

## **Crucell N.V. at the 8<sup>th</sup> Annual Needham Life Sciences Conference, June 11, 2009**

**<<Alan Carr, Analyst Needham & Co>>**

The 8<sup>th</sup> Annual Needham Life Sciences Conference, I'm Alan Carr and we're pleased to have Crucell with us here today. Presenting for the company is Ronald Brus, CEO. We're a little tight on schedule so I don't think we're going to have time for breakout today. So he is going to save a little time for questions at the end. But I'll hand it over the Ronald right now so we can get started.

**<<Ronald Brus, President and Chief Executive Office Crucell>>**

Thank you Alan. Ladies and gentlemen it's an honor to be here and to present my company to you. What I like to do is to flip through some of these slides quite quick. This is still a kind a slide that tells a bit of where we are. We are based in the Netherlands, but we have most of our facilities outside of the Netherlands. We produce in Switzerland, Korea, Spain and Sweden and we now have started a pilot facility in the Netherlands.

We basically sell in 72 countries in the world and our market capitalization is approximately 1 billion Euros. We own 5% of a company called Galapagos and we also own 12% of a Taiwanese company called AdImmune. And the reason for the ownership is that they should be ready in 2011, 2010, 2011 to deliver us an additional 15 million doses of flu shots.

Crucell basically the story is quite simple. We started trading in all kinds of technologies that had to do with making better vaccines and creating a possibility of making monoclonal antibodies and proteins in much more efficient way by using human cells. At this moment in time we have around 82 companies that are using our technology on a worldwide basis and several of them are in clinical trials and the most advanced of them are approaching now the status of seeking market approval either in the United States or in Europe.

All these agreements are royalty bearing. The average of the royalty is around 2%, but it can go up to 5.5% for some – more exclusive licensees, up to all the way around 37.5% for products related to this technology like rabies. We started doing this kind of business till 2006 and then we acquired a vaccine company out of Switzerland called Berna and we acquired a 100 year old company out of Sweden that's called SBL.

And that changed the company in a quite dramatic way. Now for the first time we could generate sales by selling products worldwide. And also it was for us the major task to run those vaccine companies more efficiently and to make sure that we could benefit as good as possible from the fact that these companies were quite under-managed and have very low margins to start with. Well as you see that the first important task that we took ourselves was improving the financials. And you see we are operating in a quite interesting market because it isn't that difficult today to sell vaccines in the world because there is an enormous amount.

And you see year-over-year we could see quite of a significant growth of our sales. Very importantly we turn the company profitable in 2008. Despite the fact that we still had a loss in 2007 of around 40 million Euros, we could turn it profitable with 40.6 million Euros in 2008 and also the first quarter of this year has been a profitable quarter. And in our industry the first quarter is always the weakest because we cannot sell flu shots in the first quarter because traditionally we make them in the first and the second quarter and we sell them in the third and the fourth.

The company is rich in cash. We still have around 171 million Euros in the bank and we're not consuming cash. So we're actually adding cash every year. So if you now look at where is the revenue coming from and how is that being spread all over the globe. You can see that the majority now is coming out of something that we call pediatric vaccines. But also if you look at the right corner you see that there is still a very significant thing coming in that we call license revenues. Last year it was about approximately 30 million Euros and that has everything to do with selling technologies and those are annual payments.

So the big day for us is going to be when the first product out of that technology box is going to hit the market and these annual payments are going to be converted into royalties. But you also notice that if you look at the growth of the sales and the revenues, you see that we're shying away from this typical seasonality that we used to – that was characteristic for a company that sells just flu shots. So in 2006 you see that really the majority of the sales came in the fourth quarter, which is the typical flu season. Now you see in 2008 that it's much less seasonable.

Our goal, our aim, our mission is to combat infectious diseases. We feel there is tremendous need in the world and we also feel that those diseases are relatively speaking easy diseases to tackle. The animal models that we use are quite predictable of what we will see in the clinic later on when the products are on the market. The other very important thing is that due to the advances that have been made in the technologies these infectious diseases are now treatable or preventable.

We are firm believers of using no longer just vaccines in those diseases, but also monoclonal antibodies. Due to the fact that we are now capable of making monoclonal antibodies at about \$50 and even we think that just in the near future we can do it for \$25 a gram and that comes from \$1,000 a gram. We believe more and more diseases are specific targets now for monoclonal antibodies.

Diseases that just previously could not be within reach because of the extremely high cost of goods of a monoclonal antibodies treatment. But bringing the treatment cost down twenty-fold means that now it is still appealing to use monoclonal antibodies for the real targets that they are designed for and that's infectious diseases and viral diseases. Today basically Crucell consist of three major pills, it has marketed vaccines that give us quite stable and predictable sales and cash flow.

We are the largest independent vaccine players left in the world and we have vaccine sales in over 80 countries. We have multiple products and a broad pipeline in the clinic, some of them we just filed for approval and the majority of it is in Phase II clinical studies. And still we continue to silence our technology to our bigger peers in the industry and at this moment in time we have 82 licensees. We're fully integrated, so if you compare us with some of the other vaccine players, we do everything ourselves, we can't do everything ourselves. Well, one of the important things I think that everyone has to realize that the marketing and sales of these vaccines, you can do with very small sales force throughout the world. Our total sales force potential in Europe is more than 60 people and with those 60 people, we can achieve market shares of 20% in those markets.

The markets that we're active in are considered to be growth markets, important markets where we see very healthy growth due to the fact that biotechnology made it possible to create new targets and to do so much more. You see that the worldwide vaccine market is seemed to be a market that will grow at 16% a year and more or less the same goes for the worldwide monoclonal antibody market that grows with a rate of about 15% a year.

I told you that we're the biggest independent vaccine player, but we're much smaller than really the big five there, Glaxosmithkline, Sanofi, Merck, Pfizer, Wyeth and Novartis are much bigger, however our company sells over a 100 million vaccines a year and we have cumulative 200 year of vaccine experience. And especially producing vaccines is a very tough thing to do and I believe that it will take a very long time once the company is interested to start – to become interested in the vaccine markets to get the knowledge and the experience that we currently possess.

If you look at pipeline, you can see that we have a pretty full pipeline. Despite the fact that this pipeline is full, we like to limit the research and development spending of our company at rate of \$100 million. We do not believe that showing our scientists, we have extra money will drive a rapid flow through the pipeline. We believe you need to keep your scientists a bit hungry and therefore they really don't want to feed as a 6% that you serve but we have a limit of \$100 million. Now what you can see here is that we're both investing about 50-50 in both vaccines as well as monoclonal antibodies for infectious diseases. And the later category is that at this moment a very appealing one.

Being able to make monoclonal very cheaply, very efficiently it opens [indiscernible] to think about using monoclonals to treat influenza or to prevent influenza but also use it for rabies. And for rabies I want to give you one example, today rabies is being treated with something that's called human rabies immune globulin. In order to process that human blood, it cost you around \$500. We make a mix of two monoclonal antibodies for the price of \$6 and we believe that it's the way to go; monoclonal antibodies are extremely suitable and [indiscernible] to combat infectious diseases.

These are the products that we currently market and it is basically in three segments, pediatric, travel and endemic, respiratory and then we do for bigger parties in the world, we do also third party distribution in Europe. We are one of the biggest there with respect to selling Gardasil for example in the Nordic countries.

I'll just give you some examples of what we have done, in 2006; we introduced a pentavalent vaccine, Quinvaxem vaccine. The fifth year of sales, we sold 6 million doses and the market potential that year was around 20 million. So the demand was 20 million we sold 6 million. The year after, per we did around 20 million doses with a worldwide demand that was close to 40 million. Now, last year the demand was probably around 70 million or 80 million and we did half of that, more than 40 million doses. This year we believe the demand will be around 140 million doses and we will be happy to serve that demand with about half of that amount.

Why these markets are growing, well very importantly, pentavalent vaccination as seen as the corner stone to prevent the death of children under the age of 5. And has been one of the millennium goals in order to bring child mortality down in the [indiscernible] support countries. This is all being served by UNICEF and our company was capable of securing half a billion dollars of contracts for the years 07, 08, 09. We see this market ultimately grow to around 230, 240 million doses a year. So also for this year we expect very strong sales and a very significant growth of this product. We are at this moment in time by far the biggest in the world who can supply large quantities of pentavalent vaccines and these are very important carrier in supplying pentavalent vaccines.

In order to make 100 million doses of a pentavalent vaccine, in reality you need to make 500 million doses of 5 different vaccines. And once you have a bottle making of one is to five you will never get to the 100 million. We are seen as the most reliable supplier to UNICEF that we're keen to serve UNICEF needs there.

Epaxal is a product that sells extremely well in Europe, it's the only non-aluminium containing Hepatitis A vaccine in the world and I could say here without lying to you that this is absolutely the best Hepatitis A vaccine around. In United States there are two Hep A vaccines around one from Glaxo and one from Merck, Havrix and Vaqta both contain aluminum. We have a, I would say a much nicer safety profile and since ours is not containing aluminum it doesn't cause the typical pain associated with aluminum accusation. Our company did not pursue so far a US strategy, but we will. We see the US is the biggest market for Epaxal in the world and we will do a pivotal study. Today the product is approved in over 45 countries worldwide including Europe and Canada.

So much the pipeline highlights that I'll like to share with you Rabbis, we see there are market of around 350, \$400 million. I told you that we have a mix of two monoclonal antibodies, a mix that we believe is as good as HRIG, HRIG stands for Human Rabies Immune Globulin that costs only a fraction of the price to produce. We have done two phase II studies including already one in children and we will do a phase II study in India to make sure that we're compatible with the specific vaccines that's been produced in India.

Tuberculosis, while the number rise worldwide we have done six clinical studies already with the novelty B vaccine, so far we have deported the highest immune responses against TB ever nurtured in man. A very, importantly we are very good in [inaudible] technologies and one of the things that we are doing there is malaria. We're very keen to

develop a vaccine against malaria; we did three years ago, worked together with GlaxoSmithKline on the RTSS. The US Army has done several studies to combine the two vaccine components, unfortunately three years ago we got a bit -- ended up into a kind of a -- I wouldn't say fund but a kind of, yes, we couldn't agree on the terms of further development with GlaxoSmithKline. At this moment of time, we are again on speaking terms and world needs a very good malaria vaccine and the RTSS from Glaxo so far did not go beyond an efficacy number of 50%.

We believe using it has a prime boost in combination with our vaccine will draw the efficacy up to 80%. And the last thing I want to share with you is pretty exciting and that is a antibody that could neutralize basically all pandemic strains of the influenza. Something about PER.C6, at this moment in time, we have 80 licensees, more than I think as we speak now, more than 6,000 subjects in clinical trails worldwide and those do not incorporate the things that we do ourselves, which is all done by our partners.

The [inaudible] is a product that is being submitted now to the authorities and as we speak we see an entire cohort of products entering into an exciting phase of pivotal studies now. What is so interesting about PER.C6, it enables you to make mono -- human monoclonal antibodies at a very high yield. The production of monoclonal antibodies is basically correct recognized by the fact that you need a huge bioreactor because every bioreactor volume gives you approximately 1 to 2 grams of material. What we can do with this is [inaudible] human cell and allows grow in suspension. We can make approximately 30 grams per liter.

Debt at itself will reduce the CapEx that is required for certain plans significantly and that brings the cost of goods down from originally \$750 to less than \$50 per gram. I told you Crucell basically is the result of some acquisitions that we did three years ago and very importantly we acquired companies that were very old, but were not very well run. We have lot of vital capacity, we have a lot of low margin.

Now one of most important things for us is to bring, bring those margin back to normal standards and there is no reason to believe why our company couldn't come to the good margins of 50, 60% in a reasonable timeframe. When we acquire the companies we were confronted with margins that were in 28, 29%. A year later we could up that to 34%, last year we had 45% gross margin and we are very determined to go on. One of the things that played an important is an operational excellence program.

We think we can save about \$30 million of our cost structure. We are not talking about the cost structure associated with R&D, but the cost structure that's associated by running the business. We are trying to capture as much synergy as we can, having now a worldwide operation with also just very plain cost reduction and very simple. We do that because we want to fund the growth. This sounds like magic, but really it isn't.

In contrast to popular belief in most of the times and most of the pharma companies do not know exactly what the profit margins is per product formula. We have as a company moreover a 100 product formulas and we also didn't know when we acquired a company

what the profitability was of each and every, let's say formulation. In this moment we know exactly also on a geographical basis, what we make on what formulation and we decided -- the decision has been to promote certain areas in the world to promote certain products and start promoting and start producing some other products in other areas in the world, that by itself saves you a lot of money. I suppose that come, yields improvement, improvement of use in how you run the business and how you run your fermenters et cetera, et cetera. It drives up yields that come now close to 90, 95% forces what we have previously 70%.

We said that with this Healthy Ambition program we could chase up to 30 million by the end of this year, I think we are well in our way in a way we already have savings of about 5 million net. First quarter this year an additional 6 million came in and we feel we were well on a way to get that 30 million in the box. Now, very importantly it doesn't stop there right. We're not happy when we just have the 30 million and we will see whatever we can do to make this organization leaner and leaner.

One of the things that plays a significant and important role there is that we produced pentavalent vaccine today in Korea and so we are extremely profitable in Korea and therefore we pay taxes in Korea. Now, since the capacity of that plant is limited to 75 million doses and we believe that the market is still growing with a magnificent pace, we decided to build a new facility and that facility is now basically ready from the outside and we are now bringing all the equipment and will start validation at the end of this summer. That new plant is on an area near the Incheon airports and it's a tax free haven for seven years.

First very importantly, also that new plant is more efficient. It brings us a better cost of goods and on top of the 120 million doses of Quinvaxem that we can produce there, we can also produce the successor of Quinvaxem. Obviously, we are working on a six in one product that will be introduced as soon as we feel that there is a steep competition coming for this five in one product. On top of the five in one and the six in one, we are also one of the biggest hepatitis B vaccine producers in the world and this plant has a capacity for over 200 million doses of Hep B.

So the outlook of 2009 basically is we're going to accelerate growth. We will report strong vaccine sales with double-digit growth going forward. We've set we will have 20% growth for the year, the first quarter was a good quarter and we reported a growth of 54%. We will show a significant improvement of our operating profits and we will demonstrate again a solid cash flow. Now very importantly, we're going to pursue new partnerships because we feel that the products like malaria and tuberculosis are now in a certain stage of development that is wise to seek partnerships for those. But those partnerships will be distinctly different than the ones that we closed in the early days of our incorporation in 2003 and 2004. We always will seek geographical sales and geographical rights in partnerships that we are going to pursue. On top of that I think we are prone to report to you, important progress in the clinical development of our pipeline at the end of the year and we will continue to see if we can increase the point of base of 82 to a much higher number, and thereby basically creating and increasing the probability

of having big growth history that's coming up to Crucell. Basically that was what I wanted to tell you, I thank you for your.

## Q&A

<Q>: Yes, I was wondering you mentioned you had something – new partnerships around.

<A - Ronald Brus>: Yes.

<Q>: [Inaudible].

<A - Ronald Brus>: Yes. Well, it is a very important question, but before I'm going to answer this, these partnerships are typically partnerships where we are not at the stage we are right, so everything that I say is just because I can observe where they are but we cannot steal the progress these companies made. Well, the first line of company that are now starting to do feasible studies and I think the most advanced one is now seeking approval for their product in Europe. So what you typically see and then [inaudible] cohorts of companies that started with [inaudible] I think 4, 5 years ago that now our in the clinic, approaching the clinic and some of them like company like MorphoSys has switched all their antibodies onto a [inaudible] platform. So although the license revenues were last year 30 Euros million, none of them did bring in royalties yet. So we really thinking towards that moment that it will come in and I think within one or two years.

<Q>: [Inaudible].

<A - Ronald Brus>: Although the, the minimum royalty is always 2% on net sales, we didn't go to much more complex, they usually go into 5.5% for certain exclusive deals ranging up to 9, 10% for a deal for example with [inaudible] Flu and then ultimately if we did bring also what product that we use in this technology to the table that royalty can be go up to 37.5% in the case of rabbits.

<Q>: [Inaudible].

<A - Ronald Brus>: No, they weren't so.

<<Alan Carr, Analyst>> [Inaudible]

<<Ronald Brus, President and Chief Executive Officer>>

Yes, thank you so much for organizing, thank you.

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