

## **Crucell at the Jefferies 3<sup>rd</sup> Annual Healthcare Conference, New York June 17, 2009**

### **<<Unidentified Speaker>>**

Sticking with the European companies and vaccines theme this morning now, we've now got – it's our pleasure to have Crucell presenting and here today we have Leon Kruimer who is the CFO of Crucell and he is going to take you through the company and then we'll have some time for Q&A at the end. So thank you Leon.

### **<<Leon Kruimer Chief Financial Officer>>**

Thanks a lot Peter. It's my pleasure to give you an update on Crucell and I will try to keep it fairly short so we have some time for questions and answers at the latter half of the presentation. Very quickly for those of you who are not very familiar with the company, we are a Dutch based company, in Leiden, the Netherlands. Listed as main listing on the New York Stock Exchange, Euronext in Amsterdam and with listing also with full ADR program on NASDAQ and last but not least we have a listing on the Swiss Stock Exchange, which is actually a smaller part of our shares with very little liquidity.

Our products are vaccines that we sell and I will go through, in a later will go through a number of them; the most important one is a pediatric vaccine that is sold to UNICEF for use in the developing world. The backbone of technology in the company is a technology called PER.C6, which is a cell based, human cell based production technology and basically it's a better and smart way to make vaccines and to use proteins and antibodies.

We have production facilities in Switzerland, where some of our largest facilities are, but also in Korea where we are at the moment involved in investing about 50 million Euros in a brand new facility for vaccines. We have a fill and finish plant in Spain and Madrid and our headquarters and research facilities are in the Netherlands. We have global distribution and sell basically to institutional buyers of vaccines worldwide and also in the United States where we sell one product from Florida.

And we have a very broad base of partnership licensees, technology transfers, contract manufacturing arrangement with basically every single company in the field including all of the large pharma companies. We hold 6% of the company called Galapagos. Galapagos used to be a genomics company, is now involved in the development of an Alzheimer drug and osteoporosis drug. We set up this company together with Johnson & Johnson in 1998 and continue to hold about 6% of the company. The company is public and also listed on the New York Stock Exchange, Euronext.

In addition to that we have 12% of a Taiwanese company called AdImmune. AdImmune is a company that at this moment is with our help building facilities to build – to make flu vaccines and what intend to source antigen for flu from this company in the next couple of years.

Just a brief look our financials. In the top left hand corner you see our revenues that came up from a very modest base of low 20s to 283 million today and jumped from 2005, from 38 million to 140 million is basically through acquisitions. In 2006 we acquired three different companies, one in the United States, one in Switzerland and one in Sweden and that basically is the breadth of our production facilities and the existing vaccines that are marketed today.

The other green bars on the right hand side is the profit and loss. As you see we have been loss making basically since inception. But turned the corner last year and turned out a profit of about 15 million. The large amount of loss in 2006, 88 million was basically due to impairment and all kinds of charges related to the acquisitions that were made, one time charges.

In the bottom left hand corner is the net cash from operating activities, which also last year was break-even. As a matter of fact we've been generating cash for the last two years, 2007 and 2008 and that is in spite of the fact that we have been very aggressively investing in capital expenditures to update our facilities and upgrade our facilities as well as building inventory with a view on very strong sales this year.

At this moment we hold about 150 million in cash, last year it was 171 million at year end and the company is basically debt free. If you take a closer look at the makeup of sales with the bar chart, it shows that the sales have increased from say 141 to 283, which is all organic growth driven mostly by the growth in one pediatric vaccine which is made in Korea.

What you also is that there is a certain seasonality to our business and that is driven by the fact that we make flu vaccine which is traditionally made in the first two quarters and sold in Q3, Q4, although that seasonality patterns is blunted a little bit by the increase and the success of the other vaccines. In the first quarter of this year 2009 we were up 54% over comparable quarter last year and we have forecasted a 20% growth overall for the year in revenues.

If you look at the top pie chart is our 2008 products sales. So it does not include income from technology licensing, which amounts to about 40 to 50 million per year. Very important profit driver because it's almost pure profit. And of those 2008 product sales, 50% was pediatric, the largest part accounted for one vaccine, 14% was respiratory or flu vaccines which are sold in the, again the second half of the year. Travel and endemic vaccines which are about six vaccines that we sell worldwide accounts for about quarter of the sales and other vaccines such as Japanese encephalitis and other products that we distribute is about 12% of the revenue base.

So moving to first quarter 2009, which is the bottom pie chart, pediatric vaccine that accounts for about two-thirds of sales and respiratory of course is lacking because that's not sold in the first quarter. Last year we went on a strategic exercise and really to determine the strategic position for the company going forward for the future and combating infectious diseases, keeping people healthy and treating those that have been

infected by infectious diseases is really what we are good at and we've decided to make that the core of our business.

We have a number of other programs among others in blood factors, but that's actually sort of put in the back burner for the time being. If you look at our business it really consist of three parts, number one is the marketed vaccines that are stable and predictable cash flows. Total [inaudible] sales this year will be in excess of \$400 million and has been growing at an average of about 35% per year over the last four years.

We're the last largest independent vaccine manufacturer and I'll show you that in the next slide. Second part of the business is our pipeline. We have at this moment seven products in pipeline, mostly in Phase II, one in Phase III ready for registration in Switzerland, which is yellow fever and a number of products in Phase I. Some of these are done entirely by Crucell; a number of them are done in conjunction with partners like Sanofi, like Aeras Foundation, which is a [inaudible] foundation in tuberculosis and with the National Institute of Health here in the US.

And last but not least the third part of the business is the income that we derive from technology licensing. PER.C6 our cell based production systems is the most important, but we a number of other proprietary technologies that we license out broadly and at this moment we have about 80 different formed partnership license agreements and again they come in many shapes and forms with a large number of companies around the world. There is a copy, a concise copy of our Annual Report here in the lobby and the different technology license ships [Ph] with our partners is detailed there.

In terms of the vaccine market it's a very concentrated market. It's growing at a very healthy rate, much faster than the industry as a whole. About 15% per year due to a number of influences and among the incidents of flu is not an important at this moment. And we are number six in terms of size right behind Novartis and of course Pfizer and Wyeth are one company that merged or are in the process of merging.

Last year we sold over \$100 million of vaccines worldwide. We have with the acquisition of Berna Biotech in Switzerland and SBL in Scandinavia, which we were both 100 year old national vaccine institutes, a wealth of cumulative experience in making vaccines and things like conjugation and formulation which are very, very important. We do as an independent producer have a seat on the GAVI Board, which is basically saying that we help shape and advice on the policy with vaccination in the third world.

If you look at our products and pipeline it's a bit of a busy slide, but the blue bars on top are basically our marketed vaccines. I will show you what they are in a following slide. Vaccine development, Flavimun [inaudible]. It's presented to the Swiss medic authorities for registration at this moment and later on we intend to do that in Germany. It is a relatively small but interesting addition to our product portfolio. FluCell for influenza seasonal product is a program that is out licensed completely to Sanofi Pasteur who is developing a cell based flu here in the United States in conjunction with Lonza.

Tuberculosis we have done multiple Phase II trials, one is going on in Africa at the moment and one is going on in infants in Africa, which is quite exceptional for a Phase II product. So far with the [inaudible] that is comparing different vaccines and the efficacy of different vaccines against each other, we've been able to reach the highest immune response in the tests performed so far.

Malaria, we are conducting a Phase I trial in the United States. That is conducted and paid for by the NIH. We'd like to speed it up and we see possibilities for partnering that program in the future. And then Ebola and Marburg, as far as we know we are the only company that with quite substantial help from the NIH and from the US authorities are developing this program. There actually is an Ebola vaccine that we make, but we have received additional grants in order to make – to increase the safety and the efficacy just in case of emergency.

And then we provide the technology for HIV programs that are connected to the research at Harvard [inaudible] Hospital and Harvard Medical School and Beth Deaconess Hospital in Boston. Then the orange bars we are more and more concentrating on human antibody in development for infectious diseases. The first long is a fast track program in Phase II, additional elements for rabies. We do this together with Sanofi Pasteur and we basically have joint – in a complicated arrangement profit sharing throughout the world. The program is mainly directed towards India, the United States and China.

Influenza antibodies is something we get very excited about. It something that comes out our direct – our own research. And we've been able to develop antibodies or cocktail of antibodies that binds to the content [ph] region of a flu virus. So it has the makings of a universal treatment for flu. So far we've tested approximately 40 or 45 different flu strains and all of them get inactivated by this antibody. We are looking to it's pre-clinicals, we're looking to put this into the clinic in a timely manner. And then recently we've brought in the intellectual property estate surrounding hepatitis C antibodies from Stanford University and again that is something also that we did our own research, we are able to develop cost efficient treatment for hepatitis C.

The main marketed vaccines can be divided into three areas; pediatric, travel vaccines and respiratory or flu. Starting with the latter one we don't make the ingredients, the antigen for flu ourselves, we buy them in and we basically we formulate it, we package it and we make anywhere from 7 to 9, 10 million flu shots per year, which is dearly needed in this market.

Pediatric the most important vaccine is Quinvaxem, it's a five in one vaccine directed for the third world. Main customer there is UNICEF, Pan American Health Organization and we also sell a smaller part of the vaccine into so called private market in the third world. Epaxal Junior is a children's dosage of hepatitis A. Our vaccines are characterized by a technology called virosomes, and the good thing about virosomes you don't have to adjuvate it, so it causes less pain and higher efficacy when you vaccinate.

And in travel and endemic, the most important product is Epaxal hepatitis A. That is one product that we intend to bring to the United States. It will require some clinical testing, although this product is already registered in 60 countries worldwide. Epaxal Junior is the junior dose for that. Vivotif is actually a pill or a capsule that is prevention for typhoid vaccine and that's a product that we sell in the United States. One of the largest customers there is the US army.

Last but not least we also do third party distribution. Among others we sell Gardasil, the HPV vaccine in Europe for MSD. Two words about Quinvaxem. We introduced this product in 2006. We sold 6.3 million doses and we're the only competitor at that time with Glaxo having the major share of the market. The market increased very rapidly in the next couple of years and in the tender period, which goes to three years from 2007 to 2009 we were awarded \$0.5 billion worth of contracts by the United – by UNICEF and the Pan American Health Organization.

At price of 360 per dose, that translates into a large number of doses and you work out the numbers, last year we sold just shy of 40 million doses and this year we should see a significant uptick in the volume and the revenue that is derived from this product. The next tender period, which is from 2010 to 2012, we have submitted the bid for, the outcome of that bid is confidential and won't be known until the fourth quarter. But we're very confidential – very confident that due to our low cost, our impeccable service record, 100% reliability of supply and the fact that at this moment we own 50% of the world market for this, with Glaxo being number two. We held a very strong position.

In the meantime there are two other Indian manufacturers that have qualified. India wrote our a tender very recently with a very short time period to submit and basically I think it's a clever way to keep the Indian market to the Indian suppliers, which in a way is good for us because that draws away the excess capacity from Indian suppliers towards the Indian market. That market there is 50 million doses per year and the western – the other market is about 150 million. So at this moment in 2008 only about half of the market demand that UNICEF has forecasting has been fulfilled. Epaxal Junior is a junior dose. It's the only aluminium free vaccine against hepatitis A, again which has big advantages for kids, because it doesn't hurt when you vaccinate.

Some highlights of our pipeline. We basically have four main programs in there; rabies, antibodies, tuberculosis vaccine, malaria vaccine and Ebola vaccine for bio-terrorism purposes. Between these studies that we conduct ourselves we have over ten clinical studies ongoing in five different countries, among which is the United States, because most of the vaccines will be qualified also for FDA approval. And then we have discovered antibodies as I mentioned before against influenza and hepatitis C.

Two words about our technology, our production technology. It is basically the first alternative technology in addition to Chinese hamster ovary cells that has been introduced by a company into this industry over the last 35 years. Many of you will appreciate this industry is extremely reluctant to change production systems because there is a degree of risk when you do that.

This technology is primarily directed to new products that will be developed and we urge companies to compare the benefits of PER.C6, which are extremely high yields and low cost as well as low capital cost as a result towards producing own CHO cells. And I think the economics are so compelling that at this moment we are closing quite a few contracts for companies to take this onboard and evaluate the technology.

We have embarked on the program of operational excellence last year because basically the four independent part of the companies that we put together in 2006 were not fully integrated by the beginning of 2008. We have targeted savings of 15% of our 2007 cost base, which is about 30 million that we are completely on track and we will reach by the end of this year.

The reason for that as you see in the small bars from 2005 we grew from a company of 282 people to a company of well over 1,000 people worldwide in eight locations instead of one location so needless to say we needed to revamp the company in quite a substantial way. And have actually organized the way we work, have done things like minimum order size, minimum order quantities and are really very effectively bringing down cost and increasing efficacy.

The reason why we bought this company strategically is really to have our own in-house cash generator to fund the research. So although at this moment the sales of vaccines are quite important to us, the core of the company is still a very much development company and we see our new own development and products as a major part of our future growth.

The last slide that we'll conclude with, the outlook for this year is the growth that we have experienced is accelerating. We forecast 20% revenue growth in constant dollar, a significant improvement of operating profit and solid cash flow in spite of quite significant CapEx that we are embarking on this year. We're also pursuing key partnerships for a number of our products that in technologies.

We focus very much on progressing clinical development. It has been quiet there in terms of news flow. But most of the programs are in Phase II and it just takes time before they go through that cycle. And last but not least we will continue to broadly out license our technologies because it is an important source of profit s for our company.

And with that I'd like to conclude and like to open the floor for any questions if may have them.

**<<Unidentified Speaker>>**

The microphone will be passed around so please just wait a second for the microphone to arrive. Back of the room.

## Q&A

<Q>: Leon can you talk a little about your involvement if at all with the swine flu pandemic?

<A - **Leon Kruimer**>: Yes we can say something about that. I think what people must realize that the major companies that make flu, and we're the smallest of that, are in the middle of making at this moment the flu shots for next season. This will be ready by the end of October, by the end of September over October, and we will protect people worldwide against the regular seasonal flu. The swine flu is a very serious something and can potentially turn into a major problem, health problem worldwide. But lets not forget that the regular seasonal flu on average infects about 1 billion people year, right and ends up killing about 350 to 400,000 people per year.

If you put that in perspective against the current casualties to the swine flu, the swine flu is something which needs to be taken seriously, but first and foremost the industry must sort of do it's biggest responsibility and produce vaccine for next year. That basically says that the capacity of the industry is all tied up for the next couple of months and afterwards we'll be ready to full-fledged make a sine flu vaccine if we know the variant that the flu strain that we need to grow. And I think that the World Health Organization has been quite effective and quite vigilant. But it will take some time before we have an effective vaccine. And give our capacity I think we need to very realistic on what we can do.

<Q>: So today you haven't had any orderers. I know Novartis, Sanofi and Glaxo all have orders from the US government already in place? If you can just comment about any conversations you've had or -?

<A - **Leon Kruimer**>: Not specifically and I think whoever gives the order needs to be very smart because we do not know exactly what kind of swine flu we need to vaccinate against. One of the major threats that the experts see that in the coming flu season where the apex will really be reached, not until next January, February in the northern hemisphere, the swine flu virus will combine and exchange genes with the regular flu virus in people's body, creating a completely new strain that is highly infectious and has a high mortality rate. However that vaccine is not known.

I think at this moment there are – one of the best preventive measures is take the regular flu shot because as I understand the regular flu shot has similarities with the swine flu virus and might give you a certain measure of protection.

<Q>: Thank you.

<Q>: Could you comment on the assets that you've purchased from Xcellerex this morning?

<A - **Leon Kruimer**>: Excuse me I didn't hear that.

<Q>: Something on the tape that you having acquired FlexFactory production assets Xcellerex?

<A - Leon Kruimer>: Yes, yes that's part of our CapEx program in order to rev up our production capacity for a number of products that we intend to make. Among which is tuberculosis, malaria vaccine, flu antibodies and so on. Yes sir.

<Q>: You mentioned the technique PER.C as an improved method of manufacture. One will you be using that immediately on all your products and two how would you license that to competitors?

<A - Leon Kruimer>: Yes. Well first of all, all of the existing vaccines that we sell at this moment come out of our pipeline that we – from companies that we purchased over the last couple of years. So they are not based on PER.C6. The companies – the products in our pipeline that we are developing are all based on PER.C6, except for Flavimun, which was something that came out of the Swiss company. The other three were vaccine. But tuberculosis, malaria, Ebola, flu antibodies, hepatitis C antibodies, rabies antibodies all based on this new production technology.

We are actually developing this technology or make it really ready for large scale production, commercial production together with a joint venture partner called DSM, and we do that in Boston, Cambridge as a matter of fact. Basically what we have in Cambridge is a large scale development lab to take customers by the hand to show them how they can culture up these cells to very high densities and very high quantities to make it ready for commercial production.

At this moment PER.C6 as I showed in one of the slides, it's in the presentation, has been used in clinical trials involving thousands and thousands people worldwide. Most of them at this moment in the United States, but also in South America, Africa, Europe and where have you. So we think it's a matter of time before there is a product based on PER.C6 that will come to the market. We generally don't comment on the development of products at our licensees, because that's their prerogative and we really often times don't even have good insights in where they are.

But every product that comes – that we license out, every technology that we license out might be either licensed out very broadly as in the case of antibodies and proteins or might be licensed out very specifically for one product, for one territory and there are many ways to very finely cut the market and the license agreements that we have. Now every license when it's provided carries and upfront fee that might vary depending on the opportunity, depending on the territory and so on. It will carry annual fees that we collect and it will carry eventually percentage royalties on that sales.

Now in the case of antibodies, which tend to be very large products, the royalties range in the area of 2% to 3%, for certain infectious disease product they range up to 10% and in the case of rabies antibody in our partnership with Sanofi Pasteur we collect close to 40% royalties which in effect are a profit sharing arrangement. What you get if you sign a

license agreement with us is a standard agreement based on Dutch law, which has all kinds of advantages, based on Euros, which is our functional currency and that's non-negotiable. That's the same contracts that we sign with Merck, with Sanofi, with all the large companies and in return for the payment you will receive a FedEx box with three little vials of cells that can then be cultured up in your facilities to hundreds of thousands of cells where you concerned, if you do it carefully will last forever.

**<<Unidentified Speaker>>**

That's great, thank you very much Leon. Time I'm afraid. We got a few minutes until the next presentation. Thank you very much.