

YUMAB and InSCREENeX are developing an innovative "Mammalian Display" screening platform to accelerate antibody development.

Braunschweig, January 29th, 2025 – YUMAB GmbH, a German biotechnology company specializing in contract research for therapeutic antibodies, announces its collaboration with InSCREENeX GmbH to establish a novel technology for antibody development. As part of the funded project "Mammalian Display," the two Braunschweig-based companies are developing a platform that enables the screening of antibody libraries directly in mammalian cells. This innovation aims to significantly enhance the efficiency and speed of antibody development.

The project is supported with a total budget of €1.6 million by 2027 through the Lower Saxony Innovation Funding Program for Research and Development in Companies, with €1 million provided as grant funding.

A novel approach for efficient antibody development

Therapeutic antibody drugs are essential for treating numerous diseases and represent a continuously growing market. However, the development process is often lengthy and expensive. In conventional antibody development, the final therapeutic antibodies are tested for developability and manufacturability only late in the process, which can lead to delays or even project termination. The new Mammalian Display platform aims to provide a solution to these challenges. With this technology, antibody development can occur directly in the production cell line, eliminating many intermediate steps. The new and optimized antibody cell display system is supported by SCREENflex technology, which incorporates an exchangeable gene expression cassette into the genome of the mammalian cell line, ensuring the integration of precisely one antibody gene per cell. This antibody can either remain cell-bound or be produced in a soluble form, enabling selective screening for antibody properties (biochemical and functional). The targeted Mammalian Display technology is expected to be up to 10 times more efficient than other platforms and capable of handling a library size of more than 10 million unique antibody candidates.

Voices from the companies

Dr. Thomas Schirrmann, CEO of YUMAB, is pleased about the funding of the project: "This funding project provides both companies with the opportunity to combine the strengths of their technology platforms, thereby accelerating the development of cutting-edge biotherapeutics, including bispecific antibody drugs, in a way that has never been possible before or making it possible at all."

Dr. Roland Schucht, CEO of InSCREENeX GmbH, adds: "Through innovative technologies like SCREENflex, we can significantly increase efficiency and precision in antibody development. Together, we are setting new standards in the research and production of therapeutic antibodies."

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Figure

In the Innovation Funding Program for Research and Development in Companies, YUMAB and InSCREENeX combine their core competencies to revolutionize antibody development.

About YUMAB

YUMAB GmbH was founded in 2012 by scientists from the Technical University of Braunschweig. The research company develops therapeutic antibodies from target identification to optimized lead candidates for biotechnology and pharmaceutical companies worldwide. With its unique technology platforms, YUMAB supports the value creation of its customers by delivering a wide range of new human and humanized antibody biologics quickly and with a high success rate. Our team embraces innovation and supports collaborations with partners from both science and industry to meet the future needs of biotech and pharmaceutical customers globally.

About InSCREENeX

InSCREENeX GmbH was founded in 2009 as a spin-off of the Helmholtz Centre for Infection Research in Braunschweig. The company employs 12 people and develops and markets innovative cellular systems for basic research, biotechnology, and pharmaceutical drug development. To this end, InSCREENeX has developed a variety of complementary genetic engineering technologies that enable the precise, highly efficient development of novel cell lines. As a result, cellular test systems, cellular production systems, and cell lines for target identification can be provided for the entire drug development pipeline.