

Press release from 28.6.2012

Funded project for the use of the synthetic potential of P450 monooxygenases

The Federal Ministry of Education and Research (BMBF) has granted a project within the Cluster Industrielle Biotechnologie CLIB 2021, in which the synthetic potential of P450 monooxygenases will be investigated by Autodisplay Biotech GmbH and the research group of Prof. Dr. Joachim Jose at the Institute of Pharmaceutical and Medicinal Chemistry at the Westfälische Wilhelms University in Münster.

With the Autodisplay technology, recombinant proteins or peptides can be displayed on the surface of *Escherichia coli* (*E. coli*) and thus made available for various biotechnological and biomedical applications. Autodisplay has already been successfully used for the expression of a wide range of different proteins, e.g. hydrolases, esterases, oxygenases and electron transfer proteins. With the help of Autodisplay, recombinant expressed peptides/proteins are localised in the outer membrane of *E. coli* allowing even purified outer membrane isolates a number of bioanalytical applications.

The aim of the granted project is the development of a modular screening system for the identification of new synthesis routes through cytochrome P450 monooxygenases (P450). After successfully displaying active P450 enzymes and the still required accessory proteins on the surface of *E. coli*, the resulting whole cell biocatalysts are to be applied for the identification of new synthesis routes and thereby improve the biocatalytic potential of the P450 enzymes. "We are convinced that with our technology platform we will be able to make a key contribution to the utilisation of this diverse, but difficult to handle, enzymes." states Dr. Ruth Maas, CEO of Autodisplay Biotech.

About the project partners

The research group of Prof. Dr. Joachim Jose at the Institute of Pharmaceutical and Medicinal Chemistry at the Westfälische Wilhelms University in Munster focuses on the development and the application of the Autodisplay technology. With the help of this technology simple peptides and complex proteins on the surface of bacteria can be displayed and used for the identification of innovative products for the chemical and pharmaceutical industry in the area of biocatalysts and biological analysis.

For more information, please visit www.uni-muenster.de/Chemie.pz/forschen/ag/jose.

Autodisplay Biotech GmbH is a company commercialising its proprietary expression platform for the display of heterologous proteins or peptides on the surface of *E. coli*. This surface display system has numerous advantages compared to established surface technologies. With these advantages Autodisplay is a new platform technology in biocatalysis, drug discovery, bioanalytics and antibody development.

For more information, please visit www.autodisplay-biotech.com.

Contact for more information

Dr. Ruth Maas

CEO

Phone: +49 211 99459650

Email: ruth.maas@autodisplay-biotech.com