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PRESS RELEASE

BRAIN takes over anti-bitter patents and utility patent portfolio from BASF

Zwingenberg, 25.02.2014 - The biotechnology company BRAIN AG has taken over a patent portfolio from its long-standing industrial partner BASF SE, which was developed as part of a three year research and development partnership between the two companies. The portfolio comprises four patent families, including utility and process patents, as well as the accompanying utility patent for substances reducing the bitter taste of foods. Shortly after the takeover of PCT patent applications by BRAIN, the EPO applications were granted. More than 40 further applications in the four PCT patent families are currently in the grant stage in countries including the USA, China, Brazil, Japan and Russia, among others.

Many products in the food, beverage, luxury food, sweetener, animal food, pharmaceutical and cosmetics markets stand out as having a bitter aftertaste, which can be the result of specific ingredients in the various products.

In the current research and development partnership between BRAIN AG and BASF SE, biologically active and taste-based solutions were identified using a reputable screening programme and various compound libraries, based on BRAIN's highly complex cellular assay system.

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Molecular background understood

The azo dyes and fatty acid esters identified in the vast screening programme act as bitter taste modulators by attaching themselves to bitter receptors which are exposed on the surface of the taste cells and are responsible for the transfer of the undesired aftertaste. The comprehensive characterisation of these substances, along with the development and application for a utility patent, was the basis for product optimisation and innovation and an industrial use in various target industries was created.

BRAIN's patent platform strengthened

"With the acquisition of the anti-bitter patent and utility patent portfolio for the innovative bitter modulators, we are expanding our patent platform of biologically active product components for efficient food optimisation. This includes an approved additive group of azo dyes, such as E110 and E129, as well as fatty acid esters in various commercially available and inventive formulations," says Dr. Holger Zinke, CEO of BRAIN AG. "In numerous discussions with partners we have recognised that there is increasing demand for bioactive compounds that will improve and enhance taste and health aspects of food."

Validation of active substances on human taste cells

"Through our ScreenLine® technology programme and access to our CompActives® biological compound library, we can also identify different taste areas and the substances that can be used accordingly in the nutrition field," adds Dr. Michael Krohn, Member of Executive Committee and Unit Head BioActives and Performance Biologics at BRAIN. "In the meantime, the two azo dyes were validated using our patented human bitter taste cells. Currently we are broadly marketing the molecules and the respective ScreenLine®-technologies."

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About BRAIN

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 80 strategic partnerships and alliances with nearly all the relevant companies within the chemical industry, for example BASF, Ciba, Clariant, Evonik, DSM, Genencor, Henkel, Nutrinova, RWE, Sandoz, Schering, Südzucker and Symrise, to name but a few. BRAIN currently employs 114 highly skilled people.

For their groundbreaking industrial biotechnology activities for a sustainable „biologisation of the chemical industry“ using nature`s toolbox for industrial processes, BRAIN and its CEO Dr. Holger Zinke received the “Deutschen Umweltpreis 2008” of the “Deutsche Bundesstiftung Umwelt”, DBU.

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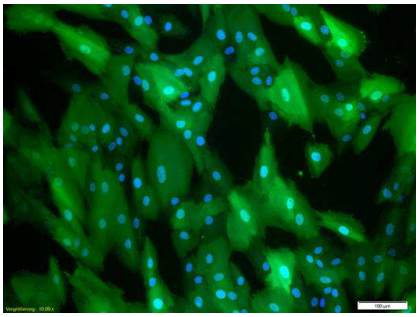
Image:



Human taste cells ScreenLine® HTC 09. These patented bitter-cell lines were isolated by BRAIN and are used for screening experiments.

The image and text from this press release can be downloaded from www.brain-biotech.de under "News & Media".