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PRESENTATION

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Great. Good afternoon, everyone. Thanks so much for joining us. I'm Salveen Richter, biotechnology analyst at Goldman Sachs. Really pleased to have the team from Moderna here today. So we have Jamie Mock, CFO; and Lavina Talukdar, Head of IR.

QUESTIONS AND ANSWERS

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

So with that, maybe we'll start here with some financial questions. You provided some guidance in the beginning of the year and -- on COGS and other aspects. Could you just help us understand what COGS is going to look like for this year and beyond? And what the key components are on this line and how they change over time as commercialize COVID, as that market is better understood and then additional assets are commercialized?

James M. Mock - *Moderna, Inc. - CFO*

Terrific. Yes. Well, first, thanks for having us, Salveen. Pleasure to be here. And thanks, everybody, for joining. Yes. So as we transition from a pandemic to an endemic, largely 2 things change. One is the presentation style that we -- and I'll talk about that. And then the second is volume. The predictability of volume and the size of the volume is actually going down quite a bit. So maybe I'll just talk through the components of our COGS as well and then talk about how those things impact it. So, first, we have the drug substance, then we have our own conversion costs, then we have our fill/finish partners that they have conversion costs, and then we actually have the vial or the syringe. And in a pandemic, we were making 5 to 10 doses per vial. We're now moving to more single-dose presentation, be that the vial or a prefilled syringe. So that increases our cost. But the largest variable is volume and the predictability of volume. So we've taken a guess. We've got our whole footprint for the year already laid out. And we've actually put in some hedge in our COGS estimate of 35% to 40% that we will actually not utilize some of that. And I can refer back to last year as an example.

But over time, that will come down. As it becomes a more predictable market, we think our long-term COGS will be more in the 20% to 25% range. But if you look at last year as a data point, in 2022, almost half of our COGS as a percent of revenue was wasted. It was either excess inventory or unutilized capacity. And we'll still see some of that in 2023, maybe 2024. But by the time we get to '25, '26, '27, we believe it will be a more predictable market and come down to that 20% to 25% level.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Got it. You have over $16 billion in cash, and you've talked about deploying it into internal R&D, but also potentially BD as you look at informational medicine. Can you just speak to your strategy at this point for deploying cash? And when you look at R&D, which areas you feel like you want to more heavily invest in?

James M. Mock - *Moderna, Inc. - CFO*

Sure. So yes, we've been very consistent and disciplined in our capital allocation priorities, and it is the line shares in reinvestment in the business. And that really comes in 3 forms, R&D, as you suggested, and I'll come back to that, SG&A and then capital expenditure. And if you look at 2023, as an example, we'll invest something like $7 billion back into business. $4.5 million of that is through R&D, $1.5 billion of that is through SG&A and then $1 billion of capital expenditure, and I'll come back to the R&D part in a second.

After that, we look at collaborations and business development, and we think of that in 3 ways. One is how to use our technology to deliver others' medicines. So a good example is our Carisma collaboration, where we are using our delivery technology to deliver their CAR-M therapy. The second is whether we can complement our platform in our OriCiro acquisition, which is a cell-free DNA plasmin manufacturing business that we acquired at the beginning of this year, is great, and that helps understand and complement our platform. And then the third is to expand into other areas like genomics as well. And some of the investments and collaborations we've done with Metagenomi is a good example of that.

And then whatever is left over, we look at returning to shareholders through share buybacks. Through the first quarter, we've done $4.7 billion since the inception of the program. We still have $2.3 billion outstanding. No time line in terms of when we're going to use that.

To answer your follow-up question around R&D, so we largely are putting -- the bulk of our R&D is in respiratory right now. We laid that out at our Vaccines Day. It's a little over 50% of our overall R&D spend right now. And we still have more to do. So we've done a lot through COVID in RSV and some of the recent results and flu, but we still have more to do in RSV. We still have more to do in flu in terms of getting to the next-generation vaccine. And we still have a lot to do on combinations as well and trying to make it either doublet or a triplet as well.

After that, it really comes into 3 areas. One is, our manufacturing sciences, getting the right quality, getting the right delivery mechanism, getting the right production levels, and so that's 1 area. The second is research. And so new mechanisms of action, new pipeline that we're coming out with. So we've got 48 drugs in the pipeline right now, and we continue to build upon that every single year, and that's the research area. And then the third is the remaining development. So in that 48, after the respiratory, we still have a lot going on with INT, which I'm sure we'll talk about. And we still have a lot going on with latent disease and rare disease as well. So that's how we kind of allocate our capital in terms of R&D.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Maybe starting with COVID here. On the first quarter earnings call, you reiterated this expectation that you're going to get minimum sales of about $5 billion from both deferrals and EPAs. And so maybe a 2-part question. One is, what gives you the confidence that the $5 billion still stands seeing that we've seen some countries choose to defer some of their orders? And then when you look at consensus that's sitting at higher levels, I know you've talked about Japan and Europe and the private COVID market in the U.S. How confident are you in those verticals kind of getting you to where you need to go for the year?

James M. Mock - *Moderna, Inc. - CFO*

Sure. So these are 2 related, but different things. So let me first talk about the $5 billion and then you talked about EU and Japan and the U.S., that's all additive to the $5 billion. So first on the $5 billion, we broke that up into 2 halves. In the first half, we said we'd delivered $2 billion. And in the first quarter, we delivered over $1.8 billion. We gave guidance for the second quarter of $200 million to $300 million and still feel very confident in achieving that first $2 billion. As you turn to the second half, there's several countries that we're working with that have been long-term partners with us, countries like the U.K., Canada, Switzerland. And they really entered into that during the pandemic and have good pricing as well.

And also the ministries there understand the need and understand the fact that vaccinations will help. So we haven't come off the $5 billion and still plan on achieving the $5 million. As I move to what's additive to that, as you mentioned, we're working with Japan, we're working with EU and a lot of activity in the United States as we move to a commercial or endemic model. And so, right now, we believe that there will be substantial orders above the $5 billion and primarily the U.S. is the biggest market out of those 3. But still with the EU and Japan, we're still working on it as well.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Got it. Is China a possible market for you? Or do you think that, that market just remains close in terms of being focused on internal COVID assets?

James M. Mock - *Moderna, Inc. - CFO*

As it pertains to COVID in the year 2023? Probably not. I would say, a low probability of success for COVID in the year 2023. Longer term, China is a very important market to us, not just for COVID, but for all respiratory and in particular, in cancer and oncology as well just due to the incidence rate in China. So we believe that we will continue to -- we will try to expand in China and try to grow into China in those markets. But COVID, in 2023, I would say it's a low probability.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Just to delve a little bit more into the levers that could come out in the second half. So, in the EU, we saw that Pfizer, BioNTech had a reduction in their contract. And does that leave more for you to potentially sign a contract there? Or is that an overall decrease in demand? And then there was also rephasing of delivery doses. So I guess what I'm trying to understand is how you think about your situation in the context of that?

James M. Mock - *Moderna, Inc. - CFO*

Yes. Yes, we think of it as a positive event for us, and the fact that we believe the EU wants a second provider out there, and we're already in talking to the EU about that. I think they recognize the effectiveness of our vaccine, the fact that they want a second supplier, and we will try to do our best to help 130 million people of the more vulnerable population in the EU. So we think that helps open up at least an additional source, maybe not to the same size as Pfizer, but we do believe that we will hopefully crack that market.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Got it. There is a VRBPAC meeting scheduled for June 15 to address strain selection. Do you expect this to catalyze governments to place additional orders? And if not, when do we get clarity on these potential government orders coming, or private orders coming from the U.S. or ex-U.S?

James M. Mock - *Moderna, Inc. - CFO*

Yes, I'd say it's probably more commercial orders. But we've already been discussing or negotiating contracts with national pharmacies, regional pharmacies, integrated health delivery systems, doctors, hospitals, including some government agencies like the VA or the CDC as well. And yes, they might be interested in understanding the final strain, which we'll know tomorrow. But I don't think that was really the reason for where we are in the negotiations. I just think it's playing out over the couple -- we said it really started kind of in May, and we thought it would go through July, August anyway so -- but maybe that will catalyze at the end here.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

And how is the private market in the U.S. playing out when you talk to commercial payers?

James M. Mock - *Moderna, Inc. - CFO*

Good. The team is hard at work. I would say the biggest thing on everybody's mind is just trying to predict the size of the market. And so that will factor into our pricing as well in the form of discounts and how much are you willing to order, and what's the returns, and that's all being played out with many different customers at this point in time.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Any thoughts on how to think about the size of the market as you look forward to the endemic period? I mean I feel like we're in the [pseudo-period] right now, but how can you guide us to think about the [forward]?

James M. Mock - *Moderna, Inc. - CFO*

Yes. Well, I'll start with the United States first. And we've come out and said that we believe the United States will be a 100-million-dose market in the year 2023. Last year was a bit of a funky year and it was more of a 50-million-dose market in the fall, but there were several different advocates for boosters along the way. So we don't think that's the best data point. And we think as you look at the vulnerable population, that's a little over 80 million patients in the United States, and so, therefore, and our competitors also come out and said that 100 million is the right number as well. Can't give exact size on pricing, but our gross price is closer to the value of what we believe the vaccine is worth, which is we've come out and said $129, but the net price will be orders of magnitude less than that. So that should give a kind of range on where we think the United States will be. And then the rest of the world will be pretty similar in terms of contracting with the health authorities, and so, therefore, we think that the rest of what we see this year in our book of business could be similar moving forward as well.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Got it. At the Vaccines Day, you outlined an estimated 2027, I think, respiratory sales of $8 billion to $15 billion. Just walk us through the assumptions underpinning this.

James M. Mock - *Moderna, Inc. - CFO*

Sure. So the assumption. So the first assumption is that we have approved products in the form of -- COVID is already approved, but then RSV and flu as well and then potentially combination vaccines, which we said we believe we'll have our first combination vaccine to market in 2025. The second, maybe I'll just break down the overall TAM that we see right now. So we think COVID is, today, a $15 billion marketplace. And I think a range on that is $10 billion to $20 billion, but let's say, $15 billion. Flu is about a $6 billion marketplace. And then RSV, not including maternal and infants, is about an $8 billion marketplace right now. So that gets you to close to $30 billion, thereabouts. That will grow over time due to inflation as well as what we're targeting is older adults. And the percentage of older adults in the population in the globe is growing faster than the rest of the population. So we think that grows over time. But if you take a $30 billion number, our $8 billion is about 25% share. $15 billion would obviously be 50% share. If it's at the high end, and you say it's $40 billion, maybe we're 40% share. And if it's only $25 billion, we're a 33% share. So we feel comfortable in this 25% to 50% share range.

So what are the big levers? The big levers are: one, our own efficacy. So we feel very good about COVID. We feel very good about RSV. We have more work to do on flu, not just for this current generation product, but also for future generation products to try to get the efficacy level up and then how the combination vaccine works as in total. The second is vaccination rates, and we're doing a lot, both ourselves and others to educate the market in terms of getting vaccination rates up. And then third and probably the biggest wildcard is combination vaccines. And we just think that there's a lot of synergy that if you can combine maybe even 3 in 1, let alone 2 in 1, but if you can combine 3 and 1, we think that will grow the share of the marketplace.

You take flu in the United States as an example. There's 150 million people that are dosed with flu every single year, and people are debating COVID in the 50 million to 100 million range. Well, if you have a triplet combination vaccine, then hopefully, you get to the 150 million, and that grows

the market by itself. So that's kind of how we thought about it in both our share, the size of the market and kind of the important factors to get there.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Great. So turning to RSV. There're the 2 approved RSV vaccines on the market, and your strategy is to carve out some of this market, but looking at a commercial launch in 2024. I guess, what is your strategy to carve this out? What share of the market do you think you'll get?

James M. Mock - *Moderna, Inc. - CFO*

We think it's great that there's 3 players that validates the market. And I think all of us will help educate the market to help grow it over time. It won't start out at the same level that a COVID will be. But over time, we expect it to get there. And we're very pleased with our product profile, both -- we think it's best-in-class efficacy, great safety and tolerability profile as well. And then ease of use as well. We think we're the only 1 with a prefilled syringe. So we believe the product profile will sell itself and the overall market will grow by all 3 competitors helping to educate the market as well.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Yes. Could we talk about flu for a bit here. You talked about the work that needs to be done, not right now, but -- I mean not just right now, but also in the future. You have a more optimized construct now, which is going to read out by year-end. That's ideally going to be able to target the B strains in a better way. What should we be looking for from that program, first? And then help us understand what you're talking about with this optimization in the future?

James M. Mock - *Moderna, Inc. - CFO*

Sure. Yes. So first, just to talk -- go through history here. So yes, we were very proud of what happened on the A strains, which makes up 99% of the disease burden. You're right, on the B strains, we did not meet noninferiority, and that's really what we're looking for on this particular generation. So by the end of the year, when this reads out, we're hoping that the B strains are not -- meets noninferiority, and then we'll go to market and try to obtain licensure from there. And then over time, as we add, and I think, the flexibility with our platform is that you can add several different antigens. And we've got, I think, 3 or at least 2 or 3 flu candidates in the pipeline right now, where we add extra antigens to it to increase the efficacy to hopefully make it superior. And -- but that will take a little bit of time so we'll come out with the first generation. That opens up combination vaccines, that opens up getting -- just getting into market in the first place, becoming more of a name, but being transparent that we believe that the product will be improving year-by-year over time so that when we get to the next-generation flu vaccines that we can actually show superiority.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Okay. And so when you get this data by year-end, then what are the next steps on the regulatory side?

James M. Mock - *Moderna, Inc. - CFO*

So I hope -- we believe that we can file for licensure next year with immunogenicity data. And then as we look at all those candidates in flu, we hope to be able to understand which one we want to actually bring for full vaccine efficacy. And then, at that point, get permanent approval, which could be 12 to 24 months from now at that point.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Perfect. Talk about the INT or the neoantigen therapy platform here. You presented data at ASCO on distant metastasis-free survival for your program that's in combination with Merck. Could you speak to why this is considered a hard endpoint, and how you think HR was so strong, notably in the context of what you saw with RFS?

James M. Mock - *Moderna, Inc. - CFO*

Yes. Lavina was at ASCO, so I'll turn this 1 over to her.

Lavina Talukdar - *Moderna, Inc. - Senior VP & Head of IR*

Sure. So we're very pleased with that data set. And just to kind of level set everyone. RFS was the primary endpoint, but hierarchically, the secondary endpoint was distant-free metastases. So RFS, which is recurrence-free metastases, really looks at both local recurrence as well as distant recurrence as well. The reason why we think the quality of a distant metastasis-free survival is a little bit better than just plain RFS is because it's asking the question whether or not your therapy does, in fact, delay or prevent metastases, which, arguably, when you have a metastasis particularly for an adjuvant patient, the prognosis for that patient is much worse. And so if your therapy is preventing that distant metastasis, you're really having a more powerful impact on the prognosis of that patient, and which is what we saw play out with that secondary end point.

The hazard ratio, as you mentioned, looked better than recurrence-free metastases in of itself. We saw a 65% reduction in distant metastases with DMFS, which is something that we think is a very strong result. And so very pleased with that result.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

That's great. In light of the data that we now have in melanoma, how do you view the probability of success for translation to non-small cell lung cancer? And what really drives your confidence here?

Lavina Talukdar - *Moderna, Inc. - Senior VP & Head of IR*

So it really goes back to speaking to the mechanism of action. What we've proven in Phase I is the utility of this mechanism of action, where we're having your T cells recognize a specific cancer fingerprint, if you will, that is very private and individualized to that person, to that patient. And so that mechanism of action should translate to anywhere else that KEYTRUDA also works because it's the combination that works. And we now know through KEYTRUDA's history, which also started off in melanoma, that they've proven that IO, as a modality in cancer, works in various different tumor types, which is what we think INT as a combination with KEYTRUDA will follow as well.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

You've noted that the data is premature to this point. And what -- I guess, is it sufficient at this point for approval or accelerated approval? Or do you think you need the data to mature? Do you think you need to run a pivotal study here?

Lavina Talukdar - *Moderna, Inc. - Senior VP & Head of IR*

So that, at the end of the day, is a question for the regulators. We are very pleased with the data thus far. There will be another look at the data set at 51 events. And arguably, the patient population will mature even further on that, maybe possibly even a year longer on the therapy. And so that gives us another opportunity to look at that data. We have not actually shared the DMFS data with regulators yet. But in this regulatory environment, what the FDA and other regulators around the world also want to make sure that sponsors are serious about the confirmatory studies.

And so starting that Phase III study and enrolling patients is the best way to prove that we are serious about that Phase III study, which may put us even in a better position to then discuss the possibility of an accelerated approval. But again, it's a decision that resides with the regulators.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Yes. When we look to the pipeline leads outside of respiratory and outside of INT over the next 12 months, maybe you could walk us through where we should focus on, and how we would unlock that vertical?

Lavina Talukdar - *Moderna, Inc. - Senior VP & Head of IR*

Sure. So Jamie mentioned a couple of those already in latent viruses. We have our Phase III CMV study that's enrolling. More than 50% enrolled is the last update that we made. As soon as that study is fully enrolled, it really starts the clock in terms of a difference between vaccine arm and placebo arm. There isn't any vaccines that are available with CVM. And just like with COVID, when we're up against placebo, depending on how powerful our vaccine is, we do anticipate that you'll start seeing the separation of those curves, the vaccination versus placebo. And we do have interim looks built into that study. So that could really unlock the value of each and every subsequent latent virus like EBV and the other herpes viruses that we're going after. So that's 1 aspect.

So as soon as we're fully enrolled there, I think the clock starts. And then, in rare diseases, we just shared some exciting data in PA, which is the furthest along in the Phase I/II study at the American Society of Cell and Gene Therapy. And there, we showed that the data longitudinally as we're looking at these repeat dosed patients that the data is getting stronger and stronger. So just to kind of lay the context there. The first look that we did at that data set was at R&D Day of last year, September in 2022. And there, we saw a 50% reduction in what's known as metabolic decompensation events where these children have episodes that can land them in the hospital.

And what we've shown was that there was a 50% reduction. Following those patients and adding additional patients in higher cohorts now yields it as if a cutoff of March 31, a 78% reduction in those MDE rates pre and post therapy. And so the data is really trending in the way that we wanted to. We're currently now picking or have picked a dose to take into an expansion phase. So this was a dose-escalating study. We've picked the dose we want to take into that expansion phase. And then once that data is mature, we'll have the conversation with regulators as well.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Got it. Do you think -- 1 program you didn't talk about was lung with Vertex. And so help us understand when that program might read out? And is there anything else that...

Lavina Talukdar - *Moderna, Inc. - Senior VP & Head of IR*

Sure. So definitely excited about the lung modality as well. It is a Vertex-run study. Our understanding is that they are currently in the single-ascending-dose phase of that study, and will take it ultimately into that multiple-ascending-dose portion of the study, and they are going to be the ones that control the data readout. We've seen very clean activity in the preclinical phase of that development, and we're looking forward to that data set when it is available, but very excited about that lung modality.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Great. Given your revenue projections for 2023, where you're at the floor of $5 billion and beyond, how do you balance R&D spend with the aspect of profitability? And is there a target goal at this point of when you want to transition back to profitability?

James M. Mock - *Moderna, Inc. - CFO*

Yes. I mean we get this question a lot, and I know it's on top of investors' minds. And I want everybody to know it's on top of our minds every single day as well. And we just feel that investing back in the business right now is the best option for long-term value creation. And we've got to complete the respiratory franchise, which we believe, to your prior projections there that we gave out the $8 billion to $15 billion, we'll kick out $4 billion to $9 billion in cash flow at least per year come 2027. And so we look at it every single day. I think the second half will tell us a lot whether we're going to be in a lower case environment in terms of vaccination rates in COVID because that is the bulk of our revenue for the foreseeable future. Of course, we will add RSV next year. We hope to add a little bit of flu, but probably more so in 2025. And those will help.

But I think we look at, "Hey, what's a low scenario, what would our spending level be at that level? What's a medium kind of base case scenario? What's our spending level at that level?" So we are going to be -- we are and we'll continue to be fiscally prudent about this. We're fortunate to be in a position that we'd started the year with $18 billion in cash. It will obviously dip down because we're a seasonal business, and than it will come back towards the end and even into the first quarter of next year. But we don't want to take this much lower. We want to -- it will -- we might be willing to eat into some amount of this cash balance to complete the respiratory investment that we need for R&D, as well as, if you look at the other programs, you look at INT. It could get substantial over time, but we've got a partner there to share 50-50 on that.

Rare disease is a smaller patient population. So the studies aren't as expensive. CMV is 1 of the bigger ones. So we're cognizant of it. I think we would be willing to -- in a low scenario, I know we would be willing to, to take our cash balance down. We're never going to get back to and wanting to finance the company again. So that's how we think about it at this point.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Got it. On the BD side, you have engaged in some smaller BD transactions. Help us understand if this is indicative of what you want to do, and how you're integrating these companies or technologies into your portfolio?

James M. Mock - *Moderna, Inc. - CFO*

Yes. I mean most of them are relatively small from a dollar perspective. OriCiro was less than $100 million or most of the collaborations are $50 million to $75 million. So that's how -- I don't think it will ever be a significant driver of our cash outflows. I think $300 million to $500 million a year maybe or something like that. And -- but the value from them, we believe, will come in the very near future. So OriCiro, we're already putting into INT, as an example. We are putting it into our production processes for the future here, or in our new products. So we expect -- and Carisma, we'll have readouts from that, and CytomX, we'll have readouts from that. So we think that the value creation opportunity is not that far away. But again, these are relatively small investments and collaborations at this point in time.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

How would you integrate Generation Bio, for instance, in your portfolio?

James M. Mock - *Moderna, Inc. - CFO*

So more on the oncology side in terms of how it blocks some of the proteins or the cells that it's not supposed to get into. So that's where we look at it for Generation Bio.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Perfect. Before we end here, is there anything you want to highlight about the pipeline or levers that you're excited about on the [forward]?

James M. Mock - *Moderna, Inc. - CFO*

I think, I mean, we -- from a pipeline perspective, I think we've covered most of it. I think the other big thing that's going on at Moderna that we're spending a lot of time on is how to build this into a very different size and style of company. So we think we're building at least 4 franchises. We talked about respiratory, latent, oncology, rare disease that will be very substantial. And someday, we expect this to be a very large company. But we don't want to have the same-size employees. We think if we can really build a digital-first company, and we do that through every single function, and we review it every single quarter. We go through all the finances, subactivities, HR, CMC, sales, et cetera, and we're embedding AI in everything we do, machine learning in everything we do. And I think that will radically -- that will be a radically different company than what has been built. And we're really at the beginning of the company still. Yes, we're 12 or 13 years old, but we have the opportunity right now because we don't have 10, 20 products in the marketplace right now. We have the ability to build digitally first so that we can be a different sized company and a more digital company and have better outcomes. And I think that will also help the culture. So the culture, if you're 50,000 to 100,000 people versus if you're 10,000 people, is radically different.

So I think that is the other big thing that right now, aside from all the exciting things going on in the pipeline, how we are building the company is very different than I think we've seen in other companies -- I've seen in other companies, I should say.

Lavina Talukdar - *Moderna, Inc. - Senior VP & Head of IR*

If I could just add just building on what Jamie was talking about. I think what investors really are missing is how much AI is already embedded into like the research and development processes at Moderna. We've held a digital -- Manufacturing and Digital Day way back in 2020 with use cases for AI that's still available on the website. So I would encourage people to kind of look at that as a first stop in understanding how AI is embedded into the research function at Moderna. And since then, the use cases have really just gone up and up, and there are many, many more of those. So that's 1 area that I think is very important to make sure that people understand.

Salveen Jaswal Richter - *Goldman Sachs Group, Inc., Research Division - VP*

Great. Well, with that, thank you so much.

James M. Mock - *Moderna, Inc. - CFO*

Thank you for having us.