

PRESS RELEASE

BRAIN and Ciba Specialty Chemicals join forces to develop microorganisms as chemical factories.

Zwingenberg/Basle, May 2005 – Biotechnology company BRAIN AG and Swiss Ciba Specialty Chemicals cooperate in the development of „designer-bugs“ for the sustainable production of specialty chemicals from renewable resources. Their goal is the fermentative production of chemical building blocks.

Up to now chemically modified fossil resources serve as the exclusive starting points for a host of diverse synthetic routes and specialty chemistry products. To promote the sustainable development of this market sector highly engineered microorganisms utilizing renewable resources are sought to open up the possibility of alternative biological production processes. To achieve this BRAIN will develop specialized "designer-bugs" which use fermentable sugars to synthesize specialty chemicals. Through these microbial biotransformations a net reduction in energy and organic solvent consumption is achieved along with significant savings on fossil resources. The natural diversity of enzymes and metabolic pathways provides biotechnological access to valuable and novel chemicals and highlights the scope and potential of what is called "White Biotechnology".

In the course of this cooperation BRAIN AG will identify and develop microbial strains and metabolic pathways derived from its proprietary BioArchives® suitable to implement biological production processes for Ciba Specialty Chemicals.

“By utilizing biocatalysts we want to improve industrial processes for the production of specialty chemicals and at the same time make

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these processes more environmentally benign". says Dr. Martin Riediker, Chief Technology Officer at Ciba Specialty Chemicals. "The cooperation with BRAIN AG complements and accelerates our own activities in this sector".

„The development of designer bugs and optimized 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 developmental candidates, design production strains and improve enzymes and processes. We are confident to be able to identify novel sustainable pathways for the production of specialty chemicals using our proprietary tools“.

The cooperation with Ciba is the third major contract of BRAIN AG in the field of White biotechnology in the running year after deals with nutraceutical producer NUTRINOVA and consumer goods producer HENKEL KGaA. This highlights the dynamics of this field of biotechnology. Projections by both EuropaBio and McKinsey estimate that in the coming 5 years 10-20 percent of sales in the chemical industry will be made through biological products and processes.

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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 Ciba Specialty Chemicals:

Ciba Specialty Chemicals (SWX: CIBN, NYSE: CSB) is a leading global company dedicated to producing high-value effects for its customers' products. We strive to be the partner of choice for our customers, offering them innovative products and one-stop expert service. We create effects that improve the quality of life – adding performance, protection, color and strength to textiles, plastics, paper, automobiles, buildings, home and personal care products and much more. Ciba Specialty Chemicals is active in more than 120 countries around the world and is committed to be a leader in its chosen markets. In 2004, the Company generated sales of 7 billion Swiss francs and invested 288 million in R&D.

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BRAIN AG: Listed Bauhaus building in Zwingenberg

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BRAIN AG: Microorganisms as miniaturized chemicals factories.

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Ciba Specialty Chemicals: Head Quarters in Basle

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Ciba Specialty Chemicals: Research laboratory

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