

## PRESS RELEASE

### DSM and BRAIN cooperate in the biotechnological production of water-soluble vitamins

Grenzach-Wyhlen and Zwingenberg, Germany, October 12, 2010: DSM Nutritional Products GmbH, a subsidiary of the Dutch company Royal DSM N.V., **the world's primary supplier of vitamins, carotenoids and fine chemicals** and BRAIN AG, one of the leading European white biotechnology companies, announced a strategic cooperation in the biotechnological production of water-soluble vitamins.

#### Cooperation stands on firm ground

Benefiting from the long-term experience of BRAIN AG in constructing and optimising microbial production strains and identifying and preparing new biological synthetic pathways on the one hand and the established expertise of DSM Nutritional Products in producing and marketing vitamins for the feed producing and food industries and the pharmaceutical and cosmetic sector on the other, this cooperation is based on a solid fundament and promises success for both sides.

An other collaboration between BRAIN AG and Royal DSM N.V. in the field of enzyme systems and strain development for fermentative production of special chemicals was already publicized at the beginning of 2009. The collaboration published today represents an important landmark in the corporate strategy of BRAIN, aimed at intensifying and

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boosting its cooperation business with globally successful partners within the chemical industry. For DSM Nutritional Products, this cooperation with BRAIN augments the network philosophy "Open Innovation", where selected specialists deal with customized issues.

#### Strategic orientation

"By cooperating with BRAIN, DSM Nutritional Products will gain extensive access to the comprehensive technological platform of BRAIN for water-soluble vitamin production and extends DSM resources in this competitive sector. BRAIN possesses a unique portfolio of new enzymes and microbial synthetic pathways, which will allow us to develop new metabolic production pathways to further increase vitamin production efficiency," explains Dr. Hans-Peter Hohmann, Principal Scientist at DSM Nutritional Products. "We are also very pleased that this research venture will receive support from the funding initiative "BioIndustrie 2021" of the German Federal Ministry of Education and Research (BMBF). This emphasizes and validates the scientific quality and technological leadership of the undertaking."

"We are delighted that DSM Nutritional Products is already the second subsidiary of DSM N.V., which has decided to cooperate with us in a strategic partnership", says Dr. Jürgen Eck, Chief Scientific Officer of BRAIN AG. "Fermentative vitamin production has developed into a prime discipline of white biotechnology in the past decades. This is precisely why we need to delve deep into nature's toolbox in this intended project. We call this "Biologically inspired Engineering" and as cooperation partners this will also involve constructing completely new high-efficiency producers for fermentative vitamin production."

### 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 60 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 85 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](http://www.brain-biotech.de)

### About DSM Nutritional Products

DSM Nutritional Products is the world’s leading supplier of vitamins and carotenoids for the feed and food industry and the pharmaceutical and cosmetic sectors. The company has a business volume of over EUR 2 billion and is set to continue its long tradition as a pioneer in the development of new products, new formulations and applications. The competency centre for producing the water-soluble vitamins B1 (Thiamine), B2 (Riboflavin) and B6 (Pyridoxine) as well as the fat-soluble vitamin D3 is sited in Grenzach, Germany. About 600 people are employed at this location.

[www.dsmnutritionalproducts.com](http://www.dsmnutritionalproducts.com)

### About DSM

Royal DSM N.V., creates innovative products and services in Life Science and Materials Science that contribute to the quality of life. DSM products and services are used globally in a wide range of markets and applications, supporting a healthier, more sustainable and more enjoyable way of life. End markets include human and animal nutrition and health, personal care, pharmaceuticals, automotive, coatings and paint, electrical and electronics, life protection and the construction industry. DSM has annual net sales of nearly EUR 8.8 billion and employs over 23,000 people worldwide. The company is headquartered in The Netherlands with production sites on 5 continents. DSM is listed on Euronext Amsterdam.

[www.dsm.com](http://www.dsm.com)

### Picture



Screening new biocatalyzers for optimizing vitamin production at BRAIN. Screening projects are performed automatically using specifically developed robot systems.

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Additional images and text are also available at [www.brain-biotech.de](http://www.brain-biotech.de).