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H. Lundbeck

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James Gordon: Good afternoon. I'm James Gordon, J.P. Morgan European Pharma Biotech Analyst, and today I got the pleasure of introducing the Lundbeck presentation. We're going to hear from Lundbeck CEO, Deborah Dunsire, and we've got a 20-minute presentation, and then we'll leave 20 minutes for Q&A, which is going to take place in here.

You can try to log your questions on the website, or you can put up your hand, and we'll take your question. With that said, thanks a lot for joining us. Deborah. I look forward to the presentation.

Deborah Dunsire: Thank you, James. Happy New Year to everybody. It's great to be back in person in a lot of ways. I'm very, very happy to be presenting Lundbeck here today.

You've seen our forward-looking statements, so I don't have to spend any time on those. It's exciting times to be active in neuroscience, and Lundbeck has a heritage in neuroscience of the last 70 years, but the market is really moving and changing.

We've seen growing knowledge of the biology of different diseases. We've seen evolving technologies, coming to bear in neuroscience, new drug modalities coming in that afford us the opportunity to drug new targets.

We've seen over the years increasing regulatory approvals. Neuroscience has been second only to oncology for a number of years in regulatory approvals. Of course, new investment coming in

as a result of all the things I've just spoken about fostering new company growth from venture investment.

We see what we've been talking about for a long time that this is going to be the era of neuroscience as we go forward, and Lundbeck is well poised to be able to capitalize on those opportunities into the future.

We have a very strong revenue generative business with four strategic brands. Those are our patented-protected brands, forming 65 percent of our business, and this is through the nine months. We're not reporting full-year figures yet. That happens February 8th.

We've seen very significant growth of these strategic brands, but we also stand on a very strong base of mature products, which have had a very long ability to deliver sales and very good profitability. Those brands have continued to be very resilient. Our strategic brands grew 19 percent in local currencies through the first nine months, and we anticipate the balance of 2022 has remained strong.

Our new strategic brand, Vyepti, in the prevention of migraine, both chronic and frequent episodic migraine, launched in the US in April of 2020, an IV therapy into the teeth of a global pandemic.

This drug has continued to grow in quarter two and quarter three. Last year, it was one of only three brands in the prevention of migraine space that grew, Vyepti being the only of the CGRPs. The other two were the more recently launched gepants.

We see that we're over five percent in volume market share. Vyepti is, as an IV therapy, it's not

discounted significantly. It is the most expensive of the migraine products. We have a higher proportion of the value market share.

We're very proud that patient persistency on Vyepti, people getting their second dose at three months, their third dose at six months, their fourth dose in the nine-month time frame, exceed the rate of other therapies, Botox or other CGRP therapies, for the persistency over time.

We are rolling out Vyepti globally. Lundbeck did all the work to get the approval in Europe and other markets outside of Europe. We got the approval in February of 2022 and are beginning the roll out throughout Europe. We launched in nine markets in 2022. You can see them listed.

In some of the markets that were launched late in 2021, UAE being the first of the markets outside the US, we've achieved a 13 percent market share. That is a figure we're very, very proud of.

What we've seen in every market that we've launched, it's the profile of Vyepti really delivers for patients. It is really delivering on that efficacy benefit in those most impacted patients. We've got another eight launches planned during the year of 2023.

An old favorite, our biggest product at the moment, Brintellix, Trintellix, has been underpinned by tremendous growth, particularly in Europe and in Japan. Coming to Japan, it was most recently launched there in the end of 2019. It's growing very, very strongly, with a 9.1 percent value market share, having grown 3.3 points in 2022 alone.

We're partnered with Takeda. They are the lead partner in Japan. They cover mainly the GPs.

We cover psychiatrists. It's Lundbeck's first foray into having our own commercial presence in Japan. We're delighted with the progress. We expect continued strong growth for Trintellix in Japan.

Europe and international markets also saw a very strong growth in 2022. We've seen that particularly in the GP segment, where we'd had some additional sales reps that we'd been experimenting with putting in Europe during the '19 time frame.

That's been where patients, after COVID, seeking mental health care, have been seen first by the GPs. That's what has allowed Trintellix to really grow strongly. We anticipate that continuing. The US was relatively flat in 2022. We did have a restructuring, together with our partner Takeda, who is also the 80 percent cost-share partner in the US during end of '21.

It took a long time for Takeda to come through that restructuring. We had a lot of territories in the Takeda field force open in 2022. That is now corrected. We anticipate Trintellix will come back to growth, but at a low single-digit rate.

Rexulti has been a tremendously strong grower in 2022. As you know, Rexulti is approved in only a few markets for both schizophrenia and MDD. US is by far the largest of those. It's also approved for both indications in Canada, Saudi Arabia, and Brazil.

The MDD indication has really anchored the growth. That is the real driver. In the US, in 2022, we saw extremely strong growth for Rexulti. This is an adjunctive therapy added to other therapies, baseline, SSRIs, SNRIs.

With the telemedicine wave, psychiatrists have really stuck with that. In a telemedicine consultation, they're much more willing to add an adjunctive therapy than change therapies. We think that has benefited Rexulti. Canada's also been a dynamic grower, as has Brazil, with those two indications.

Of course, there's a lot to talk about with Rexulti with the new indication coming. We'll come to that. We just, on Friday, received the priority review designation, our day 60 feedback after the submission of the file. FDA came back and said they were accepting for filing and granting a priority review.

They advised us to be prepared for an advisory committee. We were already in preparation for that. We had the third of three phase III trials read up with a very strongly positive significance versus placebo.

So that the totality of those three trials is submitted to the FDA and delivers the first therapy, potentially, for the treatment of agitation in Alzheimer's disease. The symptom that singularly is most impactful in moving people from at-home care into institutional care.

If we can keep people at home with their loved ones for longer, that's beneficial for families, patients, but also, potentially, for the economics. There are no approved therapies. Our PDUFA date is May 10th. We will be investing significantly behind this launch. It's a tremendous opportunity, given the number of patients.

We have communicated that, together with our partner Otsuka, we anticipate alliance sales for this indication before patent expiry of over $1 billion in gross sales. Very exciting opportunity ahead for Rexulti coming up this year.

We also have two phase III trials in post-traumatic stress disorder that we'll read out later in the year, so just around the mid-year. These two trials have been running for a long time. COVID was a very difficult time to accrue PTSD trials, but we are happy that we will be able to wrap up the accrual and deliver the headline data for these two phase III trials later this year.

It's, again, an area of very high unmet medical need. Only two SSRIs are approved in this indication. We're looking at adjunctive therapies on top of Sertraline, so a bit more analogous to MDD for Rexulti.

We're eagerly awaiting the outcome of those trials with the potential for yet another indication expansion for Rexulti. In my career, and it's over 30 years now in this industry, I've never had two PDUFA dates within four weeks of each other.

PDUFA date May 10th for Rexulti. PDUFA date for the two-monthly version of Aripiprazole the long acting is April 27th for the FDA. We anticipate approval of this two-monthly version in Europe mid-ish year. In Europe it'll be called Asymptify. We don't yet have a trade name in the US.

The once-monthly formulation has been growing. It's done very well. We're over 30 percent market share in a number of countries. The two-monthly version we anticipate will offer patients and physicians the opportunity to get a longer time of therapy, which in schizophrenia is very important given that patients are often non-compliant.

This two-monthly version is patent protected out to 2033. The once-monthly version does lose in Europe in 2024. We have also submitted in Canada, and we anticipate the approval in Canada in, I think, the third quarter of the year.

We've got some great growth ahead of us as we maximize these strategic brands, and then capitalize on the opportunities that the advances in neuroscience afford. Lundbeck is going to stay focused in our core strength in neuroscience, but that's writ broadly, it takes in specialist psychiatry, specialist neurology, rare disease neurology.

We are looking at trying to have biomarker-driven targeted indications where we can have a specialist call point and not have to build large GP sales forces. We're looking for transformative therapies in areas of clear unmet medical need.

We're working on finding and bringing forward in our pipeline or accessing from the outside areas with strong biological rationale that we can derisk through biomarker-driven development.

Here's the overview of our pipeline, and you can see it's divided into four areas. Those are the areas that we work on within our internal discovery space, focusing on our heritage of neural circuitry, but adding neuropeptide, neuro-hormonal signaling as we have with the CGRPs, and then bringing in the neuroimmunology, which is new for Lundbeck.

Really an area of biology that we can open up. There are many, many diseases driven by the inflammatory process. Then we also have the protein misfolding protein degradation. We have a very rich phase I pipeline, and we have two molecules in phase II, and then a number of life cycle management programs in phase III.

I'll talk about a couple of those as we go forward. We made strong progress in 2022 in our pipeline, and I've spoken about a number of those different areas of achievement. We completed

the enrollment to our PACAP trial in phase II and the Asimov trial. PACAP actually completes early this year.

We also have put our first products into the neuroimmunology, the CD40, where we've begun phase I, and we just before the end of the year got the first patients in the neuro-hormonal ACTH antibody trials. We've also brought in new modalities like the small molecules interfering with RNA.

Talking about our PACAP inhibitor, the place we've taken this biology first is into migraine. Migraine still has unmet medical need. The CGRP's made a huge step change, but even with those great drugs, there are still patients who don't receive full treatment.

Taking the PACAP forward, investigating that biology, we had done a clinical trial, looking at the mechanism. Administering PACAP, seeing the vasodilation, the impact of PACAP on the patient and then administering our antibody, ensuring we could diminish that, so that we do know that we're getting that good interaction with PACAP. Now we're doing the clinical proof of concept in migraine.

What's interesting about PACAP, is that it has a richer biology and has potential not only in migraine pain, but also in bringing in other types of pain including areas that include parasympathetic activation or mass cell degranulation and some part inflammatory components.

We could see a broader range of indications coming for PACAP. Of course, it's early, and we're going through and understanding how this biology can impact. The second of our phase II programs in the rare disease called [indecipherable] , often an indication of multiple system atrophy, which is a synucleinopathy.

Part of the framework of synucleinopathies which include Parkinson's disease and Lewy body dementia. We've chosen to focus in MSA right now with an antibody therapy that targets the seeding species of alpha-synuclein. We feel very good about this antibody where it binds on the molecule. We've got this proof of concept trial fully enrolled.

We'll monitor patients for over a year because it is a neurodegenerative disease, so we need a little bit of time. This could be a transformative therapy for patients where there is no therapy right now. As I said, we put our CD40, the first of our neuro-immunology programs.

CD40 inhibition has been proven clinically in other areas like Sjogren's disease, SLE, rheumatoid arthritis. There are assays. We know that the biology can work on inflammation. We're going to be taking it into neurological areas.

We've got an interesting candidate that binds to CD40, but has unmodified Albumin binding. It's a fragment. Slightly different profile than a regular Fc binding for the assay. Very interesting molecule that could have multiple indications as we go forward.

Moving through the phase I for that, and then just having started in neuro-hormonal areas, anti-ACTH antibodies, so acting on the hypothalamic-pituitary-adrenal axis and again, exploring that in phase I.

If we can show the effect to normalize the homeostasis in that pathway, then we can look at a variety of indications there also.

When we think about 2023, Vyepti is going to continue to roll out with new launches around the world. We're launching a two monthly version of Aripiprazole in three regions. Brexpiprazole, Rexulti into Alzheimer's agitation in the US and then submitting potentially in Canada, and then delivering the headline results from the PACAP and the PTSD trials later this year.

When you think about Lundbeck, you can think about a company that has a very strong competency and heritage in neuroscience. Singularly focused in that area over the last 70 years and looking forward to being able to capitalize on the evolving understanding and biology in neuroscience, using that competency into the future.

We've got great strength in our strategic brands, great cash generation going forward and a really scalable global footprint on which we can build this business into the future. Of course, at the center of everything we do is keeping that focus on our patients and restoring brain health so every person can be their best.

With that, I'll draw to a close and open the floor for questions. If you'd like to come and sit down, please feel free. There's chairs down in the front and in the middle.

James: Thank you very much.

Deborah: Thanks, James.

[background conversations]

James: Great. Does anyone have a question they'd like to kick it off with?

[pause]

James: In that case, maybe I'll start with one. You mentioned on Friday that you expect to have an AdCom for Rexulti for AA. Is that a surprise? What do you think is going to be discussed at the AdCom?

Johan Luthman: No, I don't think it's a surprise. Obviously, this is a new indication, so the agency probably like to discuss it. We will see during the review process. I experienced that FDA is still more flexible when it comes to AdComs. Now, they call it in when they think it's needed, and we'll see during the process.

I think the more important thing was that we got priority review. It's a faster reviews that signals that, first of all, they think we have submitted something that's worth looking at. Also that they see pressing medical need in this field.

They'd really like to see something going through quickly here. I think that everything was quite what we expected and, of course, it was positive. All of it.

James: Is it as simple as you get the approval or you don't get the approval or are there some subtleties in terms of warnings on the front page or exactly what indication you could get? Are there any subtleties we should be thinking about?

Johan: The indication we're going for is very straightforward, agitation Alzheimer's disease and the primary read out is not established but it's the standard read out people use in this field, the CMI space.

In terms of what we're after, I think it's pretty clear. It's that the indication is not psychosis, which is related. It's a relative of agitation but it's really not that part. It's really the agitation that we're after.

In terms of our data package, it's a pretty robust package. Three phase III trials. I would also like to emphasize that we have very, very strong tolerability data, which is extremely important here because there is a this cautionary black box indication for use in elderly of neuroleptics.

Here we have a data package from three trials where we pushed the doses up to three mg in the last trial. Overall, that data package really showed a tolerability that was not very different from placebos.

The class label is hard to get out, but we have a mechanism of action that is partial dopamine agonist. The mechanism of action explains why we have better tolerability. We're really looking forward to that risk-benefit discussion as well.

James: You framed the commercial potential...I think you said a billion dollars is the gross sum. What does that assume? Does that assume conversion of people who are getting atypical antipsychotics at the moment or are you assuming big market expansion?

Also, you slightly unusually gave a gross rather than net figure. What is the thinking about gross to net when we do that calculation?

Deborah: We know that the gross to net...There's already a gross to net on Rexulti. Over years, that tends to rise. I think that's an important...It exists with all the oral therapies, right?

Sorry, say that...

James: In terms of what went into the...Have you assumed big market expansion of people using this class of drugs?

Deborah: Yes.

James: Is it more just taking share from existing products?

Deborah: No, there's certainly not enough use of existing products to justify that, so it is certainly an expansion.

As you reference the black box warning, there is a reticence for people to use antipsychotics in the elderly because of that black box warning. This will be the first drug that has the proven safety and tolerability in the elderly population to be able to justify the utilization. We do anticipate an

expanded usage because we have the safety and tolerability.

James: Is there any scenario where you don't have a black box, or it's differentiated on that basis?

Deborah: My personal opinion -- and Johan, I think we share the same one -- once a black box warning is put in place, it's very difficult to take it away. There's not a lot of upside to the agency to do that, and certainly, black boxes have not limited the utilization of safe and effective therapies.

I would not anticipate the black Box going away. I'd be very pleased if it did, and that would certainly differentiate, but I think that's a very high bar. Do you have anything to add?

Johan: No, I think it's perfectly right. I think we have to really emphasize the clinical data we have, and the clinical section will emphasize that.

We have, of course, presented the data now at two major Alzheimer's conferences, and it was extremely well received. The super specialists, particularly the geriatric psychiatrists, they really appreciate the profile we show here. They see that differentiated against what they can use today. We have to live on that recognition, rather.

James: There is another product that's in beta recently. Axsome have got a product for Alzheimer's agitation. Do you see that product as a significant threat? Is there a scenario where they might get approved on the data they've got already, or do you think they'd be a long way from the market, still?

Deborah: I think that's going to be up to their discussions with the FDA, and I won't comment on that.

Certainly, what I can say that Lundbeck and Otsuka have done together is a very comprehensive and robust program based on three phase III trials, with a very thorough exploration of the doses. That is what FDA asked for, that's what we've given them, and I don't think that they will ask less of other compounds in the field. This is a vulnerable patient population.

James: You mentioned having another [indecipherable] coming up, which will be for the the bimonthly version of Maintena. What is your thinking for that product in terms of the conversion for monthly, how quickly would that go? You only have a relatively finite period to swap over. Will that be the end of the conversion once those are generic of the monthly?

Deborah: Answering the second question first, I don't think it will be the end of the conversion. Even if people got a generic once-monthly, there is still a benefit to, particularly the schizophrenia patient, having patients stay on therapy longer and not have non-compliance or recidivism. I don't think it's the end of the conversion.

We have patents that were issued in the US that go out a bit longer than 24, so it's a shorter period of time in Europe. When we look at other molecules, long-acting molecules, that have had successive launches of increased coverage time, you do see that the...Overall the class, brands grow, but the distribution changes. It's not a complete switch of one to the other.

The once-monthly will probably be the starting place for most people, but it doesn't stop you

going directly onto the two-monthly version either. Europe will be a bit more challenged because they have a shorter period of time to establish the profile. I would anticipate the use of the two-monthly in Europe overall will not grow as strongly as it will in the US.

James: Are there any precedents for the sort of conversion we might see in the US for a product like this?

Deborah: One has to look at the Sustenna-Trinza franchise and see how that breaks out.

James: Switching gears, business development. Where are we in your appetite for doing deals, and what sort of size deal might you be looking for this year? Would you do a deal even if it was quite diluted because it was a promising pipeline asset, or are you still thinking more about accretive deals?

Deborah: What we'd said in the 2021, '22 and into '23 time frame is we've got high R&D burn as we finished up the Rexulti programs. We've got Vyepti programs running, we have the Asia Vyepti program now, that we didn't want to simply add more R&D burn on top. That's starting to change.

We've previously said we are looking at early-stage assets, and we've done a couple of deals like our CD40, like our deal with Argenta, for small-molecule targets, for small molecules interfering with RNA, that could be fit within the R&D profile, or we would look at near-term accretive. Those are still very interesting to us.

Over time, we will have a bit more room to be able to bring in those more mid-stage pipeline

assets. Of course, we've got our own moving through, so those will, we hope, move into phase III trials and start to occupy that space. I don't foresee us doing massively diluted deals for only mid-stage pipeline.

People ask us about our M&A firepower, so the first thing I always say is, "It's not just M&A." We look at partnerships, we look at licenses, we look at regional deals. If we were to do debt-financed M&A, our headroom is just above two billion if we are to remain investment-grade. We're very cash generative, we're paying down debt.

I'd like to use the headroom we have to do multiple different things. Again, if we were to invest in one thing, what has to be true about that is it does multiple things for us, like our Alder acquisition did. It brought in a near-term launch with Vyepti, two pipeline assets now, with PACAP and ACTH.

It brought in a massive change in our capabilities in biologics, gave us a biologics development site which is located just outside Seattle, and allowed Lundbeck the transformative opportunity for a global independent launch. We're doing our own trials in Asia.

That shape of asset may be worth investing our headroom in, but they're not that many of those around. While we look at those, they're rare, and so I could probably see us doing a mix of a few different things.

James: Thank you. What about shifting to a operational perspective for 2023?

You previously set a target about where margins could go in 2024 without giving it a specific '23

guide, but should we think of '23 as a big step up in operative profitability as you work towards what that previous '24 guide was, or are you a bit more focused on the longer-term pipeline now and/or investing in Rexulti for AA, rather than '23 being the year of big margin expansion?

Deborah: What we've said is that '23 will definitely be an investment year. We know that we have until 2029 with Rexulti, and so growing that very important and big opportunity in AAD is something that we need to invest behind to get the growth ramped up fast.

Definitely, we're investing behind the two launches, the Asymptify two monthly, the AAD, and then the continued roll out of Vyepti. We're definitely investing commercially, and then we're finishing up a number of things in our phase III pipeline for Vyepti and for PTSD.

I certainly will not be telling you to expect a massive margin expansion in 2023, but we're not guiding specifically at this point.

James: Would you even consider something as a scenario where margins might contract slightly if there were interesting things to invest in?

Deborah: Our goal is to build a sustainable, profitably growing company. We would always look to make sure that we have sustainability in revenue growth, in profit and in profit growth, versus a particular year's margin target.

James: Thank you. One more for me, which would be PTSD. How should we think about the risk profile of that read out because I know it has been quite a tough indication. Would you see that one as a [indecipherable] that might work, or one that actually does have a good shot?

Johan: Obviously, if you compare it to agitation Alzheimer's disease, this is a higher risk enterprise because we have one exploratory phase II study that indicated that it worked together with SSRIs. This is an adjunct treatment to SSRIs, so it's not monotherapy that they're going for. We did explore that in the phase II, but it didn't pan out as expected.

We have less prior information in agitation Alzheimer's, but definitely we have two very robust phase III trials with agitation Alzheimer's, so from that perspective, it's scientifically higher risk. Definitely.

It's also an indication where you have a very mixed bag of patients, from childhood trauma to spousal abuse, recent spousal abuse, to war veterans. It's a mixed bag of patients, and very hard to treat patients. If it's lucky there, then that would be great.

It's also an indication where we struggled tremendously during the pandemic that Deborah talked about because it's so hard to...One of the characteristics of the disease is to stay home, and they didn't want to go out to even our trial sites. Now, we'll actually manage to finish the trials, which I'm happy enough with, then we'll see how it goes by mid to end of the year.

James: Thank you.

Deborah: He's always the scientist, right? The one thing I would say is it is an adjunctive therapy. We're not doing a monotherapy trial as we were in Alzheimer's agitation, but we're close enough that we'll see the data, and we'll know.

Johan: I'd like to add, we had a signal that looked promising enough in phase II, and that very tough indication, it almost was an obligation for us to test it out fully in a phase III program.

James: A target question for me would be Vyepti, as we think about 2023, should we think about the product continuing the trajectory that we saw in 2022, or are there reasons it might inflect, or otherwise?

Deborah: Definitely we're looking for it to continue the trajectory, and we're doing everything we can to inflect it. We've had some work done with patient activation, multiple channels. We're waiting for results on that to see how that might need to be tweaked.

We're working on expanding the capabilities within the alternative sites of care, expanding home infusion to make the experience for the patient as seamless as possible. We continue to work on how do we make sure that the physician prescribing is as seamless as possible, not only for infusion, but for reimbursement.

There's a lot of activity and action that we're taking to continue to support stronger than ever growth for Vyepti. Certainly, we anticipate this product growing strongly into the future.

James: If there isn't any further questions in the room, we'll wrap up there.

Johan: Great. Thank you very much.

Deborah: Thank you.

James: Thank you.

[applause]