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# EDITED TRANSCRIPT

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## PRESENTATION

**Philippe Dubuc** - *Theratechnologies Inc. - Senior VP & CFO*

Okay. Good afternoon, everyone. Thank you for joining us today. My name is Philippe Dubuc, Senior Vice President and Chief Financial Officer of Theratechnologies. It's a pleasure for us to welcome you today to our first R&D day, which is an opportunity for us to bring everyone up to speed on the development programs at Theratechnologies, especially in what has happened in the next -- probably in the past 6 to 9 months.

So I'll just take a moment to go through the agenda for today. We're going to start off with Luc Tanguay, who's going to say a few words. Luc, our President and CEO. Luc is going to say a few words and provide an overview of the company.

Luc will then go on to introduce Dr. Steven Grinspoon. Dr. Grinspoon is a longtime collaborator of Theratechnologies on EGRIFTA, and he will provide us with an overview of the recent study that was published on NAFLD/NASH for EGRIFTA. Dr. Grinspoon is being held up in Boston, so he'll be presenting by phone. Dr. Grinspoon is hosting a symposium this afternoon and could not leave the city.

So Christian Marsolais, our Senior Vice President and Chief Medical Officer, will come on after to discuss our strategy for NASH in HIV and discuss the next steps for these programs.

We'll host a Q&A period on the NASH program, after that, Dr. Grinspoon will have to leave us at 1:00 p.m.

Christian will then introduce Dr. Richard Béliveau. Dr. Béliveau is our adviser on our oncology program, and he'll share with us the vision behind our technology platform in oncology. He'll also share some of the recent data that we've seen, and really these data show why we're so excited about this program and this platform that we acquired early on this year. Christian Marsolais will then come back and host a question period on oncology but also detailed next steps for the program and also the strategy that we're taking, bringing all these products forward.

Then we'll host another Q&A period. And just, as a reminder, our Chief Commercial Officer Jovan Antunovic is also here with us today. So if people have questions on the commercial side, Jovan will be available to answer them.

So I just want to remind you also, this is a webcast. So if people have questions, we'll have mics to go around, and please wait until you have a microphone to ask questions so that people on the webcast can listen to the questions as well.

So before we start, I would like to remind everyone that today's presentations contain forward-looking information about our current and future plans, expectations and intentions, results, levels of activity, performance and goals or other future events or developments. In preparing these forward-looking statements, several assumptions were made, and there are risks that results actually obtained by the company will differ materially



from these statements. As a consequence, the company cannot guarantee that any forward-looking statements will materialize, and you are cautioned not to place undue reliance on them.

Forward-looking statements represents our expectations as of today, October 23, 2019. Except as may be required by Securities Laws, we do not undertake any obligation to update any forward-looking statements whether as a result of new information, future events or otherwise. I will now over -- turn -- will now turn it over to Luc.

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**Luc Tanguay** - *Theratechnologies Inc. - President, CEO & Non-Independent Director*

Thank you, Philippe. Good afternoon, everyone. Thank you for coming. And thanks for the people that are also on the webcast, some of them listening to this live presentation. Just want to introduce myself. Most of you know me, but I'm Luc Tanguay. I'm the CEO of the company. I've been appointed CEO approximately 7 years ago. Before that, I was the CFO of the company for, I will say, 16 years.

So I know today is an R&D day, so most of the presentation will be on our research pipeline. But for those of you who don't know well Theratechnologies, I would like maybe just to give you some highlight of our company, who we are and so on.

So we were founded in 1993. Our headquarters in Montréal, Canada. We have been and are still listed on Toronto Stock Exchange for many, many years, but few months ago, we asked for listing on the NASDAQ and our stock is traded on NASDAQ now for 2 weeks.

We changed a lot, the profile of our company in the last few years. We used to be a pure R&D company but today, we're more like a commercial-stage biopharmaceutical company. We also expanded our territories. We have now activities and presence in Canada, in the U.S., mostly in the U.S. And recently, we also established a small presence in Europe, namely in Dublin. Our focus is very clear, we focus our activities on patient with special medical needs.

Talking about our size, we have around -- we have 110 employees. We have 40 employees in Montréal, in our headquarter and in our lab. We also have 10 employees in Europe, most of them are in Dublin. And the rest of our employees are in the U.S. So most of our employees are in the U.S., in different -- different functions. Also we have a sales team. We have a team in reimbursement, medical science liaison, and we also have call center here in the U.S. to answer to all the questions from our patients.

Being a commercial-stage biopharmaceutical company means that we have 2 kinds of activity. The first one is commercial activity. We have sales. We are having sales here in the U.S., most of it are in the U.S. But we also have sales in Canada. And with our recent approval of a product in Europe, we started to have sales recently in Europe as well, Italy, France and Spain, other will be added in the coming months. We also have a nice development portfolio, and this is the main purpose of the meeting today, so we'll go through it in the next 2 hours.

Just want to talk a bit about our commercial activities. Our sales today, we have 2 products that are -- that we sell. The first one is EGRIFTA. EGRIFTA, we're doing sales in the U.S., mainly and also in Canada with EGRIFTA. It's a product that is on the market for almost 10 years now. So in a couple of weeks, we will have a new formulation in the market called EGRIFTA SV, which stands for small volume and single vial. So it's a major improvement for the patient. It's a much user-friendly than the old formulation. It can be kept at room temp, smaller needle, smaller injection volume. So we really believe that with this new formulation we will have still growth of EGRIFTA over the coming years.

Our second product on the market, which is sold in the U.S. and started a few weeks ago in Europe, is called Trogarzo. Trogarzo is -- was approved in the U.S. last -- in 2018, last year, and it was approved in Europe just 1 month ago.

It's syndicated for the treatment of patients with multidrug-resistant, so it's to treat HIV in patients that cannot be treated with the current therapies.

Trogarzo is -- in fact, it's a new class of drug. In fact, it's the first new class in the last 10 year. It's the first product that is used on a nondaily basis. In fact, it's an injectable, an infusion done every 2 weeks. It's the first one of a known antibody for HIV.



So we're doing sales of that product in the U.S. just for a little bit more than a year now. And we already believe that there is still huge potential growth for Trogarzo in the coming years, in the U.S. territory as well, and this will be more with the European market as well. So this is the -- our portfolio, our commercial portfolio at the moment.

Talking about growth. Just on this slide is showing to you that over the last 3 years, we have sustained growth every quarters, if you compare to the same quarters of the previous years. So we have growth, and we intend to continue the growth of our sales, as I said, in the coming year because of EGRIFTA SV and because also of the potential of Trogarzo in the U.S. market.

What we don't have on that slide, I'd like to say that we have a very good financial position, with over USD 40 million in cash. We're generating cash at this point, we don't burn cash. And we have enough money to sustain our activity, as we speak.

The second part of our portfolio is the development pipeline. It's divided in 2 part. The first part is what we call the lifecycle management. In fact, even if we will launch in few weeks a new formulation for EGRIFTA, we're already working on the improvement of EGRIFTA for a new formulation called the F8, which will be still, again a smaller volume of rejection, reconstitution every week instead of everyday. So we're working on that. And even with the Trogarzo that is on the market just for 1 year, we already have study ongoing for an IV push. So better mode of administration, and also we will initiate clinical trial for an intramuscular formulation as well. So we're always ahead and want to sustain growth over the long term of our commercial products.

The second part of our development pipeline is the programs we have, and this is the main purpose of the day-to-day, the -- we have 2, in fact, interesting programs. The first one is with EGRIFTA of tesamorelin for the indication of NAFLD/NASH in HIV patient. And this will be very well covered by Dr. Steve Grinspoon in a minute.

And the second program we have is probably one of the best secret for Theratechnologies, since it's going to be the first time, we will present data to the financial market on this technology.

So it's -- our oncology platform for 2 cancers that you see here on the slide. So Dr. Richard Béliveau will go in details on that. Richard is the person behind the discovery, and he will be presenting to you to what we have in that regard.

So without taking more time, and I'll be available for question at the end of the presentation. I will ask Dr. Steve Grinspoon, Professor of Medicine at Harvard Medical School, to do the presentation on our program in NAFLD/NASH in HIV patients. So Steve? It's up to you. It should work. It's going to take 1 minute, so don't -- stay tuned.

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

Can you hear me?

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**Luc Tanguay** - Theratechnologies Inc. - President, CEO & Non-Independent Director

Yes, we hear you. Don't see you, though.

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

Okay. You won't be able to see me, but you can hear me at least. So you can hear me, correct?

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**Luc Tanguay** - Theratechnologies Inc. - President, CEO & Non-Independent Director

Yes.



**Steven Grinspoon** - *Theratechnologies Inc. - Member of the Scientific Advisory Board*

Yes. Okay. Very good. Thank you very much, Luc, for this opportunity to speak today. I'm excited to do it. It's an exciting product and potential indication. I'm sorry, I wasn't able to make it in person. But as Luc said, I have a symposium I'm running shortly after this. So with that, I'll launch into the presentation, and if people have questions, let me know. I am a professor here at Harvard Medical School. I'm Chief for the Metabolism Unit at Mass General Hospital and the MGH Endowed Chair in Neuroendocrinology and Metabolism as well as the Director in Nutrition Obesity Research Center at Harvard. I've been involved in the development of EGRIFTA for a long time. I'm very much aware of the product, the science behind it, and done many of the studies, et cetera, leading to its indication. It's very exciting science, and I hope to be able to convey that to you today.

Next slide. So we'll be talking about NAFLD/NASH in HIV, another exciting indication for EGRIFTA. Next slide. So for those of you who are not aware, NAFLD/NASH, really constitutes a spectrum of disease in patients and spectrum really goes all the way from healthy liver on the left through simple fat accumulation to nonalcoholic steatohepatitis to cirrhosis. And there's some movement between stages of disease, but typically a progression to the right from healthy liver to simple fat accumulation to inflammation to fibrosis, scarring and cirrhosis. And in this regard, nonalcoholic fatty liver disease with the improvements in Hepatitis C has become one of the leading causes of liver transplant in the world. It's a very serious condition with significant comorbidity in terms of cardiovascular disease and other comorbidities. In this particular spectrum that we have studied, and I'll tell you about it over the next few minutes.

Next slide, please. So in terms of prevalence, I'm quoting now from a study, which is a meta-analysis, so there's really a range and there's no specific 100% agreed upon prevalence, but I'll give you some numbers that, I think, are fairly common and commonly accepted in the field.

And that is in terms of HIV-infected patients -- and to just orient you, there's 1 million HIV-infected patients, a million or 2 or so in United States.

So lipodystrophy percentage is variable. It used to be a little higher, but it's still fairly high, 20% to 30%, et cetera. But the estimated prevalence of NAFLD is really quite high and striking. You can see prevalence, median estimates are 35% for fatty liver accumulation, 41% for nonalcoholic steatohepatitis and 21% for fibrosis, again, with ranges above and below. But you can see that there is a significant number of patients with these significant conditions in the HIV population, and this is in the United States alone.

Next slide, please. Now here I'm showing some pictures of lipodystrophy. HIV lipodystrophy is the indication for which tesamorelin is approved already. It was approved, I believe, in 2010, and our team was part of the seminal registration trials and previous -- prior Phase II trials. But you can see that among patients with HIV, lipodystrophy syndrome can develop frequently. That's basically accompanied or manifested by abdominal fat accumulation.

Atopic fat accumulation in other areas as well, and this is accompanied by significant insulin resistance and other metabolic abnormalities. On the right, you'll see some bar graphs from a study we did, comparing HIV in white and non-HIV in black patients. And you can see it, for a given weight, the HIV patients even in the normal weight or overweight categories have significant excess visceral fat. And as I'll tell you, visceral fat is a significant contributor to nonalcoholic fatty liver disease. And that's the whole sequence of studies, first getting this approved for lipodystrophy and then considering it for NAFLD is very logical in its inception.

Next slide, please. So what are the risk factors for, NAFLD/NASH in HIV. Well, as I mentioned, lipodystrophy is clearly one, but others as well increased BMI and waist circumference, diabetes, hypertension, hyperlipidemia, elevated liver function tests, et cetera.

CD4 counts, an interesting one, most comorbidities with HIV are associated with low CD4 count, but NAFLD/NASH is associated with improved CD4 count. So as the patients get better, which is fantastic from the antiretroviral therapy, there's actually an increasing prevalence of NAFLD/NASH. So it's sort of paradoxical, but if you think about it, as they get healthier, gain more weight, they're more predisposed to this. I also want to mention, in terms of BMI, there's a sort of an incipient epidemic of obesity in HIV patients. That's even new to the lipodystrophy sequence, and that is because a number of the newer antiviral therapies, particularly integrase inhibitors have been shown to lead to significant weight gain. So we're not out of the woods yet in terms of HIV and its complications lipodystrophy. Lipodystrophy still persists, there's legacy patients. These are the ones that are



taking the -- taking tesamorelin, but there's also going to be a new crop of patients that we're already seeing, a very high prevalence of obesity in HIV-infected patients on these newer antiretroviral therapies.

Next slide, now in terms of fibrosis, which along that spectrum of disease was more toward the right and increasingly significant in terms of comorbidities. You can see there are a number of conditions, when you look both among HIV and non-HIV contribute to fibrosis diabetes, Central obesity, BMI, intrahepatic lipid, et cetera. But HIV infection itself when you look among the 2 groups, having HIV itself has a significantly increased odds ratio for fibrosis, which is quite important.

Next slide, please. So in conclusion for this short introductory section, I've shown you data to suggest the high prevalence of NAFLD/NASH in the HIV population. Data to suggest that visceral adipose tissue was a risk factor for NAFLD/NASH in HIV, that HIV itself is a risk factor for fibrosis or more serious NAFLD/NASH spectrum disease. And then NAFLD/NASH is associated with significant comorbidities, including cardiovascular disease, diabetes and all-cause mortality.

Next section -- next slide, please. So I'm going to take a minute to tell you the rationale for the use of the development of tesamorelin, and why it makes sense not only for lipodystrophy, but also for NAFLD/NASH.

And really, this started with an observation we made in our lab of disrupted growth hormone signaling among patients with HIV.

Next slide, please. Shown here on the left, our data from an earlier study we did, and you can see that as the intra-abdominal fat area goes up, the mean average growth hormone overnight goes down. So there's a very, very strong inverse relationship. And this is true in all humans, in all human populations, but it's just more exaggerated in the HIV population because of the excess intra-abdominal fat in this population.

And if you look on the right, the percentage of patients who fail standardized growth hormone testing is much higher among HIV patients with lipodystrophy than analogous HIV patients without lipodystrophy or non-HIV patients.

So the bottom line is that these patients have a very perturbed growth hormone secretory status. And in fact, without getting into too many scientific complexities, they have a preserved pulse frequency, but the area under each pulse is reducing growth hormone, if you may know, is producing a pulsatile fashion, I'll go over that shortly.

Next slide. So here are data to suggest that the mean overnight growth hormone level is actually inversely related to liver fat. And you can see here the nice line, and the lower the mean overnight growth hormone the higher the liver fat. Now to the left, if you click once and then once again, you see that this is an animal model, and it shows you the importance of growth hormone signaling in the liver. You could see in the third bar over called LiGHRKO. That's the knockout of the growth hormone receptor in a mouse model. And you can see when you knock out growth hormone receptor signaling, triglyceride level and the fat level in liver goes way up. And it's significantly improved when you express overexpress IGF-1, but not entirely. So it's really showing that it's the growth hormone signaling itself that is so important to the accumulation of lipid in both animal and human models.

Next slide, please. So what is the rationale for the use of tesamorelin in this model? Why not just give growth hormone? And the answer is really interesting. So as you know, growth hormone is made, as I may have mentioned, in a pulsatile fashion in the pituitary gland shown there in the tag in the middle. And the growth hormone acts on the liver to increase IGF-1, which feeds back in the classical endocrine feedback loop. So first of all, you could see if you use GHRH, which is stimulatory to GH up there on the right, you stimulate the entire axis naturally, and you cause increased pulsatile growth hormone secretion with intact feedback. So there's no need to titrate the dose of GHRH or tesamorelin, whereas the opposite is true when you give pituitary growth hormone, you have to titrate the dose and you have a much better safety profile at GHRH because you don't induce the dysglycemia or the other things that occur with high doses of IGF-1 that are seen with growth hormone.

So that's really important. In fact, the FDA was faced with the choice in 2010 of improving GHRH from Theratech or another company with growth hormone for lipodystrophy, and due to the safety profile of GH and actually lower efficacy, it was not approved whereas GHRH was enthusiastically approved in a 16 to 0 vote for the committee and is now on the market and treating -- for treatment of lipodystrophy.



Next slide, please. So what are we talking about? We're talking about tesamorelin, which is a minimally modified GHRH 1 to 44 moiety with the trans-3 hexenol added for tyrosine. It increases growth hormone in a physiologic pulsatile manner, which is very different than growth hormone per se, which is a pulsatile, it has really been shown to be safe and highly effective in many contexts.

Next slide. So on this slide, I think we have 1 or 2 click-throughs, one. And then two. Okay. So on this -- on the left, these are the data that set the top line data from the registration -- Phase III registration trials published in the New England Journal. And as you can see, tesamorelin versus placebo, very significant reduction in visceral adipose tissue, VAT, about 20% approximately net effect.

As you can see, the very interesting, and this is over 6 months. The very interesting thing about this is you noticed there is no effect on subcutaneous fat. Now don't be skeptical because that's actually a very good thing. You really want to reduce visceral fat but preserves subcutaneous fat, subcutaneous fat is healthy. In fact, excess subcutaneous fat reduces core cardiovascular risk, where the opposite is true for visceral fat. So here is a fascinating drug that actually reduces visceral fat but is neutral to subcutaneous fat. Now when you prolong the administration for another 26 weeks, you can see that you get an even further decrease, when you do stop the drug, the visceral fat does come back, it doesn't rebound above but it just returns. So you do need ongoing therapy. And the FDA was aware of this and did not prescribe any timing or limitation for this. So it's an important set of data, the top line data for our registration trials.

Next slide, please. Now because liver fat is seen -- sorry, because visceral fat is seen in association -- yes, click through one more time. And one more time. Because liver fat is seen in association with visceral adipose tissue, particularly in HIV patients. We had an idea through an investigator-initiated NIH-funded trial to repeat our experiments in lipodystrophy, but this time, look at the liver. And we used Mr spectroscopy as a sophisticated, well-vetted technique to look at liver fat. And you can see that we had a significant reduction with tesamorelin on liver fat, shown by the 2 bars on the right, going down on tesamorelin and up with placebo. Now these patients were not selected per se for NAFLD. The threshold for NAFLD is about 5%. You can see at baseline, these people were hovering around 5%. So half had it and half didn't, et cetera. And we weren't specifically selecting, but we're trying to get a clue, initial indication of whether this might work, and it did quite well, with significant reduction in the tesamorelin compared to placebo.

Next slide. So that led us to yet another experiment, which is, again, investigator-initiated and funding -- funded by the National Institute of Health, and we did this in collaboration with an investigator at the NIH, and all the liver biopsy material was read by David Kleiner, one of the world's leading experts on NAFLD/NASH.

Next slide, please. And on this slide, I show you the pipeline before I get into our results, just to contextualize them. And you know as market people that there are a number of drugs that are in the pipeline for the NAFLD/NASH spectrum. And the way I look at it, you have -- you can put these drugs into kind of three buckets, drugs that affect lipid metabolism. They're listed there, drugs that affect fibrosis and drugs that affect inflammation. And there's been varying degrees of success, but I must say, none is yet FDA-approved and some of them, though effective, have various side effect profiles, which are a concern.

It's important to note that none of these drugs really has been tested among the HIV population, except tesamorelin, which I'll tell you about. It's also very important to note that tesamorelin does not interact with an antiretroviral therapy. It has a unique mechanism of action such that it's a very targeted approach, addressing the low-growth hormone stimulation and thereby reducing lipid accumulation, and at the same time, then subsequently reducing inflammation, and ultimately cirrhosis and fibrosis. So by mechanistically reducing lipid, we can see that we reduce -- ultimately flux through the pathway through inflammation and fibrosis. So it's a unique drug, specifically physiologically targeted to HIV. And the only one tested in HIV so far.

Next slide. So in terms of the trial, I'm about to tell you about, we enrolled men and women with HIV, 18 to 70, who were on stable antiretroviral therapy for 6 months, more than 6 months. They had to have a liver fat fraction more than 5% on Mr spectroscopy standard definition. They were either HCV antibody negative, or if positive, they have been treated more than a year ago. So we were not confounded by that. If they had -- if they were females, they had to have a mammogram within a year of the baseline visit. And if they were on vitamin E, they had to be using it stably for 6 months.





Next slide. In terms of exclusion, we obviously excluded heavy alcohol use because that's the definition of nonalcoholic fatty liver disease. We did, importantly, allow stable diabetics into the protocol, which is very important for the generalizability. So low-grade diabetics with the hemoglobin A1c up to 7, were allowed, except if they were on insulin or TDDs, but those on metformin or all the other oral agents were allowed into the study. Patients with active hepatitis B or C were not, patients with severe known cirrhosis were not, they would not be amenable to a placebo-controlled trial, et cetera. And any use of GH or GHRH within the past year or known active malignancy.

Next slide. This was the study designed, tesamorelin in 2 milligrams. As mentioned, it was a subcu injection. This was the older formulation within newer formulation, we expect even greater ease, but you'll see how well this was tolerated anyway as they get to the presentation versus placebo with an identical line in injection for 1 year and then an open-label section for additional 6 months. We don't have the open-label data fully analyzed yet. So I'm going to be presenting to you the data for the first year of the study with approximately 60 patients enrolled. Each patient got an MRS, liver fat and a liver biopsy that's really important. They got liver biopsies to look deeply at the phenotyping and the liver biopsy was repeated along with the liver fat at 12 months, et cetera.

Next slide, please. So these results, I urge you to look at them, were published in Lancet HIV last week. And you can see there's also a very positive accompanying editorial, really highlighting how novel the important implications of these results in the context of HIV.

Next slide. So let's go over the study results. In terms of baseline, the patients were primarily male, but we did have over 20% women, which is typical for HIV studies. Patients were around their early 50s. Note that they had HIV for a long time, consistent with what I said is this is a disease that patients who are stable with HIV, who've had it for a long time with CD 4 counts or better.

A small proportion we're using Vitamin E equal in both groups. Note to hepatic fat, it was about 13% to 14% at baseline. That's a lot. We acquired it to be above 5%, and indeed, it was almost 3x above the threshold for NAFLD. Note that about 1/3 of the patients had NASH. And about 40% to 45% or so had any stage of fibrosis. So this is a group defined by NAFLD, but with a significant prevalence of NASH and fibrosis. However, not everyone had NASH and fibrosis, and that's important to know. But a large percentage.

Next slide. So at baseline, as I mentioned, the hepatic fat was 13.8%, and a large percentage had NASH or fibrosis.

Next slide. So one more click and one more click. Okay. So these are the top line results of the study, the primary prespecified endpoint. You can see that we -- the absolute reduction in liver fat was in the order of over 4 points. This is a very, very significant percentage reduction in absolute terms. In relative terms to the right, upper right, that amounts to a 37% net reduction of liver fat. It's up there with the best therapies in terms of potency of reducing liver fat.

Interestingly, if you dichotomize the result and ask the question of what percent actually normalized back to less than 5%. You can see that the data are 35% versus 4%. Is it really a striking result. So we really normalized, reverted the disease, if you will, in 35% of the patients.

Next slide. Importantly -- and those for whom the ALT or a liver inflammatory enzyme was elevated at baseline, they had a very significant reduction in ALT, tesamorelin versus placebo, important to show.

Next slide. Also very important was the secondary endpoint of fibrosis. And you can see here that those are on EGRIFTA or tesamorelin had only a 10.5% fibrosis progression rate, whereas those on placebo, 37.5%. So not only did we lower liver fat, we actually prevented fibrosis progression, which is a really important result, and I think will be well received by the FDA.

Next slide. In terms of the effects on VAT and SAT, same kind of thing. We saw very consistent across all our studies, multiple studies that we saw this very significant reduction in visceral fat with a neutral effect on subcutaneous fat, which is important.

Next slide. I want to talk a minute about what would be a clinical threshold for reduction in liver fat. And there was one study that showed that a 29% decrease in liver fat is associated with more than a 2-point change in histological NASH score. And indeed, if you click again, when you dichotomize our results by liver fat reduction of over 30%, which is relatively a large effect. You can see that 60% of the tesamorelin patients





achieved more than a 30% reduction in liver fat versus 16% of placebo. These are really striking results. So this is approximately 2/3 of the patient had this clinic -- very clinically relevant, very high-level reduction in liver fat.

Next slide. Now looking at other parameters, the IGF-1, again, went up beautifully physiological way without any need for dose titration, as you can see, 117 points, very significant as anticipated. Interestingly, CRP, this marker, everyone talks about for inflammation, cardiovascular disease, went down really nicely with treatment. We had no ill effect on C4, viral load. And as I mentioned, the drug, in no way, interacts with any ART, it's very safe, in that antiretroviral therapy, it's very safe because it's really, in effect, a natural GH secreting drug. There was no change in hemoglobin A1c, et cetera, which is important.

And when you -- next slide. So as I mentioned, the IGF was expectedly increased in a physiological way. No one, not one single patient had -- needed a dose titration or had an IGF increase over Z score 3, which is important and shows the physiological treatment.

Next slide. This is the -- these are the glucose data. This is a really important data. It's in the paper. And you can see these that are the glucose levels in the 2 groups of fasting glucose. And it's important if you're using any kind of a GH analogue to ensure that the glucose doesn't go up, high-dose-growth hormone can have this effect, it's why GH wasn't approved by the FDA, but it's why GHRH was. And once again, now even in the NAFLD population, we don't see a significant effect on glucose, it's a very safe study, even among patients, many of whom were low-grade diabetic.

Next slide. Here is the adverse event table, which is in the paper, and you can see that there was an equivalency of any adverse event and serious adverse events. And really, the only thing we saw was a minor, some minor injection site erythema, but in a small number of patients and well tolerated. And we've seen that same thing throughout all our studies. And the drug, nonetheless, is viewed as quite well tolerated by patients.

Next slide. So in summary, I've shown you data that low concentration of growth hormone is associated with an increase of the visceral adipose tissue and liver fat and fibrosis, so that's important. And therefore, in the HIV population, tesamorelin has now been shown to significantly decrease liver fat, decrease the fibrosis progression. And tesamorelin is already approved for visceral fat reduction in lipodystrophy. And these data really suggest strongly that it's likely to also benefit the large number of HIV patients with NAFLD/NASH, really enlarging the patient group, that would be -- that would benefit from this drug significantly. And really, it's important to note that patients may not entirely understand the consequences of visceral fat but patients and clinicians really do understand the consequences of NAFLD/NASH. And I think this is a really interesting indication and one that was likely to quite benefit to patients.

Also, it's important to note, and it can't be emphasized enough that tesamorelin has a really good safety profile. The problem with all the other drugs in the pipeline, both for their non-HIV populations, but also certainly for HIV is interaction with ART its various different safety problems, and that's not the case with tesamorelin. So I think next slide, I'm ending there, and we'll turn it back over to Christian. Thank you. And I think there'll be questions -- time for questions in a moment.

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**Christian Marsolais** - Theratechnologies Inc. - Senior VP & Chief Medical Officer

Thank you, Dr. Grinspoon. Hello, everyone. Christian Marsolais, the Chief Medical Officer for Theratechnologies. Before we go to the Q&A, I'll talk to you about the regulatory strategy and the next step moving forward with the NASH strategy. The -- then as Dr. Grinspoon explained, I think that we have a bit of a unique drug for the NASH indication for HIV patients. First of all, all of the drugs that are under development at the moment in non HIV are not including, they're excluding HIV patients. There's also one drug (inaudible), where the company did a study very similar to the study of Dr. Steven Grinspoon, and have shown negative results. It didn't see any decrease in liver fat. The -- then this is giving us an advantage like in HIV, because we always have shown very consistent results. The disease etiology is also different because the HIV itself and the drug to the patients are exposed to are also inducing inflammation, and it is different than the non-HIV patient population. The drug is already approved by the FDA, there's more than 6,000 or 7,000 people that have been exposed to the drug. We have a very good safety and well-known safety profile with the drug. The other thing is, the HIV population is different. It's a smaller patient population. We think that we can do a good Phase III trial in terms of the long term, we will propose something to the FDA because it will be very challenging to do a study in 2,000 patients to look at the clinical events in the HIV patient population. And we're convinced that based on the results that we have seen that tesamorelin can really address an unmet medical need.



In terms of the FDA guidelines, if we're looking at what's written in the FDA guidelines, then when they're looking at NASH drug, they're not only looking at the improvement, but they're looking at slowing the progress of the disease, halting the disease or reversing the disease. And their primary endpoint or the clinical endpoint, they're looking at markers, and it is a decrease of one score in fibrosis with no negative impact on NASH, or it is a normalization of NASH with no negative impact on fibrosis. What we're planning to propose and what we submitted a request for a Type C meeting with the FDA. But we will enroll, in that next study, patients that are on NASH. And there will be patients with fibrosis and with NASH. And the results that we have seen so far indicate that in the most -- more advanced patient population, we should see also good results.

We will be looking in terms of the endpoint of the normalization of liver fat, which would be a decrease of the liver fat below the 5%. Dr. Grinspoon has shown that in his patient population, the liver fat average was about 14% at baseline.

Delayed progression in fibrosis with no negative impact on NASH. Delayed progression or delayed progression in NASH with no negative impact on fibrosis. And for the long-term impact of the treatment we're working with a company with a lot of experience in silico mathematical modeling, where based on the improvement of the marker or stabilization or the difference versus the placebo with those marker, we will be able to estimate what could be the impact on the clinical events on the long-term with those products with tesamorelin.

Then in terms of the next step, we submitted the Type C request meeting to the FDA. We're planning to submit a request for a scientific advice with EMA at the beginning of the year. So at the beginning -- at the beginning of November. The beginning of next year, we should have the feedback from both agencies.

We also are working on completing a bioequivalence with F8. Luc mentioned that we have a new formulation in development at the moment. That will be a significant advantage because it will be reconstituted once per week, it will be stable at room temperature, and it will be a volume of administration of only 0.2 mL. We will complete the discussion with the regulatory agencies, and we will initiate the Phase III program next year.

Any questions? We're up to the question period. Any questions or...

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## QUESTIONS AND ANSWERS

### Unidentified Analyst

A couple of questions. One is, the fibrosis still increased 10% and the liver fat was reduced by 32% but not fully. Would a higher dose potentially achieve more on those endpoints?

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**Christian Marsolais** - Theratechnologies Inc. - Senior VP & Chief Medical Officer

Okay. Thank you for the questions. Dr. Grinspoon, I'd like you to address the question, please.

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

Would really be more efficacious. I mean, you probably would drive the system harder, but then there would be more feedback. So I don't necessarily think that, that would do it. I think there will always be some small progression. I want you to keep in mind that, that was a very gross analysis of any progression. And now I could go back and look and see in those 10%. My guess is that those 10% are very minimally going from like 1A to 1B or something. And so we could look at that. But I think in the proposed Phase III, the next registration trials will take patients, everyone will be required to have fibrosis. So that progression will have an even greater meaning, going from a 0 to 1, which could buy you a progression increase may not be as meaningful as going from 1 to 3, et cetera.

So I think on first glance, this is a very positive result and interesting. But as you say, we do need to continue to look under the hood and make sure that the progression is truly -- prevention is truly in favor of tesamorelin. I think it will be based on these data.



And then even if we look at the types of progression or degree of progression. But in general, the difference is pretty striking. And in fact, I think it's biologically real. I didn't have time to show you this, but the reduction in progression is correlating with the reduction in NASH score. So it's real biologically. As progression -- as NASH score down progression goes down. So I think it's real. I just -- I don't know exactly what levels were those people that were progressing. But we'll certainly -- it's certainly something to look at in the next studies.

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**Luc Tanguay** - Theratechnologies Inc. - President, CEO & Non-Independent Director

And maybe I would like to add one thing, sorry, regarding the fibrosis where the patient that increase in fibrosis, we also look at the responder because we know with EGRIFTA and the effect on that. We have about 30% of the patients that are not responding. And the patient that had progression in fibrosis were the one where we didn't see much effect on them, and that could be part of the explanation as well.

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**Unidentified Analyst**

I've got one more question.

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

That was an important predictor of that. And another good point, as you say, is. And my guess is for those in whom we achieved more than 30% reduction, very minimal chance to have fibrosis progression.

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**Unidentified Analyst**

Okay. Second question, if I could. Fatty liver patients and NASH patients without HIV, do they have low-growth hormone? And could tesamorelin benefit those patients?

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**Christian Marsolais** - Theratechnologies Inc. - Senior VP & Chief Medical Officer

Dr. Grinspoon can you answer...

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

Yes, yes, yes. That's a really good question. In fact, they do. And I can -- if you PubMed my name or I can get your name and send you some papers. But we did that exact study, we looked at generalized obesity and patients with obesity have significant reductions in growth hormone secretion. It's a known phenomenon. That led us to do another investigator-initiated study a couple of years ago. I can send you that one, too, like in obesity, and we saw a similarly positive result with tesamorelin, selective reduction in visceral fat versus subcutaneous fat and even a reduction in carotid plaque, which led us to a third study. As you can see, we're kind of doing a parallel set of studies in HIV and non HIV. The third study, which we're doing now is looking at it for -- like doing a parallel study, which I just showed you in HIV, the exact same study in non HIV. We're about 1/3 recruited of that study. And we're hoping that we see similar results. So it's very interesting for that potential indication. Obviously, I think we're focusing on HIV as kind of a discrete model that other drug companies are not going to enter so much. But the converse question of whether this drug will be good for those other patients is a really good one. And I think based on the ongoing studies, it probably will be and deserves serious consideration when we get the data back about that.



**Brian Corey Abrahams** - RBC Capital Markets, LLC, Research Division - Senior Analyst

Brian Abrahams from RBC Capital Markets. Two questions for me. First, on the formulation. Is there any risk to achieving bioequivalence with this F8 formulation? And any reasons to think that the effect using the F8 formulation in the Phase III would be any different than what you saw with the earlier version in Phase II?

**Christian Marsolais** - Theratechnologies Inc. - Senior VP & Chief Medical Officer

Like for this question, the -- Luc just also mentioned that we have now the SD formulation, which is -- the first formulation was a milligram, 1 milligram per mL, and it's a 2 mL injection. The second one is 0.35, which is 4x more concentrated. And we were able to get this formulation approved with a bioequivalent. But the difference in volume was much bigger than to go from 0.35 to 0.2. And based on the PK and what we know so far in the study, I think that there are good chances that we can show bioequivalence.

**Brian Corey Abrahams** - RBC Capital Markets, LLC, Research Division - Senior Analyst

Got it. And then can you help us understand, do you have any initial regulatory feedback at this point for this -- the idea of using fat content normalization as a potential primary endpoint in Phase III. And if you needed to use more traditional fibrosis/NASH score improvement endpoint, how would that potentially -- I guess, what are the Phase II data amongst the NASH patients look like for the more traditional endpoints? And how would that potentially impact the size for powering of the study and its potential cost?

**Christian Marsolais** - Theratechnologies Inc. - Senior VP & Chief Medical Officer

To address this question, I would start from the fact that the tesamorelin is already approved for the indication of like this patient to treat the visceral adipose tissue then if you look at the baseline, baseline characteristics of the patient and role in the study of Dr. Grinspoon, in the Phase III trial, the average that was 180 centimeter square. In the study of Dr. Grinspoon it was 220 centimeter square. Then the VAT or NASH patient population is a subpopulation of the one for which the drug is already approved. And the clinical endpoint was a quality of life endpoint. Then based on the results that we have from Dr. Grinspoon, we think that if we delay the progression, if we show a delta we're worsening, that's the one that we have seen in the Phase II. It's still a delta of about 20% or 25% between the active and the placebo, it clearly shows that we're delaying or almost out in the progression of the disease. That's why we're quite confident that we can probably prove something there. Dr. Grinspoon, do you have anything to add on the progression or the question?

**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

No, I think that's right. If you think about it logically, if the drug is already approved for visceral fat. What a great benefit if it reduces liver fat. And -- and I think what the FDA will require -- I think they would approve even that because it's not bad. It makes sense. But -- and I think that would get more patients. But I think if they want to get into sort of clinical meaning of it. I think they probably will require some prevention of fibrosis.

Whether they push us into the category of traditional drugs with traditional endpoints. I'm not really sure they would. But given that it's already approved and safe on the market. It's really a significant extension, if you will. Having said that, I think it's a fascinating question, and I look forward to data in a study in which everyone has it at the beginning, you really can't fix something that not everyone has. So in our study only, that's why I kept harping on that, 1/3 of the patients have that. Not very many patients in the 60 person study divided by 2 treatments with some dropouts. So you're talking about tiny numbers. So I think my guess is that given the fact -- and even with all that, the change in fibrosis did relate to the change in NASH. And even with all that, if you looked to tesamorelin arm, the higher the NASH at the beginning, the more it went down in tesamorelin, which was not true in placebo. So my guess is that we would even achieve that, but I think going in with this particular discussion as the starting point would be a good place to get the FDA's guidance on this. I think they'll be positive. But I think if they're not, I think we would be prepared to assess whether a more traditional set of endpoints. But I think given what we've shown, this is the best place to start.

**Luc Tanguay** - Theratechnologies Inc. - President, CEO & Non-Independent Director

Regarding your second question for the sample size for the Phase III. The primary endpoint will be the impact on the biomarkers, the fibrosis or NASH. And to show a difference of 15%, we need to enroll about 150 patients per arm, maybe a bit more because of the dropout that we could see. If it's a 20% difference, it's even lower than that. It will be about 80 patients. Then by aiming at the 15%, I think, that we use a conservative approach compared to the results that we have seen in Dr. Grinspoon's study, and I think that, that will be reasonable size study.

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**Unidentified Shareholder**

Dr. Grinspoon, thanks for joining us today. My name is Rusty Lenard. I'm a shareholder of Theratechnologies. And read your article with great interest of course. And it seemed to make a case for kind of a separate categorization for the FDA to look at HIV, NAFLD, as a -- something that the FDA should pay attention to rather than ignore and wait until those patients advanced in NASH. Did I read that correctly? And do you think the FDA will be receptive to that kind of argument? I guess, this would impact any kind of label expansion efforts that Thera might try to get.

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

I think they are right to look at it, I mean, that way. And I think you are reading the article correctly. I think intervening early in the sequence, I think, is really important. It is incredibly hard to send the sequence back to the left once you're way out in the fibrosis. They're getting really sick. It is much better to intervene early. And that's why people suggest exercise and weight loss.

And by the way, when you do the calculations about that, the amount of liver fat people lose with simple weight loss is way less than what is seen with this drug, not that weight loss and exercise is bad but it achieves really a fraction of what was seen in this study. So obviously, people are interested in working on this. On the left side of the spectrum that I showed you. And I think the FDA will be very receptive because it's always better to intervene a little earlier than when it's too late. Now having said that, they will be required to have more advanced disease in this newer study that we're proposing, but I think it's going to be important to make sure that they don't progress, as Christian outlined.

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**Unidentified Shareholder**

All you already using EGRIFTA or tesamorelin for your own patients who are -- who have lipo and also NAFLD or NASH?

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

We definitely use a lot of it in my clinic. I've been seeing patients and studying them for years, I find it highly effective. Many of the patients do have nonalcoholic fatty liver disease as judged by ultrasound. And I'm quite eager to use them in those.

Now if you want to stay within guidelines at the moment. They would have to have lipodystrophy and NAFLD, not just NAFLD alone. But I think the point Christian was making is that there's going to be really very few just have pure NAFLD without obesity or some body composition. So I think the 2 go along quite nicely. And based on the first study I showed that we published in JAMA, you could even argue on that study that even in the people who don't specifically have NAFLD but have a bit of a higher liver fat, it reduced them nicely. So I don't see how this is not benefiting the patient. And I think this is going to get interest in patient advocates, and we got the interest of the editorialists in the paper. And I think it's a very -- it's very logical. This is very logical. And I do -- yes, I do treat.

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**Unidentified Shareholder**

The prevailing theory is that if you reduce liver fat then you reduce liver inflammation, other fat-reducing molecules have shown that the relationship -- shown that relationship in the general population. You have shown strong liver fat reduction with EGRIFTA, but seem to have not clearly shown

accompanying liver inflammation reduction based on histology. If there's something specific to the HIV space that explains this? Or is this just a result of the characteristics of the cohort in your trial? What are the implications for your next trial's endpoints?

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

Dancing around that. But yes, that's a good question. When I quoted the correlations, I was hinting that I think we would see it in a more disease population. They are fat -- delta liver fat relates to delta NASH. Delta liver fat relates to delta fibrosis. You see those relationships in the tesamorelin, and the higher they were more they're reduced. You don't see it in the placebo group. So I think things are pointing in the right direction, but we simply did not have enough power in that regard to show a reduction because we are dealing with -- 1/3 of the patients had the condition to reduce. Whereas in the prevention of fibrosis, if you think about it mathematically, anyone can go up, but only the people who have it can go down. So we had much better power to show the fibrosis prevention. So not to say that your question -- not to say you're not pointing to a good thing, an important point, which is that it's possible that there's something about HIV that makes it harder. Having said that, the ALT came down, the CRP went down. So I don't necessarily think so, but I think this is why further studies are necessary. So I don't think so, but we need further studies.

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**Unidentified Analyst**

You mentioned the open study that there's some further data. When might that be available? And would that add to some of these statistical significance, perhaps, in the subset of sort of the NASH patients or showing, once again, this inflammation fibrosis progression and so forth?

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

They didn't have a repeat third biopsy, so I won't be able to tell -- I mean, it was just too much to give people to 3 liver biopsies. So it's really only a VAT endpoint at that point. And it's not -- so it's the people -- it's of interest in the people who got it for 12 months and are getting 6 more months of it, both in terms of safety and further efficacy, but it won't help us with the fibrosis question. We didn't have the heart to get a third biopsy in these patients. So, yes, I think it will help a little bit, but I don't think it will answer the fundamental question you're grappling with it. And I think that that's why Phase III is required.

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**Luc Tanguay** - Theratechnologies Inc. - President, CEO & Non-Independent Director

Dr. Grinspoon, we'll have 2 last questions for you. And if you could put your microphone a little closer to your mouth, that would be -- we could hear you a little better, thanks.

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

Thanks.

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**Unidentified Analyst**

I apologize I came in a little late. You may have addressed this. But is there -- based on the mechanism of tesamorelin, would you expect it to have a direct effect on fibrosis and inflammation? Or is it all through reducing liver fat?

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**Steven Grinspoon** - Theratechnologies Inc. - Member of the Scientific Advisory Board

That is an excellent question. So I didn't tell -- say this, but we're now doing RNA-seq on our biopsy specimens. And there are some very interesting data in animal and human models that IGF-1 is anti fibrotic. So and we are looking at fibrosis gene expression as we speak. I don't have any data that I'm hiding from you. I just don't have any data yet, but we're doing at the Broad Institute that you may have heard of, a really great genetics

place here at Harvard. So it is a fascinating question of whether the fibrosis progression prevention we're seeing is simply the result of modulation of lipogenic pathways versus a direct effect, either through GH or IGF-1 on fibrogenic pathways. So stay tuned. If we show significant effects and direct effects on fibrogenic pathways, I think this is even more interesting than it is if you assume the sequences through the reductions in liver fat. So stay tuned for that. It's a very, very good question.

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**Luc Tanguay** - *Theratechnologies Inc. - President, CEO & Non-Independent Director*

One last question for you, Doctor.

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**Unidentified Analyst**

Some in the market are concerned that the FDA will require Thera to do a Phase IIb/III trial. And then by virtue of that, firming up the results you had because of the fact that yours was an investigator-led trial, smaller sample, a smaller number of patients but they would want something firmer, and that would delay the ultimate results and the approval of the drug at some point in time. I don't know if this is more for you, Christian or for Dr. Grinspoon, but I'd like to get that addressed.

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**Christian Marsolais** - *Theratechnologies Inc. - Senior VP & Chief Medical Officer*

Yes. I think at the moment, with the plan moving forward for us is to go with the Phase III. And I think that we have enough information. The data has been very consistent. Especially with the subanalysis that Dr. Grinspoon has done showing that the patient with the iron NASH, this is where you see the effect. And the patient with a more fibrosis, this is where you see the effect. And this has been consistent with what we have seen in the past. The more VAT you have, then the more absolute difference that you see in VAT. Then we're quite confident with what we're proposing with the FDA that we can go and do a Phase III trial. We'll have more feedback at the beginning of next year, but that's what we think.

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**Steven Grinspoon** - *Theratechnologies Inc. - Member of the Scientific Advisory Board*

And I would add to that, that talk about consistency, if you will, we already did sort of a 2.5 -- hey, we did the lipodystrophy looking at liver endpoints. Then we did lipodystrophy plus NAFLD, specific NAFLD. But the fascinating thing is if you look at the relative liver fat change, and so for example, you were to pool the 2 studies, they're not exactly the same, but essentially, they're very similar. You see that the relative reductions in liver fat are similar between them, although the absolutes are not, but you're starting with a higher level. But -- so if you look at that, I think it's not just that we have one Phase-II : IIT capability, we really have two, if you will, Phase II : IITs or 1.5. However, you want to look at it. So I think given that consistency and the logic behind this, the FDA would agree, I hope, to a Phase III program.

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**Christian Marsolais** - *Theratechnologies Inc. - Senior VP & Chief Medical Officer*

One more question and then...

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**Steven Grinspoon** - *Theratechnologies Inc. - Member of the Scientific Advisory Board*

Right. I really got to go after this one. So last one.

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**Unidentified Analyst**

I didn't know -- I noticed that Madrigal's drug was not on the list of drugs that you had at the early portion of your presentation. And I'm wondering if you've ever taken a look at that and how EGRIFTA's results compare to Madrigal's drug.





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**Steven Grinspoon** - *Theratechnologies Inc. - Member of the Scientific Advisory Board*

Sorry, which one is does...

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**Christian Marsolais** - *Theratechnologies Inc. - Senior VP & Chief Medical Officer*

Is that classical?

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**Unidentified Analyst**

3196

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**Christian Marsolais** - *Theratechnologies Inc. - Senior VP & Chief Medical Officer*

The Madrigal drug, Steve, because it was not on the slide.

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**Steven Grinspoon** - *Theratechnologies Inc. - Member of the Scientific Advisory Board*

I'm just -- I'm not -- if you tell me which class it was, I can answer your question.

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**Christian Marsolais** - *Theratechnologies Inc. - Senior VP & Chief Medical Officer*

Yes, it's -- we can get back to you at the end. But at the moment, I don't have the specific information about their results, I don't remember all of those by heart, but I can come back to with the first ones. Thank you.

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**Steven Grinspoon** - *Theratechnologies Inc. - Member of the Scientific Advisory Board*

Hold on. Yes. Thank you very much, I'm Sorry, I'll get back to you on that one. Hold on one second. Just let me see -- using the source of Google for everything in terms of what drug you're talking about.

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**Unidentified Analyst**

MGL-3196.

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**Steven Grinspoon** - *Theratechnologies Inc. - Member of the Scientific Advisory Board*

Oh, the thyroid hormone one. Yes. Okay, perfect. That's all I need to hear about this, it's thyroid hormone. Yes, that's a very interesting drug. It had very significant effects on liver fat. And the only drug I saw that had an effect, a little bit higher liver fat loss than tesamorelin. Of course, you don't have a deficiency of that in your body, so you're over driving the body with that. So that's really a truly pharmacological approach, whereas this is more of an augmentation approach.

It is the thyroid hormone beta receptor, and it's not alpha. So I don't think patients will get hyperthyroid per se, but it is of some concern. And I don't know what the long-term tolerability of it will be, but it is a very interesting drug. One that I'm not sure will be taken up so well because of its sort of unique pharmacology, concerned about the thyroid, but -- and one that's not quite as natural a fit to tesamorelin, but there's no doubt



that is an interesting drug with very, very interesting results. Hope that answers your question. I got to go, I'm sorry. Thank you, everyone, for your attention. I appreciate it.

## PRESENTATION

**Christian Marsolais** - *Theratechnologies Inc. - Senior VP & Chief Medical Officer*

Thank you very much, Dr. Grinspoon. Thank you, everyone. We'll now move to the next portion of the presentation. As you know, we just recently acquired a biotech company in oncology. And I must say that before I joined Theratechnologies 12 years ago, I spent 10 years at Pfizer working in the oncology portfolio. That was also part of the global team that was assessing the pipeline of oncology at Pfizer. And since I've been following that company, I was always very, very impressed with the results that they had. And that's one of the reasons why we wanted to go in that area. I would like to invite now Richard Béliveau, professor emeritus of Biochemistry at Université du Québec at Montreal, who's the inventor, also was the founder of the company.

**Richard Béliveau** - *Katana Biopharma Inc. - Founder*

Thank you. There's a need for a new approach in cancer treatment. Chemotherapy is, of course, a key therapeutic approach to treat cancer, but it is severely limited by side effects. And this is mainly due to the fact that more than 95% of anticancer drugs that are administered through classical chemotherapy are unfortunately taken by healthy tissue, and it's only a small 2% to 5% of the drug that is effectively taken by a tumor cell.

So the list of side effect includes myelosuppression,, neutropenia, nausea, vomiting, diarrhea, constipation, and of course, the list of side effect is one of the main reason why patient leave the study during the treatment or during the -- and it's one of the reason of the failure of classical chemotherapy. So what we have developed is a targeted oncology platform. And it's all receptor-mediated cancer treatment. Essentially, it's a new oncology platform. It's a peptide anticancer drug conjugate for targeted therapy. And it targets cancer cell with virtually no impact on normal cell. And this is -- should be seen as a platform that could lead to the development of a number of cancer drug I will present, too, today, but it's really a platform that could be used in a wider context.

So you've probably never heard of it before, why sortilin is a new target in cancer therapy. First, sortilin is extremely overexpressed in tumors compared to healthy tissue. And clinical data show very important clinical patient survival profile that is correlated with sortilin expression. Sortilin biologically is a scavenger receptor like LDL receptor family type of protein, and it's involved in import, export of protein and peptides across the cell membrane. This make it an ideal candidate for drug internalization of peptide drug conjugate. And since sortilin has been studied physiologically and biochemically, we know the natural ligands of sortilin, and we were able with the computer simulation to align the sequence of these peptides and design an ideal synthetic ligand peptide with drug conjugation capacity.

So this is what sortilin look like. It's a transmembrane scavenger receptor, and as I said, it's essentially involved in the trafficking of macromolecules and peptide across the cell membrane. In cancer, it -- this receptor is involved in cancer cell survival, in cancer cell invasion and metastasis and in cancer cell progression. And the high sortilin expression, as I said, is correlated with poor prognosis in patient.

I like to see what I'm aiming at. This is a molecular representation of our molecular receptor. As you can see here, when it binds to its ligand, it changes configuration. It give a kind of tunneling across the lipid bilayer, and it is through this tunnel that we can deliver a payload, a cargo inside the cell and intoxicate the cell with the treatment that we will give.

Sortilin roles in cancer development is complex. It's a protein that is associated with cancer stem cell expansion, and you know our cancer stem cell is a key issue in the treatment of cancer. It's involved in intercellular communication, and it's involved in -- it regulates adaptive phenotype in solid tumor by a variety of mechanism especially in the response to low oxygen environment. In the center, when the tumor grow, the center of the tumor becomes hypoxic because of the lack of vascularization, and sortilin is a key element in this aspect.



So if we look at sortilin expression in cancer, it's associated with ovarian and breast cancer aggressiveness. It's very important, this number, 90% to 100% of ovarian cancer express sortilin, 75% of invasive ductal breast cancer. And it is very, very important point this -- point here, increase expression as a function of tumor grade I to IV. It's very rare in oncology that we have a grade-dependent expression of a marker. In this case, we do. The higher the grade the more dangerous the tumor and in this case, the higher the expression of the sortilin. So this make it an ideal target because often the -- our failure in chemotherapy is due to the fact that the patient are diagnosed at -- as a too late phase in their tumor development and we don't have a good response.

But it is also involved in a variety of other tumor type like endometrial cancer, melanoma. Endometrial is important because we don't have a big deal of drug that works with endometrial cancer. We -- today, we will focus on ovarian and breast triple negative, but it's -- just want to remind you that we could have a variety of target.

In classical chemotherapy, what we do essentially is that we try to destroy cell with poison, and these drugs that we use, doxorubicin, docetaxel, are essentially just very, very -- they are lipophilic, hydrophobic lipid soluble molecule, and essentially, the mechanism of being taken up by the cancer cell is a passive diffusion mechanism just like when you do a -- when you cook, you solubilized the food in oil. This is what the -- this is the way that these drugs penetrate the cell, the cancer cell. It diffuses passively through the lipid bilayer.

But the cancer cell defends itself from an evolutionary mechanism that we call multidrug resistance. During evolution, you were eating tons of plants, and phytochemicals in plants are seen by the cell as toxic. So during evolution, the cells that survive develop expulsion mechanism, vacuum cleaner, molecular vacuum cleaner, and these efflux mechanism just push back the cytotoxic that is trying to kill the cell out of the cell. It's perfect during evolution. It allows us to survive to the toxin that we've eaten during our evolution. But when we want to treat cancer cell, the same drug expulsion mechanism that save you from toxin now protects the cancer cell. And one of the main reason for our failure in standard chemotherapy is because of these multidrug resistance phenotype.

Our approach at Thera is completely different. What we did is that we created a peptide and we conjugated with the drug. And the drug is not taken by passive diffusion, but it's recognized with very high affinity, nanomolar affinity by sortilin receptor. And the sortilin receptor does what it does usually. It forms endocytic vesicle, and it's internalized. And we designed the conjugation with S-2 link and normally present esterase inside the cell, cleaves the link. And the drug is released, and the receptor is recycled back to the cell surface. So we have a completely different mechanism of action. I call -- like to call this the molecular Trojan horse approach.

Essentially, the Trojan lost the war because the Greek offered them a nice horse with hidden soldiers inside. So we have -- and they lost the war because of it. So essentially, we are offering the cancer cell a nice gift that is looking like something it likes usually, a nice ligand that sortilin is recognizing but we intoxicate the cell. And this is -- the fact that it is conjugated makes it unrecognized by MDR, and we have -- we circumvent the multidrug resistance phenotype by making this approach.

So the peptide we have designed is a first-in-class peptide family. It's a 17 amino acid synthetic linear peptide that is specific for sortilin. It has a -- the capacity to conjugate cytotoxic at selected drug-peptide ratio, and it's something that could be used in a combination. So essentially, we have a variety of site on the peptide where we can -- I just showed for doxorubicin but we can make a variety of conjugation.

So let's look at results now. Doxorubicin conjugate was our first one, and we aim at ovarian cancer. Why ovarian cancer? Because it's a very terrible cancer. It's the deadliest cancer in women. The mortality rate is extremely high in ovarian cancer compared to breast, uterus or cervical cancer. And this data is very important for those of you that are not immunohistochemistry expert and I'm sure there's a couple in this room. What -- when we do these types of study, what we are looking at is really at the coloration of -- the brown coloration is an antibody that recognize the target, and we conjugate this antibody to another antibody that makes a brown coloration when it is present. So essentially, if you have brown coloration, it means that sortilin expression is expressed at -- sortilin expression is high. So if you look -- that's very important data. A healthy ovary do not express sortilin, and that's always when you design your target drug for cancer, you have to look at the ratio that is low in healthy tissue and that is high in cancer tissue. And if you do this, if you look at primary ovarian cancer, you see a lot of brown coloration indicating a good immunohistochemistry detection, a lot of sortilin. And if we look at ovarian metastasis, it's even worse, a very, very extremely high expression of sortilin expression in this case.



So if we address now the effect, the comparison, if we look at doxorubicin in blue first, you can clearly see that if we compare the uptake, the accumulation of doxorubicin in healthy ovary compared to tumor, the ratio of accumulation is about the same. That's the reason why we have side effect with standard chemotherapy. But if we conjugate the same drug with the peptide that we call TH1904, you can clearly see that the rate of uptake in the healthy ovary is much lower than it is with doxorubicin. But the rate of uptake in the tumor is much higher than it is with doxorubicin. And this difference of ratio between tumor and ovarian healthy tissue makes it very interesting in terms of drug development.

This is a little complicated slide, but I will do my best to explain it to you. It's the -- a slide where -- an experiment where we address the multidrug resistance phenotype. Fortunately, a multidrug resistance has been studied for a certain number of year because of its clinical implication, and there is -- there's been some drugs that have been shown to block specifically, MDR. One of these drug is cyclosporin. When we incubate the cancer cells with cyclosporin, MDR, efflux pump is blocked. So if we treat cancer cell with doxorubicin in the absence of cyclosporin, this is the uptake I showed you we have. But if we put at the same time of doxorubicin, if we put cyclosporin, we have an increase uptake of doxorubicin because, essentially, we've blocked the efflux pump mechanism. We've blocked the vacuum cleaner, so we have an over-accumulation. This is a signature of multidrug resistance recognition.

Now if we do the same experiment with TH1904, you see the uptake again of doxorubicin higher than it is in -- with straight -- simple doxorubicin. But in this case, there's no impact of cyclosporin indicating that the drug is not recognized by MDR phenotype and that we are circumventing the resistance issue problem.

In vivo validation with human ovarian cancer, that is called ES-2. If you look at the progression of untreated tumor in animals, if we treat with doxorubicin, we have a reduction of tumor, and if we treat with a conjugate, a much drastic reduction. If we compile this data, for doxorubicin, we have a 43% reduction of tumor volume, while with TH1904, we have a 97% reduction of tumor volume. If we repeat that with another type of ovarian cancer called SKOV3, we see again a 41% reduction with doxorubicin and a 77% reduction with TH1904.

One of the very important side effect that we have to take into account is the cardiotoxicity in -- with doxorubicin. Cardiotoxicity is one of the main reason why we have to stop the treatment with standard doxorubicin and the reason is shown here. You have a significant accumulation of doxorubicin in the heart tissue, but if we do the same experiment with TH1904, we have more than 50% reduction in uptake.

And if we look at the measurement of inflammation associated with this cardiotoxicity, interleukin-6 is a cytokine that is released by the cardiac tissue, and that is a measure of inflammation. And sure enough, if we look at the level of interleukin-6 in untreated animal, it's double when we treat with doxorubicin but the impact of TH1904 is not -- no increase. In fact, we see a small reduction of interleukin-6 in treated animal. And that's very important results confirming the fact that we have less toxicity with this.

And one easy way to look at side effects of -- in animal, you cannot ask mice or rats how they feel. Maybe they have nausea. But mice are just like you. When you don't feel right, when you have nausea, you do -- you stop eating. So once -- when you stop eating, you lose weight. So looking at weight loss is an important way of doing this. And if you look at these untreated mice, you can really see the effect of doxorubicin. Mice lose weight. They are skinnier and you have inflammation and edema around the center indicating the side effect of doxorubicin. But if we treat the animal with TH1904, they don't lose weight and you don't have this edema and inflammation we see in animals.

And one important side effect of doxorubicin is effect on the bone marrow. It induces myelosuppression. So if we look at the blood lymphocyte count, you can clearly see here that's the safety zone, doxorubicin-induced reduction of lymphocyte count. But if we do the same experiment with 1904, the conjugated cyclosporin, we don't see this reduction, so it's very, very important.

Now the second drug that we've developed is docetaxel. Docetaxel is a -- we designed it to be used in triple-negative breast cancer. Breast cancer is a complicated disease. If we look at the expression of sortilin in these variety of breast cancer, you can see that sortilin is expressed in a wide variety of types of breast cancer. And what is important in this case is that, overall, in breast cancer, the expression of sortilin is in about 66% of all breast cancer compared to 10% to 15% for HER2. And if you look at the success that we have in the clinic with HER2, this gives you an idea of the capacity that we have to treat breast cancer targeting sortilin instead of HER2.



Why triple-negative breast cancer? Because, first, it's the most lethal form of breast cancer. It's more frequently diagnosed in younger woman under 40 years old. It has a higher risk of earlier relapse. In fact, it's 42% of women that will have rapid relapses within 5 to 10 years after initiation, at the median survival from the time of developing metastasis rarely over a year, and we call it triple negative because these tumor lack estrogen receptor, progesterone receptor and HER2 receptor. So the targeted therapy that we use normally in breast cancer are not available because the target are not -- just not there.

And if we do in silico and modeling of the correlation of sortilin expression with the prognosis and the survival, fraction of survival in TNBC-positive patient, you can clearly see that the expression of high-level of sortilin is associated with the decrease in survival. And if the patient have a lymph [node], the expression of sortilin is really catastrophic indicating again, just like in ovarian cancer, that we have a case where this receptor is associated with a poor prognosis.

And just like I showed you, if we do the same immunohistochemistry detection of sortilin expression, look at what a normal breast tissue looks like, and if we look at infiltrating that carcinoma, lots of sortilin expression and lymph node metastasis carcinoma. It's just tons of sortilin expression in this cancer. So again, high level of expression in tumor, low level of expression in normal tissue makes it an ideal target. We have to have this in consideration when we designed the study.

If we look at in vivo validation of this docetaxel conjugate that we call TH1902, you can clearly see here the evolution of the tumor is very, very quick. If we treat with docetaxel, docetaxel is a good drug with breast cancer. It blocks the evolution of the tumor as -- just like 1902 does. But after some period of time, the maximum tolerated dose is reached. We cannot treat the animal anymore and the tumor relapse, and we have a reappearance of the tumor after a while. While with 1902, we can clearly see that the tumor remains very, very low.

We did another types of experiment in -- this time. What we did is that we engineered the cancer cell by inserting a gene called luciferase, and luciferase [and it's light] we can monitor. That's very, very important tool in oncology because with this you can detect a single cancer cell because you have system that allows you to monitor. So I like to take a look at images first. If we don't treat the animal, that's the luminescence that you see in the animal. If you treat with docetaxel, this is day 14, this is day 74, you can clearly see that we have a reduction. But if we treat with 1904, at day 14, you see the difference in the level of detection. And at day 74, in this case, we have complete disappearance of tumor mass and tumor cell detection.

So we not only reduces the evolution of the cancer, but we induced a disappearance of the initial tumor that was present in the animal. And if you compiled these data in the animals that were treated, that's what we get. We have, in this case, very, very important effect. And this allowed us to create something to think about using a lower dose than the MTD in this case. And if we repeat this experiment by using just 1/4 of the maximum tolerated dose, you can clearly see that if we use a fraction of the MTD, we have no difference between vehicle and docetaxel treatment. But if we just take 1/4 of the MTD for docetaxel in TH1902, we have a very, very important reduction of tumor volume in this animal.

And just like we did with doxorubicin, if you look at the neutropenia that is also induced by docetaxel, a single injection of docetaxel has a strong impact on white blood cell on neutropenia. And if we do the same even after 6 treatment with TH1902, we have no impact on neutropenia. And that's a very, again, good indication. And as I said, by the way, it's an easy way of monitoring the side effects with the drugs. And sure enough, if you look at body weight in docetaxel animal, you have an important reduction that we don't see with TH1902. So basically, what we have, I think, the image I always use for this is -- what we've created is a different way of treating cancer at this point of time.

Classical chemotherapy is really like a carpet bombing of B29 in 1945. You just load the target with bombs, and you destroy the target, but you have a lot of collateral damage. What we are creating here is a GPS-guided missile. We aim at the target and we destroy the target with minimal side effect. So essentially, what we have here is a target with therapy. We have an increased efficacy. We have a better tolerability, and we have a flexible platform that allows us to create a variety of drug. The advantage of Theratechnologies oncology platform essentially is it's specifically targeting known drugs already tested, millions of patient. This will allow us to drastically reduces the risk of unpleasant, unfortunate surprises in translating animal studies to human patient. It's essentially showing old drug new tricks. So thank you for your attention.



### Unidentified Company Representative

Before we go to the questions, I just want to go through the next steps, give you an idea of what -- where we will focus. It's only 2 slides, and after that, we'll go to the question -- to the Q&A. Then based on what you've seen, I think that you understand why we're very excited about this platform. As a company, we've been following them. Now we made the deal in February, and we're able to make this project progress fairly rapidly. We're focusing on 2 cancer at the moment. The one that we mentioned. There could be other application, but we want to go to the proof-of-concept as fast as possible. That's the objective. And to be in human as fast as possible. The first one will be the TNBC and the ovarian cancer, and those are 2 very, like, large unmet medical need as well. In terms of patent or IP, we're fully covered, and we continue to develop new. The team of Dr. Beliveau have done a very good job in doing patent that would cover multiple peptides as well as multiple compounds, not only the cytotoxic, but it could be the tyrosine kinase inhibitor it could be also other drug. The beauty about this is even though those cytotoxic are generic, once they're combined to the peptide, it's a new chemical entity then you can patent this new conjugate. The other thing is when we look at buying the companies also like there is always risk involved when you're at an early stage, but now we're working with a product, which we already know the -- it works in cancer. We just changed the way we bring it to the cell. Then we really feel that it's a de-risk type of technology that can probably help us to go faster to the human and potentially, eventually approved. The target of cancer cell, it's new, but based on the data that you've seen, they have enough data to show that it's really over expressed. And the more the cancer progress, there is more sortilin. And we think that it's the right target to bring the cancer drug inside the right cells. And if you look at the -- in any treatment, you usually look at your therapeutic window. Then cytotoxic, at the moment, are given at the toxic level because if you want to have efficacy that it goes in the noncancer cells at the same level. But now we're really enlarge that therapeutic window where we see very good efficacy even with the lower dose, as we've shown in the animal model, which is 1/4 of the dose. We're planning to initiate the Phase I study or the first-in-human in 2020. We already submitted a type C request for those 2 compounds to the FDA. Interestingly enough, they replied to us to get -- they wanted to have those briefing documents faster than what we were anticipating, and we should have the feedback before the end of the year. And in terms of the proof-of-concept, you understand, in oncology, the first-in-human are always in cancer patient, more advanced patient. Then maybe this is where we'll start seeing some efficacy in addition of the safety then. Therefore, in 2021, we should start to understand the efficacy of the drug in cancer patients.

Any questions? Any on the oncology for Dr. Beliveau.

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## QUESTIONS AND ANSWERS

**Louise Alesandra Chen** - *Cantor Fitzgerald & Co., Research Division - Senior Research Analyst & MD*

Louise Chen from Cantor. So the first question I had is, ideally, where do you see sortilin fitting into the treatment paradigm? And then are there any toxicities that we should be aware of? And then the last question I have is, is there any science to support the durability of the compound?

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### Unidentified Company Representative

The -- you said that the targeting of sortilin. The importance of targeting these sortilin receptors. First question.

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### Unidentified Company Representative

Globally I think it's a new target. So the diversity of tumor that expresses sortilin makes it interesting because it's -- sortilin, the biological role is involved in the resistance to apoptosis and cancer cell survivor. So it makes it an interesting target globally for all cancer cells that expresses sortilin. What I think the most important point for target validation is the fact, as I said, that it is grade dependent. And generally, when we have evolution of the tumor, the phenotypes change, you have a degradation of the control of the genome, P53 is disappearing and so on. But in this case, we know from immunohistochemistry data and clinical data that are already available that the worst cancer expressed the highest level. So this indicates to me that the sortilin is really associated with tumor degeneration. And in the clinic, the problem we have is to treat really, really badly degenerated tumors. So in this respect, I think it makes it one very good target for cancer treatment.





**Unidentified Company Representative**

And I think that one of your other question was the durability of the effect. At the moment, if we're looking at most drug approved in cancer, very often you gain 6 months of disease pre-survival or different things like this. Based on what we've seen today, like, doxorubicin is usually given for 4, 5 cycle, and you have to stop the treatment, not because of the efficacy, but because of the safety. If we don't have neutropenia in human like what we've seen in the animal, it means that we -- if we lower significantly the toxicity of those cytotoxication, means that we can probably continue to give the drug for longer. This is what was seen in the animal model where after 3 or 4 cycle of doxorubicin alone, there is a significant decrease in weight. But with the conjugate compound, you can continue to treat. After that, it will depend, of course, on the response rate that we will see in the human. Then if we have similar response rate as what we see in the animal model, it means that the tumor can shrink significantly. The other thing is like, at the moment, cytotoxics are given once every 3 weeks because you have neutropenia, you need to give a time to your body to rest and to regrowth you want for your blood cells before you can give the second dose. Now with a compound like this one with no neutropenia, you can change the paradigm of how to use the cytotoxic. Maybe you can give them every week, maybe you can give them every day. Those are things that we don't know today, but we'll start experiments on the animal to see what we can do eventually in human. Then -- and after that, there will be combination. Most of the cancer drugs are given in combination with other agents. Then that's also the other experiments that we're starting now. The focus was really to go fast to submit a document to the FDA so we can do the first-in-human. But in parallel now, we'll start doing more animal studies, looking at combination, different method or time of administration, if you want to potentially this platform as much as possible.

Any other questions? Or...

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**Unidentified Participant**

I know it may be speculative, but what kind of Phase II and Phase III trials do you expect in terms of length and number of patients and cost? And at the end of all this, what is the exclusivity period that you would have in the U.S. and Europe?

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**Unidentified Company Representative**

Yes. The -- in terms of the first-in-human, the fact that we already know the maximum titrated dose of the cytotoxic, we will probably be able to start at a fairly high dose. And after that, we have to do dose escalation. Then we start with one dose in one human every 3 weeks, and we follow the safety. And after that, we escalate to double the dose, and we increase by 50% up until the time that you see adverse events. When you see the adverse event, you increase the number of patients per dose up to 3. And once you reach the maximum tolerated dose, you decrease it by about 50% or 30%, and this is where you can administer the drug to a larger number of patients. Then we think that dose escalation well could take a few months. And after that, we're planning to enrich each program in the targeted tumor. And as an example, for doxorubicin and conjugate, at the end of your dose escalation, we'll probably enroll 10 or 15 ovarian cancer patients, so we can have the proof-of-concept. If the response rate that we see is a bit similar as what we're seeing in the animal model or not expecting to have a tumor disappear completely, but if we gain few months, after that we can initiate a Phase II/III program based probably on 150 to 200 patients. It's been done in the past even with improvement of 6 or 7 months. We don't think it will be large program, it could go fairly rapidly.

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**Unidentified Company Representative**

If I may add something to this. It's a fact when we do a Phase I in oncology, generally, the patient that comes in Phase I are patients that have already had all sorts of treatment, and they are non-responders. So this is one of the reasons why Phase I generally do not work. But in this case, it's sortilin. It's over expressed. In grade 3 and grade 4, we expect a nice response at this level because this is the population of patient. We will try them to focus on.

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**Unidentified Company Representative**

And we will certainly do biopsy (inaudible) in all patients to ensure yes. If you don't have a response because you don't have the receptor or over expressed.



**Unidentified Participant**

Is this receptor universal in all people in different phenotypes and genotypes? I'm thinking about the impact of the drug, would it help -- would it work for different patients with, I guess, various different phenotypes or genotypes?

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**Unidentified Company Representative**

If it is it's expressed in all human people. It's expressed at different level in the human body, the level of expression. Sortilin has been detected in the brain. Essentially, a lot in muscular tissue in the skin, in various tissues, but the level of expression, as we -- as you have seen, if you had good eyes, when I showed you ovarian cancer, you would see a very, very little bit of the brown detection, but it was at the periphery of the tumor. Some epithelial cell express it, but that has very low level compared to what it is in human. The polymorphism in human is small for sortilin. There are no significant single nuclear type polymorphism that has been associated with the difference in function and activity of the target. So we don't expect to have a great deal of variation for this. I think the target is well defined. It is stable. And I think it's -- it will be validated with...

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**Unidentified Company Representative**

And the peptide was designed based on human sortilin receptor and not the animal. That was not designed based on the mouse, but that was really designed based on the -- and the cancer cells that we're including or transplanting to the mouse are human cancer.

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**Brian Corey Abrahams - RBC Capital Markets, LLC, Research Division - Senior Analyst**

Brian Abrahams, RBC. Can you talk a little bit more specifically about the stability of the linker? How efficiently the payload dissociates from it in human cancer cells? And maybe compare and contrast the properties of the linker versus what's currently used for available ADCs?

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**Unidentified Company Representative**

Then the question why it's -- like in terms of the ADCs at the moment, what -- I'll ask Dr. Beliveau to address the first question because the ADCs are targeting very different receptors. And maybe we'll start with this, and I'll go back to the linker.

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**Richard Béliveau - Katana Biopharma Inc. - Founder**

ADC, generally, when you do ADC, you do a phenotype. You do a pretty unique or genomic analysis of the cell surface, and you even identify antigens that are expressed in the cancer cell, for example, more expressed cancer cell. But -- yes, but you don't address the function of the protein. You do the linker, but you don't have an internalization process. In this case, since we have a scavenger receptor, its biological job is to take something out and bring it in. So this is what we do. In fact, we've used proteomic approach of ADC type. But within what we found because we have proteomic capability in my lab, we focus on the one that are not just standing antigen that are probably nothing to do with the internalization, we focus on the few protein that are involved in translocations. So the type of conjugation after this is essentially dictated, but what's available at the inside the cell. And [esta-rays] are one of the enzyme that are extremely high in cancer cell, and this is -- in the assay, we have seen, it's interesting. You ask the question because one funny thing we have with Dr. (inaudible) is that Dr. (inaudible) it's red. It's very, very red. It fluoresces, it emits a lot of light, but once it's conjugated, it's not so when we can monitor just the [caspase by fluorescein]. And I think even in the clinical setting that will allow an easy monitoring. There is lots of things that look anecdotal, but in a clinical context, I think an essay like that, that allow this type of monitoring in cancer cell is interesting.

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**Unidentified Company Representative**

And the linker use for the ADC are much stronger than the link of your cytotoxic with the ADC are very stable because the half-life of the medical antibodies are like 15 days or 20 days. And the other thing is that they attach outside of the cell, and they have to be released in the vicinity of the tumor. The difference with us is that, that peptide will bring it inside the cell, and this is where it's degraded. Then we need the linker, which is softer, to some extent, to release the drug a bit faster. Then it seems like it's -- that's the number of linkers, but based on their animal model and in vitro, that was the best way to release it as fast as possible inside the cell.

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**Richard Béliveau** - *Katana Biopharma Inc. - Founder*

And we're talking about very high affinity, as I said, (inaudible) in this type of things. So it's a very high affinity.

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**Endri Leno** - *National Bank Financial, Inc., Research Division - Associate*

Endri Leno, National Bank. Just a quick question. On the dose escalation trial, are you planning to screen for sortilin expression? And one, if you're targeting the more advanced disease patients, like how long -- how do you see this will impact the (inaudible)?

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**Unidentified Company Representative**

Yes. The one thing which is in cancer, we usually start treating patients that are refractory, that are more advanced patient. Then we will do a biopsy, we'll look at the over expression of the receptor. It's usually over expressed and more advanced than we think a significant percentage of dose patients will be over expressing the sortilin. Then in terms of the efficacy, once we reach dose that are potentially effective, we should probably see something. And it's very different than using a new mechanism of action where you don't know exactly, you don't understand your receptor. Sometime, the receptor works better in early stage of the disease. Then I think that in our case, it can -- it's the Phase I or the first-in-human can give us a lot of good information about the mechanism of action and the efficacy of the product.

Any other questions? Very good. Then we will go with the conclusion part where Litch, welcome to...

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**Unidentified Participant**

Thank you. So thank you, Dr. Béliveau and Steve is not on the line yet, but still -- but I would like to thank him as well. I'd like to say, it's more corporate conclusion than a scientific conclusion. First, I'd like to say that we transformed that company a lot in the last 5 years, we came -- we're coming from a company that was doing very small revenue, namely from royalties and today, we have significant revenue in sales in different territories. We expand our geographic presence in the U.S. We didn't have any activities in the U.S. Today, we have our main activities are in the U.S. And recently, we just opened something in Europe. We also -- I think we're taking care of the life cycle management of our product through -- with EGRIFTA SV, for example. The effect that will come maybe in few years. Same thing with the slow push version of Trogarzo. This is very important for us to sustain growth over years. We also have built a significant pipeline that was exposed to you today. I think this represents significant growth over the future. And one thing I didn't talk about is that we are very active or we were, and we still intend to be active on the M&A side. We have built this company in the last 5 years with the colleague at Theratechnologies, of course from organic growth, but we also did pretty good acquisition. Trogarzo, for example, was acquired from a company called TaiMed Biologics. The acquisition of Dr. Beliveau company in oncology, and we are very focused in our acquisition. And we like to do deals that makes sense in our business plan, but also makes sense in terms of financial risk. So that's what we have done the last year -- the last 5 years, but we want to continue that we had a major turnaround, but we want to continue the growth of the company. And I think we're very well positioned to significant growth at Theratechnologies. First, in the short term, we think EGRIFTA will continue to stimulate growth for this product. Trogarzo in the U.S., it's on the market just for 1 year. We think that we have a still significant growth of Trogarzo in the U.S. In the midterm, I think, a lot will start. In fact, sales will start really to pick up in Europe in 2021. This year will be -- or next year, 2020, we'll be more involved in the reimbursement, but sale will be really start to be picking up -- to pick up in 2021. So it was similar growth in the midterm. And of course, what you have seen today with our oncology platform and with EGRIFTA in NAFLD/NASH is probably



significant source of growth also for Theratechnologies. Don't forget, we are still very -- we have our eyes open for acquisition. But this needs to be done in good financial approach as we did in the past.

So on this, I'd like to thank you for assisting to this presentation. We'll stay here for a few minutes if you have more questions, but we are also available to answer any question if you want to call us, we'll be open for that. No problem. So have a nice day. Thank you.

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