

PRESS RELEASE

BRAIN and DECHEMA cooperate in the biotechnological production of perilllic acid.

BRAIN adds natural bioactive cosmetics compound to patents portfolio.

Zwingenberg and Frankfurt, February 28, 2011 – The biotechnology company BRAIN AG and the DECHEMA Society for Chemical Engineering and Biotechnology in Frankfurt have announced a collaboration in the biotechnological production of perilllic acid. This patented natural monoterpene is owned by BRAIN and will be used in a wide range of applications as a bioactive compound in cosmetic products.

The cooperation is aimed at advancing further development of an integrated bio-process for efficient microbial (+)-perilllic acid synthesis from the cheap precursor (+) limonene, developed by PD Dr. Jens Schrader and his team at DECHEMA. The compound (+) limonene is extracted in large quantities from orange peel.

By combining the competencies in strain and process optimisation as well as Scale-Up at the Karl-Winnacker-Institute of the DECHEMA, with the microbiological and molecular biological methods of BRAIN, this project is aimed at developing an integrated bio-process for effective technical production.

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The research project is partially sponsored within the BRAIN research program "MikroPro" by the Federal Ministry of Education and Research (BMBF).

Using shared expertise

"BRAIN and DECHEMA have pooled their know-how in the biotechnological production of the natural compound perillie acid. Superior space-time utilization and cost-efficient purification procedures are essential for successful application of biotechnological production processes", says PD Dr. Jens Schrader, head of Biochemical Engineering at the Karl-Winnacker-Institute of the DECHEMA. "By implementing tailor-made process controls for monoterpenes involving in situ product removal as well as state-of-the-art strain optimisation methods, we are able to develop an economically viable bio-catalytic system. We are delighted to support BRAIN in this exciting field of white biotechnology."

Enhancing the BRAIN patent platform

"The acquired patent portfolio for the new, bioactive cosmetics compound perillie acid is an important addition to our patent platform of biologically active compounds designed for efficient cosmetics optimisation", explains Dr. Jürgen Eck, CTO of BRAIN AG. "Our numerous contacts with our industrial cooperation partners have revealed an increasing demand for bioactive substances from natural sources for innovative cosmetic products. In the short-term, the acquired patents and the collaboration with the development team headed by Dr. Jens Schrader will provide a natural solution to this issue by supplying the market with relevant active substances."

About BRAIN AG

BRAIN AG is an industrial "white" biotech company which discovers and develops novel bioactive natural compounds and proprietary enzymes for its partners and customers in the chemical and pharmaceutical industries, as well as the food and cosmetics industries. With its unique approach to the discovery and production of new biological compounds and biocatalysts, the company achieves creative solutions by harnessing nature's untapped biodiversity. Its success is built on its proprietary BioArchive comprising millions of genes, proteins and metabolic pathways from microbial isolates and metagenome libraries. Since its foundation in 1993, BRAIN has entered into over 70 strategic collaborations with nearly all the relevant companies within the chemical industry as e.g. BASF, Ciba, Clariant, Evonik Degussa, DSM, Genencor, Henkel, Nutrinova, RWE, Sandoz, Schering, Südzucker and Symrise, to name but a few. Currently, BRAIN employs 90 highly skilled people. For his groundbreaking industrial biotechnology activities for a sustainable „biologisation of the chemical industry“ using nature's toolbox for industrial processes, BRAIN CEO Dr. Holger Zinke received the "Deutschen Umweltpreis 2008" of the "Deutsche Bundesstiftung Umwelt", DBU.
www.brain-biotech.de

About DECHEMA, Karl-Winnacker-Institute

The Karl-Winnacker-Institute focuses on interdisciplinary research for technological progress in materials science, chemical technology and biotechnology. The Karl-Winnacker-Institut sees itself as an instrument of the scientific work of DECHEMA and employs around 80 scientists who are mainly involved in basic and pre-industrial research. These publicly funded undertakings are augmented by industrial research projects. This means that the activities of the institute and its international team of scientists are situated in the stimulating area between pure basic research and industrial application, thus creating an important bridge between disciplines in the research environment. In addition to this, the institute is also involved in university teaching activities in the subject areas represented by DECHEMA and provides advanced training courses for participants from industry and universities.

White biotechnology is one of the key research areas at the institute. A large number of research projects focus on developing new biotechnological production systems for synthesising industrially relevant fine chemicals such as flavour and fragrance compounds as well as cosmetically active substances. Bio-process development combines state-of-the-art methods from molecular biology, microbiology and process engineering, to ensure maximum synergistic effects during the initial phase of the project.

www.kwi.dechema.de

Bilder und Text



BRAIN AG: Sustainable biotechnological production of bioactive products in the production plants of BRAIN.

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DECHEMA e.V.: Development of integrated bio-processes in multi-fermentation systems at DECHEMA.

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Pictures and text can also be downloaded on www.brain-biotech.de.