



## Does Poland stand a chance of leading the biotechnology industry in Europe?

*Pharma Poland News* talks to Pawel Przewiezlikowski, the CEO of Selvita

The biotechnology industry in Poland is still in the process of development, although the number of companies investing in research and development is not sufficient, given the scientific potential of the country. Pawel Przewiezlikowski, the CEO of Selvita, a biotech research firm based in Krakow and a provider of contract services and IT solutions for the pharmaceutical and biotech industries, discusses the current condition in an interview with *Pharma Poland News*, along with funding models and the prospects of the R&D industry in Poland. Mr Przewiezlikowski also disclosed the details of the latest research agreements concluded by Selvita, along with the company's R&D project pipeline.

**Anna Skoczylas-Ligocka, Pharma Poland News:** *Selvita has recently announced the signing of a collaboration agreement with Orion pertaining to the joint development and global commercialisation of SEL103, Selvita's proprietary project which aims to create a symptomatic therapy for Alzheimer's disease and other cognitive impairments. This is probably the first collaboration agreement of this kind between a Polish biotech company and an international pharmaceutical firm. Could you explain how you came to such an agreement?*

**Pawel Przewiezlikowski, Selvita:** Since our early days, in 2007, one of the pillars of Selvita's strategy has been collaboration with Polish scientists from the best universities and research institutions. In 2007 and 2008 we were searching for the most promising scientific projects in which we could participate. We chose two such projects. In 2008, one of them, known as SEL103, an Alzheimer's drug, was in-licensed from the Institute of Pharmacology of the Polish Academy of Sciences (IF-PAN). This project was later developed independently by Selvita, but we were collaborating with the Institute in terms of specialist consultations and behavioural studies. We performed a series of *in vitro* studies and animal model studies. In July this year we signed a collaboration agreement with Orion but we have not sold them the patent. We might do so at a later stage, but, at present, the patent is owned by Selvita. Under the collaboration agreement, Orion will fund the further development of the drug by Selvita over a period of two years. After that Orion will assume responsibility for the further development of the drug: that is, pre-clinical and clinical studies, registration procedures and commercialisation.

**ASL: Do you have other projects of this kind in the pipeline?**

**PP:** Our second important innovative project is SEL24, a kinase inhibitor, which can be used in the treatment of leukaemia, prostate cancer and other solid tumours. This project was also purchased by Selvita from a Polish scientific partner in 2008. It is active in animal model studies and is expected to be the subject of clinical studies in 2012. We have other projects in the areas of oncology and immune system disorders. Our subsidiary BioCentrum is also collaborating successfully with Adamed at the early stage of a drug development project in the area of oncology which started in early 2009.

**ASL: Selvita has also recently signed an agreement with the Italian concern Rottapharm Madaus pertaining to the provision of drug development services. Could you give us some more details about this area of Selvita's activity?**

**PP:** This is another kind of cooperation, associated with the second pillar of Selvita's strategy. Our company has a hybrid business model. Its first pillar is our own series of innovative drug development projects which involve original small molecules. The second pillar involves contract research services for innovative and generic pharmaceutical companies, i.e., medicinal chemistry, custom synthesis, *in vitro* screening and other analyses. In this case we do not take the financial risk for the project but we dedicate our expertise and scientific team to its implementation in accordance with the contractor's specified requirements. The contract with Rottapharm Madaus is an example of the latter activity.

**ASL: Returning to the hybrid business model: we have learned that Selvita has recently signed another agreement pertaining to the implementation of laboratory IT solutions at KGHM's Centre for Quality Research. This activity is quite different from biopharmaceutical research. I would, therefore, like to ask you to describe your vision for Selvita's future development? Do you prefer to rely on diversification or specialisation?**

**PP:** The third pillar of Selvita's business consists of IT solutions for laboratories. We offer the implementation of IT solutions from STARLIMS, the world's leading developer of laboratory information management systems (LIMS), and CLC bio, a producer of genome laboratory software. This form of activity complies with Selvita's vision and its mission, which includes support for scientific research activities, particularly in the

pharmaceutical and biotechnology industry, by offering the development of new drugs, laboratory services and informatics solutions for research and development. The agreement with the KGHM Centre for Quality Research is, so far, our largest IT solutions contract. We had previously implemented the system in the R&D laboratories of pharmaceutical companies and hospital laboratories, but the industrial client is particularly valuable because of numerous synergies in laboratory research areas.

With regard to Selvita's hybrid business model, I find it very advantageous. Firstly, it is economy of scale, as we can use the same laboratory equipment in contract research services and our own innovative projects. The economy of scale pertains also to sales – as we can promote all of our activities. Furthermore, economy of scale is advantageous when human resources are involved, both in appropriate staff recruitment and the exchange of knowledge when people working on diverse projects share their experience with colleagues and use it to consult with clients. Finally, the hybrid business model is advantageous in maintaining business stability and the effectiveness of our scientists.

**ASL: While we are talking about Selvita's vision, I would like to ask you about your financial plans, and a possible IPO in particular, and your current financial condition.**

**PP:** Selvita is in an excellent financial condition. We have had substantial resources in the form of the initial capital which is used to fund R&D projects. We have also received financial grants from the Polish Agency for Enterprise Development (PARP) and the Ministry of Science and Higher Education. Selvita is gradually earning more revenue from sales, but each biotechnology business requires substantial initial funds. Our investment cycles are 2-3 years at present, and we would like to extend them to 5-6 years. We do not, therefore, rule out the possibility of attracting investment from other sources. We do know that Selvita will need additional funds in the future, but at present neither the amount of the capital nor the form of funding has been decided.

In 2010 Selvita plans to double its 2009 sales revenues to at least PLN 10m (€2.5m), but because of the proposed costs of R&D projects we do not foresee a net profit this year. It is difficult to predict which of the company's business pillars will become the most profitable, as we are in the process of negotiating several new contracts. What is certain is that the net loss will be significantly less than that of 2009.

**ASL: Can you tell the portion of your total revenues which is made up of financial grants obtained from ministerial or institutional sources, such as PARP grants? What do you think of the level of state aid in Poland?**

**PP:** About 30% of Selvita's expenses are covered by government grants. For example, this year we received several grants for the development of our oncology project and Selvita's chemistry laboratory expansion. Selvita has a dedicated team responsible for grant applications. I consider Poland to be one of the leading European countries in terms of the number of government financial grants. Polish companies receive significant amounts of state aid under the "Innovative Economy" programme, but, in my opinion, the money could be better distributed among different industries. For example, Selvita applications compete for the same funds with, for example, manufacturers of cemetery candles. Furthermore, state funds are not appropriately allocated to stimulate knowledge-oriented industries. For example, the maximum amount of the state aid allocated to "4.2 activity", i.e. laboratory infrastructure development, is PLN 1.3m (€0.3m), whereas industrial design projects can receive as much as PLN 50m (€12.5m). It is difficult to understand why such limits exist and why innovative biotechnology projects are less well-regarded. As I said before, we are a significant beneficiary of state aid but we wish that more money could be allocated to biotechnology and pharmaceutical projects, as these are the strategic areas of the future development of the whole Polish economy. These projects should also not compete with projects which were of great importance about ten years ago.

**ASL: How do you evaluate the prospects and the current condition of the biotechnology market in Poland?**

**PP:** When I compare the biotechnology market to the IT industry, in which I was previously involved, I am surprised that in a country with such substantial potential the biotech market is not sufficiently developed. There are 30,000 scientists in biomedical research, half the number in Germany but more than in all other Central and Eastern European (CEE) countries put together, whereas our innovative biotech industry market is smaller than that of Hungary. We hope that Poland will take the leading position in this field, given its level of scientific development and HR resources. I am sure that within 10 years the biotechnology field in Poland will be able to overtake countries such as Denmark and Sweden, not to mention Hungary.

**ASL: We know that the Hungarian pharmaceutical R&D industry, in addition to government investment, is fuelled to a considerable extent by local and global pharmaceutical companies. There have been significant R&D investments by Teva Pharmaceuticals and Gedeon Richter. Do you see such potential in the Polish pharmaceutical industry?**

**PP:** There are some innovative pharmaceutical companies investing in R&D in Poland: for example, Adamed, Celon Pharma and Hasco-Lek. I only wish that other pharmaceutical companies operating in Poland which have comparable financial and human resources were as heavily involved in R&D as Adamed is. I have observed that in Poland medium-sized companies are engaged in R&D. I appreciate very much the activities of Celon Pharma, which focuses strongly on innovations in the areas of oncology and the CNS.

For the time being, I think that some of the large pharmaceutical companies operating in Poland can afford to downplay the importance of R&D activities, as they are satisfied with the healthy condition of the Polish pharmaceutical market and the substantial sales margins of generic drugs. However, without investment in innovative drugs they may lose out in competition with global generics producers such as Teva and Sandoz or the manufacturers of cheaper drugs from India or China. I consider innovative drugs to constitute an opportunity for Polish manufacturers to diversify their portfolios. Poland is also the perfect location to develop the production of biosimilar drugs.

**ASL: And how do you see collaboration with Polish scientific institutions? What is your assessment of Polish science?**

**PP:** I think that Polish scientific institutions have, for many years, been underfunded and badly organised. This is probably why our position is so weak – we do not deliver Nobel Prize winners, or high-impact publications. However, I am pleased to observe significant steps toward the improvement of the quality of scientific institutions. Most grants are used to fund scientific projects rather than simply the existence of institutions, as was the case previously. In Krakow alone there are at least 5 or 6 well-funded projects which involve innovative drugs. In the past, there were lone projects of this kind in Poland as a whole. It also seems that the universities are much more interested in commercialisation and the registering of patents than they used to be. I therefore believe that in 10-20 years' time science could become an important driver of the Polish economy.

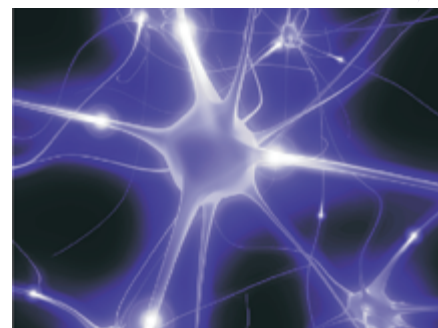
**ASL: What about human resources in Poland? Do you suffer from shortages of well-educated graduates?**

**PP:** We employ chemists and molecular biologists, IT specialists, pharmacists, medical doctors, economic professionals, etc. Every day we receive at least 10 job applications in the recruitment processes which we carry out both in Poland and abroad. We take on one in fifty candidates, and at present there are fifteen persons at Selvita with experience of foreign biotechnology companies. We are open to people with different kinds of experience and from different cultures: for example, our Chief Scientific Officer is Dr. Nicolas Beuzen, from France. We employ the best graduates from Polish universities. I regard them as being at least as well educated as their Western European counterparts, but the standard of education is not uniform across Poland, as some universities do not have enough money to buy adequate equipment. I personally greatly appreciate the faculty of molecular biology at the Jagiellonian University, because of its involvement in innovative projects and international engagement. Given the distance from the capital and its scientific potential, I consider Krakow the perfect location for the development of biotech industry projects. The city already has pride of place in the IT industry and in internet technology. We hope that in the very near future Krakow will become the capital of Polish biotechnology.

## A D V E R T I S I N G

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