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MRK - Q4 2015 Merck & Co Inc Earnings Call

EVENT DATE/TIME: FEBRUARY 03, 2016 / 1:00PM GMT

OVERVIEW:

Co. reported full-year 2015 revenues of $39.5b and non-GAAP EPS of $3.59. 4Q15 total Co. revenues were $10.2b and non-GAAP EPS was $0.93. Expects 2016 revenues to be $38.7-40.2b and GAAP EPS to be $1.96-2.23.

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PRESENTATION

Operator

Good morning. My name is Darla and I will be your conference operator today. At this time I would like to welcome everyone to the Q4 and full-year 2015 sales and earnings conference call.

(Operator Instructions)

I would now like to turn the call over to Teri Loxam.

Teri Loxam - *Merck & Co., Inc. - IR*

Thank you, Darla. Good morning everyone. Welcome to Merck's fourth-quarter 2015 conference call. Today I am joined by Ken Frazier, our Chairman and Chief Executive Officer; Rob Davis, our Chief Financial Officer; Adam Schechter, President of Global Human Health; and Dr. Roger Perlmutter, President of Merck Research Labs.

Before I turn the call over to Ken, I want to point out a couple of items. First, you will see that we have items in our GAAP results such as acquisition-related charges, restructuring costs and certain other items. You should note that we have excluded these from our non-GAAP results and provided a reconciliation of these items in table 2 of our press release. We have also provided a table to help you understand the sales results in the quarter for the business units and products, which can be found in table 3 of the press release.

Second, I would like to remind you that some of the statements we make during today's call may be considered forward-looking statements within the meaning of the Safe Harbor provision of the US Private Securities Litigation Reform Act of 1995. Such statements are made based on the current beliefs of Merck's management and are subject to significant risks and uncertainties. If our underlying assumptions prove inaccurate, or uncertainties materialize, actual results may differ materially from those set forth in the forward-looking statements.

Our SEC filings, including item 1A in the 2014 10-K, identify certain risk factors and cautionary statements that could cause the Company's actual results to differ materially from those projected in any of our forward-looking statements made this morning. Merck undertakes no obligation to publicly update any forward-looking statements. And you can see our SEC filing as well as today's earnings release on Merck.com.

With that I'd like to turn the call over to Ken.

Ken Frazier - *Merck & Co., Inc. - Chairman and CEO*

Thank you, Teri. Good morning. Thank you all for joining the call today. 2015 was a year of considerable progress and execution for Merck. We continued to focus on the most exciting scientific and commercial opportunities in front of us, advancing our pipeline, securing new product approvals and launching expanded indications for key products.

I'm pleased that our operating performance across our research and commercial organization, including rigorous cost management, enabled us to exceed our EPS commitments in 2015. Despite strong currency headwinds, we were able to deliver growth in 2015 and we expect to deliver growth again in 2016. In fact, 2016 represents the first year in several years in which Merck's new product sales growth, driven primarily by Zepatier, our new hepatitis C product, and Keytruda, are expected to contribute meaningfully above the impact of the products that are losing exclusivity.

To ensure continued progress it is imperative that we remain focused on three priorities. First, we must innovate across all aspects of our business so that we can pursue and deliver the most promising medical breakthroughs. Second, we must execute in our labs and in our markets around the world to deliver results by prioritizing resources to the highest growth areas, key markets and customers. And, finally, we must adapt our culture and business model to evolve as the world changes around us. Specifically this includes driving the success of our key inline brands, including Januvia, launching new indications for Keytruda in more tumor types, and launching Zepatier which received approval from the FDA just last week.

We also anticipate several important pipeline catalysts this year, which Roger will discuss in more detail shortly. Augmenting our pipeline with the best scientific and medical innovations also remains a key priority for us, and we are eager to continue to aggressively seek attractive external opportunities that can further bolster our scientific leadership, while complementing the current assets in our pipeline.

In closing, in 2016 we will build upon the strong foundation we established last year. We will continue to invest resources to launch and grow our strongest brands, support the most promising internal assets, enhance our pipeline with the best available external science, and maintain a balanced and differentiated portfolio, all with the goal of delivering long-term growth and shareholder value.

Now I'd like to turn the call over to my colleague, Rob Davis.

Rob Davis - *Merck & Co., Inc. - CFO*

Thanks, Ken. Good morning, everyone. As Ken referenced, 2015 reflected another solid year of operational performance at Merck. We delivered full-year revenues of $39.5 billion, which was in the upper part of our original guidance range despite a slightly higher than expected foreign exchange impact for the year. In addition, as a result of our continued focus on transforming our business model, we were able to deliver full-year non-GAAP EPS of $3.59, $0.12 higher than the upper end of our original 2015 guidance range. We also returned over $9 billion to shareholders through dividends and share repurchases.

This strong performance was driven by our continued focus on prioritizing resources to our highest growth areas, and reducing net costs by more than $2.5 billion versus 2012, while investing in key inline brands including Januvia, maximizing launches such as Keytruda, and strategically

investing in R&D and business development to drive a pipeline that will deliver long-term results. Now let me turn to some specifics for the fourth quarter, and my remarks will focus on our non-GAAP financials.

In the fourth quarter we delivered a leveraged P&L with growth excluding exchange on both the top and bottom lines. Total Company revenues were $10.2 billion in the quarter, a decrease of 3% year over year, including 7 percentage points of negative impact from foreign exchange. Excluding the impact of exchange, fourth-quarter revenues grew 4%. It's worth mentioning that approximately $110 million of our foreign exchange impact on revenues in the quarter was due to a devaluation of our operations in Venezuela, where we began using the SIMADI rate in the fourth quarter. Given the current and expected conditions in that market we anticipate continuing to use the SIMADI rate for our P&L in 2016.

In addition to solid results for global human health in the quarter, which Adam will discuss in a few minutes, the animal health business also had a good quarter, with sales growing at 8% excluding exchange. Sales of companion animal products, let by Bravecto, as well as swine products, accounted for the majority of the growth.

Turning to the other parts of the P&L, non-GAAP gross margin was 74.8% in the quarter, an increase of 20 basis points year over year. Full-year gross margin increased 150 basis points to 75.4%. Lower discards and foreign exchange drove the overall improvement in margin percentage. We continued to manage expenses in Q4, with decreases in both marketing and administrative costs as well as R&D, as operational efficiencies more than offset our investments supporting key products and new launches. On a full-year basis we delivered operating expenses in line with our guidance with meaningful savings in marketing and administrative expenses more than offsetting modest increases in R&D.

Our non-GAAP effective tax rate for the quarter was 16.4%, resulting in a full-year tax rate of 21.7%. The quarterly and full year rates reflect the benefit from the renewal of the R&D tax credit. Taken together we earned $0.93 per share on a non-GAAP basis in the fourth quarter, delivering 13% growth, excluding exchange, on the bottom line and significant P&L leverage.

Now let's turn to guidance and our outlook for 2016. Given the continued strength of the US dollar against virtually all other currencies, we anticipate foreign exchange will have a meaningful impact again in 2016. We expect revenues to be $38.7 billion to $40.2 billion using mid-January exchange rates, which reflects an approximately 3 percentage point negative impact from foreign exchange. Excluding the impact of exchange, we expect low to mid single-digit revenue growth in 2016 as new product launches more than offset the impact from generic and biosimilar competition. Our guidance range also assumes negligible revenues from Venezuela compared to $625 million in the full year 2015.

We expect non-GAAP EPS to be $3.60 to $3.75, which also reflects an approximately 4 percentage point negative impact from foreign currency at mid January rates. 2016 EPS growth would be in the mid to high single-digits excluding the impact of exchange. On a GAAP basis we expect to earn between $1.96 and $2.23. Our non-GAAP EPS guidance assumes 2016 product gross margin will be roughly flat compared to 2015. In addition, we expect operating expenses to be generally in line with prior year. We will continue to invest in direct selling and promotion to support new product launches, while reducing administrative expenses as we continue to focus our operating model.

We remain committed to delivering a leveraged P&L and we will monitor our new launches and key products throughout the year and flex resources, as appropriate. Regarding tax, we expect the full-near non-GAAP tax rate in the range of 21.5% to 22.5%, which includes the benefit from the recently renewed R&D tax credit. Finally, we project average diluted shares outstanding of 2.78 billion for 2016, reflecting a decrease versus the prior year as we continue our share repurchase program. The fourth quarter was a strong finish to a solid year of execution. We expect this momentum to continue into 2016 as we further innovate in our labs, invest behind our launches, and continue our focus on disciplined resource allocation and continuous productivity to deliver a leveraged P&L and shareholder returns.

Now I will turn the call over to Adam.

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

Thank you, Rob. Good morning, everyone. This morning I will provide highlights on global human health performance for the fourth quarter and for the full year of 2015. My comments will be on a constant currency basis.

Total sales reached $34.8 billion in 2015, reflecting growth of 4%. In our fourth quarter sales reached $9 billion and also grew 4%. Excluding Cubist and divestitures, human health sales grew 2% in 2015.

Moving now to priority franchise updates. I'll start with the Januvia franchise. The Januvia franchise grew 7% in 2015 driven primarily by volume increases. However, in the fourth quarter US revenue was impacted by a significant reduction in channel inventory following the buy in that we saw in the third quarter. It's important to note that underlying volume maintained growth of about 3% in the US in the fourth quarter. Despite increased pricing pressure, we expect to grow the Januvia franchise in 2016 ex-exchange. We have maintained a high market share of about 75% in the US and 65% globally. Volume increases in the US and internationally, physician and patient experience with our medicine, and macro trends that support a growing market, all reinforce our confidence in Januvia.

Moving to hospital and specialty care, our hospital acute care business grew 11% in 2015 excluding Cubist. Sales in the fourth quarter reached more than $600 million and grew 7%. Performance was driven by our antibiotic and anti-fungal treatments as well as by Bridion in the international markets. In addition, we are launching Bridion in the US. While still early, customer feedback is very positive on this new product that uniquely reverses the neuromuscular block following surgery.

We are also excited to be launching Zepatier for the treatment of chronic hepatitis C infection in the US and Canada. Zepatier offers a competitive profile and high cure rates, with 12 weeks of therapy for the vast majority of patients in a one-pill, once-a-day treatment. Zepatier is differentiated versus other options, including consistent dosing regardless of cirrhosis status, renal impairment or use of PPIs and other acid-reducing agents. We believe our payer and pricing strategy will maximize Zepatier revenue and market share as well as broaden and accelerate patient access. We are enthusiastic to be back in this important market and our teams are rapidly deploying to capitalize on this opportunity.

Moving to vaccines, the vaccines portfolio grew 3% with sales of $5.7 billion in 2015. In the fourth quarter sales reached approximately $1.7 billion and grew 5% on strong performance for Gardasil. Gardasil growth was aided by timing of public sector purchases in the US of about $50 million and timing of government purchases in Brazil in our fourth quarter. Gardasil 9 now represents approximately 90% of sales in the US as our teams have executed well on converting customers to the 9-valent vaccine.

Zostavax sales declined 11% in the fourth quarter resulting from a very weak flu season in the US. We continue to work to educate customers on the reimbursement for Zostavax and to invest in direct-to-consumer advertising for this important brand.

Finally, I'd like to spend a few moments commenting on the continued launch of Keytruda. In the fourth quarter, sales were approximately $215 million, driving strong full-year sales of more than $560 million. Our performance was driven by the refractory melanoma indication in the US, as well as ongoing launches in more than 40 markets ex-US. In late 2015 we received approval in the United States for first-line treatment of advanced melanoma regardless of BRAF status. The sales force is launching this indication as we speak.

Looking into 2016 and beyond, we remain enthusiastic about the potential for Keytruda across markets and across cancer types. We are building a critical foundation for PDL1 testing in lung cancer as we launch in second line. We believe this will help to set the stage for when first-line indication is achieved. We have now demonstrated overall survival benefits for Keytruda versus standard of care in both lung cancer and melanoma, which strengthens our belief that Keytruda has the potential to become foundational to the treatment of cancer over time. With more than 200 clinical trials and more than 100 combinations in over 30 tumor types we see the potential to drive significant growth for Keytruda over the long term.

In summary, global human health delivered a solid performance in 2015. In 2016 we'll continue to prioritize resources, focusing on Januvia, hospital acute care, vaccines, and important product launches including Zepatier and Keytruda. The strength of our underlying business, the continued execution of our strategy, and the launch opportunities before us position us well for the year ahead.

Now I will turn the call over to Roger.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Thanks, Adam. I'll provide a brief update on our progress in key programs during the fourth quarter and will note opportunities for further advancements in 2016.

The fourth quarter was an important one for Keytruda. Our US label was updated to include data from our 006 study in melanoma, demonstrating that Keytruda treatment is superior to ipilimumab, the prior standard of care in the first-line treatment of advanced melanoma, as judged by improvements in overall survival and progression-free survival. Data from the 002 study in which Keytruda treatment proved superior assessed by progression-free survival to traditional cytotoxic chemotherapy was also added to our label. Hence, in the United States as in Europe, our Keytruda label documents the superior effect of this treatment for advanced melanoma as compared with other interventions.

Also in the fourth quarter we presented data from our KEYNOTE-010 study, demonstrating that Keytruda provides superior overall survival as compared with docetaxel treatment in non-small cell lung cancer in patients with PD-L1 expression of 1% or more. This study was presented at the ESMO Asia meeting, simultaneously published in the Lancet, and has already been included in NCCN guidelines for lung cancer treatment. These data have also been submitted for review in the United States and in Europe.

Looking ahead head for Keytruda, 2016 promises to be a very exciting year. We will see data from our KEYNOTE-024 first-line non-small cell lung cancer trial comparing treatment with a range of cytotoxic chemotherapy regimens to Keytruda monotherapy by mid year. The primary endpoint is progression-free survival. Our KEYNOTE-055 study, which evaluates response rates in head and neck cancer following Keytruda monotherapy in patients who have failed both platinum agents and cetuximab treatment will also provide important new data.

Looking still further ahead, there are multiple opportunities for filings in other tumor types, including bladder cancer and classical Hodgkin lymphoma, depending upon the results that we observe. As we have noted, the Keytruda development program is exceptionally broad with registration-enabling studies underway in more than a dozen tumor types. We do view Keytruda as providing a foundation for the next generation treatment of malignant disease. Along these lines, we are also studying combinations with cytotoxic agents, targeted therapies, vaccines and other immunomodulatory agents.

In 2015 we gained access to a Phase 1 cCAM-directed antibody program, which complements our internal clinical programs that target GITR, IL-10 and many other axes. In all we have more than 100 combination studies underway, as Adam mentioned.

A few weeks ago we announced the acquisition of IOmet through which we will gain access to a set of IDO1 and TDO1 small molecule antagonists. We have previously presented data in collaboration with our colleagues at Incyte, suggesting that Keytruda may be fruitfully combined with their IDO1 inhibitor, and a Phase 3 study using this agent will soon begin enrolling patients with melanoma. Our acquisition of IOmet will permit us to explore the utility of IDO1 inhibition much more broadly.

Last week we announced the approval of Zepatier in the United States. Zepatier was the subject of two breakthrough designations and was evaluated promptly by a priority review. A key strength of Zepatier is the fact that it can be used without dose adjustment in patients with chronic renal failure, a group that suffers from increased rates of HCV infections. Going forward in 2016 we expect to complete Phase 2B and initiate Phase 3 studies for new regimens that include MK-3682 urogenital nucleoside polymerase inhibitor, and MK-8408, a next generation highly-active NS5A inhibitor. These programs emphasize our commitment to complete care of patients with HCV infection where the goal should certainly be to cure as many patients as possible using appropriate and effective regimens.

Our 2016 plan includes numerous other approvals and filings. As we have announced previously, bezlotoxumab, our therapy designed to reduce recurrences of Clostridium Difficile associated enterocolitis, received priority review designation from the FDA with a PDUFA date in July. In 2016 we expect to complete our Phase 3 program and our filing for ertugliflozin as both single agent and in combination with Januvia. And we will obtain adjudicated data supporting the filing of odanacatib.

We will have the opportunity to review Phase 3 data from our inactivated varicella-zoster vaccine in immuno-compromised populations, and from our Phase 3 programs studying letermovir as prophylaxis for cytomegalovirus activation in patients receiving bone marrow transplants. In collaboration with our colleagues at Bayer, we will begin a Phase 3 heart failure program for vericiguat based on Phase 2 data that we presented

last year. And we will also have a chance to see important early clinical data from our collaborations with NGM Pharmaceuticals in metabolic disease and from Moderna in the vaccine space.

It will be a busy year. Now I will turn the call over to Teri.

Teri Loxam - *Merck & Co., Inc. - IR*

Thanks, Roger. We are going to be moving on to Q&A. We would like to try to get to as many questions as possible this morning, so I'd ask that you try to hold your questions to one or two each. Thanks, Darla. We can go to Q&A.

QUESTIONS AND ANSWERS

Operator

(Operator Instructions)

Geoff Meacham with Barclays.

Geoff Meacham - *Barclays Capital - Analyst*

Good morning, guys. Thanks for taking the question. I have a couple for Roger on Keytruda in lung. The first question is, for the first-line data this year, how mature do you think the OS data will be? And will that matter to regulators in the competitive landscape?

And then on the 010 study, how much do you think the overall survival data will play a role when it comes to looking at the PD-L1 minimal expressers when you think about that testing as a lever going forward vis-a-vis competition with Bristol? Thanks a lot.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Jeff, first of all, with respect to first line, the primary endpoint of the study is progression-free survival. In these studies we do permit crossover. It's really necessary to do that in these studies. So, you really are comparing the early versus late access to Keytruda.

That's understood. Progressive-free survival is an accepted endpoint. So I think that's where we'll be with respect to first line.

And with respect to the 010 study, I am not sure exactly what you mean by PD-L1 minimal expressers. What we showed in the 010 study, of course, was that there was a treatment effect in the 1% expressers as well as in the high expressers. We have noted that in PD-L1 negative populations with non-squamous, non-small cell lung cancer, it's not at all clear that there is a benefit that inures to patients who receive PD-directed therapy. And that's true for every agent that has been studied, not just our own agents.

I think it is important to be looking at PD-L1 expression in order to decide who in fact should be treated with these agents. Adam may have some other thoughts about PD-L1 expression in the second line.

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

The only thing I'd add, Geoff, is that if you look at reimbursement broadly in the US, right now we are being reimbursed for PD-L1 positive. It's irrespective of if it's 1% or above 50% for the vast majority of plans. So, we are seeing reimbursement already for anybody that shows up as PD-L1 positive.

Operator

Tim Anderson with Bernstein.

Tim Anderson - *Sanford C. Bernstein & Company - Analyst*

Thank you. A question on Zepatier. Payers and your competitors in this space talk about long-term contracting. Knowing where your net pricing is coming in, or at least I think I know where it's coming in, and knowing the positioning of the product, which has some reasonable attributes, can you just talk about what we should expect in 2016? Consensus has, I think, around $600 million. I know you don't guide on individual products normally, but give us some guidance here, if you can, especially in the context of trying to bump what could be a high prevalence of long-term contracts.

Second question on 4-1BB. Pfizer made some positive comments yesterday. One of the products they have been studying with is your drug, Keytruda. But I'm wondering about the longevity of that deal and whether they kick you to the curb potentially now that they have their own PD-L1.

And then just a third quick question, does KEYNOTE-24 have an interim analysis? Bristol's first-line trial does not.

Teri Loxam - *Merck & Co., Inc. - IR*

Adam, why don't we start with you on Zepatier and then we can move to Roger for the other two.

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

Sure, Tim. Let me give you some context and then I'll try to answer the question specifically on how we are thinking about the pricing, reimbursement and contracting strategy.

First of all, I agree with your comment that we do have a competitive product. And we have high cure rates. If you look at our clinical trials in GT1 patients, it was 94% to 97%. If you look at GT4 patients, it's 97% to 100%. So, we start off by showing we have very good efficacy with the product.

I also believe we have some important differentiation with the product. Our dosing is not affected by the presence of concentrated cirrhosis. If you look at the competition, they have to change their dose there. You can use us with any degree of renal impairment. If you look at the competition, particularly in certain patients with renal impairment, they can't be used there. And, also, you don't have to adjust our dose for acid-reducing agents such as PPI. I think those are some things we feel good about in terms of differentiating our product versus the competition in the marketplace.

I think what we did was develop a real deliberate and, I believe, innovative pricing strategy to try to maximize the product and increase the number of appropriate patients treated. But the first thing I want to say is we want to be competitive across all segments and we want to look at public, private. We want to work with managed care organizations and government agencies, et cetera. So, we plan to be competitive across all segments.

And I believe that the strategy that we implemented could accelerate access to patients in certain segments where access, frankly, has not been as broad to date, including those patients with medical needs in stage 4 and 5 CKD. As you said, we don't give guidance for individual products but we will provide updates as we go through the year. We are just launching right now. The product is not available in the marketplace yet but it will be in a matter of days. And then I will provide updates as we go through the year to give you a sense of where we are.

Teri Loxam - *Merck & Co., Inc. - IR*

Roger, do you want to address the 4-1BB and KEYNOTE-024 interim?

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Tim, on 4-1BB, first in context, as you know, this is just a huge number of combinations that potentially can be studied. We're studying 100. And 4-1BB is one of those. The expectation is that we are going to see a lot of opportunities to combine Keytruda with other drugs. We are already seeing those and have talked about them -- for example, in combination with chemotherapy, radiotherapy, with immunizations, with T-vec, the oncolytic virus. And of course we're doing our own studies with other checkpoint inhibitors and other immunogens.

We are very pleased with our collaboration with Pfizer on 4-1BB. I believe that the plan is, assuming that it's accepted, to be able to present some of those data at ASCO. And our expectation is that if it turns out that there is a good opportunity there, that we will continue to collaborate. I am not really terribly concerned about not being able to take advantage of an important opportunity to help patients.

With respect to KEYNOTE-024, the study is, of course, being continuously monitored by a data monitoring committee. But, importantly, here we are in February, clinical trials, I think has the end in June, so we are getting close to the end of this study anyway. And my expectation is that we'll have the opportunity to see the data in not too long a time, and can use that as a basis, potentially, assuming the data come out correctly, as a basis for filing.

Operator

Jami Rubin with Goldman Sachs.

Jami Rubin - *Goldman Sachs - Analyst*

Thank you very much. Ken, a first question for you. At our CEO conference earlier last month you talked about your increasing desire to be more aggressive with M&A now that you have a strong scientific team on board, thanks to Roger. Given the fairly significant derating of the biotech space since that conference, I would think you are absolutely licking your chops. Can you talk about the M&A landscape? And, most importantly, when do you think the buyers and sellers start to come together?

And then a question for you, Roger, I think to Roger. It's again on Keytruda and the first-line study. Can you size the opportunity? How large is the highest PD-L1 expressers in the front-line lung market? And when will we see the study that targets the entire PD-L1 patient population in front-line lung? Thanks very much.

Ken Frazier - *Merck & Co., Inc. - Chairman and CEO*

Thanks, Jami. Let me start by just reiterating what I said before, which is that business development remains a critical part of our strategy because we need to pair both our internal work with the best external innovation opportunities. And we are looking to augment our Phase 2 as well as our early-stage pipeline with these kinds of partnerships and collaborations and bolt-on acquisitions.

As it relates to the rerating of the biotech industry, of course we are very focused on value-creating opportunities. Our team has looked at this very carefully and we are very active in looking for opportunities in oncology and other therapeutic areas where we can build our pipeline. I can just assure you that we have paid attention to what's happened in the marketplace and we are working very actively to reach the right kinds of deals, whether they are M&A or partnerships or collaborations to advance our pipeline.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Jami, on the first-line opportunity and the size, just to remind you and everyone, our approach has been to ask the question of whether or not we can identify populations that would benefit, especially from the treatment of Keytruda. And we chose to use the PD-L1 expression as a marker for that. It's turned out that that is a marker. And the reason, of course, is not because specifically that PD-L1 is the counter ligand for PD-1, but rather

because PD-L1 is a marker for the presence of an immune response, and that PD-L1, as a result, is telling us that there already is a preexisting immune response that can be enhanced by the addition of Keytruda.

The 024 study looks at those that are PD-L1 high. And what we have done in all of our studies is that we have looked at the PD-L1 high, those with the proportion of scores above 50%, and then looked at those that are expressing PD-L1 above 1% and also looked as those that appeared not to be expressing PD-L1 as we move across the line.

So, for example, and we published in the New England Journal that there was, in general terms, in the 001 study, in melanoma, in general, that those patients who were expressing more PD-L1 had better responses. We similarly published data in 010 study recently showing that responses were better in the highest PD-L1 expressers, again reflecting immune status.

The 024 studies looks at those that have the highest PD-L1 expression. It was about 25% of the first-line patient population. The 042 study will go on and look at patients who have the 1% cut point. And we will begin to see the data across the entire first line. So, we will have an opportunity to look at that.

Frankly, from a biological perspective, I really can't understand why it would be any different in the first-line population from what we have previously shown in other tumor populations because, again, PD-L1 expression is a reflection of immune activity.

Operator

Chris Schott with JPMorgan.

Chris Schott - *JPMorgan - Analyst*

Great. Thanks very much for the question. Just two here. First, can you elaborate on Januvia sales in the quarter? How much did destocking impact results? And maybe, more broadly, just latest thoughts on the SGLT2 impact on the DPP4 classes as you talk about growing Januvia in 2016.

And then a follow-up on HCV. Can you just comment specifically on how much you see price driving share and broader adoption of these agents in the space? I think just a lot of focus on how the price dynamics play out here. I know you're not going to give specific comments, but just generally speaking do you see price as a lever that is relevant to the space going forward for you? Thanks.

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

Hi, Chris. This is Adam. Let me start off with the Januvia franchise because I think it's important to give some additional context. I want to start off by saying we are really pleased that Januvia grew 7% in 2015.

And if you look at our underlying performance in fourth quarter, it was similar to the other quarters in the year. What you saw in fourth quarter was volume growth in the US of about 3%, which was about the same as what you saw the quarter before, and so forth.

What happened was there was significant channel reductions that followed the third-quarter buy-in, which I noted on the last call was more than $100 million. And as you may recall, last quarter the US grew 22% for Januvia, and that's why I noted that there was buy in and we would expect to see buy out.

So when you look at fourth quarter, I would look at the underlying performance, which remains similar to the other quarters. And I think we had a good year with Januvia showing 7% growth versus prior.

When you look at 2016, despite increasing pricing pressure that we will see in the United States and the bi-annual price declines that you see in Japan, we expect to grow the franchise globally, when you exclude exchange. And what that means with regard to EMPA-REG, we don't see a

significant impact in 2016. In fact, if you look at the earliest data that you can look at, we are seeing market share shifts within the SGLT2 class, but we're not seeing shifts between classes, between DPP4s and SGLT2s.

We will continue to monitor that closely. We will see when there is label changes or if there's potential guideline changes. But at this point in time we feel confident that there should not be a significant impact in 2016 from the SGLT2 class.

Let me answer your question on Zepatier. I already stated that we think that we have a competitive product profile, and that's where it all starts. You have to have a competitive product profile to be successful in the marketplace. Efficacy is good. We think we have strong differentiation versus the competitors.

Price is always a lever that you can choose to utilize, but you don't necessarily have to utilize it nearly as much when you have a differentiated product that you think you can bring to market. We will continue to keep you updated on Zepatier as we move forward. But we are going to do everything we can to optimize and maximize that brand.

Operator

Gregg Gilbert with Deutsche Bank.

Gregg Gilbert - *Deutsche Bank - Analyst*

Yes, thanks. First for Rob, it looks like you're guiding to a currency effect on the bottom line that's more extreme than the top line in 2016. So, can you just help us understand that relationship for 2016 and for Merck in general, and comment on what share count you are factoring into for guidance for the year?

And then for Ken, going back to the aggressive deal strategy you described, what are your latest thoughts on deals like the Cubist deal, and whether those are the kinds of deals you are looking to sprinkle in, as well. It sounds like you have a scientific and pipeline focus but what about deals that leverage or build out certain commercial verticals you have and whether you do those deals again? Thanks.

Rob Davis - *Merck & Co., Inc. - CFO*

This is Rob. Good morning, Gregg. On your question, we are seeing a little bit more pressure to earnings than we are to sales from foreign currency. The biggest single driver of that is really how our hedging is flowing through on a year-on-year basis.

Recall that in 2015 we flagged in prior quarters that we have received a meaningful benefit from hedge gains as a result of the positions we took. And that declines, that benefit declines, as you look from 2015 into 2016, assuming constant rates, basically because of the fact that a lot of those hedges were in place and the gains on them were smaller.

That impact does cause a little bit more of the leveraging effect you're seeing between the top and the bottom line. Other than that, we generally see a proportional move between sales and earnings. But that's the single biggest driver.

And then to your question of what we're looking at from a share count, as I mentioned in my prepared remarks, we are assuming 2.78 billion shares as an average for 2016, which is a reduction from where we were in 2015.

Ken Frazier - *Merck & Co., Inc. - Chairman and CEO*

Gregg, thanks for the question on M&A. Let me start by saying that the Cubist deal actually has been a good deal for us, as you can see from this year's results. It also positions us well in the antibiotic space, a space that's a priority space for us going forward from that standpoint.

But I also want to reiterate what I said, which is that our main focus going forward will be to augment our Phase 2 and early-stage pipeline. So, our focus is on getting the best external science because we believe that's how we can drive the greatest long-term value. I would say going forward our main focus will be more on those kinds of scientific acquisition deals than on things that augment necessarily our commercial stable.

Operator

Seamus Fernandez with Leerink.

Seamus Fernandez - *Leerink Partners - Analyst*

Thanks very much. Just a couple of quick questions. Ken, as I just listened to your comments, one of the things that I'm trying to better understand is, can you give us a little bit of the history of Phase 2 and earlier stage deals where Merck has successfully brought forward a product like that into development? When I look at the yield history, Schering-Plough is really one of the acquisitions that was quite successful with regard to gaining access to Keytruda, having your BACE inhibitor advance forward. Can you just help me understand why the smaller acquisitions are really the way to go? Obviously, you guys identified those assets, but it actually came from a larger deal and was clearly value generating.

And then, separately, for Roger, Roger, where I'm a little perplexed on the timing, if I look at the development of the front-line lung situation, it seems like studies that finish faster in immuno-oncology consistently show a less robust result. So, can you help me understand how the KEYNOTE-24 study has an opportunity to successfully complete earlier than expected and before some of the other competitor studies that are out there?

And then my final question, just for Adam, I think you guys have been really respectful basically not saying that you are going to win, but that you will have a foundational product in Keytruda. When other competitors claim and state that they are going to win, particularly from a third or fourth or fifth position, how likely is it, given what you have seen historically that that is a realistic possibility, particularly in the space where new standards of care are being created? Thanks.

Ken Frazier - *Merck & Co., Inc. - Chairman and CEO*

Okay. Let me first start with your first question, Seamus, which is a perspective on how early-stage deals have created value for Merck. I would start by saying that at Merck we have always been focused on being a company that tries to develop really strong insights into human biology. And that has helped us to find things earlier on that have actually become important.

Some examples are Fosamax, which was licensed in, or Cozaar. In my own experience when I was on the legal side, the work that we did to get access to the DPP4 technology through a German company call Pro BioDrugs, when those deals were done, people don't necessarily sit up and take notice of them. But Januvia was the result of that deal, which was done a number of years ago.

So, what we have found in the past is the best way for us to create value is through those insights early on that allow us to acquire the kinds of things that you heard Roger talk about -- NGN and Moderna. Our goal is to find those kinds of things before there is a bidding war to apply our scientific know-how, our development know-how, our molecular -- I'm sorry to say, our medicinal chemistry know-how -- and to bring forward the kinds of molecules like sitagliptin that can actually be pretty important contributions to human health.

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

With regard to Keytruda, I'll answer your question next, I've always said that I believe that this market is going to be a very large market and that there is room for multiple competitors. I also believe that there will be certain competitors that do really well in one tumor type and another competitor might get data in a different tumor type first, and, therefore, you see differences based on tumor type. It's not too different than if you look at the anti-TNF field where you have multiple products. One might be do better in GI, the other might do better in rheumatoid arthritis, but they all tend to do very well and grow very fast.

At the same time, I believe building a wall of data is important. When you look at the size and the magnitude of our clinical trials, and when you look at the number of tumor types that we are studying, I think we are going to be in a very good position over the long term. And it's hard to think about late entrants coming in and having a strong position once you have that wall of data built. I think the strategy that we've put in place is the right strategy over time, and I think over time you will see us in a leadership position.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Seamus, I am not sure exactly what you mean by faster studies giving less robust results. Just to outline again, our strategy broadly with respect to these tumor types, as I mentioned in response to Jami Rubin's question, is that we have gone in and said let's look at the patient populations in which we expect to see the best results. And those are the PD-L1 highs in the current formulation. It's not the only biomarker that we have. In fact, we have involved other better biomarkers, we believe. But it's one that's useful.

In those patient populations, because a higher percentage of the treated patients, in principle, should respond, the result will be faster. But it shouldn't be less robust. In fact, in many cases it would be more robust simply in terms of the efficacy window. So, that's the basis for why the 024 study, which is reading out in mid year, has a good chance of succeeding. We don't know what the data are but we are eager to see the data on PFS. And thereafter, the populations will broaden through 042 and through a whole variety of other studies that we are doing. So, that's the general strategy and I think it's a good one because it focuses on those patients who need these therapies most.

Operator

Andrew Baum with Citi.

Andrew Baum - *Citigroup - Analyst*

Thank you. A couple of questions, please. First for Roger, some of your competitors are beginning to make investments in cancer neoantigen vaccine platforms to address the non-biogenic tumor subsets which are obviously sizeable. I am unaware that Merck has such a collaboration right now. Obviously involves logistical complexities (inaudible) off-the-shelf solution might share a point. I would be interested in your appetite to move into that treatment modality.

And then, second, a question for Ken. Obviously, pharma has been positioned as a rogue industry in light of the pricing issues within the US. To what extent are you seeing some of the negative attention on reimbursements spill over into other areas? I noticed [notpic] in investigations from the DOJ, the FTC, the HHS. Do you see any additional risk there for the industry as a function of scrutiny, almost certainly driven by political focus? Thank you.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Andrew, with respect to neoantigen vaccine strategies, conceptually the idea is, okay, we've introduced checkpoint inhibitors now and we can get good responses in a significant percentage of patients. But in a large number of patients, on more than half, we actually don't see a response. So, why don't we see a response in those patients?

One possibility certainly is that there isn't enough preexisting immune response. And if we could stimulate that through, as you say, a neoantigen vaccine, things might go better. We're interested in those kinds of strategies. We, of course, have used other vaccination strategies. I point out again the oncolytic virus strategy which appears to have some traction.

And we are looking at the question of whether or not it's possible to use neoantigens. One of the issues is, as I'm sure you realize, introducing it as scope therapy where each patient receives a unique neoantigen cocktail will be very challenging from an industry perspective. So, we are looking

for those situations where there might be groups of neoantigens that could be used and would be able to improve responses in a large set of patients.

Ken Frazier - *Merck & Co., Inc. - Chairman and CEO*

And with respect to the political and regulatory and legal issues around pricing pressures, obviously the whole issue of pricing and affordability for patients is a significant one. It's a challenge that we have as a society. I think it's unfortunate that that debate is being amplified and, in some ways, distorted by some of the political rhetoric, especially having to do with the Presidential election cycle. From a pharma standpoint, as Chairman of PhRMA, we continue to work and educate constituents in Washington, DC and around the country on how pharmaceuticals actually help reduce costs in the overall healthcare system, as well as the impact that they have on individuals, as well.

Now, the reality of the world is, as we've seen, when there are these headlines you tend to get Congressional hearings, and you tend to have states attorneys generals writing letters and things of that nature. And I take those things very seriously. But I also think that the most important thing we can do as an industry is to continue to price our products consistent with the value that they provide to our customers, and to continue to try to educate, again, people about the long-term positive impact that appropriate use of pharmaceuticals has on overall healthcare costs.

Operator

Tony Butler with Guggenheim Securities.

Tony Butler - *Guggenheim Securities - Analyst*

Yes, good morning. Thank you, Teri. A couple of brief questions for Roger. One is, interesting BD solution with IOmet given some earlier data that you presented at SITC on melanoma. But the real question is, do you actually have data in-house that an IDO and/or a TDO inhibitor in combination with Keytruda would have utility in tumors outside of melanoma?

The second question is around GITR. Will we see Keytruda GITR combos this calendar year at a clinical meeting?

And forgive me, Teri, but, Adam, quickly on Remicade non-US, do you actually have countries which are actively switching patients on to the biosimilar today, or is that simply new patients who go on an anti-TNF inhibitor? Thank you very much.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Tony, with respect to the question of whether IDO1 inhibitor data exists outside of melanoma, we have a lot of data that we have generated in combination with Incyte. In order to really know whether you have evidence for combined efficacy, you would have to have detailed, really, comparisons between monotherapy versus combination therapy, and those kinds of data don't exist, really, anywhere. Those really have to be done in robust Phase 2 or certainly Phase 3 studies. And we are moving forward with that.

We are interested in pursuing the field in more detail and in order to do that we really need to have access to a whole range of different compounds. And that's really what drove the IOmet deal. We are pleased with our interaction with Incyte but we need to be able to look at a broader range of starting materials.

And for the GITR data, we are doing combination studies right now, GITR in combination with Keytruda. Depending how enrollment goes and how much data we have, we hope to be able to present some of that data this year.

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

And then with regard to the question on Remicade, if you look at share by volume, we had 85% share in the fourth quarter. That came down from about 90% share that we had the quarter before. So, we're definitely seeing biosimilar business wins for new patients. The percent of new patients is only going to grow over time. Right now about 10% to 20% of the business per year is new patients.

We are seeing substitution of existing patients in some smaller markets such as the Nordics. At this point in time, we are not seeing it in the larger markets. But we continue to anticipate that the impacts of biosimilars is going to accelerate as we got into 2016, as there is more and more new patients coming into the market and they become a larger percent of the sale.

Operator

Alex Arfaei with BMO Capital Markets.

Alex Arfaei - *BMO Capital Markets - Analyst*

Good morning. Thank you for taking the questions. Roger, on the Keytruda 024 first-line study, forgive my ignorance on this, but can you provide the rationale why PFS was selected as a primary endpoint given that it has not been a reliable endpoint for anti-PD1s in general? Basically I'm trying to assess the risk for this trial. Could we see a situation where PFS is not significant but overall survival is significant, which would actually be similar to what we have seen in a more advanced setting?

And the follow up for Rob, what's driving the 14% FX head wind in animal health? Obviously it's more significant than what you are experiencing overall and masking solid operation or growth. Is this mostly Venezuela? And when can we expect this to moderate? Thank you.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

Alex, this is Roger. On the PFS endpoint, if you look at the 010 study, I think that that's a good model for you to look at because you look at overall survival and you look at PFS, the PFS hazard ratio is really excellent. And you can see the progression-free survival for both doses and for PD-L1 high as well as PD-L1 1% population.

Again, I don't really see why first line should look any different from second line in that kind of setting, and we should, therefore, be able to see a PFS signal. And you can do the tower calculations based on the hazard ratio of less than 0.6 that we saw in that study. That looks pretty good. You can't know until you do the study but that's really what it all looked like, I think.

Rob Davis - *Merck & Co., Inc. - CFO*

Alex, the other part of your question on animal health, the reason you see a higher FX impact to animal health is predominantly due to the fact that the sales of animal health relative to our human health business are even more weighted outside of the United States -- pretty significantly outside of the United States. So, it's really just a proportion of the sales coming from markets exposed to currency more than anything else. Venezuela did have a nominal impact on animal health but it's not the driver. It's just general trends across all currencies.

Operator

David Risinger with Morgan Stanley.

David Risinger - *Morgan Stanley - Analyst*

Thanks very much. With respect to hepatitis C, could you please talk a little bit more about your list pricing decision relative to the competition and how the market should think about discounting? Obviously, there is a lot of speculation, so it would be good for you to help frame these topics so that people understand your perspective on the list pricing and discounting.

And then, second, with respect to odanacatib, investor expectations are very low for this drug, Roger. I was just hoping that you could share your level of enthusiasm for this drug to be approved and have a successful launch. Thank you.

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

Hi, Dave. This is Adam. Let me start with Zepatier. I always think it's important to remind everyone that we have a competitive product profile, and it all starts with having a competitive product profile. And I think we potentially would have some areas of differentiation that could be important.

In addition to that, I think we developed a good pricing strategy that's going to help Zepatier be successful in the marketplace. What we did was we priced our list price to be competitive where the market's current net prices are. Our list price makes us competitive across all segments. I think it could potentially help us in some currently underserved segments.

I think, also, lower list prices could potentially have a positive impact on out-of-pocket medication costs for some patients. There are some patients in Part D where the list price does matter in terms of out-of-pocket costs, and I think it could be beneficial for us there.

I wouldn't read into our discounting strategy based upon our initial pricing strategy. What we intend to do is compete in all segments of the market and to have an appropriate discounting strategy that allows us to have access.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

And Dave, it's Roger on odanacatib. Back in May of 2014 I talked about odanacatib because we had the early results from memo available for the Phase 3 study, and noted that odanacatib had hit the three critical endpoints in osteoporosis -- namely, it reduced vertebral fractures, no-vertebral fractures, and it reduced fractures at hip. And I said at the time that the benefit-risk profile for odanacatib appeared favorable.

It's a novel oral therapy that does what it's supposed to do in terms of reducing fractures, actually quite dramatically, quite impressively. In terms of clinical vertebral fractures it's really the best that I have seen, and I've been doing this for a while. So it looks really quite good.

One of the things that we pointed out when we presented these data at the end of 2014 was that there was a larger than usual discrepancy in adverse experience reporting for investigators versus central review. And in order to resolve that problem, we undertook an adjudication process, and that adjudication process has taken much longer than we imagined. We worked with FDA to define that process and we have worked with an external organization to go through with it. It took all of last year. We are nearly done. We want to get these data in and have an opportunity to file it.

But I don't think there's any question that odanacatib does what it's supposed to do. We just want to see those data pulled together.

Operator

Mark Schoenebaum, Evercore ISI.

Mark Schoenebaum - *Evercore ISI - Analyst*

Hi, guys. Thanks for taking the question. I wanted to talk a little bit about your Belsomra launch. Scripts are doing fine. We are curious about the performance, though, above and below your expectations at this point. And really quick, is there anything in the pipeline that investors are ignoring?

Adam Schechter - *Merck & Co., Inc. - President of Global Human Health*

With regard to Belsomra we started off with a really good launch and we had nice growth. It then flattened a little bit. We ran direct-to-consumer advertising and we saw an increase again in TRx volume. We have since seen it flatten a bit.

We are working right now on augmenting our digital capabilities and our online capabilities. At the same time we're working with physicians to understand that if 10 milligrams, which is the start dose, isn't effective, that they should titrate the patient to 20 milligrams. I would say that we were off to a good start. I am not pleased that it's currently flat at this point in time, but we are working on that.

Roger Perlmutter - *Merck & Co., Inc. - President of Merck Research Laboratories*

And, Mark, with respect to the pipeline, your colleagues are always telling me that, based on our current share price, it appears that the pipeline is being completely ignored because there is almost no value that is ascribed to it. And it surprises them that here we have a really major effort in Alzheimer's, for example, and don't get an enormous amount of credit for that.

When you tick through all of those Phase 3 opportunities, some of which I mentioned, that are coming forward, as well as the large number of Phase 2 programs in the early space -- and I could go through them one after another -- I think we have an enormous opportunity here, and would love to have the opportunity to talk about it in more detail.

Teri Loxam - *Merck & Co., Inc. - IR*

Thanks, Roger. I think, unfortunately, we are out of time. So I'm going to just turn it over to Ken for some final comments.

Ken Frazier - *Merck & Co., Inc. - Chairman and CEO*

Okay. Again, thank you for joining us this morning. We are pleased with the growth that we saw through continued execution in our key areas, including diabetes. We are looking forward to additional growth. I think if you look at our 2016 guidance ex FX, you see we expect to grow low to mid single digits. I think it's important to look at our EPS also. We continue to be very rigorous in our cost reductions and we are able to provide guidance here that, again, will allow us, ex FX, to grow mid to high single digits.

So, we are pleased that we are back in a growth mode. And we're very excited to have opportunities to launch important products like Zepatier and Keytruda. Thank you for your attention this morning. We look forward to talking to you in the future. Bye-bye.

Operator

Ladies and gentlemen, this concludes today's conference call. You may now disconnect.
