THOMSON REUTERS STREETEVENTS

EDITED TRANSCRIPT

MRK - Merck & Co Inc at Sanford C Bernstein Strategic Decision Conference

EVENT DATE/TIME: JUNE 02, 2017 / 2:00PM GMT

CORPORATE PARTICIPANTS

Kenneth C. Frazier *Merck & Co., Inc. - Chairman, President & CEO*

CONFERENCE CALL PARTICIPANTS

Timothy Minton Anderson *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

PRESENTATION

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

(technical difficulty)

QUESTIONS AND ANSWERS

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So then, I guess, I would interpret, as you say, there will be a lot of rhetoric and a lot of proposals, but you think what you'll end up with as an industry will end up being okay?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Yes. I'm very optimistic. I believe that -- I believe in the rationality of people and I think

(technical difficulty)

Sectors where the U.S. is a leader in the world, right? So obviously, if I could just use Silicon Valley, to -- that whole sector, the Hollywood entertainment is another one, aviation probably another one, but clearly biomedical research is at the top of that list. And this industry supports directly or indirectly 4.5 million jobs and they are high-paying, high-skill jobs in the U.S. And as I say, the President is very focused on that issue.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

The time line for this really starting to heat up. Is it in the month? Is it in 6 months? Is it in 2017 at all? Maybe it's a 2018 issue?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

No. I think it may be a 2018 issue right now. I think the challenges, as you can see, associated with trying to deal with the repeal and replace of Obamacare show just how difficult some of these issues are. The tax issue, which I had high hopes for a few months ago, also seems to be mired in some bickering on the hill about what's the right way to do that. So I don't think things are going to move very quickly.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

We have this IPAB trigger coming up in late June, early July. And the FEMA's actuaries forecasted that trigger will get hit and it's possible that the administration could use that as negotiating tool in talking with the drug industry in trying to extract concessions even though it seems to be bipartisan dislike for IPAB. And it seems that IPAB will eventually likely be dismantled, but that's certainly not going to happen before this trigger event. So this trigger event coming up here within the matter of a few weeks, is this something that worries you or the drug industry?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Yes. It very much so worries me. But I also think, again, my sense is that, having spoken to people in the administration, they don't like it. They think it's a bad precedent. And while they could use it as a negotiating leverage, you suggested, Tim, I think that we're probably in a position where we can come up with more constructive solutions to the drug pricing issue. And that's what in the industry association we are trying to do is that, come up with better constructive solutions that drive greater competition, greater patient access and greater innovation.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Can we dig into specific aspects of the payer side in the U.S.? So I think of these buckets as being the commercial side, which is about half of the dollars in the U.S., and then the other half is these various government programs. On the commercial side, do you think that we're going to see more and more therapeutic areas that really come under pressure? We've seen in a couple of these areas that are very well-known at this point, insulin and diabetes -- I'm sorry, diabetes and respiratory, and some folks have looked at that as the canary in the coal mine. Others like myself kind of could talk about why there is some unique circumstances in those 2 areas. But on the commercial side, to start with, do you foresee a significant acceleration in the pressure on drug pricing? Or is it going to be the kind of continued back and forth negotiation between industry and insurers that it's been for a number of years?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

I believe it's the latter. I think you're right, Tim. I do think that there's unique dynamics and, for example, the insulin market that made different from others. On the other hand, if you look at the oral diabetes market, the pressure on a drug like JANUVIA continues to be significant. I don't see it as a step-change. I see it as a gradual, continued pressure. We have large buyers there. They're in a position to try to say they want to inject more competition. But I think, for example, in the PD-1 space, and this is just my own particular view, I think some of the outcomes of some of the early studies, which have differentiated the drugs at least to this extent actually hold back that tendency to want to say, oh, they're all the same and therefore we should be able to put huge pressure on all these drug suppliers.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

One aspect of the commercial piece that has gotten more visibility is the nature of the PBM relationship to industry, so drug companies and PBMs and how they interface. Your view of PBM. If PBMs were to magically disappear today, do you think that would actually be a net positive for the drug industry? Or do you think that's a well-functioning relationship that should be kind of left alone?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Well, it's an interesting hypothetical. I think, if I were the PBMs, I would point to the discounts and I would say you don't want to lose those rebates and the discounts. I think the challenge is really what do you do with those rebates and discounts. The challenge we have now is that so many of the rebates and discounts actually end up being spread across populations to lower premiums on the insurance side rather than being used to defray the cost of the prescription. So you're getting a huge rebate on the prescription drug side which is not being used to reduce the cost of prescription drugs and so you end up with patients paying roughly 3% of the hospital bill and 15% of their pharmaceutical bill. And I think that's created a lot of the political dynamic.

But to answer your question, first, I don't think that PBMs are going to go away. I think when people look at the system rationally, they will say, hey, we need somebody to inject this kind of competition and there's an impact in lowering prices. So I don't think that's going to go away. I do think, though, when people look across the whole supply chain and they look at what the middlemen as a group get versus what the originators or the content providers get, I think, over time, I think -- my prediction is that we'll see some of that come out of the cost of supply chain because I just think -- in terms of the relative value that's created by inventing a new drug versus being in that distribution system. I think, if you look at other

industries, you could see, over time, that the distribution channel tend to lose power and the content providers tend to gain power. And I think that's going to happen here.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Shifting to the public program side, 3 programs rank ordered from small -- largest to smallest: Medicare Part D, Medicaid, Medicare Part B. When I think about which of those is likely to change, it seems that Part D has generally been viewed favorably as a program that works. Seniors are happy, therefore, politicians are largely happy.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

This continued to run in under the budget that's been prescribed, which makes it one of the greatest government programs in the history of government programs from that standpoint because they almost never come in under the cost.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So I've been hopeful, and from what I understand, it's kind of been left alone so far and it doesn't seem like it's the first thing to change. More likely, it would be something like Medicaid or maybe [Empira] as they take on more risk and they start to run their Medicaid programs a little bit more flexibility. And then, Medicare Part B, the bipartisan dislike for buying bill so maybe try to take positions out of that equation. So those latter 2 programs seem more likely to change, but maybe that's not the case? I mean, maybe you can kind of run through those 3 programs and tell me if my characterization is accurate or not?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Sure. I think, the Medicaid Part D program, you're absolutely right. I think everywhere I go in Washington, people think that's working pretty well for the reasons you stated. Great satisfaction by seniors, coming under budget. I don't think people want to mess with that program.

On Medicaid, I think there's a misperception about Medicaid as I travel around Washington. And that is to say what we charge Medicaid is a lot lower than what we charge European countries. And frankly, most of us lose money on Medicaid patients. And so while the governors like to scream about that whole issue, when you actually look at what they're paying and you compare it to, for example, European countries or Canada, whatever, I think it's pretty hard to argue that they're not getting a good deal on Medicaid drug prices.

I think on Part B, I think people want to deal with the structural problem that you just identified in terms of the perception that it encourages physicians to prescribe high-priced drugs, but I also think people have to be very careful. And you saw a huge amount of bipartisan resistance to the Obama administration's so-called Part B demonstration project because the fact of the matter is, for example, for oncologists, a lot of their profit margin is associated with the administration of drug. And I think that when you deal with that, you're often going after the sickest population of patients like cancer patients. And I think the political pushback on that is going to be pretty substantial.

So I think that there will be efforts to deal with that. I think if you talk to the people at HSS, they think that's an area to look at, but I think they also know that there's some pretty careful negotiations they have to do around the patients in that population because they're so vulnerable and a very strong physician lobby there, too.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

And at least by our assessing, if you were to make further changes in Medicaid and you can change the buy and build paradigm, for big global manufacturers, it's probably not that impactful. What would -- and I don't know if you agree or disagree with this. What I think would be more impactful would be something on Medicare. And so like we run the scenario saying what if Medicare Part D became like Medicaid and had those

types of mechanisms in place and you did have, I think it was Mulvaney or someone in the administration, suggest the government would negotiate prices. I understand that quickly after they made that comment a few weeks ago, they quickly walked it back behind closed doors. But that scenario for Medicare Part D, like you may have already answered this, that's probably a pretty unrealistic scenario?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

It's not really unrealistic scenario. And the other thing is, maybe I shouldn't be telling all these stories in public, but when we met with the President the first time and that issue came up, the President was fresh off his own triumphant negotiations around Air Force One and things of that nature. And he expressed a very strong skepticism that government procurement was the right way to go when you can see that Medicare Part D, you actually drove down prices through a market mechanism. So I think to start with a program that's consistently under budget and is working very well is great.

The other thing, if you think about it, I mean, how is the government going to set up an infrastructure that deals with every one of these classes that tries to figure out how to negotiate? I mean, it's really pretty hard to imagine how that works in a bureaucracy like the government. They really don't see how they can do that. I mean, it sounds great to say the Secretary should negotiate, but when you think about what you'd have to put in place in terms of infrastructure to duplicate formularies across the commercial plans, I think that's not as easily done as possible. And if they want to make it like Medicaid, let's just be blunt, and I think everybody knows this, there is no real drug industry if you move over to a Medicaid model. I mean, we can deal with Medicaid. We can deal with the VA. Again, people are shocked when we point out that Medicaid prices are lower than they are in Europe, right? So that's not the problem. If you've got to try to take the Medicaid Part D thing and convert it into that, again, I just don't think there's enough there for an industry. And I don't think they want that to be the outcome of these discussions.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Okay. Let's move to some Merck-specific subjects, if we can. I know obviously you're not an analyst. You're not investing. It's not your primary job. Are you surprised that Merck stock, however, has not done better in recent months given the various additional wins that you'd had? So for example, chemo combo got approved and stock was only up 1% or so. So the stock has been pretty flat in the low $60s despite you guys really getting kind of every single thing right in terms of oncology and advancing on a lot of fronts. So what -- when you meet with investors, what concerns do you hear about that might be holding the stock back?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Well, let me start by saying I am not an analyst and I always get up in the morning and say what is it that we can do to advance the company. And so my feeling is if we continue to execute on KEYTRUDA, both monotherapy and in combinations, and we continue to execute on the rest of our pipeline, we're successful with our launches, that, over time, the stock price will sort of catch up. That's always been my philosophy. And so I don't spend a lot of time on the stock price per se.

When I talk to investors, what I hear from people are the more successful we are with KEYTRUDA, the more people start to worry about concentration risk, and so that's logical. But the solution to that is to continue to augment our pipeline from outside with additional drugs and to continue to accelerate where we can on our internal programs.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So one of the concerns we hear about -- and we see it in our model, despite KEYTRUDA, there is not a lot of other growth drivers that are as discreet as that and there are some franchises going off patent or slowing down, already in decline in certain cases. So when you look at that base business, what do you see beyond KEYTRUDA and beyond anything in immuno-oncology as kind of the other important drivers of growth that you can count on today?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Over the long-term?

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Yes, over like a few year period or 3 or 5-year period or so.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

So let me just say that I think, first of all, we're going continue to work very hard on KEYTRUDA. But having said that, we are excited by our vaccine pipeline and I think that's a really strong part of Merck's business. It's an underestimated part of our business, I think, for many people. I think if you look at how well GARDASIL was doing now with that launch of GARDA 9, if you look at the work that we're doing early on with Moderna in terms of the RNA platform that we're able to use there, we have a PCV vaccine in the pipeline, I'm very excited about that.

I also think that the work that we're doing in anti-infectives, particularly HIV, we think we may have some opportunities to accelerate some things there. I think people see the future as being long-acting HIV drugs are going to be important. And I think we have some opportunities there and we'll continue to advance those things.

Even in an area like diabetes, we continue to move forward with our SGLT2 combination with JANUVIA/JANUMET, which we'll launch by the end of the year. And we continue to look for those opportunities. So I would say that -- and then, on top of all of that, as I mentioned it before, is it's really important for a company like Merck to look outside its 4 walls for the best scientific opportunities that we can get through inorganic growth opportunities. And so that's what I would say we would be focused on.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

For those that kind of want to view Merck in a glass half empty sort of way, one of the things that comes up is on the business development front, and specifically going back to Cubist in late 2014. So that was fallen 2-plus years or 2.5 years ago. What's the back story behind Cubist?

And just for the context of audience, and I'll provide that, you closed the deal that very day, lost on the patent. And within the same day of closing, it looked like it kind of blew up.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

It did.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Is it the 5% chance of something going dead that actually came to fruition? Because somewhere, Merck doesn't know how to do due diligence. This was a really JV move.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Now, you're hurting me because that's legal due diligence and I still have a background in that area.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So what's the back story with Cubist? What happened?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Well, let me just say a couple of things about this. So first of all, when we did that deal, we did that deal primarily because we want to stay in that area long-term. And we still continue to think that being in that area with products like ZERBAXA is important.

We did know we were taking a risk. We got the best outside counsel to evaluate the probability of success of that particular Cubist patent litigation. We thought we had really good advice. I won't say it was a 5% chance, but I would say that we didn't go into it thinking that we had a very substantial chance of losing that patent. And certainly, nobody thought it would be the same day. And when the decision came down, it was just quite unfortunate.

I would say, at the same time, and I know you're not asking this question, but when you do deals, you take on risk. The Schering-Plough deal with the reverse merger, for me, was a much bigger legal risk because we could have lost all of REMICADE and SIMPONI. That one sort of worked out well for us in terms of how that whole arbitration went. This one did not work out well.

So the back story is that we had legal advice. We listened to it. We carefully considered it. We thought that the risks outweighed the downside. And then, the downside showed up with a vengeance the same day.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So do you think you guys did something wrong? Or was it just that with any transaction, like you say, there's a chance that something was going to blow up? And was it just a small chance that, in fact, something blew up and you couldn't have done anything better?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

I think, frankly, we thought we had the right legal advice. I mean, this is a really unique kind of risk that you're taking. And the case had been tried. We had a judge who decided cases on a very elongated schedule. So people are saying, look, if this judge is true to form, you won't get a decision for probably 1.5 years. The case went in very well. The witness has performed well. We think these patents are highly likely to stand up. And they didn't. And so -- and that was an egg in the face.

But I will tell you this, Tim, it doesn't deter me from the concept that we have to take risk in business development because the biggest risk within this industry, as you know, is standing still. So it's just one of those things where, particularly for me being a lawyer, it was hugely embarrassing, but the wrong lesson to learn from that is not to take risk.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Okay. So staying on the topic of M&A -- this is a good segue into the next line of questions that I have. So there's a lot of speculation starting in early 2016 based on comments you made at a brokerage conference that Merck was contemplating doing something larger. It seems to me like a lot of investors have actually moved on from that idea that Merck might to do anything sizable on the M&A front. So at this point, anything that would be on the larger side would surprise folks. Some would argue that's not the case. What's your latest thinking?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Well, I would say, first of all, when we think about M&A, the primary focus we have on M&A is are we acquiring assets that we think can be differentiated assets in the marketplace? To say it simply, the first test is, is this going to help us be a better innovative company going forward? We don't think of ourselves as a consolidator per se. We think about ourselves as a science-driven company and if we see assets that we can acquire at a price where we think we can create value, we can look at them objectively and say those assets on our hand are worth the purchase price, including the premium, then we're going to move in that direction.

We don't start by saying, well, what's the size of the transaction per se. But I also have to say that, in addition to the question of does it help us innovate and can we acquire these assets at a price where we can actually create shareholder value, the other factor is how disruptive would the transaction be. And the larger the transaction, the more disruptive it often is. And so these things look great on paper. At the end of the day, putting manufacturing infrastructures together is tough. R&D infrastructures is tough. IT infrastructures is tough. If you're going to spend your time doing 500 clinical studies with KEYTRUDA, I don't think you want to disrupt what Roger's people are doing on KEYTRUDA to start dealing with some of these knotty integration issues that come out within large mergers. So I won't rule it out, but I will say that Merck generally has not been a consolidator per se. We've generally done transactions where we believe that there was going to be a benefit to innovation in the long run, and so how that's how we're going to continue to look at these things.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So when you been asked about what sort of things you might be looking at and obviously not specific companies, you've referenced bolt-ons. But at the same time and in that same sentence or the same answer from you, you often say, this doesn't say anything about the size really in terms of the dollars that you might spend. So that seems to kind of contradict a little bit.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

There is a tension. I wouldn't say contradict, but I think there is a tension there, right? Because people think of bolt-ons as being not large, not disruptive. So the qualification I put on the end is just to say, I'm not closed-minded, basically. But most bolt-ons would not be real large transactions, if that's the question you're getting to it.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Yes. So I kind of wanted you to define what you think of a bolt-on, because I can think of targets that might cost you $40 billion, $50 billion, $60 billion, $80 billion that don't have large R&D enterprises, and you would seek to integrate and cause that disruption. I think that's what you're averse to, and that would imply that type of transaction we come to if you bought another large pharma company (inaudible), but it seems conceivable you could spend in the many 10s of billions and that would technically still be a bolt-on, not by dollar standards, but in terms of easily integrating that into the structure.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Yes. And I think we're agreeing on that, right. And I'm trying to say that kind of transaction, I don't rule out. I think the valuations are very tough in this marketplace right now and very challenging to do those kinds of transactions. And at Merck, we want to be financially disciplined about how we do these things.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Now that's -- isn't that a forever problem? I mean, it's hard to really see how biotech evaluations are going to come into the range where company is saying, "Oh, now things are really a good deal."

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

That is the challenge, and that is why historically Merck has always done better with early-stage transactions than later-stage transactions. The transaction like the Moderna one that we talked about a few minutes ago, I think, has great promise for us. And that's the kind of transaction where, I think, we can create value for our shareholders because our scientists see something that they believe they can employ in the context of vaccine development down the line. And you're not overpaying them in a big way. I think if you look at some of the large serial acquirers in the pharmaceutical business, none are going to be named here, I think it's pretty hard to say that those transactions, those multiple transactions retained value. When they first get announced, you can see how they could create value. So fact of the matter is, getting cost synergies is easier than getting R&D success. But at the end of the day, when you finish getting those cost synergies, the question still remains, do you have a pipeline or don't you have a pipeline? So we're very much focused on that issue upfront. How does this help us develop a pipeline of important -- medically important products that meet unmet need. If it goes through that wicket, then we could start to think about other issues.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Is it fair to think that downstream of August 5, this was when Bristol blew up and a lot of fortune came your way, is it right to think that your business well may have lessened, because suddenly you get a windfall and everything has gone your way downstream of August 5, from my perspective. And so if you had been thinking you needed to do something pre-August 5 maybe on the larger side, still in bolt-on territory, maybe that's less after August 5?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

It hasn't changed my mind one bit. I think you never have enough really important compounds to work on. And I think what happened after August 5, by the way, I wouldn't just use the word fortune, but that's another story. But I would simply say that we're going to continue to look for external science that could actually be beneficial to our shareholders and to patients in the same way that we did before. I mentioned a few minutes ago when I answered to you another question where you said what do investors tell you? You do hear people say the good side of KEYTRUDA to have, over the long term, a great opportunity to be a very big growth driver for Merck. The problem is, now we worry about concentration risk. So as I look at the rest of my portfolio whether we're talking about vaccines or anti-infectives or diabetes, all of those are areas that I can continue to build on as I go forward, and I will do everything I can to build on them in a value-creating way, because I want to come back to the serial acquirers. You can look at companies that have a certain market value and they spent far in excess of that in order to create that company, and we don't want to be one of those companies.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

We did our pipelines on a plug call, as we do every year, and we did ours with Merck fairly recently with Roger Perlmutter, your Head of R&D, and one of the questions I asked was kind of in this M&A area, and I asked him what therapeutic areas he was focused on, would this be something he stays with primarily, the current disease areas you're in. And I think his answer was along the lines of, I hate therapeutic areas' definitions, they're too narrow. I kind of interpret that as Merck would potentially be interested in wherever there's opportunity, regardless if it's a new disease vertical for you guys or not. So when you think about Merck as the leader of the company, do you share the same view?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Absolutely. I think our philosophy has always been to follow the science and to look where the greatest opportunities to contribute. And if you look at the 2 most prominent growth drivers in Merck today, in terms of the in-line businesses, it's JANUVIA; in terms of the future, it's KEYTRUDA. People would have said before JANUVIA, sitagliptin, Merck is not a diabetes company. And before KEYTRUDA, they would say, Merck is not an oncology company. And we had lots of discussions inside the company about whether we should stick in those areas where we had content expertise, right? So obviously, if you have a very strong franchise in HIV, all things considered, you'd like to build on that franchise and maintain leadership. On the other hand, I think it's a huge mistake with your scientific enterprise to try to decide upfront where the opportunities are. And

I think Merck has done well in the past by allowing the scientists to go where the science leads them. So what we always say, is we're looking for opportunities to do cutting-edge science in areas where there's significant unmet medical need, and beyond that, we're not prescriptive.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

A couple of last questions on this topic. Would Merck ever do a hostile acquisition?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

I never say never, but that's just not our style. And I don't think those things work in the biomedical research area. At the end of the day, the value of the company is largely the value of the science. And the value of the science is, to some degree, a result of value of the scientists inside the company. So if you do those kinds of deals, you might get your hand on an asset, and if it's far enough along, fine. But you're probably not going to get the long-term benefit of whatever the scientific work was -- that's been done by those companies. By the way, one of the things that, that's caused us to do is to look for partnership where we don't disincent these scientists and these small companies from going after what they're going after. And at the same time, we have optionality around success in those companies. For me, I think that's a really good model.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

How much is doing a larger bolt-on, let's say, contingent on you having more visibility on tax reform? Are those linked at all? Are those completely delinked?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

I think -- as I think about them, Rob Davis, who's not here, our CFO, I don't think them as meaningfully linked. I think that on our balance sheet, we have this firepower to do very significant transactions now. And if we saw one that we thought made sense scientifically and from a valuation standpoint, I don't think we would say, we got to wait to find out what's going to happen in tax reform.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Pfizer has been vocal in saying that the industry has too much capacity, there needs to be consolidation between big companies, one big pharma to another. I know your personal views, you don't think that creates value. But from your perspective, when you look at competitors and/or peer companies in this space, do you think there will be further large company tie-ups, big pharma to big pharma?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

I absolutely do. And I don't disagree with Ian Read's comments about the fact that there's a lot of redundancy in this industry. I think there will be, inevitably, more consolidation. I don't think that will happen for every company in the same way. And what I'm saying about Merck is, we've always been a science-first company. And so to the extent that we ended up in a partnership or collaboration or much more structural deal with somebody would be because we believe that these 2 companies in a given field or in a broader set of fields could do better in terms of innovation than they could on their own. And I just think that, that's a different way to think about it. But I don't disagree that there will be more consolidation in the future.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

And you think it'll be more than just maybe one tie-up? Do you think there could actually be more than one tie-up?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Well, I'm speculating now. But I think if you look at the pricing pressure in the outside environment, those companies that are not really focused on innovation and don't believe that over the long term they can do that, will start to come together, right? So it's always the dilemma about whether, frankly, when you get concentration on the part of buyers, where the scale begins to matter a lot more. I think at the end of the day, what we see is that we compete therapeutic area by therapeutic area. And we don't believe that scale, per se, provides us the benefit in the marketplace. So again, I'm saying the same things, and we go back to the question of whether we're getting good science in the deal.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Shifting to immuno-oncology. It continues to be a wild ride...

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Certainly has...

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

And as I've mentioned, from my perspective, you guys have done a fantastic job. How has that happened? The reason I ask is, a lot of companies have hard time moving into new disease verticals and doing it well. And you guys were -- you guys didn't have much of a presence on oncology, yet here in this hot area, big dollars, lots of runway left ahead, you guys have really gotten everything right. So how much of that is luck versus skill?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

So a lot of it is luck, right? So we didn't have any control over what happened in CheckMate -026, so let's just put that out there, okay? If you want to say that's good fortune, absolutely, right? But I also want to go back to the very beginning because we had to live through a lot of criticism here, right? From the very beginning, Merck believed that you really ought to take a precision medicine approach to this stuff. You really ought to understand the specific patient population that might benefit from your medicine, and that, that would also help you figure out which combinations for the people who don't work and how to streamline your clinical studies. So I would say, the strategy that we took and articulated and were criticized for, really helped, too. It wasn't just luck. It was -- this commitment to doing this in that way, even though in the short run, it wasn't the best way commercially. So there was some luck, but there was also a strategy that we continue to think is the right way to think about developing these drugs. And by the way, I think now there's more commonality across the industry that that's the right way to do it, okay? I think the other thing that's really, really important, and it's -- maybe people don't see it, is all of these companies are based on the quality of the scientists there. So KEYTRUDA was an opportunity. We were way behind some other people in the market. I think a lot of the success and execution is actually matching the specific talent to the opportunity. So we were not an oncology company. We went out, and we included people like Roger Dansey and Roy Baynes who knew exactly what they were doing. We put up an Oncology BU, business unit, which 50% of the people in that oncology business unit came from outside Merck, almost all from the leaders in oncology. And so I do think it's important at the same time to have a good strategy going in and to stick with that strategy, because you believe the scientific and the health care economic logic of that strategy -- I'm talking about precision medicine. And then the other thing is, you do have to match the talent to the opportunity. And I think if Merck has been successful, that second point, people don't really understand.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

When I look at the uptake of KEYTRUDA downstream of when you guys got the label change for first-line lung, which is a big commercial opportunity that a lot of companies are going for, I have thought the product would, frankly, have gone up faster, and I think others have shared that view as

well. And it raises the question whether, again, maybe Merck is still moving up the learning curve in commercial execution. So you've gotten everything right from regulatory standpoint. On the commercial side, I've heard from industry folks here and there in different capacities that certain business functions were outsourced, as an example, and that -- maybe that has not gone quite as planned. But from your perspective, is that inaccurate characterization, where are you with the launch? And have there been any mistakes? And things that you're saying, "Oh, we should have done that already."

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

So we didn't do everything perfectly. Let me start there. But I do think that as I've spoken to people, people expected that first-line will look a lot like second-line, where there was a bolus of people who are warehoused waiting for the second-line treatment. First-line, we're getting newly diagnosed patients, and there's going to be a steady build. And what I look at it, in the high expressers, we're getting -- essentially, we're getting those patients, right, and that's what we wanted. I look at the fact that testing, with a lot of Merck help, has moved up much faster than people thought it would be. Now roughly 80% of first-line patients are being tested now, given the biomarker test. I think this is a steady build over time. And I'm not disappointed with what's happening in the first-line, because we're going to continue to get patients as they're newly diagnosed. I think with the chemo combination now, we are available to many more nonsquamous-type patient, irrespective of PD-1 expression, high or low. I think that's going to continue to be a steady build. And I think what we've done here now is with the chemo combination, we've established a real standard or hurdle, if you will, in terms of efficacy, in terms of tolerability, even in terms of -- depending on what the competitor is, in terms of cost. I think the IDO combination, I think we're doing the same thing. But I think in terms of commercial execution, the question is, are people expecting it to look like the second-line thing, which, to me, that's a completely different market. And that's why I said early on, when the second-line was the opportunity, frankly, the strategy was viewed, I think you know this, Tim, as the wrong strategy. It turns out to be the right strategy for the long term, I believe.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So looking at the same immuno-oncology, over the next, say, 1 or 2 years, what kind of excites you the most in terms of the next opportunity for Merck? So what I would think, for example, maybe it's IDO and the fact that you guys now have a -- kind of seem to be in the lead in the IDO area in terms of an I-O, I-O combination. So what excites you? Is IDO super exciting? And then the other question in another direction, what worries you in the near term here? And I would think an answer could be something like MYSTIC or advancement of CTLA-4 in general by one of the competitors like Astra or Bristol, is that something that Merck...

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

I love him, because he answers his own question. You actually hit the big thing, seriously. So let me start with a chemo combination. I'm very excited about the fact that at ASCO we're going to be able to show data showing a trend for OS. I think that's very important in that area. I think there's some very exciting data you're going to see in breast with the chemo combination. And again going back to the precision medicine approach, earlier on when we study KEYTRUDA as monotherapy in breast, we did see the kind of response rate that we needed. But looking at it, and with chemo, we get a very different picture. So I'm excited by the chemo combination. I'm also excited by the combination with the IDO compound, because what we're seeing a significantly stronger efficacy with a very small impact on tolerability. So that, to me, another very exciting area that we are ahead on and continuing to move forward on. The fact of the matter is, right now, this is an unprecedented medicine. We're studying it in 30 tumor types. We see really good activity in more than 20 tumor types already, essentially in monotherapy. So there's a lot to be excited about in this field. But I think we're going to continue to pursue this in the way that we started in terms of being extremely data-driven, learning from what happens with our peers as well as in our own studies and trying to design the kinds of studies that put the medicine in a position to succeed. And I think if we keep doing that, that doesn't sound very exciting, but that's how we ended up coming from almost nowhere with 1 clinical study just 3.5 years ago to having more than 500 today and more than 300 in combination. You mentioned the CTLA-4 situation. We have a CTLA-4 in development. We've done the studies with IPI in melanoma. I think the fact of the matter is, before we decide to go forward in a large-scale study, I think we have to ask ourselves again, what are we seeing in that area? Do we believe that, that combination is demonstrating real value over and above PD-1? So I would say what we see in the high-expression population with monotherapy is a pretty good result. And if people are going to use that combination in that high-expression population, it's got a pretty big hurdle to go over. And I think if you look at the melanoma data that

we saw, it's unclear what the benefit is. And so we have to think about that as we decide whether we want to spool up a large scale CTLA combination study.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

So as I was preparing my question this morning, it occurred to me maybe because Merck needs to push into a CTLA-4 combo. Even if they don't believe it, it's a mere defense strategy. And here we are in June, and it really hasn't advanced much. We had this Bristol data, I think that's what you were alluding to recently at AACR on melanoma where it didn't look very compelling. It occurred to me when I was preparing my question this morning, I wonder if MYSTIC is actually gating factor for the advancement of your program.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

We're going to have to look at that data, right? We're going to have to see it again. When I use phrases like data-driven, that's what I'm trying to say, is that rather than to say we think this is going to be the killer combination -- by the way, it has to do with business development, because a lot of people coming and say, you have to be exclusive, you have get this thing locked up over here. I think what Roger's tried to do and his colleagues is, they tried to actually look at the data as it's emerged and actually asked the question, where's monotherapy going to be really useful, and where is our combination's going to be useful? And is there an insight as to why a particular combination will work in that area? Right now, I would say with respect to CTLA-4, we're going to learn a lot when we get the MYSTIC data back. And we're in a position where we're ready to go, if that's the right way to go. We have a study that's all ready to go. But whether we pull the trigger on that depends on what we learn.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

And you would view that as your biggest near-term concern? Maybe in the 2017-18 time frame is how CTLA-4 advances on you potentially?

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

It's one of them, but I have to tell you, I believe -- you've heard Roger from the beginning. What he's basically said is that we don't believe that there's going to be one combination that's going to work for these large patient populations. So if it works, then we're going to have to ask, okay, for whom does it work? Is it high expressers or low expressers? We were going to look at the data and make a judgment about where that fits in, for example, versus the chemo combination. I think the chemo combination, the fact of the matter is, it's the only proven combination out there, right, and it's a good combination. Doctors know how to use chemo. These people start on chemo. They now have an opportunity to get significantly better response rate, more durable response rates, we're now going to show a trend towards OS despite all the crossover in that study. So let's see how the MYSTIC data looks versus that data and other potential combinations like IDO. I think the bottom line is, I think that, with all due respect, early on, people had a sort of winner-takes-all mentality. And I think that ultimately what we're seeing is that if you're segmenting patients the right way and you're understanding tumors the right way, we're probably going to be in a much more fragmented world than a winner-takes-all world.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

Okay. We're out of time, Ken. Thank you very much.

Kenneth C. Frazier - *Merck & Co., Inc. - Chairman, President & CEO*

Thank you, Tim.

Timothy Minton Anderson - *Sanford C. Bernstein & Co., LLC., Research Division - Former Senior Analyst*

And thanks, Merck Investor Relations.