

**Goldman Sachs Talks**  
**Dave Ricks, Chair & CEO, Eli Lilly**  
**John Waldron, Moderator**  
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**Dave Ricks:** If this decade is about obesity drugs, I'm hopeful the 2030s are about brain drugs.

[MUSIC INTRO]

**John Waldron:** Morning everybody. I don't think Dave needs a lot of introduction, but I'll just go through a quick one. Dave Ricks. Chair and CEO of Eli Lilly. Now the world's largest pharmaceutical company by market cap and one that clearly sits at the forefront of innovation in life sciences and pharmaceuticals more broadly.

We're going to talk to Dave about his almost three-decade journey at Lilly and the company's leading position in the fascinating world of GLP-1 drugs. And his thoughts on the future of medicine, which already promises to revolutionize how we treat and cure illnesses.

Dave has been the CEO of Lilly since 2017. But his roots there go back much further. He is a Lilly lifer. We know

what that means at Goldman Sachs. We have Goldman Sachs lifers. They have Lilly lifers. He joined the company in '96 as a business development associate, which was a great place to begin.

So, Dave, thank you very much for coming and joining us today.

**Dave Ricks:** Yeah, thanks for inviting me. Pleasure to be here.

**John Waldron:** Appreciate it. All right, so, I want to start just by asking you about your career and your journey. I don't know if you always wanted to be the CEO of what's now the largest healthcare company in the world, but maybe you can just talk about your journey.

**Dave Ricks:** Yeah. That wasn't on my bingo card at the beginning. I actually joined the company thinking I'd be here two years. And I only joined Lilly, really, because my wife was going to med school in Indianapolis. She was my girlfriend and then my wife.

So, you know, a lot of things in life happen because of

those kinds of twists and turns. And maybe it's more about what you do with it when they do happen. But, you know, I stumbled into a place that I ended up loving. I like our mission. I thought it was a good way to spend a life trying to make medicines. I like the culture. It's kind of an old family company feel. So, it's a nice place to come to work.

And, you know, I thought the industry had a lot of potential to change and get better. And so, that was an interesting kind of business problem. It is also a place, maybe like Goldman, where you can develop your career in the company. That's sort of the default mode is to move around, do different things. That was the feeling to me, so.

**John Waldron:** Is a Lilly lifer a regular way thing? A lot of people that--

**Dave Ricks:** You know, we don't use that term unlike you guys do.

**John Waldron:** It's our term.

**Dave Ricks:** Because it's sort of like you're like a Lilly outsider or not a Lilly-- you know? Like we talk about the

other more. I mean, I've been there 28 years. But probably around 15 years people feel like you've done a little bit of service. So, you know, it's a long-term place. And, you know, our business cycle is that way too. So, it actually has a value because product cycles are eight to ten years. So, having seen it a few times is helpful.

**John Waldron:** So, drug discovery can be a lot about failure. Failing more often than succeeding. A lot of dead ends. Just talk about kind of how that teaches you and how you think about it as part of the process in your company.

**Dave Ricks:** Yeah. It's interesting because it's inherent in the business. I think we're used to that. It's sort of a lot of asymmetric risk. So, the difference between companies that are really doing well and doing poorly is probably one or two drug calls very early. Right? So, having the right people around those decisions is critical. And doing pattern recognition with very limited data about, okay, let's push through. This looks like an obstacle. But we like this idea a lot. Or no, this is a deal breaker.

Being disciplined on the success criteria as you develop

drugs is very important too because you could spend a lot of resources. It's the same resources to make a me too, terrible, small drug as it is a blockbuster like Mounjaro. Same exact cost. So, you really have to be disciplined on when to advance and how to advance and have the right people around that process.

The interesting thing to me, and I think something that's changing, I want to change even more in the company, is applying those same thinking to other investments. And having that same discipline and thinking about asymmetry the same way.

Often, we're very conservative about other types of investments. And, like, a small example, we launched the first ever direct-to-consumer effort from a drug company to patients in January. Actually, last year we piloted it. That took a lot of effort from me because it's a simple little idea. But I think people are often reluctant and they want to manage the risk around those things. When we point out on the other hand we're going to spend, like, \$11 billion on R&D this year, most of which will go to waste. And maybe 10 or 15 percent will produce really big drugs.

So, yeah. I think in our sector, that problem, being really good at taking the right risks in the pipeline and then maybe pushing the industry to take more risk in the regular business.

**John Waldron:** Is there something about your R&D process or the culture around drug development that is really differentiating, do you think, versus your competitors? Because it seems like you've had a lot of better outcomes in the last ten years.

**Dave Ricks:** I think that's right. Well, first I mentioned the people. I think that's really important. And it used to be, I think, a bit question we got from analysts is, like, how do you get scientist to Indianapolis? You know, my predecessor, and we've expanded that, we just sort of changed that equation by putting labs where the scientists are. So, we've really changed our scientific footprint. It's true, all of our growth, more than 100 percent of our growth has happened outside Indianapolis.

Another thing we've done on people is when we make acquisitions, in many cases with your help. Thank you, Goldman Associates. We've taken a policy to really also ask

about more of an acquire strategy. If this group was good, they produce something useful, do they have an interest in staying inside the Lilly umbrella? And should we keep them running?

So, we announced some interesting data on an acquisition, Akouos, which is this hearing loss company where they had this breakthrough, like deaf to hearing, these two kids. Amazing. And we've kept that group in Boston. And they're building out a gene therapy portfolio. And they like that combination of things. So, I think that's a little bit of a different stroke for our industry and something we've spent time on.

When I came into the job, the other major thing I think we've done differently is to work on clock speed. So, everyone knows drug development is slow. And I think most of us took that as a given. In 2015, we were one of the slowest. It took almost five years to go from idea to the clinic. And 11 years to go from the clinic to market. Your patent life is only 20 years long. Right? You can get some extensions, but that's a difficult approach.

And we've essentially cut both those timelines in half. Some

of it's project selection. But most of it's just engineering out waste.

**John Waldron:** And you think other companies haven't really been able to do that?

**Dave Ricks:** We know they haven't because we measure their timelines. These are a very easy to measure things. And we benchmark ourselves against it.

The whole industry sped up a little bit. But we've sped up the most.

**John Waldron:** And how did you do that?

**Dave Ricks:** Yeah. As I said, I think it's two basic things. One is taking all-- so, if you map the process of drug development, there are, like, 800 steps. We mapped it. And each one of those has a timeline. If you say, oh, this takes two weeks to do. Then it takes two weeks and one day, usually. If you say it takes two days to do, people scream about it, maybe takes four. Right? But we did a lot of that. Like squeezed the work. We ran the clock. We have a follow the sun model on a lot of drug development activities and



regulatory submissions with a big, huge Indian site, a European site, and a US site. So, we do a lot of the work 24 hours every day of the year.

And then decision making is the big second thing. Is making sure you know what the triggers are before you start the experiment. So, when you get the experiment, you don't just sit in a room and debate what's happened. You set the thresholds in advance. And if you hit them, you just go.

We haven't really sped up to enrollment time for clinical trials. That's a vexing thing. And the opportunity in front of us. It still takes, you know, a good chunk of time. If you're going to do a one-year study in diabetes, it still takes like six months to fill up the study. And that seems ridiculous. Like, if Ticketmaster can sell out a Taylor Swift concert in a minute, like why can't we sell out a tirzepatide clinical trial like that? I think we should be able to. But we haven't worked that out.

**John Waldron:** You'll have to offer some other benefits.

**Dave Ricks:** Maybe. Yeah. Maybe we should hire Taylor as

a spokesperson.

**John Waldron:** Yeah. It seems to me innovation is like a non-negotiable part of the company. Just sort of fundamental. How do you think about that? And how does that pervade the company? How does that culture just become endemic to the way the way the company operates?

**Dave Ricks:** Yeah. I think we were founded on three basic principles: scientific innovation, quality in a day of snake oil salesmen, and then, you know, making sure we have a patient focus. And I think we try to keep those things through our history. So, there is a deep kind of cultural pride in the science that's always been there.

But if you go back to times like two decades ago, we were really struggling to invent new things. It wasn't because there weren't good ideas in the labs. It was our ability to convert them into useful products. And we kind of lost our way in doing that.

So, you know, my point of view and, like, a leadership principle I have is, like, it's everyone's job to move the science. And whether that be external science or internal

science, or we should always be pushing forward.

The second thing is to make sure you're working on things that will matter. You know, what's a Lilly for? I think, you know, biotech companies, and if you look at the last 15 years in the sector, a lot of value has been created by making really impactful drugs that work for a few people. For small, narrow diseases. And I think that, if you're a smart investor, you could buy a bunch of those companies and create a lot of value. But that's not really what a Lilly's for. I don't think that's what big pharma are for. When I hear a competitor say, "Oh, we're building an orphan franchise," I don't know what that is. A bunch of small things?

**John Waldron:** Should be attacking the big TAMs.

**Dave Ricks:** Yeah. So, we have to go after big markets with big effect sizes. And we've had drugs that have a small effect on a lot of people. They don't sell very much. So, we have to keep our-- and sometimes you shoot there, and you end up with something less. That's okay. But you have to start with the big ideas. Where are the huge human health gaps? And go after them.

And when you explain that to the scientific team, they get super excited. I think they work harder. I think they think differently.

**John Waldron:** Solving bigger problems?

**Dave Ricks:** Yeah. Like the mission matters, right? So, I think that's been one of the reasons we've been more successful.

**John Waldron:** So, let's turn to these GLP-1s. You call them glips or call them G-L-Ps? I hear both.

**Dave Ricks:** Well, so, yeah, I'll correct you. So, there's a super class of proteins called incretins that your gut excretes. It's a communication system in your body. GLP-1 is the first one we knew about and worked on. But now we have dual acting, triple acting, quadruple acting, and whatever else is coming now.

**John Waldron:** That's good. All right. So, talk about when you first started to get excited about this as a category. And how it kind of germinated the company. And

maybe we can go from there and your perspective on where this is going.

**Dave Ricks:** Yeah. So, I mean, the big seller now is Tirzepatide. Zepbound in Mounjaro. Same drug. I remember vividly in 2016 right as I was named as the CEO but not in the job yet and our current head of science, Dan Skovronsky, who wasn't in that job yet but was temporarily running the diabetes research group called me and he's like, "Oh, this is going to be special." So, that was eight years ago. But that was the first human experiment. And we had 12 people in a small study in Singapore who lost so much body weight they dropped out of the study because they needed to eat. And so, that was like, oh, something's happening here.

So, that on that one was when we knew. But it's important to go back in time. And people talk about the last couple of years. And you look at Novo and Lilly's valuations and it's accounted for, like, way more than 100 percent of the growth, and the entire sector's valuation. But we started working on our first GLP-1 in 2003. We launched it in 2005. It was a partnership with a biotech name called Amylin. But then we improved on it with a drug called

Trulicity. And we improved on that with a drug called Tirzepatide.

So, one of the things that's been hard in our industry is patent cliffs and creating franchises. Here we found a pathway, a biologic pathway, we can keep iterating on. And I say that with some confidence because we're on our third one already. And the first one is okay. The second one was our biggest selling drug ever and will be passed, if it hasn't already any day now by Mounjaro.

We have two phase III assets that are also, I think, may exceed Tirzepatide. And then seven others in clinical development. So, here now we have kind of a repeatable--

**John Waldron:** All trying to do the same things better?

**Dave Ricks:** Adding to each other. I mean, it is a mega TAM as you say. You know, obesity causes probably 200 adult diseases. So, the other thing that you're going to see happening is these drugs being targeted at diseases, priced and marketed to them, not just as a generalized obesity care drug. But with different niches based on their properties and go-to-market strategies. So, I think it is

really creating an industry of obesity management for everything from cardiovascular risk, of course, that's approved last week in Novo's drug. But, you know, brain health. Addiction. That's an interesting one because it's a huge problem, whether it be tobacco or opioids or something else. All kinds of joint diseases. Even as study yesterday was out over the weekend about cancer rates, which in this one study, were 30 percent lower in non-obese individuals.

So, I mean, it is in many ways like a keystone issue for adult health. And you can't attack all of those with one molecule. You don't have time. And also, I think the properties of the drugs might be slightly different across those.

**John Waldron:** So, if you go back to 2016, other companies were, I assume, playing with this too. And other companies have, over the last ten or so years, tried and dropped out, given up. What was the difference?

**Dave Ricks:** All but one other company. So, I think one piece is having that biologic insight. And here, we had it, but, you know, Novo really pushed first into saying, okay,

obesity's not a cosmetic thing. If you can move enough weight, we can actually change health outcomes. So, that was like insight number one.

Insight number two is making these drugs perform in a way that can be used everyday. That first GLP-1 we launched was for diabetes, it was a twice a day injection. It had a lot of nausea and GI side effects, more than Tirzepatide today. And we've gotten good at managing what we call the pharmacokinetics, the behavior of the drug in the body to maximize the effect and minimize the side effects. But that was 20 years of engineering and scientific development.

**John Waldron:** And these next iterations will do even better in the context of that.

**Dave Ricks:** Presumably. That's the idea.

**John Waldron:** That's the idea, yeah.

**Dave Ricks:** So, you know, preserve muscle. That's the new thing. So, we're working on that with this acquisition of Versanis. So, you know, I think a lot of people think, and



we were sort of trained as a society in COVID, that there are these overnight successes that just sort of burst out of the labs and then suddenly, you know, we can-- that's the exception. Mostly it's about--

**John Waldron:** Iterating.

**Dave Ricks:** Getting a chisel and breaking rock. And finally, you get a sculpture that looks good. And when you do that, you build up a lot of little know how pieces that aren't in the patent application. They're not in the public domain. But it's probably why Novo and Lilly have been the ones because diabetes behaved that way too. Other hard targets. Alzheimer's. You can ask me about that too. But we've been on that for 30 years chiseling away. I think it's got similar properties. And that's more the norm in the sector.

**John Waldron:** Since you mentioned Alzheimer's, do you think there's going to be real progress in Alzheimer's? I know it's been really hard, really slow.

**Dave Ricks:** Yeah, I do, and we have a pending application hopefully we get approved later this year. I mean, there are

a couple approved drugs. I think they're incremental to the base. I think ours is a little better.

The real opportunity for amyloid depletion, which is what our drug does, is actually in prevention. So, I think the big study to watch is trailblazer 3. This is taking otherwise healthy seniors who don't have any symptoms but have a lot of amyloid, so they have the precursor, and see if we can slow or reduce the probability of a diagnosis. I think that's a very appealing value proposition.

Once you have the disease, amyloid depletion can help, but it's not the whole story anymore. There's another process going on. And we have drugs looking at that as well.

I think, probably if this decade's about obesity drugs, I'm hopeful the 2030s are about brain drugs. And if you look at human suffering, that's the largest area, whether it be mental health, addiction, pain--

**John Waldron:** Is the issue that money is not being allocated that way? Or is it just the science? Or it's a combination?

**Dave Ricks:** Combination of both. I think for neurodegenerative conditions: Parkinson's, ALS, Alzheimer's, the science is much more tractable now. And so, that'll be the first, thank God, because those are terrible conditions. You know, mental health and addiction's harder. There aren't really, like, genetic models, etcetera.

But I don't think the industry has trouble raising money when there's good science. I think that system works pretty well, particularly in this country. We'll see what happens in market. Mental health is a huge problem. Brain health's a huge problem. That's sort of the last frontier.

**John Waldron:** It feels to me like cancer was a big frontier. Obesity now is a big frontier. And brain health, to your point--

**Dave Ricks:** Yeah. Could be the next one. We're not done with cancer either.

**John Waldron:** No, we're not done with cancer.

**Dave Ricks:** For sure.

**John Waldron:** Maybe make a comment or two on the supply side issue, because I know that's been a constraint for a challenge.

**Dave Ricks:** Huge constraint. Yeah. So, that's the buzz is when can Lilly and Novo make enough to fulfill demand, literally, every unit we make we ship. And when I meet with my marketers, I ask them what they do all day? Because it's mostly manage demand messages.

**John Waldron:** That's a good problem to have.

**Dave Ricks:** Yeah, I guess. When will it end? It's going to be a few years. I mean, to give you some numbers, you probably have numbers people in the room, in 2022, the year we launched Mounjaro, between Lilly and Novo, we made enough incretins in these, you know, complicated-- it's a peptide and a container closure that has to be sterile. We made enough for about 12 million people on the planet. And the lag time for a new facility to come online is three or four years.

So, every decision we made in 2019, we can now harvest.

But we weren't making these decisions in 2019. We made our first in 2020. Novo was surprised themselves by Wegovy's uptake. So, they started in '21. You know, we've both been chasing.

I think we need to get to more like the hundreds of millions of people versus the tens of millions of people. So, it is a 10X plus kind of activity. And there is some physics to that. We've got to stamp out plants. There's a human constraint. There are only so many people who know how to put these sites together. And then a lot of the machining that goes in them, because it looks like a big box when you see a manufacturing plant. But inside it's like a little machine. Like the one we just opened in Raleigh, materials flow in and they flow out. A human never touches them. It's all automated. Getting that whole thing set up is complicated.

**John Waldron:** But that took three years?

**Dave Ricks:** Yeah, we announced that January '20. And we just opened it late last year. So, that's the lag time we're working in. But those machines are all made by little German non-public companies. And so, they have a

supply--

**John Waldron:** [unintelligible]

**Dave Ricks:** Yep. So, they have supply constraints. And I don't think it's exactly in their interest to actually scale the meet, you know, I think given their structures. So, there are a lot of constraints on these injectable forms.

What could change it? Probably if our oral works in phase III. That uses totally different platforms. And oral solid medicines, the world is sort of a wash in capacity for those kinds of things. It's a complicated one. It takes some science to make. But that's a different kind of problem. That opens up a lot of aperture for us.

**John Waldron:** Okay, just in the time we have left I just want to talk a bit about future of other medicines. Let's talk about gene editing. Technologies like CRISPR. It feels like we're kind of at a big shift in terms of the capabilities more broadly. How do you guys think about that?

**Dave Ricks:** We do think about it. As I said earlier, there are a lot of cool companies that work with these

technologies, they can make breakthrough products for a few people. We've bought a few of them ourselves. I mentioned Akouos, this hearing company. It's very complicated gene therapy. You put it in the inner ear. It restores a protein that children are born, rarely born without. And when they're born without this protein otoferlin, they can't hear their whole life. They're completely, functionally deaf their entire life.

We treated to kids. They can hear now. It's amazing. Right? Why are we doing that? Because we think in the longer term that gene therapies are going to be applicable to much bigger disease categories. We've got to work out delivery. We've got to work out what's called polygenic diseases versus monogenic. So, that's a single protein, single gene that has a defect. It's harder when you have multiple ones to deliver a solution. But it'll happen. And we'll end up with more drugs, a lot more hopefully, that are one and done for bad diseases. You take a gene therapy. And it actually changes your genome.

We're working with a company called Verve which uses CRISPR. We've heard that technology. You just mentioned it. Which actually edits, doesn't insert a viral gene into your

genome. It edits the gene. Here we're editing out the PCSK9 protein. And so, LDL drops for the rest of your life to something, like, ten or 20 points. So, you could imagine, like, eliminating a lot of cardiovascular risk, especially for people who have elevated cholesterol. There's an idea of a very effective drug for a lot of people. Safety's got to be worked out. Etcetera.

So, we're investing in that to get to that upper righthand box of a lot of people, big effect size. And gene therapy we think has got a lot of promise there. It's probably not a this decade thing for common drugs. But I think, again, that's what a Lilly's for.

**John Waldron:** That's interesting. Can you talk about AI? How are you guys using AI and how is AI impacting drug discovery, drug development?

**Dave Ricks:** Yeah. I mean, what an exciting moment. A big technology breakthrough. We all see it. I'm kind of an AI nerd, so I'm spending a lot of time on this topic.

Like everyone, we'll just buy all the software products that get served up to us and try to make our workforce more



productive. But I think that's real. And we're into that journey.

There are a lot of applications in our sector, I'm sure like yours, where you have to employ the AI into your processes. And when you do that you can create competitive advantage. So, like, we just talked about manufacturing. I was in our French plant and they've got an AI that observes the sort of micro delays that occur in feeding the machines to make the product. These are like less than a second. And humans get bored watching them and figuring out what to do about them. But the machine doesn't.

So, it's making five, six, seven percent yield improvements. Which, you know, if we could make five, six, seven percent more Tirzepatide, that's a difference between a meet and a beat for the year. So, that's an interesting application. Clinical trial enrollment we talked about. That's another one.

But, you know, drug discovery, everyone wants to talk about. I think there was, like, \$5 billion last year put into startups in AI drug discovery. I think most of that won't

work, personally. But we have to try this.

Now, we've been working on this for a few years. I think the winners, like a lot of industries with AI, are going to be not who has the best model, but who has the best data. And so, here we have a huge incumbent advantage because we've made drugs for 120 years. We've tagged them all. We've digitized them. We can teach the machine what organic chemistry looks like and how to think about that for a new target.

**John Waldron:** So, over the course of your history, it sounds like you've had good data hygiene.

**Dave Ricks:** At least for the last seven years we've had good chemical storage hygiene. We did a big lift in the last five years to digitize all that so we can then turn that into in silico experimentation.

Our goal is to get to, like, 1,000 med chemist equivalent in the cloud. So, using like constant GPU time to sort of be the equivalent of 1,000 chemists. So far, what we see, like a lot of these applications is you need human plus machine to get something really useful. The machines are useful at

creating things humans never conceptualized. And the humans are actually good at refining those into things that might work.

So, we're deep down that path. I think, you know, when will the first drug launch out of the FDA that was invented by purely machine? Quite a long time, I think. But the man plus machine, that's coming.

**John Waldron:** Makes sense. Can you talk a little bit about intellectual property because I assume intellectual property is critical for the company? Data protection, intellectual property protection, how do you think about it? Do you have the right frameworks in place? What are the challenges?

**Dave Ricks:** Yeah, I mean, we don't exist without intellectual property. We need that exclusive period, that monopoly to get a return. Otherwise, no one would invest in new medicines. It's too hard, too risky.

So, we have policy arguments and, you know, we're not in a good moment there, I think. For the first time in my career, I think this country is regressing on IP.

**John Waldron:** What is driving that, do you think?

**Dave Ricks:** Politics. There's a feeling that the winners are too successful. Right? And that's not just our sector. I'm sure you see that too.

**John Waldron:** Same problem.

**Dave Ricks:** And so, people want to tear down the structures that allowed you to win. Without thinking about the consequences. All of the investments that fail, right, produce value in a way because we don't go after them anymore. But that won't even exist without patents.

So, we're looking at how to diversify our protections. I think that's probably more important than just fighting the patent battles because we may lose that one policy wise. We might lose it for another reason too. So, you know, thinking about regulatory data protection, which is a concept we have in our industry where generics can't copy your file directly from the FDA. They have to reproduce the data. That's expensive. They tend not to do that.

Thinking about third countries and how can we get them to create better enforcement or periods where you have a pricing exclusivity window. And then, you know, you mentioned AI, I think actually there's something cross industry that needs to be thought about a little bit more with copyrighting, patenting, and AI, because the current standard is a human has to do some inventive step. I think that's going to get increasingly difficult to determine.

I sit on the board of Adobe, a software company that's involved in creative, and like they're obsessed with this problem because how do you actually prove a movie or a song or a poem had a human step? I mean, we already are getting to like it's very difficult. What about a drug? I bet none of you could make that determination. I mean, you need a very special skill set.

So, patents as a concept we have to think about how do we diversify intellectual property protection beyond that. It's a key issue ahead.

**John Waldron:** Makes sense. Last question. I know you well enough to know you don't think about legacy. You're just doing your job. But I'm just curious how you think

about when your time is over at Lilly, what you want your staff to be-- when you think about the arc of your career, you've spent, you know, your whole career there now. And you're running the company. And it's an incredible moment. And the company's doing really well. And you're trying to set it up, obviously, for the next ten, 20, 50, 100 years. What are the things that you think about in terms of making sure that that happens? And what do you want that to look like?

**Dave Ricks:** You know, I saw that on your question list. I don't spend that much time thinking about it.

**John Waldron:** I know you don't. I know you don't.

**Dave Ricks:** But, you know, first of all, the company's very old. And I think I'm the 13<sup>th</sup> CEO of the company in 148 years. I think there've been 15 popes in that period of time. So, I think about that. Like, it's a long race. And we're not successful now because the last seven years we did a-- I mean, it was built on a ton of things. So, keeping those fundamentals, which starts with the people we bring in. You know, I think we've hired a third of our company in the last five years. Are they good enough to take it forward?

That's key.

Avoiding mistakes that can happen in those leadership transitions, whether they be mine or people below on my team. I'm at a point in my team where every person I hired. There's none of John's team left. And so, you know, do those transitions get managed well? Because if they don't, there is a lot of risk that can happen. And now our profile is a lot higher.

But the fundamental thing is spending enough resources on the right ideas in R&D because the products that we sell in the 2035s where I won't be there anymore we're working on now. We just don't know which ones they are. And so, we've got to just keep the seed going back in the ground. We're committed to that. It's a hard problem. Of the risks I worry most about, it's that. Is, you know, in our industry there's sort of this curve that happens where above some spend you are no longer productive at all in R&D. And we're attempting to break that curve. That's a hard problem. We're going to spend a lot of time working on it. But, you know, shame on us. Shame on me if we in 2035 don't have many more good products that help bad diseases and sell a lot for the company. That's on us.

**John Waldron:** You've been generous to come spend the time with us. Really appreciate it.

**Dave Ricks:** Thanks for having me.

**John Waldron:** It's an extraordinary company.

**Dave Ricks:** Yeah, thank you so much.

**John Waldron:** And you're doing a great job. We really appreciate the partnership. And everything you're doing--

**Dave Ricks:** Yeah, we appreciate it too.

**John Waldron:** To solve the problems in the world.

**Dave Ricks:** When we call with an idea and hundreds of people at Goldman work all night on it, we really appreciate it. So, thank you for the work you do.

**John Waldron:** Nice of you to say.

**Dave Ricks:** Long relationship.



**John Waldron:** Thanks for the time, Dave. Appreciate it.  
Okay, good luck. Thanks.

**Dave Ricks:** Thanks.

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