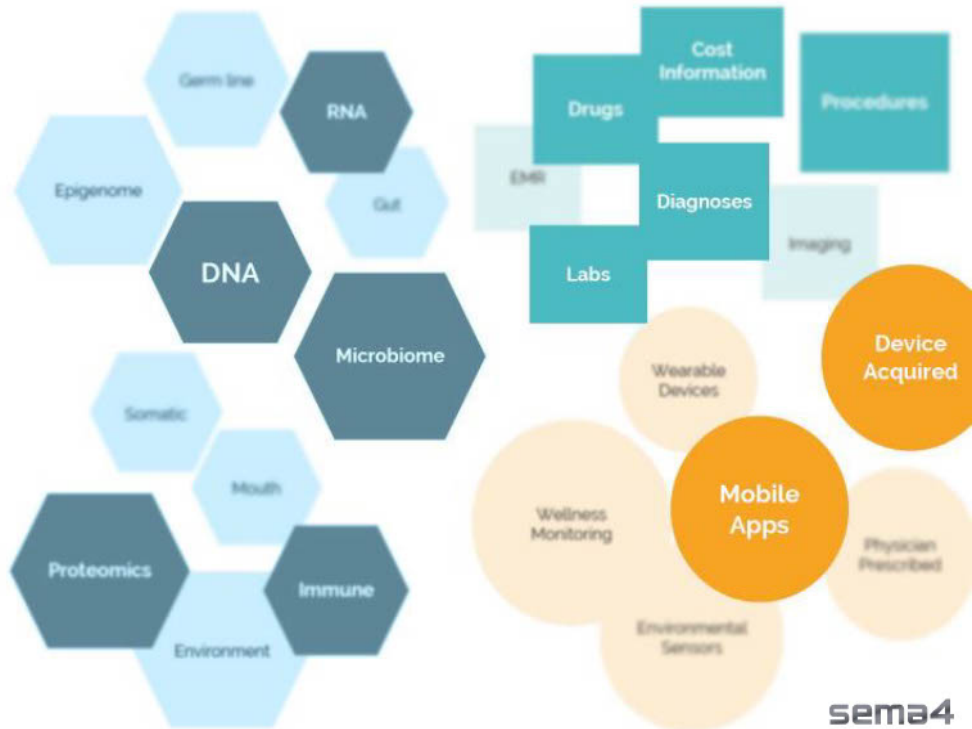
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## The Problem

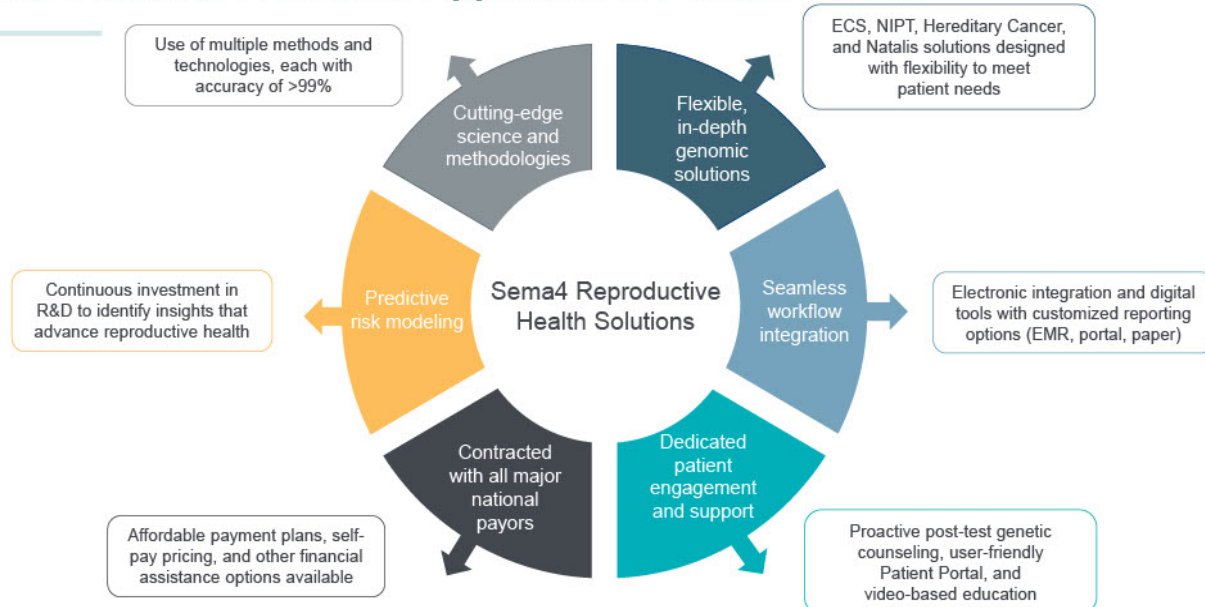
Rapid advances in Genomics & AI...

...but limited impact on patients



6

## Our Solution: A Holistic Approach to Patient Care...



7

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## ...Combined with Centrellis, our Flywheel for Patient Data and Insights



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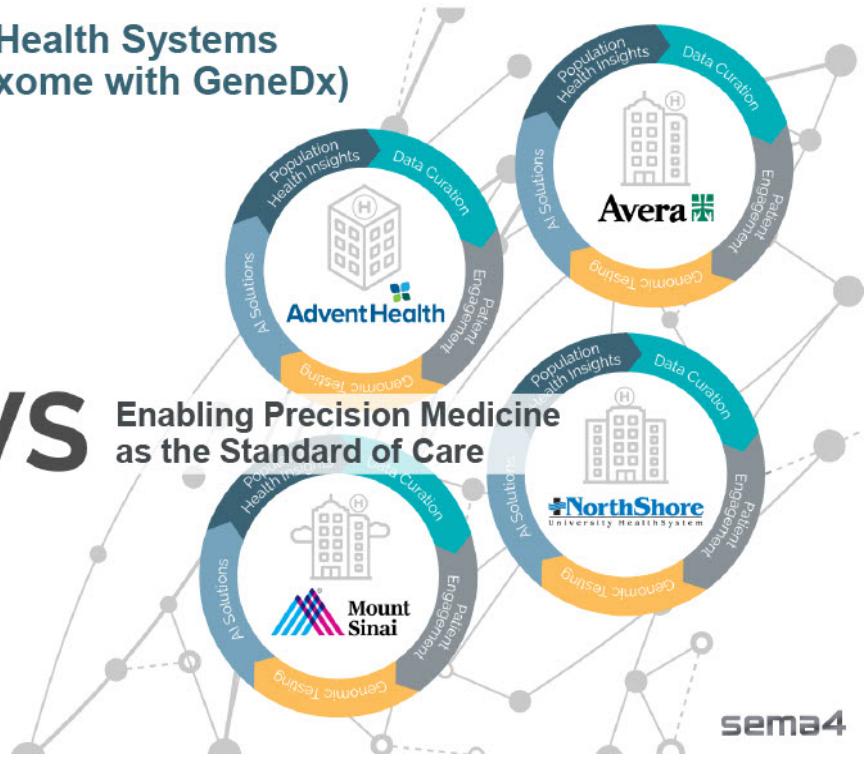
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## Deep Partnership with Health Systems (Accelerating clinical exome with GeneDx)

**Conventional Genomics Model**

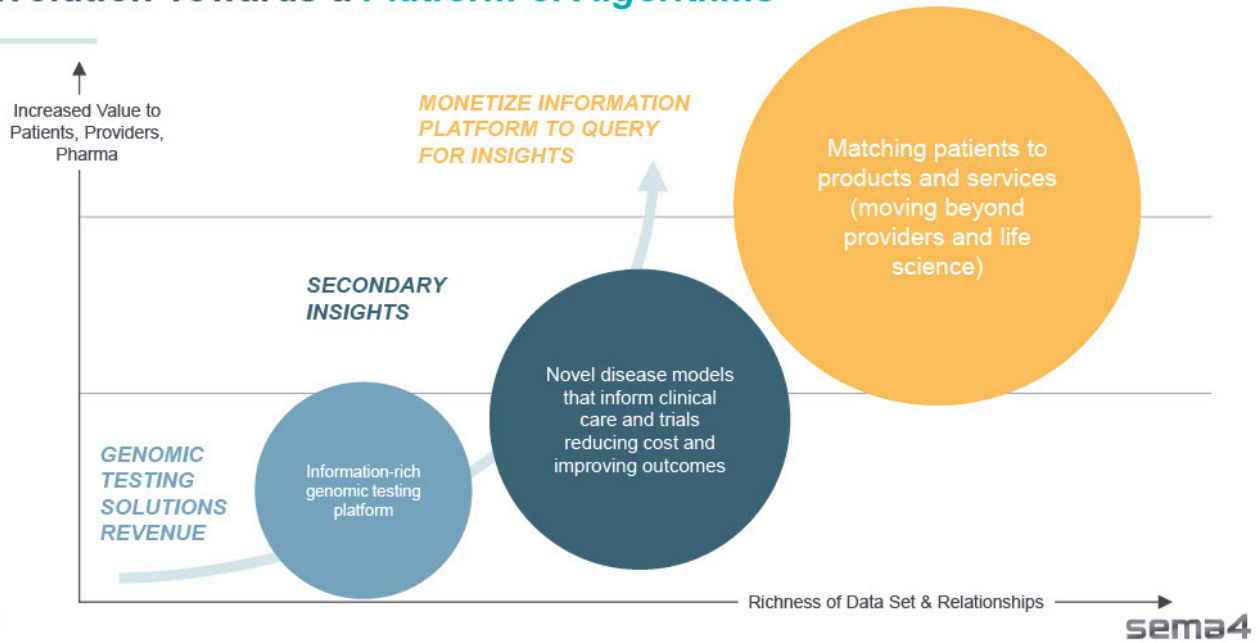
- narrow menu
- sold direct to physicians
- no (or limited) data integration
- no or limited patient engagement

## VS Enabling Precision Medicine as the Standard of Care



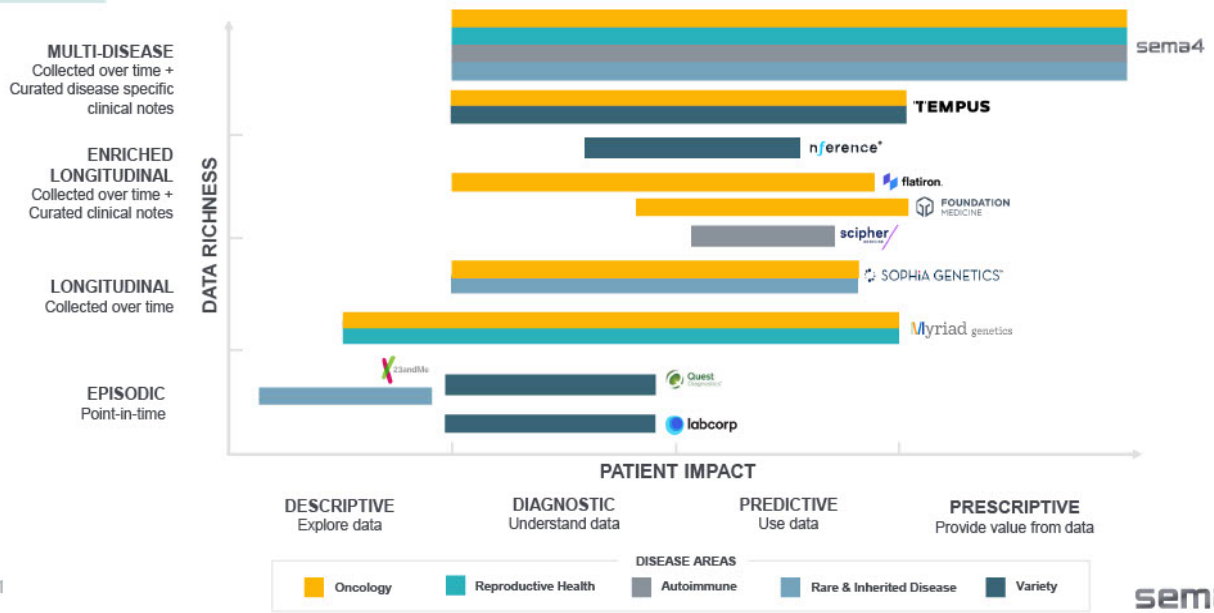
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## Evolution Towards a Platform of Algorithms



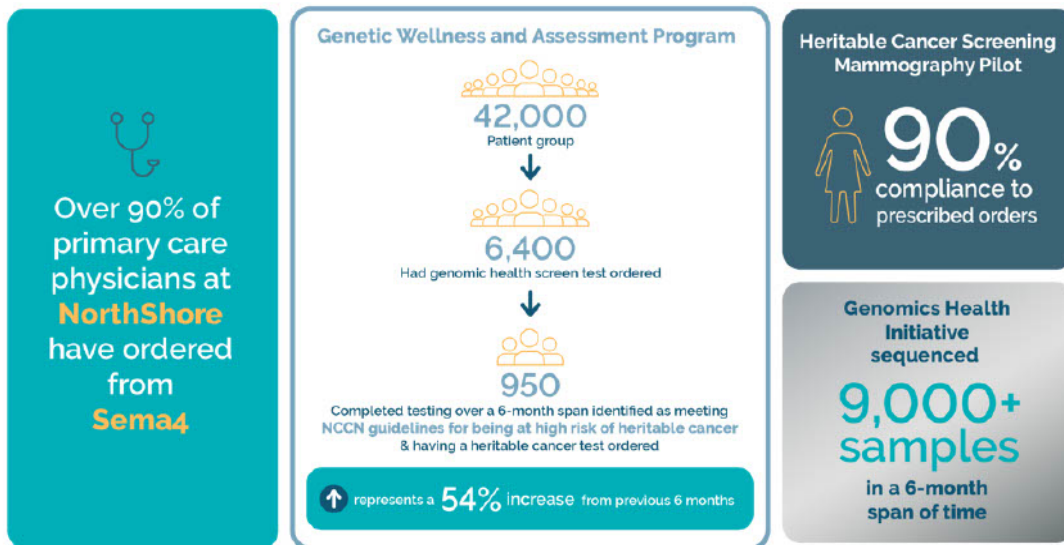
10

# The Value of Data: Must be Longitudinal and Prescriptive



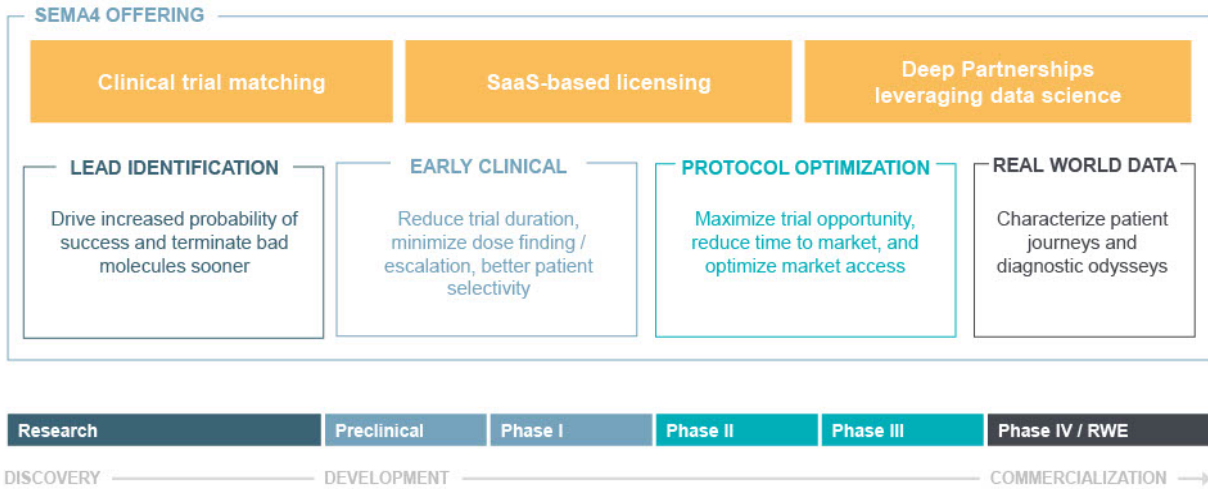
11

## NorthShore: The First Six Months



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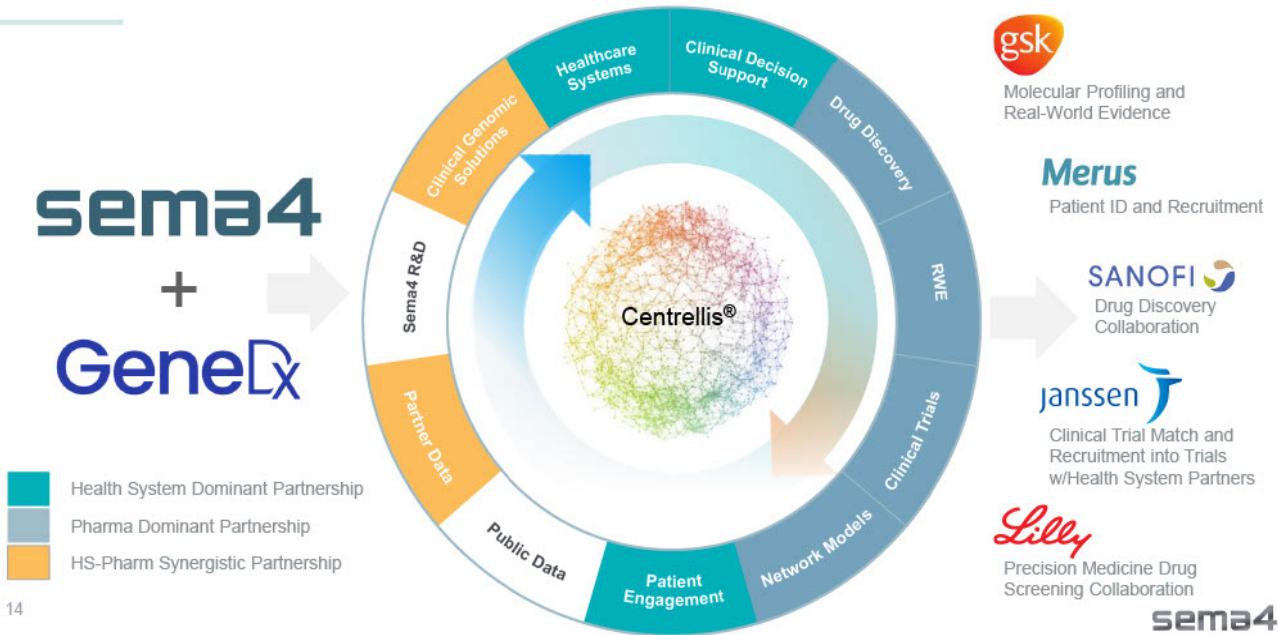
# Enabling Biopharma Partners and Customers



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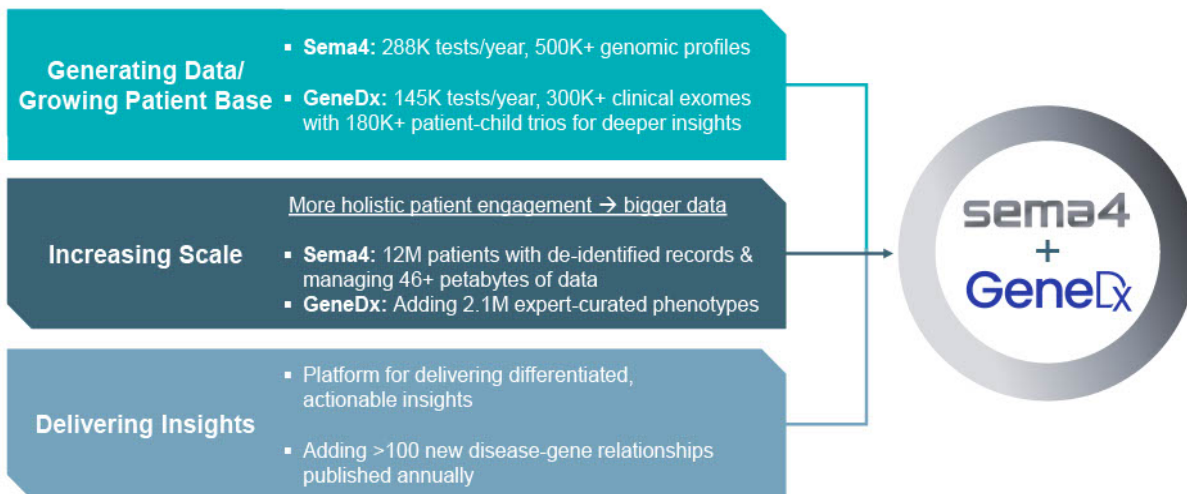
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# Enhancing Our Reach into Health Systems & Biopharma



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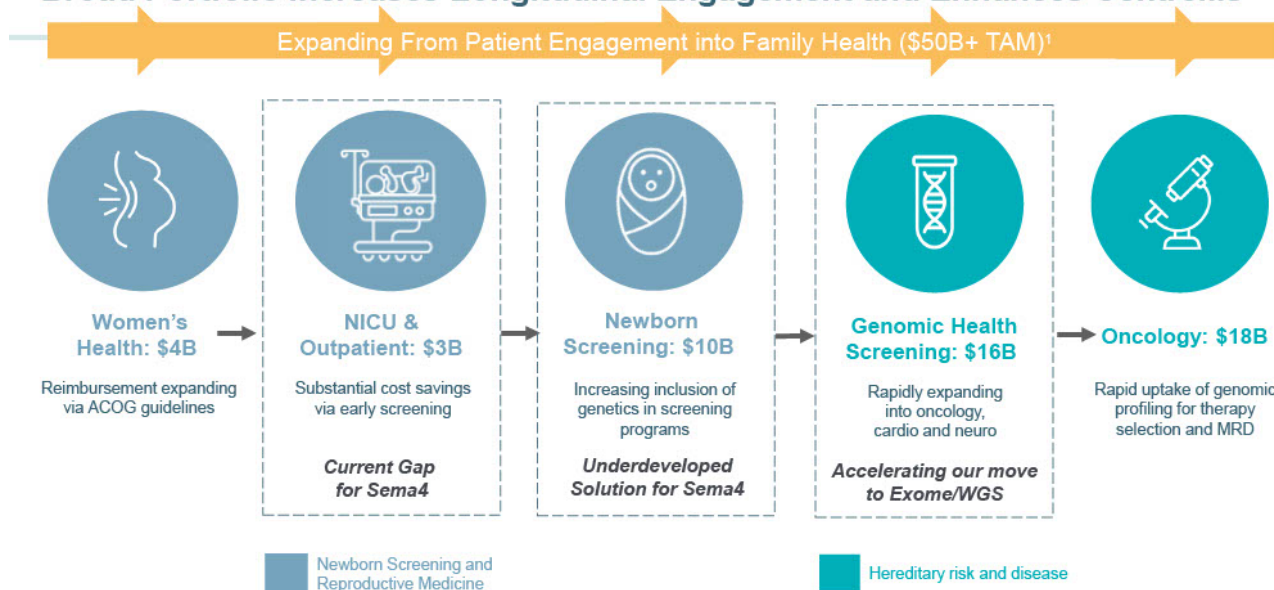
# A Market-Leading AI-Driven Genomic & Clinical Data Platform



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## Broad Portfolio Increases Longitudinal Engagement and Enhances Centrellis®



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¹ Addressable Markets Source: Company Estimates

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## 4Q Update: Strong Close to 2021<sup>1</sup>



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<sup>1</sup> Our estimates of our fourth quarter 2021 revenue, resulted volume and our cash and cash equivalents as of December 31, 2021 are subject to revision, which could be material, as we complete the preparation of our 2021 year-end financial statements (including all required disclosures) and as we complete our 2021 year-end audit. See Disclaimer on slide 2.  
<sup>2</sup>4Q guidance implied from FY2021 guidance provided on 11/15/21

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## Operational Improvements: Key Highlights and Future Focus



### Lab Operations

#### Key Actions

- Hired seasoned SVP Lab Operations
- Key investments in Lab Automation

#### Areas of Focus in 2022

- Improve turn-around-times
- Portfolio optimization



### Commercial Reach

#### Key Actions

- Increased salesforce headcount by 84% in 2021

#### Areas of Focus in 2022

- New products open additional channel opportunities
- Health system entry points drive growth in oncology



### Pharma & Data

#### Key Actions

- Hired Chief Data & Chief Science Officers
- Announced hiring of Chief Medical Science Officer
- Submitted the Centrellis HITRUST validated assessment to HITRUST for final CSF certification in 2021

#### Areas of Focus in 2022

- C-Suite Focus shift to Pharma Development & Data Monetization

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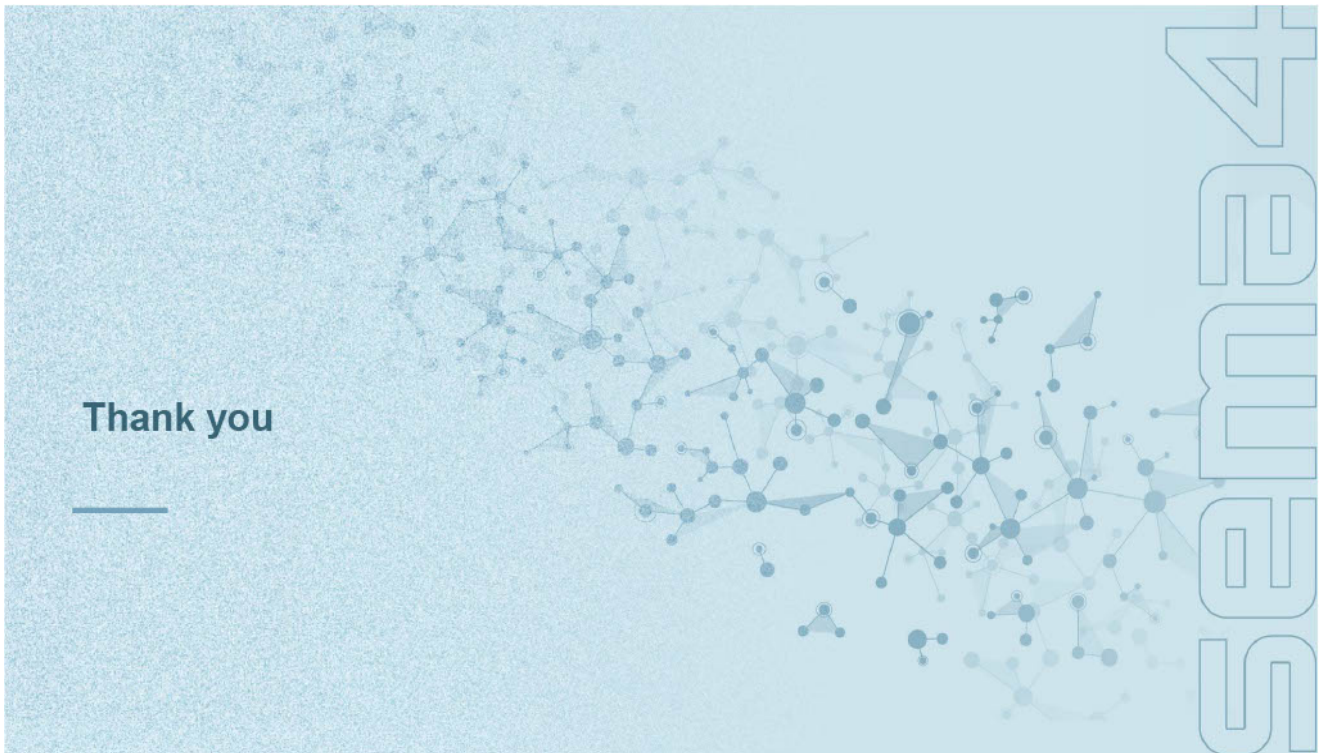
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# Creating the Leading Genomic Data Platform, from Generation to Insights



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## Appendix

### Historical COVID Revenue Mix

% of Total Revenue<sup>1</sup>

	1Q20	2Q20	3Q20	FY20	1Q21	2Q21	3Q21
Diagnostic Test	99%	93%	84%	79%	73%	87%	86%
COVID	0%	6%	14%	18%	25%	8%	10%
Other	1%	1%	2%	2%	2%	4%	4%

## Non-GAAP Gross Margin Reconciliation

USD Millions

	FY2020				FY2021		
	1Q	2Q	3Q	FY	1Q	2Q	3Q
Revenue	46.7	30.1	38.6	179.3	64.4	46.9	43.2
Cost of Service	39.3	36.0	36.5	184.6	71.8	49.7	58.8
<b>Gross (Loss) Profit</b>	<b>7.4</b>	<b>(5.9)</b>	<b>2.1</b>	<b>(5.3)</b>	<b>(7.4)</b>	<b>(2.8)</b>	<b>(15.6)</b>
Gross Margin	15.8%	(19.6%)	5.4%	(3.0%)	(11.5%)	(6.0%)	(36.1%)
Stock-based compensation	0.1	(0.1)	3.5	13.9	19.8	(0.3)	3.7
COVID-19 costs <sup>(1)</sup>	-	3.2	-	3.2	-	-	-
Other	-	-	-	16.4	-	-	-
<b>Adjusted Gross (Loss) Profit</b>	<b>7.5</b>	<b>(2.8)</b>	<b>5.6</b>	<b>28.2</b>	<b>12.4</b>	<b>(3.1)</b>	<b>(11.9)</b>
Adjusted Gross Margin	16.1%	(9.3%)	14.5%	15.7%	19.3%	(6.6%)	(27.5%)

(1) Represents labor costs with respect to laboratory employees' downtime. During the second quarter of 2020, we did not reduce the workforce in our laboratory from COVID-19. However, we suffered significantly due to the decrease in volume in Women's Health and other products. Accordingly, we have adjusted our Gross Profit to reflect the management-assessed impact from the decrease in productivity of existing laboratory employees due to COVID-19 in the second quarter of 2020.

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## Non-GAAP EBITDA Reconciliation

USD Millions

	FY2020				FY2021		
	1Q	2Q	3Q	FY	1Q	2Q	3Q
Net Profit (Loss)	(27.0)	(32.1)	(56.6)	(241.3)	(191.0)	(45.4)	31.4
Interest expense, net <sup>(1)</sup>	0.2	0.5	0.6	2.0	0.7	0.7	0.7
Depreciation and amortization	2.4	2.7	3.1	11.7	4.9	5.6	5.5
Stock-based compensation expense	0.8	(0.2)	29.4	120.2	165.0	(0.5)	18.0
Transaction costs <sup>(2)</sup>	-	-	-	-	1.9	3.2	0.4
Change in fair market value of warrant and earn-out contingent liabilities <sup>(3)</sup>	-	-	-	-	-	-	(122.2)
Other (income) expense, net <sup>(4)</sup>	(0.0)	(2.6)	-	(2.6)	(5.6)	-	0.3
COVID-19 costs <sup>(5)</sup>	-	3.2	-	3.2	-	-	-
<b>Adjusted EBITDA</b>	<b>(23.6)</b>	<b>(28.5)</b>	<b>(23.5)</b>	<b>(106.8)</b>	<b>(24.1)</b>	<b>(36.4)</b>	<b>(65.9)</b>

(1) Represents the total of Interest Expense related to our capital leases and interest-bearing loans and Interest Income on money market funds.

(2) Represents professional service costs incurred in connection with pursuing the Business Combination transaction that did not meet the requirement for capitalization.

(3) For the nine months ended September 30, 2021, represents the change in fair market value of the liabilities associated with our public warrants and private placement warrants and the earn-out shares issuable under the terms of the Merger Agreement.

(4) For the nine months ended September 30, 2021 and 2020, consists primarily of funding received under the CARES Act Provider Relief Fund, offset by penalties related to early extinguishment of debt occurred in three months ended September 30, 2021.

(5) Represents labor costs with respect to laboratory employees' downtime. During the second quarter of 2020, we did not reduce the workforce in our laboratory from COVID-19. However, we suffered significantly due to the decrease in volume in Women's Health and other products. Accordingly, we have adjusted our Gross Profit to reflect the management-assessed impact from the decrease in productivity of existing laboratory employees due to COVID-19 in the second quarter of 2020.

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