Ginkgo Bioworks
Q3 2021 Results Update Call Transcript
November 15, 2021

Company Participants:

Jason Kelly, Co-founder and Chief Executive Officer
Mark Dmytruk, Chief Financial Officer
Anna Marie Wagner, Senior Vice President, Corporate Development

Conference Call Participants:

Tejas Savant, Morgan Stanley
Matt Larew, William Blair & Company
Rahul Sarugaser Raymond James
Harsha Pappu, HSBC
Matt Sykes, Goldman Sachs
Rachel Vatnsdal, JP Morgan
Mark Massaro, BTIG

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Good morning, everyone. This is Anna Marie Wagner, I'm the SVP of Corporate Development at Ginkgo. I'm joined today by Jason Kelly, our co-founder and CEO, and Mark Dmytruk, our CFO. We're honored that you chose to start your week with us, and we're looking forward to updating you on our tremendous progress so far this year. Needless to say, it's been an exciting quarter. And to help warm up the crowd I just wanted to remind you that during the presentation today, we'll be making forward looking statements, those involve risks and uncertainties. So please refer to our filings with the Securities and Exchange Commission to learn more about those risks and uncertainties.

During our quarterly earnings call, we will, of course, be updating you on our financial progress, but we also want to use these opportunities to continue to build a deeper understanding of what we're doing at Ginkgo. And so, after our financial updates, we'll always feature a strategic deep dive each quarter, which today will be led by Jason. If there are topics you'd like to see in a future deep dive, please let us know. We'll end with a Q&A session, and I'll take questions from analysts, investors and the public. You can submit those questions to us in advance via Twitter. Use the hashtag Ginkgo results or via email at investors@ginkgobioworks.com. And now without further ado, I'll hand it over to Jason to kick things off. Jason.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks

Thanks, Anna Marie. So just do a quick intro and you'll hear from me later in the deep dive. So our mission here at Ginkgo is to make biology easier to engineer. We do that by operating as a horizontal platform. And I think this is a key idea about Ginkgo. We want to program cells for customers across a range of industries on this common platform and then we monetize that platform similar to how a tech company would, but by capturing a portion of the value of the applications that are developed on top of that platform. And myself and the founders at Ginkgo have been working on this mission since we met at MIT almost 20 years ago now. And the technical progress and tangible results that we've seen over the past year feels like a real inflection point at Ginkgo, but honestly across the synthetic biology industry in general.

And I could not be more excited to share our results with you today. So one of the most important things for us is new program additions on the platform. That's one of our most important KPIs. And you might remember this summer we updated our expectations for the year from 23 to 30 of those new programs. We remain on pace to hit that. In fact, we added 10 new programs in Q3. Ultimately Ginkgo's success is measured by our customer success, right? And we saw some awesome progress in our customer cell programs. And so I'm excited to be able to announce today that just last week, Cronos confirmed the performance of a second strain following on from one we announced earlier this year. This one will be producing CBGV. We delivered that strain and it has paid a second equity milestone in that program, which will be included in our Q4 financial.

So again, this is one of things I get the most excited about is seeing organisms go out the door to customers, customers excited to be commercializing those and then value flowing back to Ginkgo. Additionally, Aldevron has commenced commercial operations for Vaccinia Capping Enzyme, VCE. This is one of the ingredients used in the manufacturing process for mRNA vaccines, and it's produced from a

strain that we delivered in Q3 that yielded an over tenfold improvement in yield compared to Aldevron's previous process. So really excited about this. It's an opportunity for an impact in the world and also a chance to see value come back to Ginkgo, again, from our customers' success. And finally, just last week Synlogic announced, that it's a big week, that they're advancing a Ginkgo engineered strain for the treatment of Homocystinuria to IND enabled studies.

I'm so excited about this, right. So we've seen Ginkgo's organisms on a path to going into patients in therapeutics. It has been a long time and goal for the company to be honest. And it's something we hope to see a lot more of in the future. On the biosecurity side, this has really picked up steam with now 10 state sponsored K12 contracts, over 1,500 schools being served by our biosecurity brand, Concentric. As of the week of November 1st, we were collecting over 220,000 samples per week. I could not be prouder of how the team came together to respond really to a crisis here. And it's truly a privilege to be building really part of the world's biosecurity infrastructure. And I think this is... I've talked about this previously, this I think is an absolutely critical thing in a post COVID world, as we are building out the tools to make it easier and easier to program and engineer cells.

We have to build this type of biosecurity globally and I'm proud that Ginkgo is a part of that. Finally, we capped off the quarter with our official listing on the New York Stock Exchange with the ticker DNA. We stand on the shoulder of giants with that ticker. We hope to do the prior owners, Genentech, proud. And finally, we were thrilled to be able to see many of you at our conference, our annual meeting, Ferment. Just a couple weeks ago, over 700 people. That was a real thrill to see everyone. And we're hopeful that more of you will come back and join us next year. And so now I'm going to hand off to Mark to share the details on our financial performance this quarter.

Mark Dmytruk, CFO, Ginkgo Bioworks:

Great. Thank you, Jason. Before we get into the financial slides, first some context. We are very pleased to report a strong quarter in terms of revenue. Total revenue in the third quarter of 2021 increased to $78 million, representing growth of nearly six times the third quarter of 2020. Year to date total revenue grew to $165 million, up from $45 million in the comparable prior year period. This quarter's financial results highlight the tremendous progress and growing diversity in our business model as we receive significant revenue contributions from Foundry services, downstream value share and biosecurity. So now moving to cell programming highlights, we added 10 new cell programs to the Foundry platform in the third quarter of 2021, bringing the total number of new programs to 21 year to date. As a reminder, our new sell program count is a key KPI that we're focused on, as this metric drives both near term Foundry revenue and potential future downstream value share.

We only count a program that has a certain expectation of scale and are typically doing several proof-of-concept programs in addition to the reported numbers, which can ultimately lead to larger paid programs. The 21 new programs we added year to date compares to 15 new programs added in the comparable period last year, representing 40% growth. We supported a total of 61 active programs in the year-to-date period across 30 customers on our Foundry platform. We continue to see good industry diversification in new programs, as well as further proof points and therapeutics and newer fields for us, with six of the 21 new customer programs being from the pharma and biotech industry, and the rest diversified across the many other industries in which we participate. Foundry revenue increased to $35

million in the third quarter of 2021 from $12 million in the third quarter of 2020, representing over 200% growth.

Similarly, Foundry revenue for the year to day period increased to $79 million, representing growth of 84% over the comparable period last year. Importantly, Foundry revenue in the third quarter includes an equity payment we received for achieving a commercial milestone with Cronos, the first time that Ginkgo has received significant downstream value share. And as Jason mentioned, Cronos has also just confirmed that we hit their spec for a second molecule which triggers the payment of a second equity milestone, which will be reflected in our Q4 financials. And then finally, just to make a comment on related party revenue, so related parties represented 38% of Foundry revenue in Q3 2021 and 47% of year-to-date Foundry revenue. This compares to 63% of Foundry revenue in Q3 2020 and 70% of Foundry revenue in the 2020 year to date period. So, this mix shift toward more third-party revenue was due to both the downstream value share received from Cronos, which is not a related party, as well as just general diversification in the business.

So, if we could now turn to biosecurity, our biosecurity offering generated $43 million of revenue in the third quarter and $86 million of revenue year to date. This tremendous growth has now exceeded our recently expanded full year target in just the first nine months of the year. Biosecurity revenue consists primarily of product and service revenue from our end to end COVID testing offering and the growth is being driven primarily by K to 12 pooled testing. We have now been awarded state sponsored K to 12 testing programs in 10 states, and as of last week are collecting over 200,000 samples weekly. Biosecurity gross margin was 48% in the quarter, a significant improvement versus prior quarters, and this is primarily due to maturation of the business and the benefits of larger scale. Now, if we could turn to the detailed P&L, I'm going to provide a little bit more commentary on the other line items.

So, starting with R&D expense, R&D expense grew to $53 million in the quarter, driven by expansion of Foundry capacity and increased breadth of capabilities to support both current and future collaborations along with further development of our biosecurity offering. G&A expense grew to $29 million in the quarter, as we invested significantly in business development and all other G&A functions to support the higher level of Foundry activity and our biosecurity offering along with our very extensive public company readiness efforts. Now, to provide a quick comment on the net loss line item, it is important to note that our net loss includes a number of non-cash expenses, as detailed more fully in our financial statements. And these include, just by way of example, mark to market adjustments on equity method investments where we have elected the fair value option. It includes reductions in the carrying value of those platform ventures that we account for under the equity method.

And we take those reductions in the quarter that the equity is issued to us. And then thirdly, it also includes mark to market adjustments on the storing eagle public and private placement warrants that came onto our balance sheet as a result of the merger. Those are all reflected as a liability. Because of these non-cash expenses, we look to adjusted EBITDA as a more accurate measure of our profitability. Adjusted EBITDA in the quarter was -$18 million, and for the year-to-date period was -$107 million. A full reconciliation of EBITDA is provided in the appendix to this presentation and in our MD&A. Adjusted EBITDA was favorably impacted by gross profits and biosecurity this quarter and by downstream value share, which typically drops straight to the bottom line. CapEx in the year-to-date period was $51 million, reflecting Foundry capacity and capability investments. Examples of this include

the substantial completion of our new broad use Foundry, Bioworks 6, which is located in our Boston headquarters, as well as Foundry space buildout in Cambridge, Massachusetts.

And so now if we could turn to outlook, I'd like to provide some brief commentary on revenue outlook for the rest of the year. We expect to add an incremental nine new Cell programs in Q4 for a total of 30 new programs in 2021. We expect Foundry revenue to exceed $100 million for the full year 2021, inclusive of both downstream value share and services revenue. And then with respect to biosecurity, as a reminder, in August, we updated our biosecurity revenue outlook to be at least $75 million for the full year. Given our strong third quarter result, we expect to significantly exceed this revenue target for the full year. While we're not providing a point estimate on revenues, there's still significant uncertainty in the K to 12 testing market in general, and the facts and circumstances of the pandemic change regularly. We are confident that Ginkgo is positioned well in this market. We expect biosecurity revenue of at least $110 million for the full year.

We further believe our performance in building an offering of this scale from scratch in such a rapid timeframe is indicative of a strong execution capability on future opportunities as the biosecurity market further evolves. And before I wrap, I'd like to make a comment on how we're thinking about guidance and breaking out Foundry revenue in future time periods. We are internally evaluating this right now, but we do not anticipate that it will make sense for us to either guide to or break out Foundry services revenue and downstream value share revenue as separate components.

As we are now reaching the phase of company maturity where we are seeing downstream value share hit the top line, we are seeing in real time that there are customer confidentiality considerations as well as situations in which it will be a smart business decision for us to make tradeoffs between the two. And so just to conclude, in summary, we think this quarter demonstrates the strength in the business model. We're seeing an increase in diversity of customers operating in many industries, developing a wide array of different products on the platform. Downstream value share is a tangible commercial proof point, and it typically drops straight to the bottom line. And the progress in our biosecurity offering is truly impressive. And so now Jason, back to you.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Thanks, Mark. Great to see. I just want to say, I am continually impressed by the Ginkgo team. So just in the last three months, we took the company public, hosted a 700 person plus annual meeting, managed launching K to 12 testing at the start of the school year, which as parents on the call know, is a slightly stressful time in general for parents, across 18 states and continue to deliver steady successes and cell programs for our customers. The team at Ginkgo did not blink and it has been awesome to watch. In addition to reading out our financial performance, I want to use these quarterly earnings calls to give a deep dive on aspects of the business that we are hearing questions on from investors, both institutional and retail. So please keep those questions coming. It will help inform what we put in this section in the future. We also had a short report. Yeah, I noticed, it came out about a month back. And while the guy that did it wasn't especially serious, he did make a bunch of serious claims publicly about Ginkgo's financial practices. So not surprisingly, given the nature of the claims, we also received an informal inquiry from regulators at the DOJ and commenced an independent investigation led by our audit committee and supported by an independent law firm and forensic accounting firm. I'm happy to report

that the investigation found the claims were baseless, and I'm going to give you a readout on that as well today. Okay, so I'm going to cover the three topics in the deep dive. First, I want to talk about our horizontal business model, as we're really pioneering that model in biotech, bringing it over from the tech industry.

Second, the silver lining to a bunch of baseless claims being made about the business, is that it gave us a chance to make sure our house was in order. So I want to give a few comments from my seat here on that. And then finally, I want to dig a little deeper into the financial structures and motivations of the types of deals we do for our three major customer types. The first, the large and mid-size companies, second, these existing startups out in the world, and then third, new startups that launch day one on the platform. These deals are designed based on what works best for each customer type, and I want to outline how they work and the progress we've been seeing across all three categories. Okay, so let's dive in. So, number one, we are bringing a horizontal business model, common in tech, into the biotech space, and the key idea is we are going to serve customers in any market vertical that needs cell programming.

So, it's obvious today for, say, Amazon Web Services, that it doesn't matter what market your website is to go use their services. And in my view, it'll eventually be equally obvious that it doesn't matter what market you're in, who you would use for your cell programming platform would be independent of that. And so, we don't want to organize our customers at Ginkgo by market vertical. Okay, we want to organize them really by the stage of the company they're in. That's a much better predictor of the type of commercial arrangement preferred by that customer. So, with the larger midsize companies, such as our deals this year with Corteva, Biogen, Aldevron and Selecta, the customers are often paying Foundry service fees and cash and downstream value share via royalties or milestone payments. And as a reminder, these value share payments are kind of similar to an app store model.

So, we get a piece of the downstream value of the products that we enable. So, in the deals with startups now, both the existing and newly formed, those companies often prefer to offer Ginkgo equity in their company for either these service fees or for the downstream value share. And in those cases, those often create related parties in our filings. But it's a great structure for startup customers. And so ultimately, that's what matters as we've been creating these deal structures is what is going to work best for customers, what creates the least friction to get them on the platform? And so that's really what we've oriented around because startups, frankly, are one of the most important parts of our business model. They're a key customer segment because they haven't invested already in large R&D labs.

They don't have that sunk cost that the big companies do where they already have big labs and all that equipment and infrastructure. So, they can, in many cases, start Foundry native. They can be born on our platform, and this is something that happened with cloud computing where we had cloud native companies come along and people talked about this 10 years ago. That's really exciting. It really speeds up the launch of companies and can save them a lot of upfront cash. And so, I'll talk about these in more detail coming up, but I wanted to highlight how all three types of these deals are important for Ginkgo. Why, as a horizontal platform, that's the right way to approach the market and that we plan to do more deals of all these types, just like we've done in 2021, in the future. This slide here, just to flag it, is from our pipe deck. So, for those of you who were engaged with us during that process, I think it nicely highlights that we've been planning for a while here to really develop an ecosystem of services around our platform and developer community. Okay, and that ranges from things like capital access, like we see with

our structured partnerships and platform ventures, to manufacturing access, like we worked with Cronos to help them bring their facility online in Canada. We do community building like our Ferment event and so on. And you have seen this be key in the tech world. You have to bring together a community of people that are going to build on your platform. We are doing that very deliberately and we want to keep offering them more ways to get value by engaging with Ginkgo alongside our technology platform.

Okay. Number two. All right, so as I mentioned, this short report made a number of claims publicly about financial misconduct. We are lucky to have very strong leadership on our board, and this triggered an internal investigation that concluded there was no basis in those claims. And look, I'll give you a little more context on our board. We have two sitting CEOs: Reshma Kewalramani at Vertex and Christian Henry at PacBio, Shyam Sankar, the sitting president & COO at Palantir. We have three former CEOs, Marijn and Harry and Arie from Bayer and MGM and Kite. Christian heads up our audit committee, and following these claims in the short report, the audit committee called for an independent investigation. And the audit committee brought in as part of that Milbank as an independent council. The team was led by former DOJ prosecutors engaged at Ankura as forensic accountants to support their investigation. Just to share how extensive this process was, the team reviewed thousands of pages of documents following an examination of electronic records, including email, Slack messages, financial, internal and external documents.

They also conducted extensive interviews. And so, I'd like to take a moment to thank the audit committee and the Milbank and Ankura teams for their diligence, their care and their time in this process. I'd also like to express my admiration for the Ginkgo team, particularly our finance and legal teams, who had to do all this on top of their day jobs. Keeping Ginkgo's ordinary operations humming, just as you heard from Mark, during a very busy time for the company. And as I mentioned, it is also not surprising in the case of public claims of financial misconduct, to hear from regulators. And shortly after the report came out, we received an informal inquiry from the DOJ, which is why I'm very happy to report today that based on the independent investigation, the audit committee found that any suggestion of fraud, reporting violations, accounting errors or other wrongdoing contained in the short seller’s report were unfounded, and importantly, that no restatement of our financials was needed. I will say, as CEO, it is very, very rewarding to see so many parts of the company and so many people on the team strenuously pressure tested like this and see them pass with flying colors. It is a testament to the culture we've been building at Ginkgo the last 13 years now. And I'm not going to call the process following up on the short report particularly fun, but it was rewarding and I'm glad we're through it.

Okay, number three. I am super excited to use this opportunity on the deep dive to share some financial structures and motivations for the types of deals we do for our three major customer types. Larger mid-size companies, existing startups, and then new startups that launch day one on the platform. And as I said, these deals are designed to fit each type, so let's dive in with large companies first. So, it's worth noting, Ginkgo's doing large enterprise sales. And I did this myself, the commercial teams always rolled up to me, I did a lot of hands-on enterprise selling, particularly in the early days of Ginkgo. It really helps to be able to tailor those deals to a particular customer. What works for Bayer might be different than what would work for Roche. But in general, the larger midsize company customers prefer deals where the fees are paid in cash and the downstream value is in the form of royalties or milestones. Three good examples of those sorts of deals you can see here. So, our collaboration without Aldevron, there the fees we did pro bono as part of our COVID work for the upfront fees. But then it incorporated royalties on

sales with the product. In our Cronos collaboration, we negotiated largely fixed R&D fees with commercial milestones downstream upon completion.

In other words, the amount we were getting paid as we did the process was fixed over time rather than a function of the work we did here. And then our collaboration with Givaudan, the service fees are based on the amount of work we do and we get a royalty as the downstream value share mechanism. Okay? So, you can see even with the big companies, a little bit of variability. On the existing startups, the reality of startup companies is they're more cash sensitive than large companies. And by the way, I know this. We started Ginkgo, we bootstrapped for six years. When cash is tight, cash is king. And so our platform, however, offers tremendous value to these companies because they can forgo completely building out that in-house cell programming R&D infrastructure, and instead focus all their R&D efforts on the product related thing. So, if you take a company like Motif, for example, they would invest in food scientists rather than biotech scientists, right?

And so, that's an opportunity for a lot of leverage for those companies. And so, the opportunity afforded by getting those companies on our platform when they're small, also is very good for Ginkgo. Like, this is well understood in tech. Amazon gives free credits on AWS, or at least they used to, to Y Combinator companies. Stripe famously got Shopify when they were pretty small. It's now a $200 billion market cap company.

And so, our approach is not to offer free services yet to those companies, but to take equity in place of cash for Foundry service fees. And this aligns us with the investors on their cap table, and it also helps the startups conserve that cash that's quite precious to them. So, we've done a number of deals like this with startups. Recently, with Huue, SaponiQx, Cambium and Tantu. And this is something I think we will keep doing in the future. So, I will say, I think we hit on something with this, with these startup biotech companies. We hosted our first cell developer virtual conference last week, and we had over 500 people register for this. Right? So, if I look back at Ginkgo five years ago and said like, "Yeah, we put up a flag like this," and 500 people would sign up.

It was certainly not how things used to be. So, startups and entrepreneurs are really hungry for access to the Ginkgo platform and not having to build those labs themselves. I get this. You can see the kind of timeline on the left here from Ginkgo’s history, right? We spent a long time trying to scrounge to get the money to build out the labs, to do the work here. And it's not easy.

We want it someday to be as easy to launch a biotech as it is to launch a website; that day is not yet right? And so, everything we can keep adding to make that easier, I think, creates new opportunities for Ginkgo and our customers. Okay. So, what is really exciting is companies that don't already exist and haven't even built any R&D lab infrastructure. But on day one, this newly formed startup can just be born on our platform.

Okay. And, with this approach, I think this moves the needle almost the most to solve this problem, because it saves completely those upfront fees for the customer. And these companies hopefully will never need to build it. And Ginkgo also helps connect strategic and financial investors to amazing entrepreneurs, to get these companies off the ground.

So we are getting a lot more interest here because of the success of some of our earliest platform ventures. For example, like Motif. And like most recently Arcaea is an example of a platform venture where Ginkgo does not invest any cash. Okay? But we are paid in cash revenue over time as we perform the R&D services. But in lieu of like a royalty on the downstream value share, we get equity in the company. Okay? And so, we get an equity position for that downstream value share, but importantly, we're getting cash for Foundry services today.

So, now that initial equity grant does need to be accounted for under GAAP. Okay? In other words, we have to earn it. And, while I encourage you to read our public filings for the precise details and accounting treatment, the end result is that we book a deferred revenue liability on our balance sheet when we do these sorts of deals.

And we plan to do many more of these Arcaea type deals. They are great for our customers. They're great for Ginkgo. And so, we'd love to do more of them. I'll say one of the things that's really exciting when you launch these platform native type companies is you can recruit CEOs that are expert in the specific product vertical of the company, rather than bioengineering PhDs. Right? And not there's anything wrong with bioengineering PhD CEOs. But we've seen this in tech nowadays, right? Like the people who launch companies are often, they might be experts in product design, or in some particular vertical. They no longer need to be necessarily a software engineer. Right? And so for example, John McIntyre, the CEO at Motif, he was a senior executive at PepsiCo and a number of food companies before that Jasmina, previously ran and launched a beauty brand Mother Dirt. Mike Millie, the CEO of Joyn, was previously the head of biologics at Bayer, and CEO of a company called AgraQuest, and the biologic space. Nicole, prior to being the CEO of Allonnia had a long career at DuPont Water Solutions and Solvay. This is really enabling. Like there's a lot of people out there who could launch cell programming apps, but don't have that kind of base bioengineering experience. They make for excellent CEOs, we've seen that success already.

And, you can see it also in the type of investors that are then showing up alongside these companies, right? So we have great financial investors like BlackRock and Ontario Teachers coming into these companies. We've also been fortunate to get vertical, specific, strategic investors that want to stay close to technologies emerging in their industry. So, Givaudan, Chanel, Bayer are companies that have participated in these. So it's a cool ecosystem to be building. I'll give you a few highlights. So, there's a lot to be proud of for Motif, which launched just a couple years ago. They raised $226 million Series B this summer, they're launching their first couple products. But the coolest thing was that Ferment, we had 700 people there and everyone got to eat Motif animal free meatballs, which we had a lot of good food at the event, but those were by far the best.

And as I mentioned earlier, Arcaea is a super exciting new company. And Jasmina built that while she was an entrepreneur in residence here at Ginkgo and publicly launched it with $78 million in funding, just on the day of Ferment, or a day before. And they had, again, Chanel, Givaudan, and others coming in there really thrilled to see her apply biotechnology in the beauty industry. Joyn has started trials of its nitrogen fixation, disease pest solutions. This is one of those areas that gets me so excited. So, it can be hard to really appreciate how massive and resource intensive the ag industry is; 4% of global energy consumption, 5% of global greenhouse gas. Nitrogen fertilizer alone is a $70 billion industry.

We need to do better in this space. And I'm really excited that Joyn has the potential to do that. And along the same lines, biology is a whole new approach in waste remediation. So, the complex chemical pathways that allow biology to break things down can be applied in areas like remediating toxic source waste, and things like that. And so I think Allonnia is really a great area to be expanding biotech into. And I'm super excited to see what they do there. All right. So, I told you a little bit about Motif, but I'd love you to take a minute to hear it from John, the CEO of Motif himself about the impact of Ginkgo's platform following their recent $226 billion fundraising.

[Video plays]

Speaker 1:

Voila.

Jon McIntyre, CEO, Motif Foodworks:

Thank you so much. Well, should we try it while it's still hot?

Ashlee Vance, Bloomberg:

Absolutely. That's the best way.

Jon McIntyre, CEO, Motif Foodworks:

Okay.

Ashlee Vance, Bloomberg:

Good.

It's burgary, for sure. And it has that like the... I mean, on the char and all that you can-

Jon McIntyre, CEO, Motif Foodworks:

The char?

Ashlee Vance, Bloomberg:

Yeah.

Jon McIntyre, CEO, Motif Foodworks:

The bite quality is much better. I would say that old generations of plant-based meat, the first bite, you might get this crust on the outside you like to see here.

Ashlee Vance, Bloomberg:

Yep.

Jon McIntyre, CEO, Motif Foodworks:

But the second bite would be more mushy. The inside would not have texture. So, look at all the effort. I mean, that pretty much looks like what you might see in a burger.

Ashlee Vance, Bloomberg:

Yeah.

Jon McIntyre, CEO, Motif Foodworks:

You notice all the pieces, the way it crumbles.

Ashlee Vance, Bloomberg:

The other thing I noticed is there's definitely that umami kind of note.

Jon McIntyre, CEO, Motif Foodworks:

Well, our ingredient we call HEMAMI, and it's essentially the molecule in the muscle of a cow that makes beef red. It makes it gives you that beautiful serumy, bloody flavor. It catalyzes a whole bunch of the chemistry there, and that is an amazing piece of technology that Ginkgo Bioworks created for us.

Ginkgo was able to look at 300 different muscle proteins from different species; mini sperm whales, one that comes to mind.

Ashlee Vance, Bloomberg:

Okay.

Jon McIntyre, CEO, Motif Foodworks:

Tuna, pork, chicken, a whole series of different birds. They were already sequenced. So, it wasn't like we took any animal material.

Ashlee Vance, Bloomberg:

Yeah. When they did the sequences, it was for-

Jon McIntyre, CEO, Motif Foodworks:

Specific muscle protein, a class called myoglobins.

Ashlee Vance, Bloomberg:

Okay.

Jon McIntyre, CEO, Motif Foodworks:

Ginkgo gave us the ability to look at all the different properties: stability, taste, flavor, color. And then once we honed in on the ones we wanted, we asked them to optimize the yeast to kind of turn that into a mini factory so that we can make it. And so, we can have the great taste of beef without using any animals.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

That was great.

Speaker 1:

Voila.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

I have to say that that project with John looking at all the different species was sort of like a Noah's Arc situation around here. It was really fun to pull those genes from all those different organisms. So yeah. Working with the team at Motif has been great. Working with John has been awesome and he's got amazing snacks. So, we're really excited to be working with them.

All right. So, I love this picture of Ferment. We had over 700 people turn out just a couple weeks ago in Boston. It was really, really great to get the community back together in person, after not seeing each other for a long time. The diversity and strength of the ecosystem developing around us here at Ginkgo, it's so exciting. We look forward to continuing to welcome new partners and potential partners in the future. This is a lesson we've learned from the tech companies; Apple, Microsoft, others. You have to nourish this ecosystem of developers so they can get the most out of your platform. Everyone wins when that happens. Right? And I think we're at this moment where for our community, they're starting to say, "Hey, if Ginkgo develops more stuff, that's good for me." Right? And so that's a really exciting moment. And, we're really thrilled to play that role in the community.

Wanted to show a slide here of some of the products. At the end of the day, the success of Ginkgo's platform is written in the success of our customers. And so, you look at products from Aldevron, Cronos and Motif, I mentioned at Ginkgo Ferment, that the exponential growth in our platform output, right?

Like what's coming out of the Foundry, means that we did more lab work in the last year of Ginkgo than the first 10 years combined. Right? So, it's not surprising that we're seeing the rate of cell programs finishing and going to market for customers increasing. And you can see in this chart, one of the things that makes Ginkgo's platform so unique, there are six species, four end markets, three product types, six different customers represented just in the eight products shown here. Right?

So that breadth of work on one common platform has really been our vision for Ginkgo since day one of the company. Right? So, it is rewarding to see that. Like that is a difficult technological challenge to pull off, and I'm really proud of the progress we've made there. So, I'll end on this. One of the things that comes with being the leader, sort of in an emerging technology area, whether it's electric cars or synthetic biology, is that people are going to try to tell you why what you're doing isn't going to work. Right? But honestly, it's worth it. Right? We've been working for 20 years to be able to have an event like Ferment a

couple weeks ago. And seeing the community in synthetic biology rally around the emerging technologies, getting excited about the leverage via our platform, was incredible. And it's especially incredible because the Ginkgo platform improves with scale.

So, like the more excitement, the better we're going to get. Right? And I haven't been this excited about synthetic biology since the day, honestly, I started my PhD at MIT. And I love that many of you listening have chosen to come on this ride with us. What you choose to invest in, moves the world in that direction. Right? And Ginkgo's going to strive to continue to be clear and transparent about the direction we are heading. And we hope you're as excited as we are about that direction. So, thanks so much for your time today and look forward to taking your questions.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Great. Thanks Jason. So, we're just going to switch over to Q&A in just a second here. So, for the analysts who are on the call, please just raise your hand and we will allow you to unmute and ask your question. And then we'll also again, be bringing in questions from both Twitter and email. That Twitter hashtag is Ginkgo results. And then the email address is investor@GinkgoBioworks.com. So, we'll be back in just a few seconds here to start Q&A.

Hi, everyone. All right, we're going to kick off Q&A. Now, I'm going to start with a question from Twitter, just as everyone is getting acquainted and raising their hands. I see a bunch of hands raised there. So Tejas, it looks like you are the first, so you'll be the first question once we take one from Twitter here.

So Jason, I'm going to give this one to you. It's from B E Z on Twitter, who by the way, came to Ferment.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Amazing.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

So, during the height of the pandemic, pro bono work was done leading to a 10X of mRNA capping enzymes, and resulting in a great partnership with Aldevron. What is Ginkgo's strategy for managing pro bono work going forward?

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah. So this was a pretty cool experience for us because that project really cranked. I mean, we did that in sort of around about a year, kind of start to finish on the R&D side. And one of the takeaways for us was because we were doing it pro bono, like the team at Ginkgo was just really controlling the kind of design of the project end to end. And that's a process when we work with our customers, that is very collaborative. And so, I think, one of our takeaways here was we should really make sure we're like packaging products. Like when we engage with a customer on a project where they're going to get engaged from the first day, we should be a little more clear, like, "This is exactly what we would do," right?

And, we can now lean on this experience of like, look, this maybe would be a lot more effort in the facility than you would traditionally imagine doing. But that might be a function of, well, you've been kind of limited working at the lab bench with pipettes. And so, you don't actually design those experiments at the same scale our internal team would.

So, there was actually a learning on kind of program design, I would say, that fell out of that. And then, I think it was also a pretty cool instance of, "Hey, there's a global scale problem. Ginkgo cares how our platform is used." Sometimes that's making sure it's not used in a negative way.

But sometimes it's also, "Hey, make sure it's used in a positive way." Right? And we can put our foot on the scale at Ginkgo to go do that when we feel it's the right thing. And then it's a cool experience here with COVID that also turned out to be quite financially beneficial at the end, even though that wasn't really, I would say the motivation when we first launched that pro bono work. So, those are probably my two learnings. It's not a bad thing to push in an area if it's one we care about. And then secondly, the program design.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Great. Thanks.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

It's a good question.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

All right, Tejas, I'm going to allow you to talk. So, you should be able to ask your question now, but you will have to come unmute. There you go.

Tejas Savant, Morgan Stanley:

Perfect. Hey guys, thanks for taking the question. Jason, appreciate the color on the short report, it certainly has been something on a lot of investors' minds. So, appreciate you addressing that upfront. Just a couple of quick follow ups there. Mark, I believe in your prepared remarks, you mentioned not breaking out sort of Foundry versus downstream economics going forward. Given that sort of choice that you've made, how should investors think about modeling the trajectory of Foundry revenues in '22 and beyond?

And then Jason, you mentioned sort of getting a clean check from your internal inquiry with the auditors. Is there anything that's remaining to be done in terms of the process with the DOJ inbound at this stage?

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Why don't we start with the question on guidance and our plan there, and then we could take the second question.

Mark Dmytruk, CFO, Ginkgo Bioworks:

Yeah. So, thanks Tejas. So yeah, so the reason that I made that comment is we are sort of learning in real time right now. That there are going to be situations particularly in these early days, where downstream value share may only be attributed to a few customers where breaking that out, may create confidentiality issues.

The second thing that we're realizing very much in real time is that it will make sense for us to make tradeoffs between downstream value share and Foundry services. And to do that sometimes also very much in real time. And, Aldevron's a great example where we didn't recognize any Foundry services revenue for that at all in 2021.

And yet it has very significant potential to contribute revenue to us. And so, we're sort of in this kind of real time learning mode, Tejas, where we're evaluating this question. And that's why we made that comment because the line is blurring between the two. We would expect to be providing you with guidance on Foundry revenue, and to be held accountable to that. We would expect to be providing you with guidance on new programs and to be held accountable for that. But, sort of breaking out the two, like I said, the line, it's just blurring a bit and we are very much kind of evaluating sort of how best to do that going forward.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Thanks.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah. And the only thing I would add on that front is you will occasionally... I think it's going to vary by customer, right? You'll see, like in the case of our Cronos value share, that is publicly disclosed. Right? So, you'll see publicly that in Q3 that was about $12 million through that, through that value share milestone.

So there'll be some customers that's not an issue, but we do have this challenge particularly while the number of programs giving value share is small. That there'll be folks who don't want that information out there. And so, we need to be sensitive to that. And so that's where a chunk of this comes from.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Yep. And then Jason, the second question from Tejas was around any next steps or further process on the internal investigation.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah. Right. So, sort of, as I said in the earnings call, shortly after the short seller report came in, we received a preliminary inquiry from the DOJ informal. Based on the independent investigation, the audit committee found any suggestion of fraud, reporting violations, account outing errors, other wrongdoing contained in the short seller report were unfounded.

And importantly that no restatement of our financials was needed. We are cooperating with regulators. There's not too much more I'd add at this point on it.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Okay.

Tejas Savant, Morgan Stanley:

Got it.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Thanks, Jason. All right, I'm going to go ahead. Matt Larew, I should have given you the warning that you're the next on the list. So, I'm going to allow you to talk so you can go ahead and ask your question. You'll have to unmute as well.

Matt Larew, William Blair:

Okay. Can you hear me?

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Yep.

Matt Larew, William Blair:

Good deal. So, Jason, you referenced that the recent ecosystem events you hosted with Ferment and then the cell developer event last week. Just curious if you could share any feedback or data points in terms of the potential new partners that you engaged with, things you're tracking to determine the success of those events.

And then the second part if I could, just more broadly with a loss of CDKs now underway, maybe just remind us how the CDKs are able to break down barriers to entry for new partners in terms of the capital intensity and sophistication required by those partners.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Sure. Yeah, this is a great question. So, maybe just give a little extra context, right? Like I mentioned, we had Ferment, which is our big in-person event here in Boston, and that's really serving a... We highlight some of the developers on the platform. So, you've got to hear lightning talks from a number of the companies that have been successful developing or launching on the platform. So, there's other companies in the room that get to hear that. It also brings investors in that are interested in synthetic biology. Many of you folks, the analyst community and others, are there to join. And some of the technology providers, like Emily Leproust from Twist and folks like that, right? So, it's a broader tent.

The virtual event was really a launching our CDKs and these are cell development kits. And the analogy is a platform software company like an Apple would have a software development kit, an SDK. And this is basically a set of tools given to app developers so that they can more quickly launch apps on Apple's platform. It's clearly in Apple's interest to have these out in the world, and it's great for developers because it's now less friction for them to get a product built.

And so, the same spirit is applying with our CDKs. We want to make it easier and faster for someone launching a new company or a startup that already exists to come and say, I can engage Ginkgo's platform. I can get a product built quickly, get it out in the world and start making money. And then Ginkgo does well again through our value share mechanism in that case.

So, that's why we're doing these things and that's the two different types of events. Our internal metrics really tracking are entirely around follow ups with the commercial and the deal team. So, we basically have a funnel of people sign up, people attend, and then how many real leads do we get on the backside of that? And we haven't disclosed any of that specifically, but that would be the internal metrics we'd be driving against.

My biggest motion on this is that just two years ago that there was almost no inbound to Ginkgo, right? This is just a new concept because of our profile going up and, in particular, the success of the people who engaged our platform two and a half, three years ago now showing progress, people see that and proofs in the pudding. And so that is now driving for the first time really the opportunity for us to market like this. That really all previously was largely outbound, like sales. And so, that's what I would say.

On the last point, I'll make briefly, because I didn't touch on it much in the earnings call. The idea behind the CDK, and the first ones we launched are for protein production, is to give like a pretty defined box and say, listen, if you're trying to make, in this case, a low-cost protein, we have some existing assets. We have host strains that produce proteins at low-cost. One of them is really well scaled up on the Foundry, the other one's sort of beta and getting onto the Foundry. You can deploy those in that area and we can move really fast. And then a first engagement for a phase one is only $100,000, that's a low cost in the biotech world. And so, that idea of making it less frictional just to get started with us is really the key idea there. And it's a great question. Thanks a lot, Matt.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Great. And just to give everyone a heads up, we'll probably go five to ten minutes late since we started late. So, apologies for the late start, but we'll give a little extra time here. Rahul, you'll be next on the question list, but I'm going to go ahead and take one from our investor inbox in the meantime, as you get ready.

So we got one into the inbox that says, "Climate change and pollution are some of the most important challenges mankind is facing. In what areas could synthetic biology have the greatest impact and is Ginkgo planning to start any JVs to accelerate the change and attack climate change?"

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah, so I'll move quick. So, I mentioned that Ferment, that in the lightning talks for next year's Ferment, I'd love to see a bunch that were about climate applications specifically. I do think this is a big opportunity right now because you have seen the success of companies like Tesla, for example, passing a trillion dollars. You had Bill Gates just a few weeks ago say in climate there'll be eight to 10 Tesla scale companies. So, you have actually suddenly a lot of investor interest.

But the big companies in the space, the big energy companies, have been slower for a variety of reasons to consider adopting biotechnology. That's a great opportunity for us in the platform ventures area, right? That's why we do those things. It's like, well, we have a lot of investor interest, but there's less existing partners, and startups are just getting going. Let's do some. And so folks that want to launch those types of things, we do think there's a great opportunity there.

I will also point out, Joyn Bio, which we mentioned on the call, focuses on nitrogen fertilizer production, synthetic nitrogen fertilizer, a huge greenhouse gas maker. So that's already in that direction. I think that's a wave that'll support them. And then when it comes to environmental cleanup, Allonia is working in that area. So, we already have a few folks, customers, on the platform, but I'd love to see more. And I think we will see more, hopefully.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Absolutely. All right. We're good. We'll do a few more analyst questions here. I would just ask one part question so that everyone gets a chance, but, Rahul, I'm going to go ahead and allow you to talk and then just unmute.

Rahul Sarugaser, Raymond James:

Great. Thanks, Anne Marie. Can you hear me okay?

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Yep.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yep. Hey, Rahul.

Rahul Sarugaser, Raymond James:

Perfect. Thanks, Jason, Anne Marie, and Mark. Thanks for taking my questions. So I'm just going to follow up a little bit based on Tejas's question. Congratulations on hitting that second milestone. The Kronos partnership, of course, that's something that we watched carefully and that we expect to book that in Q4.

So with the first equity milestone booked in this quarter, Mark, if we heard you correctly you mentioned that this equity payment was attributed to Foundry revenue. So, given that this upfront book value of the

equity has now been booked to Foundry revenue, how should we be thinking about treating book versus market-to-market incremental value of that same equity going forward?

Rahul Sarugaser, Raymond James:

Yeah, so we will do an evaluation, a market-to-market adjustment at each reporting period end, because there are some sort of GAAP adjustments that we make to that to account for just the type of equity that we have. And so that gain or loss flows through the other income expense line on the P&L.

Rahul Sarugaser, Raymond James:

Thanks.

Rahul Sarugaser, Raymond James:

All right. Harsha I should have given you the heads up, but you can probably see that you're next in line. So, I'm going to go ahead and allow you to talk. And then, Matt Sykes, you'll be next.

Harsha Pappu, HSBC:

Yeah. Hi. Can you hear me?

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Yep.

Harsha Pappu, HSBC:

Hi, guys. Just a very quick one on related party revenues. Given all of the recent focus on this topic, could you perhaps talk a little bit about your plans when it comes to accelerating the pace of new additions of new programs in the platform via direct equity investments and what that might mean for near term share related party revenue? So, I'm wondering as you deploy some of the capital you've raised on the existing program scale, should we actually expect related party revenue share to increase over the next year or so, and how that mix shifts? Thanks.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Sure. Mark, do you want to comment on how we're thinking about it from a projection standpoint? And then I can comment on some of why I think it's likely to happen, sort of philosophically.

Mark Dmytruk, CFO, Ginkgo Bioworks:

Yeah, so just kind of, I guess, maybe just general trending as I discussed, we generally see the mix shifting towards more third parties versus related parties. But we don't have a particular sort of bias, one versus the other. We don't inherently think that's a good mix shift or a bad mix shift. It's just a factual one. It is indicative of just the sheer number of new customers we brought on this year. I mean, the customer count was significant, and the program count was significant, and those are weighted to third parties. And

so, just as a factual matter, that's why the mix shift is happening. And I'm not sure that we really think about it from a projection point of view, per se. So...

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yep. Yeah. Thanks, Mark. So, what I would say is there's these three buckets of customers, and I mentioned they're sort of the mid and large, there are existing startups, and then there are brand new startups on the platform. I think we are seeing a lot of excitement in the startup category, right? I think that we are seeing a lot of inbound. I would say for the large companies, I think the reality is that's still going to be solid enterprise sales, right? In other words, it's going to be like what we do every day around here. It's having meetings and going out and the business development team and getting deals done. Right? We're good at it, but it does take time.

And so I think you're seeing a change in customer behavior on the startups, and the startups tend to, but not always, tend to lead to more related parties. I would agree with Mark. It's not like a certain thing we're trying to solve for in terms of our direction. Our strategic goal is as many new programs on the platform as quickly as possible, and then delivering on those programs for customers so we can realize value share. How that ends up shaking out, related or not, is less of a guidepost for us.

Harsha Pappu, HSBC:

Okay. Thanks. That's helpful. Thank you.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah, that's a good question.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

All right, Matt, from Goldman, I'm going to allow you to talk, and then Rachel from JP Morgan, you'll be next.

Matt Sykes, Goldman Sachs:

Hey, everybody. Thanks for taking my questions. Appreciate it. Just one question for me on biosecurity. You mentioned in the release, it's an uncertain business. I'm just wondering how you're thinking about the durability of biosecurity revenues going forward as it relates to testing and/or infrastructure?

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah. So, here's how I think about it. It is a super good question. So, the thing that I think of is, so I'll give you an analogy. So, flu is an endemic disease, right? So, we know flu's not going away. And we have a certain set of mitigations in place in society. And by and large, that's the flu vaccine that comes out. And by the way, they have to make a new one every year because of the nature of that virus, but fine. That's like our societal mitigation to get flu to a point where it is not annoying and otherwise disruptive to

society. We're comfortable with the level of mortality and we're comfortable with the amount of impact it has on our lives.

COVID-19 is going to become endemic. Right? I think that you speak to experts, that's what you're hearing again and again. It's not going to just disappear on us. I think that's widely appreciated now worldwide. The question is what are the mitigation measures that society needs to put in place so that this thing is not annoying? And I tell you, but from quarantines at schools to mass to everything else, we are not at a point yet where we get to not think about this thing in the same way we currently really, by and large, didn't think about the flu, other than certain public health folks that take care of us there. But society at large is not a top-of-mind issue. We're not there yet with COVID.

And so, the question is, what will be enough? Is it just the annual vaccines and then nothing else? Well, it's certainly not yet, right? And so, the question is where will these types of other biosecurity measures fit in? And I think that the big tools in that bucket are going to be updated vaccinations and boosters. It's going to be better therapeutics over time, and it's going to be monitoring, surveillance, basically testing for biosecurity purposes, not diagnostics. And so, we obviously have stuff going on in the vaccine space as a support role, but in that sort of monitoring, weather-mapping type new area of testing, I'd say we are definitely a leader.

Will that end up being part of the mitigation? That's why it's hard for us to guide to exactly what it's going to be next year. But I think if it does, we're in a great spot, right? So that's how I would try to frame it, Matt, if that makes sense. But I do think biosecurity in general worldwide is here to stay at some level. And the question is just exactly what are the set of mitigations that make COVID go away? And will surveillance and monitoring be one of them?

Matt Sykes, Goldman Sachs:

Great. Thank you.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yep.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

All right. We'll take our last two analyst questions, and then I haven't gotten any dinosaur questions on Twitter yet, which is actually pretty disappointing. So, if there are any good ones that come in, I might ask one. But, Rachel, I'm going to go ahead and allow you to talk from JP Morgan.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Hey, Rachel.

Rachel Vatnsdal, JP Morgan:

Perfect. Good morning, you guys. So, I have a few questions on the new cell programs and guidance for the year. So, it's great to hear that you launched 10 programs this quarter. During your last call or during your last earnings call, you mentioned that it would be heavily rated towards 4Q this year. So, based on 3Q guidance implies nine programs in 4Q, which is a slight step down, can you just talk about if any programs were pulled forward into 3Q? And then walk us through your approach to guidance and if there's any conservatism baked into that 4Q number. Thanks.

Mark Dmytruk, CFO, Ginkgo Bioworks:

Yeah. So, I think, Rachel, at the time that we did that first half update, I'm not sure that we were necessarily trying to distinguish between how much of what was left would land in Q3 versus Q4. I will say that, and we did say that we didn't expect a lot of revenue by Q4 just because of program start times, et cetera.

But that said, I will say that we did make a fairly aggressive push to bring those programs on as soon as we could. And that was largely because you want to have the ability to hit the ground running for 2022. And so, there was a very concerted effort in Q3 to just not wait and to get programs on the Foundry as soon as possible, because there is a startup time. And so, I think we're targeting the 30 programs. I think we obviously have a pipeline that if everything landed, it would exceed that. But 30 is the number that we're comfortable with right now.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah. The only thing I'd add, I think it is a little tricky, again, the enterprise sale nature of it. You can't have things move a month or two here and there. That's probably a little more true when we're engaging with a large company, not a smaller company, but it's not always. And so, I do think we end up trying to have a big funnel, and then we know some are going to shake and move to next year or not and try to really push the team to hit our annual number.

But I think it'll be a little harder to predict quarter to quarter exactly how many programs. And I'd say it's not a big particular driver for us versus trying to keep the overall number going up at a healthy cliff annually.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Thanks, Rachel. All right. I can't leave just one person hanging on their questions. I'm going to let Mark from BTIG ask his question and then we'll wrap up here. Go, Mark.

Mark Massaro, BTIG:

Hey, can you hear me?

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Yeah.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah, hey, Mark.

Mark Massaro, BTIG:

Awesome. Thanks so much for the question. You guys have made good progress with Cronos and also with food ingredients, et cetera. I guess, how would you characterize your funnel in biopharma? In which particular areas are you most encouraged by, especially as we are about to turn into 2022? And how should we think about the potential for equity in milestones in '22 and '23?

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Yeah. So, I can speak to the biopharma side. We had David Chang from Allogene and Arie Belldegrun, who is on our board now, and from Kite Speak at Ferment in the area of cell and gene therapy. And Arie just kind of brought up some of the history in cell therapy and how these were really the first whole cell therapeutics that were getting developed, live cell therapeutics at Kite. And he was like, "That also been a 25 year..." I was talking about the 20-year history of synthetic biology. And, that's exciting, right? That whole living cells as therapies, I would say that's our bucket. Right? And with Synlogic that's a bacteria in the area of cell therapy that's often T-cells. But that's where you should think about Ginkgo generally being excited. But we're also going to be supporting engineered cells to produce various things as we always do. But when it comes to a new area, I really think we can push into, but haven't done as much to date, it's that general category of live cells as therapies. And so cell and gene therapy tends to be where that shows up the most. And then was there a second part there, Anna Marie? Sorry.

Mark Massaro, BTIG:

Nope.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

No. Mark, was there anything else you wanted to go deeper in?

Mark Massaro, BTIG:

No, that's great. Thank you.

Anna Marie Wagner, SVP, Corporate Development, Ginkgo Bioworks:

Great. Well, thank you everyone for joining us for our first official earnings call. Apologies again for the technical streaming difficulties at the beginning. We'll make sure that a full video is uploaded, and we'll distribute it so folks who missed the first few minutes as you were transferring over can catch up. And we'll try to work out those kinks for next time. But thanks again for spending your Monday morning with us and have a great week.

Jason Kelly, Co-founder & CEO, Ginkgo Bioworks:

Take care, everybody. Thanks.