## 41ST ANNUAL J.P. MORGAN HEALTHCARE CONFERENCE January 9-12, 2023 | The Westin St. Francis San Francisco, California



## Galapagos NV

Galapagos NV presentation delivered at the 41st Annual J.P. Morgan Healthcare Conference on Monday, January 09, 2023 at 4:30 PM

**James Gordon:** Good afternoon. I'm James Gordon, JPMorgan European pharma and biotech analyst. Today, I've got the pleasure of introducing the Galapagos presentation. You're going to hear from Galapagos CEO, Paul Stoffels. We're going to have a 20-minute Q&A in this room after the presentation.

With that said, thanks a lot for joining us today, Paul. Looking forward to the presentation.

**Paul Stoffels:** Thank you. Good afternoon. My name is Paul Stoffels. I said I am the CEO of Galapagos after retiring from J&J where I worked for 30 years, mainly in the science, but as chief scientific officer for the last 10 years.

Returned back to Europe and took the reins of a company which I co-founded back in '98. It was coming back home for me, recharging Galapagos for the future. I'll give you a short summary of the story, what we are doing at the moment, the new products, the new pipeline, and ready for some Q&A after that. Thank you. Thank you for joining.

First, the usual disclaimers, far too small to read but they are there. When joining Galapagos together with the management, I worked out a strategy on how can we accelerate time to result and bring new products to market.

For that, we did a deep analysis going into what areas we were in and also what modalities we were in, in order to see what can we do to get to a new product pipeline in a much shorter time frame. With that, also working towards a financially sustainable biopharma. Looking forward but also go much faster.

We are grounded on a long history of new target discovery in small molecules, and that's a very long path. It resulted in Jyseleca, filgotinib. One product came out of that in a very - which is now in the market in Europe, and I'll tell you a little bit about that.

We are building on that, but we're also building on an acceleration of the late stage pipelines with five pivotal late stage molecules which we want to have by 2028, and one additional product on

the market in addition to Jyseleca.

We also continue to work on significant business development as we have a strong balance sheet where we can build even faster pipeline going forward. In order to rebuild and accelerate and bring more transformational drugs to patients in five years, we had to really review the way we worked.

Bottom up, doing research from new targets to the market, is far too long, and so we turned it around into a therapeutic area driven in immunology and oncology and working broadening our platforms from small molecules to, also, antibodies but also, especially, CAR-T.

For that, in the last six, nine months, we did a significant restructuring. We reduced our total number of people by 200. We had 1,200 people but that in order to rebuild new franchises and, especially, in oncology.

We are supported by that with a very strong balance sheet. We have more than four billion cash from a collaboration with Gilead. I'm sure that with a disciplined cash use, we can deliver innovation which can bring us to significant value and, hopefully, bring us to a sustainable independent pharmaceutical company, working from Europe but being active globally.

Building on our strong fundamentals of deep scientific expertise, working with people who have gone through the whole field, from discovery in targets to medicinal chemistry upscaling, pharmaceutical development, clinical development, regulatory, and commercialization, having a team which has done it, you can build on to accelerate on with the new modalities, the new products, to make that work.

That was one of the strong reasons for me to join Galapagos, that end-to-end capabilities were available. Another one is the strong partnership with Gilead. We can leverage R&D capabilities through collaboration and, also, Gilead has access for us to US global markets. More on that later.

The last two years, the company built EU commercial infrastructure, based on Jyseleca in RA and UC, in a very successful way. That gives us, now, a very strong asset in Europe to build on to launch new products and, from there, in collaboration with Gilead, launch products in the rest of the world.

Then, like I said earlier, financial strength and independence, we are an independent

pharmaceutical company. We have Gilead as a partner, where they can opt in at Phase Two in our products but, then, under very strong conditions, which are very advantage for us. We are spared from building a whole US infrastructure for our marketing and sales.

If you look at our pipeline, then those of you who followed us for some time, you will see that we trimmed significantly in the pipeline and now focus, first of all, on expanding filgotinib. As I said, it is approved in RA and UC and a big milestone in next year will be the new indications in Crohn's disease.

The new indication in Crohn's disease in the first half of the year, we'll have those data. That, together with RA and UC will form a very strong package to continue to grow the business. Then within AxSpA, we started a new study which should give us other additional indications in filgotinib.

We went through a number of additional reviews with the regulatory authorities, with the PRAC evaluation, where that came out in a very positive way for us, where the drug can be continued to freely prescribed.

As we have in the high dose in the high-risk patients, the recommendation is to use low dose, and with that, we are through that now. We have a very solid continuation of our business based on that. Second, those of you who follow us for a longer time know that with MANTA, we had a sperm tox issue.

We have done significant clinical trials and we now have overcome that by showing that it doesn't have human impact, and CHMP has agreed that we can remove that from the label. So with that, we have a cleaner label. We have a good base now to further promote and work on that.

Then we have our TYK2. I'll come back on that one with dermatomyositis and systemic lupus erythematosus SLE. We continue to do early signs with SIK inhibitors, which was a core of the portfolio in the past.

We still need additional new med chemistry in order to get to clean and very selective compounds there and so we give it a last shot to try. Can we get it done? And come back in the course of the year to see where we get with that.

New is that with CAR-T activity, and I'll come back in CAR-T oncology, that we will start a clinical trial in refractory SLE with the CD19 CAR-T. That's a new product we bring into the clinic this

year. We brought CAR-T on board through the acquisition of CellPoint and Abound, and there we have two clinical programs, one in NHL and one in CLL.

We have a BCMA, which we are preparing for getting into the clinic in multiple myeloma and then with a focus on Next-Gen CAR-T. The ultimate goal is having a Next-Gen CAR-T platform point-of-care to broaden access in the world combined with Next-Gen CAR-T products. That's the goal where we go after and hopefully we can reach that in the not-too-distant future.

Going back to our commercial activities, Jyseleca, the European net sales guidance for 2020 is 80 to 90 million. That has been adjusted two times in the last year upwards, with the third quarter sales being at 60.5 million.

Strong UC launch -- we see the products doing very, very well. Prescribers like it, patients like it. We have treated more than 15,000 patients by now and I can confirm the safety and the efficacy of the product to a much larger implementation now in the clinic.

As I said, MANTA/-RAy and the CHMP outcome were positive, which also can be a positive accelerator going forward. Our immunology portfolio -- filgotinib in the market, TYK2 in phase 2 now, with two programs.

CD19 CAR-T SLE this year will get into a phase 2 clinical trial, and then the SIK portfolio in preclinical. We will expand our pre-clinical portfolio, Discovery portfolio, with new targets. That will follow in the next few months as we make the selection and start up the programs. We'll report on that.

The new CAR-T is quite a significant development for us. The data which were generated at Erlanger with the CD19 in CAR-T and lupus were very strong, surprisingly strong, and we think we have all the assets to be able to continue, based on that academic work.

Erlanger did a study -- Professor Seth did a study -- in severe refractory lupus in patients with multiple organ threatening disease. Late stage patients. Very high unmet medical need. It's a small part of the population, but a very sick and very diseased population, who are in need for significant new therapy. They did five patients and remarkably, all five responded very well.

By eliminating the pathogenic B-cells, you get to a durable drug free remission and nice repopulation of healthy B-cells, which was a very remarkable result and a very encouraging safety profile. That gives now the basis for expanding this, get this to the market, as well as

looking into other similar B-cell diseases, to see whether we can get into severe B-cell diseases with CAR-T.

For the TYK2, this came back to the forefront in our company after the approval of Deucra with no black box. Everyone thought it's going to be in the same category as the JAK's. Which was not the case, which was positive for us.

We had already started to work on preparing this for a new indication, dermatomyositis. We are now starting that into both dermatomyositis and lupus in the course of this year. These studies are in preparation and will be in the clinic hopefully by mid this year.

Adding to our portfolio in immunology. In our oncology franchise, as I said, when coming on board in April, we very quickly moved into oncology, driven by a very exciting opportunity, bringing a point-of-care, CAR-T, which was just going into the clinic with first very good results.

We took that on through an acquisition, jointly with an acquisition of Abound Bio, which is a small company, but very much focused on the discovery of new binders, the antibodies who are the binders for the CAR-T. They can also be used and give us the possibility now to do bi-specific and other types of antibodies could lead to CAR-T, but also to ADC. The short term for us is validating the platform as a point-of-care and therefore, point-of-care in the hospital. The validation started with CellPoint putting CD19 on that platform and testing out whether you could do that in the clinic. I come back to that - it works really well.

Next in medium term is scaling up our CAR-T platform in the world, going to Europe and the US. Today, we are in three countries in Europe, Belgium, Holland, and Spain and in 10 centers where we actually make local CAR-T in the hospital for treatment at the moment.

Second, we are building a pipeline on best-in-class cell therapies, where we are looking at what targets can we combine on top of CD19, what combinations can we make, but also in multiple myeloma.

Ultimately, hopefully in solid tumors can we build a CAR-T portfolio with next-gen CAR-Ts, and then later on leverage these capabilities in other areas, but especially also looking into solid tumors and, as I said, ADC or more antibody work in oncology.

There's still a lot of innovation, which can be done in this space. Access, durability, safety is very important in this area of CAR-Ts. Access, the manufacturing is constrained by the logistic and the

limited capacity which is today available for production in the world.

Also centralized production results in high drop-out rates and mortality also often because of the duration before people can get access to a slot to get their CAR-T done, and the lack of capacity to produce. Durability is also resulting at the moment a first generation high relapse rate.

We have seen in my previous life with CAR-T that if you combine targets at once, you can get strong durability and very good efficacy. Next gen CAR-T with multiple binders will absolutely work. The immunogenicity with the murine development of defectors and the antibodies most likely prevents redosing. With the human approach, we hope we can also improve there.

Then safety. I'll come back on that one. Where through using end-to-end fresh cells in a sevenday process, we see that we can significantly improve safety. Hopefully, as we are demonstrating already now in our phase one efficacy, as we can see, efficacy and very good safety. Hopefully. with that, help also the implementation of CAR-T in hospitals.

This is the instrument which has been developed by Lonza and is called a Cocoon. On the left side you see the Cocoon, it's a cassette. It's an incubator and a cassette. The incubator is a fully end-to-end sterile box. All the reagents are included there in which you can grow CAR-Ts.

Cells go in at one end, white cells, and on the other end, the CAR-Ts come out. The fact that we do fresh cells in, fresh cells out increases the quality of the product significantly. We administer low dose, which then grow very well into the patient, and I'll come back with those data in a minute.

This can fit on a table. It's a tabletop. It can do 40 CAR-Ts a year, with the seven days. It's very versatile. On the right hand side you see the compact version, where you can even put five or six of these in one room on a few square meters. You don't need a big GMP unit to make this work. That is in development by Lonza.

The big thing what CellPoint did was develop the process on the Cocoon as well as develop xCellit, which is the data and digital platform capturing all the data of manufacturing, but also vein-to-vein, the logistics, and capturing all the data from quality to do a quality release in a few hours after the finishing of the manufacturing.

That with the combination of the Cocoon with the biological construct and a biological manufacturing rework combined with a digital system in order to be able to manage it all, allows to do the seven-day vein-to-vein and we do it now. We have done more than hundred validation

runs.

We are now doing in 10 centers in three countries this in-hospital, proving that yes, on that level we can make it work. Hopefully in the next year we can expand significantly. What it does is centralized versus decentralized.

The centralized production is one way you go from the patient, take the white cells, freeze them, send them by plane somewhere to the US mainly. They are manufactured in a large EMP manufacturing facility, sent back frozen for most of the time, not all the time, but then back to the hospital.

Two things happen here. Logistics, but also scheduling time for patients. Because there is a lack of capacity, it takes time for patients to get a slot. That's why a lot of people don't survive or go into other therapies. Where you go into centralized production, the physician can do it themselves and manage the patients who need it first and can manage a pool of patients in the hospital.

When we work now in our clinical trials, that's what physicians like very much. You can still deploy CAR-T in very sick patients, people with life expectancy within one, two or three months, and you still can save the patient life and give him or her his or her life back for at least a significant time.

We have a study in NHL where we do three doses. It's a little bit small, but in text, a low, medium and high dose, it means a 50, 100 and a 200 million cells. We give a number of cells, not cells per kilogram because that makes much more solid and proof in the quality systems. At the moment, we do this dose finding.

That dose escalation of 15 patients, and then we'll do the dose expansion preparing for the pivotal study to generate more safety data. More data will become available in the first half of next year.

When you look at the first results, then in six out of seven patients responded, had a complete response, of which two out of three in the lowest dose level and four out of four in the second dose level. What you see at the right is that when we administer 50 million cells in a patient, they nicely grow to 500 to a billion cells within two weeks to three weeks and very consistent.

The slope of the curve tells you already, from experience, that that also induces good safety. If you have a slope which grows nicely, you have a better safety. The peak, what you see there,

predicts durability of response. If you have complete response and you have a durability of your CAR-T, there is a good chance that you have a long-term response.

By using a much milder cell production, not pushed too far by interleukins, and you do fresh in fresh out, you get very viable a lot of memory cells and you get it to a very good expansion. That's why the production technology can be differentiated for the clinic. That's what we now try to prove in large clinical trials that we can get to safe and effective products.

Here are the first to just the safety data. The dose level one in the middle, we did not see any Grade 3 or 4 CRS, so people are in very good condition. Also in those level two, we had no Grade 3 or 4 CRS in the whole study.

This is data we presented at ASH. In the meantime, we are already significantly further into clinical trials, but I use the same data as we'll disclose the next batch of data in the next months. Very encouraging safety and efficacy results.

If you look at the outlook for '23, the top-line results, we are looking for the Crohn's disease, as I said earlier, in the first half of the year, complementing the indication for filgotinib. Also, the top-line results for NHL and CLL with the CD19.

We still have a study running in our kidney disease, ADPKD, which will read out in the course of the year. We have decided to exit that area even if the product is positive. We will probably find a partner and do that with a partner. We are not going to do that ourselves.

Then, a number of the trial initiations with the AxSpA in filgotinib, the CD19 in lupus, NHL/CLL CAR-T the expansion cohorts preparing for pivotal. Hopefully, by the end of this year, we'll be ready for pivotal clinical trial for registration.

Then the BCMA CAR-T will get into a Phase 1 in multiple myeloma and then the TYK2 in dermatomyositis and SLE. With regard to regulatory progress, we are doing the IND submission for the two products, CD19 and BCMA CAR-T in the US, starting clinical trials in the US in the course of the year.

Very important, we aim to execute additional business deals. As we still want to accelerate our pipeline, we reset the company in therapeutic area driven. We added oncology. We cut the portfolio to what was really high probability of success and good products going forward.

We added oncology CAR-T, and now for us is hard work to see can we add one or two additional business deals in the course of the year with products in clinical stage and add that to the portfolio.

Accelerate early-stage pipeline, goal by '28, 10 lead optimizations, 5 preclinical, 5 pivotal stage molecules in a solid late-stage pipeline, and then two products in commercialization -- Jyseleca and one cell therapy by 2028 should be possible. With that, rebuilding Galapagos to a very productive pharmaceutical company, European, but also global. And thank you very much and ready for questions. Bart will join me for the questions.

[applause]

Bart Filius: Sorry.

James: Thanks very much for the presentation.

Paul: My pleasure.

James: So we have Bart Filius, CFO and COO.

Bart: Yeah, thanks, James. Thanks for having me.

**James:** Does anyone have any questions they'd like to kick off with? Maybe I'll kick off with one question then which would be, I think you talked about one or two more deals. What sort of deal should we think the company is doing? Is the deal or the two deals you've recently done in terms of blood cancer, is that the textbook for the sort of deals that you'll be looking for?

**Paul:** There were two acquisitions because we didn't have oncology capabilities as such, and CellPoint brought us the platform with CAR-T and the whole capability for upscaling and expanding that. Abound brought us the biological capabilities for discovering new binders, new targets, new binders, and those then can lead to CAR-T antibodies or ADC. That's why we did an acquisition.

Acquisitions always are somewhat more complicated because you have to integrate a company, so we will do acquisitions where we need capabilities and people, but we also will look at licensing where we can bring assets in, in the immunology and the oncology space, that's what we're looking for. **James:** Is the pivot very much towards oncology? Would it be likely that both the deals might be oncology?

**Paul:** It's balanced. We want to continue to do significant activity in immunology and oncology. It will be also opportunity-driven, but we want to keep the balance. We have a very strong immunology team and capabilities in small molecules which we don't want to leave behind.

**James:** Do you see your plan for the company -- I say just -- but just being about acquiring or partnering assets? Or are there other things you're trying to do, that you're focused on in terms of other internal activities?

**Paul:** We definitely will do more, but we went through a big change this year. We went from being a target discovery company in small molecules to having a pipeline in small molecules, to bring in biologics on board in oncology. So we might do more, but we now first regroup, make this work, and then take next step.

**James:** Do you think you've assets that are perhaps less promising internally? Do you think you've done all the clearing out, or could there be further things that you'd prioritize internally?

**Paul:** At the moment we have done everything we needed to do on the clearing out, yeah. The last one which I was talking about is the kidney product which we diligently, because it's in phase 2 clinical trials, we diligently want to finish because, yeah, patients participated.

If this works, we have to have a commitment to make sure that goes forward, probably better in somebody else's hand than ours.

**James:** Thank you. Maybe a couple of questions on the move into blood cancer. So it might be a range, but when could you potentially launch a product commercially?

**Paul:** It depends on if we can get to indications where it is a real medical need which is not solved by the current CAR-Ts, you can probably still do that with a single-arm study and with a decent number of patients for safety and efficacy, where you don't have to do a comparative clinical trial.

If that's the case, then within three years, we should be able to submit. If it is a real high medical need, with the accelerated reviews, three, four years it should be on the market.

If it requires comparative studies, we still have to look for, how do you do them, what do you do as comparative study and there look at what indications we'll pursue. We'll figure that out in the course of the year.

**James:** Do you think the ability to produce products locally, is that going to be more of an advantage perhaps outside the US where logistically it's more challenging to use existing therapies?

**Paul:** It's definitely going to be more advantage outside the US because of there is just no access. In outside of Europe and US, there is no access. This can bring CAR-T to the whole world. Also, in the US and in Europe, there is limited access.

Is there a way that with complementing the central production with decentralized production, can we get to much more access? It's clear that these products, the efficacy you observe with these products and in late stage, is such that that it's definitely warranted that they become much more available.

If I look in European countries, I think at the moment, less than 10 percent of people. If there are 1,000 people who need it 100 can't. That's where there is still a lot of space for more access and expansion to bring this to people.

**James:** How might the economics work? If I'm a customer, would I have to buy a very expensive Cocoon upfront? Could that be a deterrent to use in this?

**Paul:** No. Actually, we have an arrangement with Lonza who is the manufacturer of the Cocoon. They're basically supplying the Cocoons to the hospital at no costs. What we're effectively selling here is products for treatment of a patient, a batch for a patient.

There's not going to be any expenses associated with the Cocoon. We then basically trade in part of the profits that we make on the transactions for Lonza to compensate for the capital cost.

**Paul:** I can add to that. It's a very advantageous set-up for us because if we would have to build a central manufacturing, you need to invest at least \$200 if not \$300 million and hire 1,000 people to have a decent capacity to produce, impossible for a small company to do.

This system is so flexible for us that we can grow these to 100 instruments or even 200, 300 in

different parts of the world without having a capital infrastructure which we need to fund.

We can focus on funding the biological, the clinical development and we oversee the quality and the release, but we don't need to have the capital infrastructure to build it up.

**James:** It sounds very advantageous that you could produce something cheaply and locally in a Cocoon rather than having to build very expensive central capacity, but is the price of producing something in a Cocoon significantly more than if it was done remotely because the lack of an efficiency?

**Bart:** No. I would say look, at the end of the day if you can do this close to the patient in the hospital, you're always going to be more efficient than in a central facility. You avoid a lot of the logistics and a lot of the associated expenses.

It's not just about the cost side of things. It's about how you can improve the treatment cycle for patients. That's what we can do with, what you call, bedside manufacturing.

**James:** And are there limitations to what you can produce locally in terms of there are certain types of CAR-T that would always require you to produce them in a larger facility or could almost anything be done locally?

**Paul:** Next generation CAR-Ts if for solid tumors and you need a lot of specialized armored CARs. Might be not that obvious that that could be automatically done because of the quality control you need to do and the systems switch.

It's future. Today, we focus on hematological cancers and for that, with the current systems we have we can we can handle them. Important is we have the exclusivity on the Cocoon with Lonza, which gives us the certainty that when we invest, we can also capture the value back.

It's quite an investment to validate these instruments, set it up in each of the hospitals and countries, going through that. It's important that we have the exclusivity to deploy these instruments for the products we bring.

**James:** If we were trying to think about what this could offer for Galapagos, is there a way to think like per patient that maybe got treated with this approach what that would be worth in terms of revenues to Galapagos?

**Paul:** That's a little bit too early for it, to be honest. At the end of the day, we all know that the pricing for cell therapy is a topic. As a result of that, there's clearly insufficient access at the moment in many places in the world.

What we here have on offer is something that is more efficient both from a costing point of view and from a logistical point of view and hopefully, also from a clinical outcomes point of view. How that's going to translate ultimately in terms of revenues per patient, that's a little too early, James, to give guidance for sure.

**James:** Does anyone have any questions about that? Otherwise, I might switch to a different part of the business. That gets it. We could talk about Jyseleca. Is the peak sales guidance looking a bit conservative? What is the guidance already assumed for Crohn's? Could that guidance change depending on what we see on Crohn's?

**Paul:** Yes. First of all, we're very happy with the results of 2022 sales. We've been able to increase our guidance twice and now are ranging between 80 and 90. We're clearly working above our own expectations, which is good.

We'll probably be updating our longer-term perspective on peak sales throughout this year. There's a couple of things that are going to be important this year. First of all, as Paul said in the presentation, we're going to get the data in Crohn's.

Crohn's is part of our half a billion peak sales guidance for later this decade that we gave last year. We'll see what the data from Crohn's are going to tell us. Then secondly, we have also the intention to start a study in axial spondyloarthritis.

That's not part of our current guidance. Then thirdly in the other direction, we are also going to see the impact of this Article 20 procedure coming fully in the markets. We're going to see the formal EC letter coming up any day or any week.

We'll see effects and how that will impact the market. Overall, we'll see where the guidance will take us, but we're happy with the results that we've seen in 2022.

**James:** Do you see much risk around Crohn's? Is it almost a done deal with a wheel work or is there uncertainty?

Bart: There's always uncertainty, I think, for any study readouts, although we're optimistic going

into that data readout since we've had a very convincing phase two set in 2015. Later, we had two additional studies, also phase two, in subset indications of Crohn's, as well. Both of those were also positively differentiated from placebo.

We're optimistic going into the data set, but one never knows exactly how it's going to play out.

**James:** One other product will be a TYK2. You have a TYK2 in the pipeline. There are other agents in the market there, as well. How are you thinking about the differentiation for the products? Potentially, how might it be differentiated?

**Bart:** I think, first of all, we need to show the clinical data. In all fairness, we've had some interesting data in phase 1b in psoriasis last year. Those were definitely comparable to the data that we've seen from BMS with Deucra, but it was a very small study.

Now, we're going to test it in dermatomyositis. We're going to test it in lupus. That data set should come probably in the course of 2025. That's going to tell us basically how we'll differentiate it.

We like the compound a lot. We like the class a lot. There's a lot of interest clearly now in the marketplace on the TYK2 class. It's one of our big assets. Exactly how that's going to differentiate, we'll see further down the line.

**James:** Is it an asset that you want to keep internally or could you look to partner at some point? If so, when?

**Bart:** No. It's definitely an internal asset with the caveat that obviously Gilead, our partner, has the right to opt in. If we bring this to a stage where we start a pivotal study, then we'll offer that to Gilead. Gilead could then make a choice whether they want to opt in or whether they want to forgo that opportunity.

We'll see where that takes us. If they opt in, they'll be our partner for the US. We'll be happy with that.

James: Do we have any other questions from the audience?

[pause]

James: In that case, thanks very much.

Paul: Thank you.

James: Thank you.

[applause]



Webcasting and transcription services provided through MAP Digital, Inc.