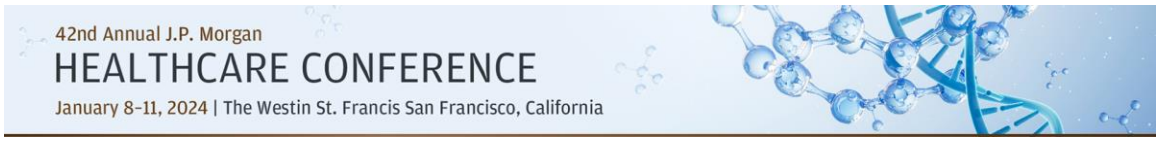

Moderna

Moderna presentation delivered at the 42nd Annual J.P. Morgan Healthcare Conference on Monday, January 08, 2024 at 3:45 PM

Jess Fye: Good afternoon. My name is Jess Fye. I'm a biotech analyst at J.P. Morgan. We're continuing the 42nd annual Healthcare Conference today with Moderna.

I'm going to pass it over to the company's CFO, Jamey Mock, for a presentation. Then we're going to go into Q&A. If you have a question, you can submit them to the portal, or I think someone will bring you a mic. With that, let me pass it over to Jamey.

Jamey Mock: Terrific. Well, thank you, Jess. Thanks to the J.P. Morgan team for another terrific conference. Good afternoon. It's a pleasure to be here with you today. On behalf of the entire global Moderna team, we thank you for your interest. Thank you for being here in person or live via our webcast.

Before I begin, I will make, in this presentation, we'll make forward-looking statements. Those are to the best of our estimates right now, and that's subject to risk and uncertainties. For a full list of our risks, register, please review our SEC filings.

Today, I'd like to walk through the Moderna story, and I'll do it in a timeline fashion. I'll start with our platform. Why did we want to invest in it? What were the benefits that we saw? How have we invested it over time?

Then I'll move to that took us up to COVID and the pandemic. How were we prepared for it? What did we do for COVID? What did we need from a health perspective? Then we transitioned to the endemic over the last two years, and so that required a lot of resizing of the business.

Then as we look forward, I'll give you how we're thinking about it both financially and from a late-stage clinical pipeline perspective. I'll give you our financial framework and why we are so excited about the organic growth driver that we have at Moderna.

First off, Moderna is obviously founded on mRNA, which is nature's information molecule. mRNA instructs the cell how to make proteins. Those proteins either prevent or treat diseases. It was

that belief that if we could maximize a platform that could optimize mRNA, we could treat or prevent many different diseases, and it had many different benefits.

These are the handful of the benefits on a page. We've used this page for a very long time. The first is the opportunity set. Number one, mRNA is a natural part of your body. Then number two, mRNA can hit many different types of proteins that other competitors cannot.

It can hit secreted proteins, transmembrane proteins, intracellular proteins. We thought that if we were able to be successful with one vaccine or therapy, we would be very successful across a wide range.

Number two, you can measure R&D efficiency a couple of different ways. You can measure it from a cost-per-trial perspective, but more importantly, from a success perspective, because a lot of money goes into R&D, and the more successful or the higher probability of success that we have, the better we'll be. I'll show you a chart on how we stand on that later.

Number three is about rapid and agile development. Because it's an information molecule, we believe we can iterate quickly. I believe a good example of that is what we did in 2023 with flu. At our vaccines day in April of 2023, we said that our flu candidate had made it for the A strains, but missed the B strains.

By our R&D day in September, just five months later, we had already run a clinical trial, changed the formulation, and said that we had made it for both the A and B strains. That's how quick we can iterate this portfolio.

In addition to that, if you look at RSV, COVID, and flu, and you look from the time we started at phase I till the time we completed phase III, it took us on average two years, actually a little less, which is great compared to the standards in the industry.

Then from a capital efficiency standpoint, really this platform we will have five manufacturing centers across the globe in a couple of years, actually in 2025. Those five can basically perform what we need across the entire portfolio.

Almost every single vaccine, be it in respiratory, latent, or rare disease, can go through the same manufacturing footprint. The only thing that's different is INT, and that is because it is individualized. It can still be at the same facility, but some of the production equipment is a little bit different.

We believe that over time, the more we pump through this pipeline, the cost of goods sold for the next drug or vaccine would go down. We've been hard at it for well over 10 years. Moderna was established in 2010, '11 timeframe.

We've been working on the science, the delivery mechanism, and the manufacturing. All three of those are super important to be able to make this work. That's what we call, that's the foundation for the mRNA platform. We continue to advance that every single day.

In our overall research and development budget, we continue to put maybe a half a billion dollars into research alone to continue to advance this platform and what's behind it, as well as bring new candidates to the market.

Then we hit COVID, and all that investment in the platform made us ready to tackle COVID. I'll talk to you on the next page, you can't do it all yourselves. In a matter of two days, we developed the vaccine. That's because we had already invested in nine different vaccines to our data at that point.

All that history and knowledge that we put into it was very useful. It only meant that it took us two days to design the vaccine. Then in about another month and a half, we started our clinical trials. By the end of one year, we received authorization.

Now, we had a little bit of help because it was a pandemic, but I think that shows you the art of the possible on how quick this platform can perform. We've always been investing in digitization, not just AI, but automation throughout our entire facilities. I'm sure we'll talk about that in particular with our INT portfolio.

Then we made the fortunate decision to invest in manufacturing capacity back in 2018 at a town just outside of Boston. We were really ready to tackle COVID.

That said, nobody's fully ready for a pandemic by yourself. You don't really have the supplies and capabilities to service over a billion doses in a year. We had to expand not only our internal manufacturing capacity, we created a CMO network with many different partners, five or six partners over that time period. We radically bought forward a lot of inventory.

That led to a very successful 2021 and 2022 with about $36 billion in sales. In 2023, we announced this morning that we had over $6 billion in sales as well. Over the three years

combined, 42 billion for that investment.

I think this is what was missed though, so a lot of people thought we were a COVID company, but at the same time we knew COVID was going to go down and we better have a pipeline ready. We used that $36 billion or the extra $6 billion for 2023, and we put it, poured it into the pipeline.

If you look at where we stood at the end of 2020, we had 25 development programs and we almost doubled that over the last three years. But if you look at a finer detail and you look at phase II and phase III combined, we had five back at the end of 2020, we now have 17 at the end of 2023. That's really the pivot point in the company.

We, yes, COVID will be around for a while, yet unfortunately, but it'll be part of our product portfolio for a long time. We are hard at work to bring the next set of drugs and vaccines to the market, which is where I'll spend the bulk of the presentation.

Over the three or four years, we had to make a lot of strategic choices. Back in 2020, it was all about vaccine development and getting our manufacturing ready. In 2021, we had to scale up and almost everybody got three doses, the two primary plus a booster.

In 2022, the virus continued to evolve and so people got different boosters as well as we understood and the regulators understood who the high-risk populations were. It went down to two doses.

By 2023, we were fully transitioned to an epidemic. That really meant that not only do the shots per year go down, but the overall volume goes down, which means we had to resize the company.

At the end, in the second half of 2023, we spent a lot of time doing that with our partners across the globe. We took over a billion-dollar charge, I think about $1.6 billion charge in the second half of 2023 to resize our footprint moving forward.

We are now set up for volume leverage. We believe we have the right capacity in place to scale the company to at least $10 billion, if not more. I'll talk to you about where we stand next year and hit our gross margin target at least of 75 to 80 percent, if not better.

As you would expect, we want all of our product lines to stand on their own. The COVID product line is no different. Perhaps in 2023, it wasn't as profitable, but when we look at what I'll show you

actually in 2024, the profitability we expect from the COVID franchise by itself.

As we move into the financial framework, I just want to step back for a second and talk to you about our thinking.

You remember that 45 programs that I just talked about. We want to invest behind that. We've been investing behind that for the last three years. When we had $18 billion in sales, everybody understood it. I think what's different here is we have $4 billion in sales and we still need to invest behind it.

It's maybe not at the same level as we had once anticipated, but we believe we have an unparalleled opportunity for organic growth with this platform. We are going to continue to invest behind it. That's the rationale.

We're going to use our balance sheet, which we announced earlier this morning at the end of 2023, we finished with in excess of $13 billion in cash. We're going to use that cash plus the profitability from COVID and RSV over the coming years and flu and everything that we add to it to invest in it.

In 2024, we laid this out at the end of our Q3 call. We are reiterating it at this point that we expect sales to be approximately $4 billion. You can see cost of sales at 35 percent or gross margin at 65 percent. Our R&D is essentially flat. It's actually a little bit down versus what our expectation is in 2023. SG&A is flattish, but it's flat to down 10 percent next year.

We still have some capital expenditures, but overall, when you back out some of the development for that pipeline, we actually think the COVID business makes about a billion dollars. At the end of this year, we're going to have about $9 billion. We are prepared to have losses over the next two years.

When you fast forward to 2025, we believe we will return to growth. I'll talk to you about the products that we're launching in a page from now.

With extra growth, our gross margin should go up because we'll have better volume leverage. We are very flexible at this point to understand what we want to do from an operating expense perspective, that R&D and SG&A.

We haven't really budgeted, we haven't really locked that in for 2025. A lot of that is, much of that

is locked in for 2024, but we are very flexible.

Then our capital expenditures after we finish our facilities in the UK, Canada, and Australia should be materially down from the 900 million that we talked about in 2024.

Again, we're prepared to eat into our cash, but I think that's where it stops. We think by the end of 2025, we'll be in about $6 to $7 billion, which is about half the cash balance we have right now. Then we plan to break even.

We know that we can't do this forever, and both through execution, as well as execution on our costs, execution on our pipeline, execution on our rollouts, we think we'll be set up to break even come 2026.

Now to the late-stage pipeline. You can see nine different candidates on this page across four different franchises.

The lion's share of our financials from a revenue standpoint in the next few years is in respiratory, and I'll talk through these four different launches, which will all launch over the next two years. Then you can see across latent and other vaccines or oncology or rare disease, they are fast followers in 2025 and beyond.

Starting with respiratory in 2023, I mentioned that this morning, we announced that we achieved $6.7 billion in sales, 600 million of that versus our guidance of at least $6 billion. 600 million of that was related to recognition of deferred revenue that we were not expecting.

Really, when you back that out, we achieved $6.1 billion versus the at least $6 billion that we had guided to, so we achieved our guidance. We had a lot of wins and misses across the globe, but one that we're proud of very much is around the US. We competed quite hard and did very well with 48 percent market share. That's 2023.

2024, as we look to it, I already mentioned the sales and it'll be all respiratory in 2024. We are excited to bring RSV to the market. We announced that we expect some regulatory approvals in the first half of 2024, which will set us up to actually have sales in 2024.

We're really excited about the product profile. We love the efficacy, we think it benchmarks well, the safety and tolerability is terrific, as well as the ease of use. The fact that it is prefilled syringe versus our competition, we think matters from a productivity perspective in all the retail

pharmacies and in a doctor's offices.

Then in 2025, we expect to grow off that $4 billion. We'll have on the market COVID by then RSV. RSV hopefully, will continue to grow as well as there's further education out there.

Then we're expecting to launch flu, our next generation COVID product, which we said we will have additional data on in the first half of 2024 for our next-gen COVID product, which makes it refrigerator stable.

It's very important in terms of an ease-of-use perspective for many different pharmacies and healthcare offices. Then our combination, which is in our view very much a game changer. This is for flu and COVID. We said we'd have data out in 2024 on this product and perhaps launch it in 2025. But the combination vaccine really helps in three ways.

One is from a compliance perspective. It helps payers and insurers understand that people are going to get vaccinated and just to take the US as an example, US has roughly 150 million people that get vaccinated with flu and only 50 million people that get vaccinated with COVID. If it's in one shot, you might imagine that additional COVID shots would happen.

Also from a convenience perspective, from a consumer perspective, you get one shot versus two shots or three shots someday, if you add RSV to that. Then from a cost perspective, the majority of our cost of goods sold is the presentation type. It's either a prefilled syringe or a single dose file. If it's all in one unit, you don't have two or three, you have one.

It also reduces the cost of implementation from a pharmacy or a provider where it's one shot of labor versus two or three shots of labor. We're quite excited and the respiratory business will really help with the next couple of years financials.

Now I'll get into latent and others. CMV, cytomegalovirus. For those of you that don't know what CMV is, it is the leading cause of congenital birth defects that are transferred from mother to a fetus.

As an example in the US, there are 12 to 20,000 babies per year that are born with birth defects. It's been an issue for a long period of time. There is no vaccine available today.

We are in a phase III trial. That phase III trial is fully enrolled. We said at our R&D day in September of last year, in terms of getting to the first analysis from an efficacy perspective, we

were about 25 percent the way there.

This morning we said, "Look, we don't control it, but we believe we might have an efficacy readout in the year 2024." That's an exciting milestone to look forward to.

In case of INT or Individualized Neoantigen Therapy in oncology, we've released terrific data around adjuvant melanoma, in terms of the fact that it's very durable. We recently released in our phase I, II trial that after three years, it improves the risk of recurrence by almost 50 percent, 49 percent. We are quite encouraged by that.

As a result of that, we have started in our enrolling two phase III trials, both in adjuvant melanoma and in non-small cell lung cancer. Then I think the news is, and we've been saying this for a while, is we want to rapidly expand into additional clinical studies.

This is in combination with Merck, who presents after us, in addition to Keytruda. We think of it as, if you go through the Keytruda portfolio, we'd like to add to that and bring additional products to market.

Then finally in rare disease, we have a portfolio of about six candidates in the pipeline right now, primarily in the liver.

There are over a thousand potential rare diseases of the liver. Right now, we've advanced two that we expect to move into a pivotal trial in 2024. In the rare disease world, that's basically the final step before commercialization. Then across those two candidates, I think we have almost 20 years of cumulative patient experience on it. We're quite encouraged by that.

If you go back to what I said in terms of the fact that at the end of 2023, we have 7 phase III trials and 10 phase II trials. Those seven are the foreign respiratory CMV and the two in INT. Soon we'd expect PA and MMA to essentially be a phase III, although it's called a pivotal trial.

Most importantly, I think that's why we believe that this is a platform that is set up for years of organic growth. Yes, 2024 will be a low point of approximately $4 billion, which is obviously down from the $18 billion that we've been experiencing over the last two years.

From here on out, we've invested in a pipeline that can continue to bring new drugs and vaccines to market every single year. We set RSV this year, flu, COVID, and the combination vaccine in 2025. Then maybe some of these drugs on the bottom will come out in 2026.

We really believe we are set up for organic growth for the next handful of years, and then a pipeline that'll come quickly behind it.

This is what gives us confidence to invest so much in R&D. This is what I mentioned at the outset, which compares our success rate, our actual success rate by phase, versus the industry standard.

If you look at phase II, our success rate over our portfolio has been 68 percent, the industry has been 35 percent. It's almost 2x. In phase II, it's 3x, at 78 percent versus 27. In phase III, it's about on par. If you look at that, there's actually a couple flu candidates that ultimately got there. We had three phase III flu trials, P301, 302, 303.

In fairness, 301 and 302 didn't get there, and that's why we are at 67 percent. All three programs, RSV, COVID, and flu have gotten there. That's what gives us confidence that this pipeline is coming, and then it's up to us to execute. Which really is what I hope you take from today.

The platform, in our view, is very much working, and this is now all about execution by us. In 2023, I think we did a good job. We achieved what we said we would in terms of $6 billion, and we grew share in the US, but we can do better.

In 2024 through 2026, I should say, how we will be financially disciplined to invest but bring this late-stage pipeline to market. That's what I walked you through in terms of just those nine, and there's clearly more than that. I think it's exciting for three reasons.

One is that it's imminent from a timeline perspective. These products aren't coming five years from now, these products are coming one, two, three to four years from now. Two is that it's sizable, both from a financial perspective and from an impact on lives perspective, and the financial perspective is $10 billion that I talked about. Then three is it's diverse.

Quite often we're perceived as a COVID company, and I hope everybody takes away from this presentation that we are far more than that. In a matter of 2024, we will launch our second product, I think will be a much bigger respiratory business over the two years, and then we will add to it latent viruses, oncology, and rare.

In closing, this is our mission, deliver the greatest possible impact to people through mRNA vaccines. I will tell you this is what fuels our employee base every single day.

I joined a little over a year ago and I could sense it from the outside, but after being here for a little over a year, I can feel it every day. I want to thank them for their passion, excellence, dedication to this mission. Big thank you to them.

Then lastly, thank you for your attention, and to our investors, thank you for your trust and support, and we look forward to continued collaboration around our fulfilling this mission over the coming years. Thank you.

[applause]

Jess: Anyway, great. Thanks so much for that presentation, and as a reminder, if you have questions you want to submit to the portal, I'll get them up here.

Maybe to start out, you mentioned the potential for your COVID business to still deliver a billion dollars of operating profit, which I think implies 1.5 billion of OpEx for the COVID business. I'm curious how much of that is variable and how much is recurring R&D you need to update the vaccine, i.e. could that business maybe become more profitable over time?

Jamey: Yeah. I would say it depends on what you consider. Let's go through the cost categories. I think what you're backing into there is, obviously all of our cost of sales, which is 35 percent of the $4 billion, is COVID and RSV right now in 2024.

We have a footprint. That footprint is there for leverage, good or bad, and there's, I would say, hard to give an exact percentage, but a large portion of that is fixed. Now, maybe it's 50 percent of that is fixed or 40 percent of that is fixed. Then we will have additional raw materials and presentation types, be it a vial, PFS, so half to 66 percent is maybe variable.

Then when you move to the OpEx side, I mean, you always need some amount of OpEx for running the business, reporting the business, making sure that we have SEC disclosures, etc. We obviously need a commercial team in that, but that can flex a little with how successful we are.

Commercial and marketing is perhaps half of that overall SG&A bucket, and so we would expect that it is able to flex some up and down.

Then on the R&D side, the R&D side, every year now, particularly on COVID, it's mostly about understanding the next variant. It's not that expensive. It's still in the 100, $200 million from a

maintenance perspective, but it's not several hundred million dollars.

That's breaking out next-gen COVID into a different category, which is going to have to stand on its own. When you add all that up, maybe 50 to 66 percent variable, and the rest is kind of fixed.

Jess: You made a lot of progress on the market share front in 2023. Is there more room to run there, and how do you think you did that?

Jamey: Yeah, there's always room to run, but we obviously have a tough competitor. The way I think about it is we've proven ourselves. I think, first off, if you look at the value of our product, 2023 was the first time that we could actually promote our product.

We believe we have best-in-class efficacy, and we are excited about how we have a prefilled syringe, and I get back to that productivity within a pharmacy or a doctor's office, and I think that's important.

Then we are pretty agile. It's our only product. We service our customers quite well. I think that sets us up to hopefully do more, and over 50 percent is clearly there, but I think it'll be competitive for years to come.

I don't see us going back to where we were last year, which was at 37 percent. I think we've proven ourselves, and I think moving forward it can get better, or there's going to be years that it might be a little less.

Jess: One of the parts that's harder for us to track in this market is the ex-US, and most of the world is outside of the US.

[laughter]

Jess: It's tricky. How do you perceive the level of demand for spikebacks outside of the US in 2024 and going forward?

Jamey: I think every market is going to mirror what's happened in the US over time. The US, what do I mean by that? The US, as was every country, centrally procured.

You've seen the US move to an endemic or AKA commercial market where you have to compete. I think in the year 2024 that's going to be similar. There'll be markets that are still globally or

centrally procured from a country perspective, and then there'll be markets like Japan, who we believe will move into a more commercial mode.

That'll change the way you have to compete, but overall, that's what I think we should watch for. Then in terms of vaccination rates, we've seen a couple years of what I'd call relatively stable behavior.

It's down a little bit in 2023 versus 2022, but we're planning on, we now have two data points that are pretty close to each other, that that's what we're planning on for next year and the foreseeable, at least the short term. There's ways it can grow over time, but for the short term, that's what we're planning on.

Jess: That takes me to my next question, as we think of a return to top-line growth in 2025, I'm curious what that embeds for COVID. Is COVID returning to growth, or is this growth from other products?

Jamey: Great question. Our assumption is it's growth from other products. We still hope that COVID can grow over time. I mentioned in my presentation how combination vaccines, as an example, could really increase the vaccination rates of COVID.

Then there are, I think, obviously the politics behind it as it gets away from it, who knows, and strain evolution. Even at the end of the day, maybe the last thing before I go back to it is, if you look at hospitalizations and deaths and the healthcare burden of COVID, it's far worse than flu.

It just doesn't logically make sense to us that right now, it's a fraction of flu from a vaccination rate perspective. Back to your question, we're expecting stable COVID and the new products to have us return to growth.

Jess: Maybe kind of switching to the new products, what's your plan to compete in RSV?

Jamey: I mentioned, I mean, we are very pleased with our product profile. Number one, we believe we have best-in-class or thereabouts efficacy.

From a safety and tolerability standpoint, we haven't seen Guillain-BarrÃ© syndrome, and we had 37,000 patients. That's not to say that it can't happen, but to date it hasn't happened. We're the only ones with a prefilled syringe. I think there you say you have a great product profile to start.

Then you look at, OK, well, how did we compete in 2023 in COVID? It's going to have to be similar, particularly in the US, I should say. Now we're bringing a second product through that same channel to actually help expand our share in that market overall in 2023.

Then the last thing I'd say is internationally, we're looking at regulatory approvals to understand, OK, if there's a tender, when should we get that launched by? We won't be able to make every single country all the time takes a lot of resources.

It'll take some time to get through all the global approvals, but we're prioritizing those to make sure that we look at the size of the market, when is the tender process, and roll out our regulatory approvals as best as we can.

Jess: You need to sticking with new products and flu. I think you mentioned filing flu in 2024. What's gating to that filing at this point?

Jamey: Really just working with regulators on the package. We're still in conversations with them to file a package for submission. At this point, knowing that it takes a while, we don't anticipate any flu revenue in 2024. It's all now in 2025, but we're working with regulators to make the final submission.

Jess: Can you get approved in time for the contracting season for the 2025 vaccination season?

Jamey: TBD with regulators, but obviously that is what we are hoping to do.

Jess: CMV, you talked about as a potential readout this year, we'll see. Can you talk a little bit about that commercial opportunity and how you think about the ramp for a product like that?

Jamey: Yeah. I mentioned I gave a couple statistics in terms of its 1 in 200 babies that are born with this, that it's 12 to 20,000 cases of CMV transferred every single year. There are four million births in the US and obviously globally there's more like 40 million births in the US or in across the globe.

The market size, especially with the fact that there is no vaccine is quite large. And I think most people care about making sure that their babies are quite healthy and these can have very serious effects -- Lyme jaundice, you name it.

I think in terms of commercializing it, number one, we need to educate the market and so that'll

have a ramp to do so. As we get closer to that, we will start that process as we look at our efficacy data. We've, overall, said that the market size could be anywhere from two to five billion because it's such an important need.

By the way, it's been a need for 20 years. It's been at the top of the list of healthcare advisory regulators for a long time in terms of bringing it to market and the need to bring it to market.

Jess: I'm switching to INT. What are the updates we should watch for with that program in 2024?

Jamey: I laid out some of this in the presentation, but we are very excited by our recent results and how durable it is. I think what we can look for is, number one, the enrollment and how of the phase III trial, in adjuvant melanoma and non-small cell lung cancer.

Two, at some point, maybe the five-year Merck, we will come out with additional data on adjuvant melanoma to see how that's performing. Then three, is we're getting ready from a manufacturing perspective.

We want to make sure that if and when this is approved by the FDA and we're in conversations with them, or any market for that matter, it doesn't just have to be the FDA, we will be in touch with global regulators, that we want to be able to make sure that we can meet the demand.

At the beginning part of 2023, we purchased a facility just outside of Boston, about an hour outside of Boston. Our team has been very hard at work at making that ready from a commercial perspective.

I mentioned a little bit about how we invest in automation. I mean, the biggest part of making something individualized is because you have to have it be every single person. You have to take out what you're building. There's a lot of labor right now.

What we need to do is to make sure we bring in as much automation so that there's as little touch as possible. That helps not only from a cost standpoint, but from a quality perspective. That's what the team is doing and they've been working on this since April of last year. We're quite encouraged that in the year 2024, we should be able to perhaps complete that process.

Jess: When do you expect to complete enrollment in those phase trials in adjuvant melanoma and adjuvant lung?

Jamey: Tough to read that. I would say that the demand is significant from as I understand it, but probably too soon to tell when it'll be completed from an enrollment perspective.

Jess: I guess related to that, how do you think about the right time to pursue a potential accelerated approval on adjuvant melanoma with the data that we have?

Jamey: We're excited by the data we have already. We're hoping that the regulators will take a look at that. We're also hard at work at trying to make sure that the phase III trial, I think that's what regulators want to see is the phase III trial is enrolling quickly.

I don't know if it has to be 100 percent done or 50 percent, but it has to be a little bit more than that. It has to be substantially, made substantial progress, I should say.

That's what the regulators need but, in the background, we're also making sure that we're ready from that manufacturing perspective, because we don't want to come to market and not be able to supply everybody that's there. We're quite encouraged and optimistic about how the team is performing on that front. We'll see when that time is.

Jess: Maybe we should spend a little time on your rare disease programs. I know you mentioned both PA and MMA moving into pivotals in 2024. Should we look for more data readouts from your ongoing trials for those products in 24 as well?

Jamey: I'm not sure if we'll need additional data. We'll probably submit. I mean, maybe we'll share the data at the appropriate time. I think more so what I would be looking for is the fact that we will move into pivotals trials at that time.

Jess: I'm also curious how you think about business development. I feel like there's so many different directions you could go and also just so much to invest in internally. How do you balance all that?

Jamey: That's a great question. We believe we have a organic growth engine here and we're going to invest primarily behind our pipeline and our platform. Now, that's not to say that we will only do it alone. That is probably to say that I don't see us buying some other company in a different technology that's going to add revenue to it or whatever.

The way we think about it is, and we've announced several of these, is maybe in three ways for where we allocate capital, but albeit relatively small in the grand scheme of the billions of dollars

that we have.

One is where it complements our platform. Our OriCiro, our first and only acquisition, is a good example of that, which is really improving the cell-free DNA process from a speed-to-market perspective. You think about a respiratory business, we need to...Weeks matter in a respiratory business.

When you pick a strain, getting it ready, getting it manufactured, if you can knock off 30 days, which is what our OriCiro acquisition does for us, it's super helpful. We will look for additional capabilities to enhance our platform, number one.

Number two, we have a terrific delivery mechanism, we believe, with our lipids, and therefore perhaps we would use somebody else's drug to advance that. A good example of that is Carisma, where it's CAR-M, it's not CAR-T, where we are in a collaboration with them. Many of these things outside of acquisitions are through collaborations, I should say.

Then the third is where it might expand into a new area for us that we might want to get into, like gene therapy. We've made some investments in that space and we make our own investments, actually.

When I talk about the research dollars that we spend, that is for the platform, delivery, science, and the manufacturing. That is for our verticals, in terms of infectious disease, oncology, or therapy in general. That's also for gene editing. We've been hard at work there, but it's a little longer out. That's how we think about capital in general, and, in particular, business development.

Jess: Maybe lastly, just to wrap it up, what do you wish investors better understood about Moderna?

Jamey: Hopefully, it came out today that it is a platform company with a high probability of success that is way more than COVID. I know our recent financials have traded with COVID, but I think our future financials should absolutely not trade with COVID.

That we are coming to market with new products, and we will expand into different franchises, and that is relatively imminent. I think that's maybe what's misunderstood in the recent history.

Jess: Thank you.

Jamey: Thank you, Jess. Appreciate it.

Jess: Thanks, everyone.

[applause]
