

PRESS RELEASE

BRAIN and Südzucker co-operate in the field of functional sugar specialities

Zwingenberg and Mannheim/Ochsenfurt, September 2005 – Biotechnology-company BRAIN AG and Mannheim based nutrition-specialist Südzucker AG co-operate to improve a production process for functional sugar specialities. In the co-operation, the microbial archives of BRAIN will be screened for enzymes capable of further optimising an established process at Südzucker starting with sucrose. The goal is the sustainable fermentative and enzymatic production of sugar specialities which will be used as functional food.

Nowadays a prominent part of the sugar extracted from sugar beet is refined to premium sugar specialities with added health properties. This is accomplished using chemical methods as well as biological processes. Microorganisms used for this purpose today often deliver heterogeneous products thus reducing the yield of the desired sugar speciality. In order to enable an improved production process it is planned to use selected highly efficient microorganisms. Furthermore, novel products are envisioned through the allocation of specialised enzymes. The resulting products are expected to contribute to a functional and healthy nutrition.

In the course of the co-operation between the Zwingenberg-based biotech-company and Südzucker AG, the EU's largest sugar producer, BRAIN will identify and develop microorganisms und biocatalysts within its proprietary BioArchives®, with properties suitable for biological processes in the production of sugar specialities. Optimised microbial biotransformation processes are intended to save

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energy and reduce laborious downstream product processing steps. The evolutionary diversity of enzymes and metabolic pathways additionally enables a biotechnological access to novel valuable lead candidates and is expected to contribute to a sustainable advancement of this market.

In recent years the speciality sector has become increasingly important within Südzucker AG. In the preceding financial year 2004/2005 this sector significantly contributed 1,3 billion € to the corporation's annual turnover of 4,83 billion €. In the last financial year Südzucker AG invested 473 million € in the speciality sector. For the next years it is planned by Südzucker to continuously expand this important sector.

“By utilizing biocatalysts we want to improve industrial processes for the production of sugar specialities and functional food and at the same time make these processes more environmentally benign”, says Dr. Wolfgang Wach, Head of Biotechnology at Südzucker AG. “The cooperation with BRAIN AG complements and accelerates our own activities in this sector”.

“The identification and development of customised biocatalysts hallmarks the growing importance of white biotechnology for efficient production processes“, says Dr. Jürgen Eck member of the board and Head of Research at BRAIN AG. “Our BioArchives harbour thousands of valuable synthetic routes. Through our EvoSolution® Technology platform we can identify biocatalysators and improve enzymes and processes. We are confident to be able to identify novel sustainable routes for the optimised production of sugar specialities using our proprietary tools”.

The current research project of BRAIN with SÜDZUCKER as like the

running co-operations with CIBA (speciality chemistry), NUTRINOVA (nutraceuticals) and HENKEL (consumer goods) is another outstanding example for the importance of white biotechnology in the nutrition and speciality chemistry sectors.

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About BRAIN AG:

BRAIN Biotechnology Research and Information Network AG is an innovative company focusing on the discovery and development of novel enzymes and bioactives. Its novel EvoSolution® technology platform combines the untapped biodiversity of microorganisms and plants with modern methods of molecular biology. The company located in Zwingenberg within the research and industrial region Rhine-Main-Neckar has at its disposal a comprehensive BioArchive with over 100 million genes of unique and non-cultivable microorganisms. Based on these resources BRAIN identifies novel technical enzymes for biotechnological production and synthesis processes (biotransformation) in the chemical and life science industries as well as new bioactive substances and lead candidates for the pharmaceutical and cosmetics market, and develops the basis for their large-scale industrial production. The company, which was founded in Darmstadt in 1993, currently employs a staff of 40.

About Südzucker AG:

Südzucker is an international organization which processes agricultural raw materials to produce safe and high-quality products, particularly foodstuffs for the food processing industry and consumers. In addition to the traditional sugar segment, in which Südzucker is the market leader in Europe, a dynamically growing special products segment has been built up, incorporating functional food, starch, portion pack items, bakery additives, deep-frozen products, fruit additives/fruit-juice concentrates and bioethanol. 2004/2005 the corporation had an annual turnover of 4.827 million €

Pictures:



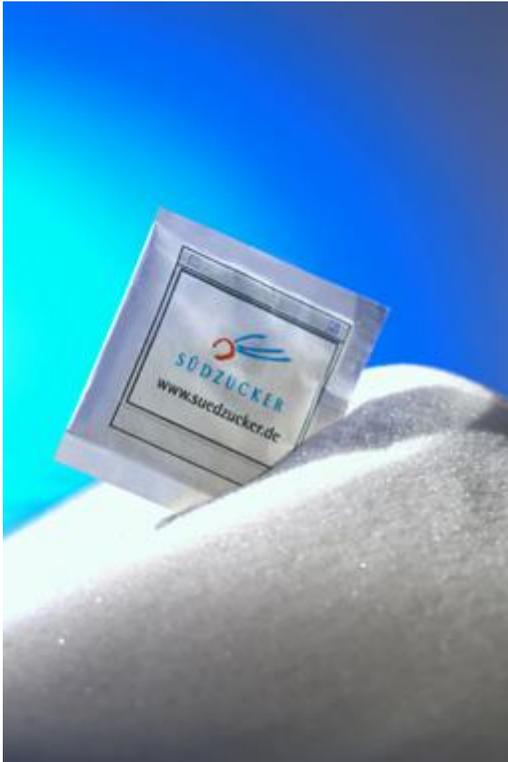
BRAIN AG: Listed Bauhaus building in
Zwingenberg

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BRAIN AG: Fermentation of production
strains and biomolecules in the pro-
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Südzucker AG: Sugar as starting point for functional food.

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Pictures and text

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