

Customised proteins: Scil Proteins of German Saxony-Anhalt

The leading international specialist for the optimisation of proteins from Saxony-Anhalt attends the BIO International Convention in San Francisco.

The biotechnology company Scil Proteins from the city of Halle in the German federal state of Saxony-Anhalt develops customised proteins which can be used for both the purification of biopharmaceuticals as well as for diagnostic purposes. The company is a leading international specialist for the optimising of proteins and expects to achieve profitability in the year 2018.

The biotechnology company Scil Proteins from Halle in Saxony-Anhalt has recently announced a cooperation with the company ITM AG of Munich, a specialist in the production of radio-pharmaceuticals. With their technology, the scientists at Scil Proteins are to develop a protein which makes possible cancer foci in the patient's body visible and subsequently permits treatment. To this end, the protein that has been customised especially for this treatment is loaded with a radio-isotope. If the patient is suffering from cancer, this binds to the tumour so that it can be rendered visible and localised with imaging procedures. In addition to this diagnostic application, as a radio-pharmaceutical, the molecule also has therapeutic potential, however, as the radiation intensity of the radio isotope can be used in order to shrink the tumour. The benefits are clear: the procedure is much less stressful for the patient than classic radiotherapy because it is locally limited and only affects the tumour directly.

The protein-based procedure for a new diagnosis and treatment of cancer is being developed by Scil Proteins GmbH in the federal state of Saxony-Anhalt on the Weinberg Campus, one of the biggest centres for technology and new business start-ups in Germany. Afflerbach praises the conditions for the biotech sector in Saxony-Anhalt and in the university city of Halle. "The state has provided support to the Weinberg Campus. The infrastructure is superb, it offers a genuine location advantage of the possible recruitment for young scientists who are made available by the university in Halle, with its focus on protein biochemistry."

"Our core expertise is changing proteins and customising protein molecules for a specific purpose," explains Henning Afflerbach, one of the two managing directors of Scil Proteins GmbH from Halle. The small biotechnology company from Saxony-Anhalt, with 36 employees, defines itself as a specialist and European market leader in the area of the modification of proteins – protein engineering. "We have managed to make a good name for ourselves beyond Europe," explains Afflerbach. It also counts customers for its specific proteins for use in biopharmaceuticals from the USA and Canada.

Scil Protein's key focus is its patented Affilin® technology. "The Affilins are very small and very stable; they do not induce any unintended immunological responses," explains Henning Afflerbach. The Affilin® behaves "very well" towards modifications, and can therefore be altered on a manifold basis without changing its structure or losing its function. The concept of the Affilins from Saxony-Anhalt has also convinced the pharmaceutical producers ITM from Munich, which develops new radio-pharmaceuticals. This is because the high adaptability of the Affilins satisfies the requirement for the combination of precision diagnostics and effective therapy in one approach.

A further strength is the technical application of the Affilin® technology in modern biopharmaceuticals production processes. Through the use of Affilins in the process known as affinity chromatography, the otherwise expensive and time-consuming procedures can be very much shortened; they also make the process scalable and predictable and above all, cost-effective. Scil Proteins is due to announce further commercial partnerships with major pharmaceuticals companies which will be making use of the technology from Halle in the future.

In the last two and a half years, the scientists and employees have focused their technology platform on the application fields of protein-based diagnostics and affinity chromatography. Managing director Afflerbach tells us that the feasibility has now been demonstrated and the commercialisation is under way. They are aiming to achieve profitability in 2018. This would be an exceptional achievement, because it was only two years ago, in 2014, that the biotechnology company founded in Halle in 1999 made a completely new start. It was then that its sister company, Scil Proteins Production, was sold.

Following this, it was important to find a strategy for being able to enter the market quickly with one's own products, explains Henning Afflerbach today. By focusing on a clearly more effective, lower cost technical purification of proteins on the basis of its own Affilin® platform technology and on Affilin® based diagnostics as a straightforward service provider, the Halle company's change of strategy succeeded. "The international response demonstrates that we have taken the right path," says Afflerbach. At the BIO International Convention 2016, which is taking place from 6th until 9th June in San Francisco and at which the biotechnology location of Saxony-Anhalt as well as numerous innovative companies will be present, Scil Proteins is therefore aiming to develop its contacts in the USA.

Caption: Managing Director of Scil Proteins, Henning Afflerbach (photo: Image agency, Saxony Anhalt)

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