



PRESS RELEASE

BRAIN and Südzucker intensify co-operation on functional carbohydrates

Zwingenberg and Mannheim/Ochsenfurt, September 22, 2009 – BRAIN AG a leading European White Biotechnology company and the food company and largest sugar producer within the EU, the Südzucker AG, further intensify their long-term research cooperation. The joint research program aims at optimizing the production processes of functional carbohydrates in terms of product yield and energy efficiency. Overall objective of the collaboration is the sustainable fermentative and enzymatic production of functional carbohydrates with nutritional and technical benefits for the food industry.

Already today an increasing part of sugar from sugar-beets is being further refined to high-quality speciality ingredients with specific health benefits, as e.g. Isomalt or Palatinose™,. For the production of these specialities more and more biological processes are used.

Within the co-operation, which is partly funded by the German Federal Ministry of Education and Research (BMBF), BRAIN and Südzucker are optimizing a biological production process for PalatinoseTM, the only toothfriendly sugar with additional health benefits, produced and mar-

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keted by BENEO, a 100% subsidiary of Südzucker.

An optimised production process shall lead to a reduced energy consumption as well as to a lower number of the complex product purification steps. During a first operational phase of the co-operation an important milestone was achieved by significantly increasing in the efficiency of the production process. This joint success resulted in further expanding and continuing the partnership.

"Through the collaboration with BRAIN we want to improve the industrial processes for the sustainable production of specialities for functional food products", says Dr. Wolfgang Wach, Head of Biotechnology within the Südzucker AG. "The co-operation with BRAIN completes and expedites our own research activities within that segment. The first, very promising results confirm that we, together with our strategic partner BRAIN will achieve our goals."

"We are glad, that we achieved the first milestone in the biological optimisation of production processes of sugar specialities earlier than initially planned. With these results new ways for a more efficient, sustainable production were achieved", says Dr. Jürgen Eck, CTO of BRAIN AG. "We are proud that Südzucker expanded the co-operation with us and see ourselves confirmed that with the help of enzymatic and biotechnological processes both efficiency and sustainability of production processes can be improved."

Within Südzucker the specialty segment grew permanently throughout the last years. In the past business year 2008/09 the segment participated with a significant part of 1.43 bn € (2007/08: 1.28 bn €) of the total revenues of 5.87 bn. €. Within the newly formed BENEO Group of Südzucker, food ingredients with nutritional and technological advantages are marketed in over 70 countries all over the world.





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 50 strategic collaborations with nearly all the relevant companies within the chemical industry as e.g. BASF, Ciba, Clariant, Evonik Degussa, DSM, Genencor, Henkel, Nutrinova, Sandoz, Schering, Südzucker and Symrise, to name but a few. Currently, BRAIN employs 75 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 Südzucker AG

Südzucker is an international corporation and within Europe the leading provider of sugar products. In the segments special products, Crop Energies and fruit the company achieved significant market positions. The Südzucker-Group relies on a close relation to the farmers which forms the basis with he raw material sugar beet, its re-owned research competence, the broad production know-how of renewable raw materials and the experience in marketing especially in the B2B-segement. Besides the traditional sugar segment the company built up the dynamically growing speciality segment which includes the production of functional food, starch, portion packs, bakery ingredients, deep frozen food fruit preparations and concentrates as well as Bioethanol. In the business year 2008/2009 the company with its 17.938 employees achieved revenues of 5.87 bn € (2007/2008: 5.78 bn €).

www.südzucker.de

Pictures:



Screening for optimised microbial strains for the production of functional carbohydrates. At BRAIN in the screening plant more than 700 different culturing experiments can be performed in parallel.

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Südzucker AG: Production plant of Palatinose™ and ISOMALT ©Südzucker AG, Mannheim - Reprint permitted with byline

Please find the pictures and the text also on www.brain-biotech.de