

Product Categories



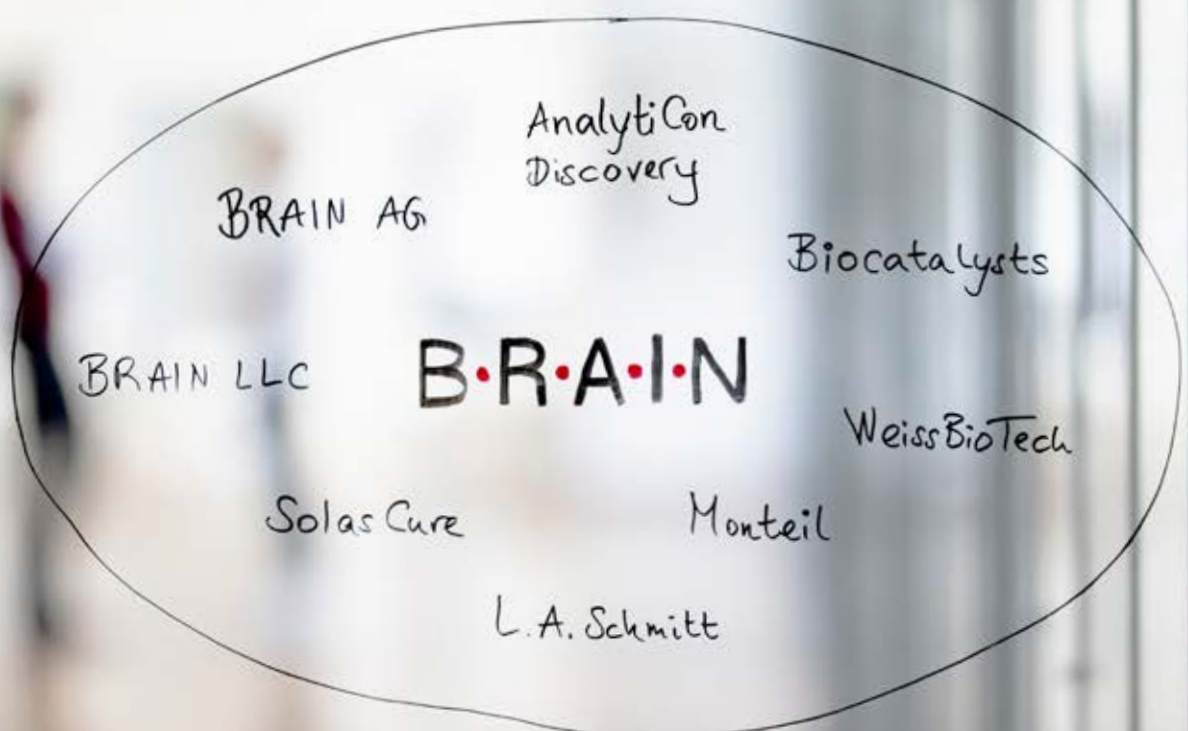
Bioactive natural
Compounds



Customized
Enzymes



High-performance
Microorganisms



Business Units



Nutrition & Health



Skin Care



Industrial
BioSolutions

BRAIN Group

Pioneers in industrial biotechnology



— Strengthening BRAIN by integrating other companies that have specific research skills and access to attractive markets is a key part of BRAIN's industrialization and growth strategy. This harnesses synergies for product business, pools skills, generates new ideas for possible innovations and expands access to specialties markets.

Activities in the fiscal year 2017/18:

- Establishment of BRAIN LLC, the company's US branch
- Acquisition of majority share in Biocatalysts Ltd., UK
- Spin-off of SolasCure Ltd. in UK

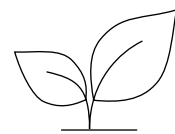
— Since 2009, six subsidiaries have been integrated into the parent company B.R.A.I.N. Biotechnology Research and Information Network AG (BRAIN AG for short) to expand the Nutrition & Health and Skin Care business units. There was another spin-off for future skincare product business. So far, BRAIN AG has exclusively handled the development programs of the Industrial BioSolutions business unit.

3

other companies have strengthened BRAIN's international product business since the fiscal year 2017/18.



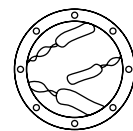
All companies in the BRAIN Group act as independent entities in the fields of research and development, process development and production, or as suppliers in specialty markets.



Bioactive natural
Compounds



Customized
Enzymes

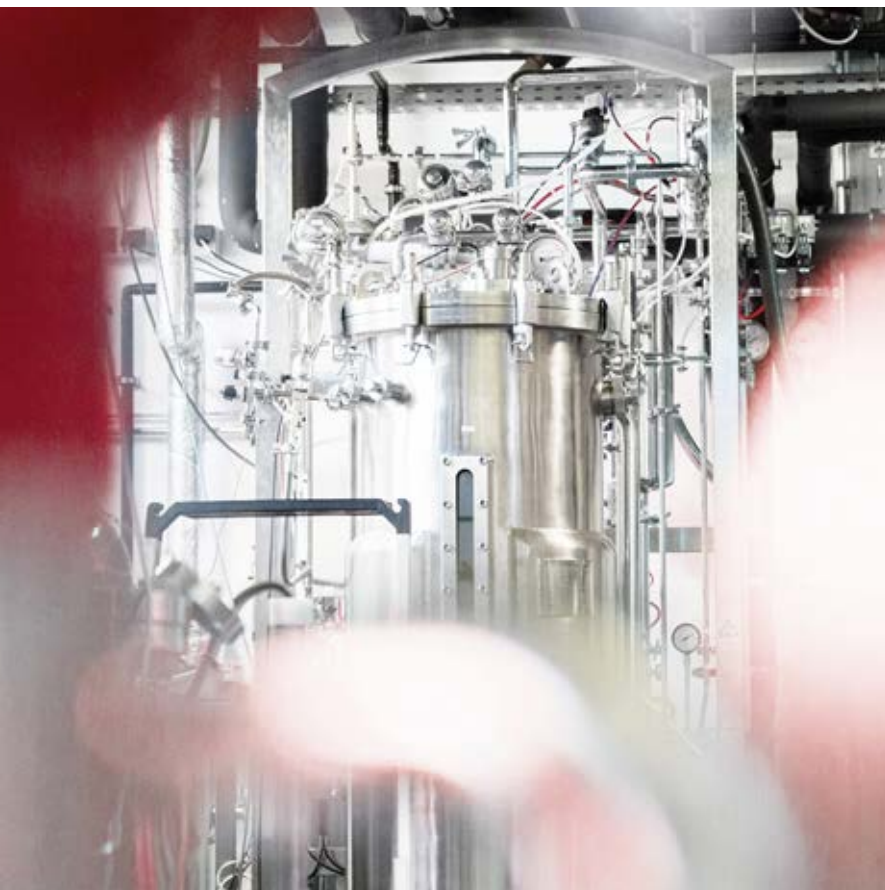


High-performance
Microorganisms

Engineering Biology

BRAIN researches into and develops bioactive natural compounds, customized enzymes and high-performance microorganisms for partners in the BRAIN Group and for external industrial enterprises.

→ www.brain-biotech.de/en



2,500

square meters of labs, production and office facilities – the size of BRAIN AG's technology campus in Zwingenberg

53,000

BRAIN's BioArchives offer access to some 53,000 characterized microorganisms.



BRAIN AG in Zwingenberg, Germany is the head office of the BRAIN Group and the location that manages the strategic and administrative resources required for steering research and business activities. Its 125 employees mainly focus on scientific research and development for the three business units Nutrition & Health, Skin Care and Industrial BioSolutions. BRAIN was established in 1993 by bioeconomy visionaries at Technische Universität Darmstadt (TU). In 1996 it moved into the current premises in Zwingenberg, which were extended in 2010. In 2008, the company was transformed into a stock corporation and went public in 2016. BRAIN has cutting-edge laboratories and technologies for scaling up to cubic meter scale.

The Natural Product Company

— **AnalytiCon Discovery** offers comprehensive excellence for the research and development of natural products for new pharmaceuticals, cosmetics and foodstuffs.

→ www.ac-discovery.com

1-1.5

grams of sample are all researchers at AnalytiCon Discovery need to analyze whether plants or microorganisms contain secondary substances that are of interest for industrial applications.



AnalytiCon Discovery GmbH has unique resources for discovering and developing actives based on natural products, and cooperates worldwide with companies in the pharmaceutical, food and cosmetics industry. It is a global market leader, with libraries of natural ingredients with fully categorized structures and access to some 15 % of all known secondary substances and thousands of structures that have not yet been published. AnalytiCon Discovery GmbH was founded in 2000, has been a member of the BRAIN Group since 2013 and currently employs 65 people. The predecessor company was set up by doctoral students of Technische Universität (TU) Berlin in 1985.

Exceeding Enzyme Expectations

— **Biocatalysts** is one of the world's leading developers and producers of custom-tailored specialty enzymes for a wide variety of industrial sectors such as foods and fine chemicals.

→ www.biocatalysts.com

> 70

products that can be directly purchased are currently offered by Biocatalysts in its established specialty enzymes portfolio, with a focus on seven industrial fields of application.

335 m

The MetXtra™ bio-information technology platform offers Biocatalysts customers rapid access to data on some 335 million novel enzymes based on metagenome libraries. Ninety-eight percent of the metagenome sequences are part of Biocatalysts' intellectual property.



Biocatalysts Ltd. focuses on developing, producing, obtaining approvals for and distributing specialty enzymes. The company offers the rapid, cost-efficient and customized development of novel enzymes, and has at its disposal the MetXtra™ metagenome library, which allows the rapid identification of tailored enzymatic solutions for customers around the world. Biocatalysts has state-of-the-art enzyme production facilities and international sales structures. It also offers its customers (among them eight of the world's ten largest food producers) a portfolio for the direct purchasing of enzymes in defined fields of application. Biocatalysts was set up in 1983, has been a member of the BRAIN Group since 2018 and currently employs 65 people.

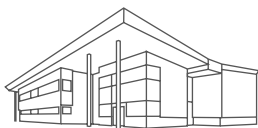
Your partner in white biotechnology

— **WeissBioTech** is an expert when it comes to enzymes, yeasts, natural preservatives and other products obtained by fermentation for the food industry and other sectors.

→ www.weissbiotech.com

27

sales offices that market WeissBioTech products can be found around the globe, including North, Central and South America as well as China, India, Iran, South Africa and Europe.



WeissBioTech GmbH is a leading supplier of bio-based active products for the food industry. It supplies both large multinationals and medium-sized manufacturers of drinking water, fruit juices, beer and wine. The customer base also includes industries that process starch and bioethanol. The company's highly developed technical service, sound knowledge of enzyme technologies and global sales network are cornerstones that underpin its first-class position on the market. Enzymes from WeissBioTech are tailored to customers' wishes and marketed under trademarks such as NATUZYM® and DELTAZYM®. WeissBioTech was founded in 2002, has been a member of the BRAIN Group since 2014 and currently employs 25 people.

Timeless Beauty. Ever now.

— MONTEIL is an experienced partner to beauty establishments and is highly regarded by cosmetics retailers. Its innovative products are represented on markets in over 30 countries around the globe.

→ www.monteil.com

> 80

The range offered by MONTEIL includes more than 80 products in the anti-aging, special care and fragrance product lines.



With its cutting-edge technology, MONTEIL, a branded company established in 1936, is one of the leading anti-aging skincare specialists. MONTEIL cosmetics are developed at the highest scientific level and continually provide new impetus for the international cosmetics market. The company focuses on natural bioactive ingredients that are offered in a high-quality and optimally adjusted concentration. MONTEIL sees itself as a competent contact for customers with and on behalf of whom it develops treatment concepts for almost all skin types, based on a broad product range. **MONTEIL Cosmetics International GmbH** has been a member of the BRAIN Group since 2011 and currently employs 15 people.

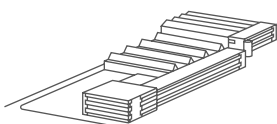
Cosmetics since 1925

— **L.A. Schmitt** unites experience and passion for manufacturing cosmetic products that meet the demanding wishes and specifications of customers.

→ www.schmitt-cosmetics.com

1925

The Leipzig-based company L.A. Schmitt develops and produces high-end cosmetics and wellness products.



The highly-reputed company **L. A. Schmitt GmbH**, which looks back on a long tradition, develops and produces cosmetics and wellness products in line with customers' wishes and specifications. The company manufactures its own product lines and offerings for trading companies and for wellness and cosmetics brands. Regular new developments feed the latest scientific findings into the company's portfolio. Its business activities center on individual client liaison, sound knowledge and a high degree of flexibility for partners and customers. L. A. Schmitt GmbH has been a member of the BRAIN Group since 2009 and currently employs 20 people.

Presence in the target market of North America

— Via sales agencies and branches, the BRAIN Group is driving the internationalization of its business and creating shorter access routes to customers in its key markets.

→ www.brain-biotech.de/en



205 bn

According to BIO, the association of the biotechnology industry, 1.7 million employees were working in the U.S. bio-economy in 2016, and earned US\$ 205 billion, more than half of the globally generated bio-based value added.



BRAIN Group companies with direct product business are represented via sales agencies in key target markets around the world. Group companies have also set up their own branches in the USA in order to directly strengthen business development in North America, one of the key markets for innovations in industrial biotechnology. **BRAIN LLC** took the lead in 2018 and has since been a member of the BRAIN Group. It shares its offices in Rockville, Maryland, near Washington, D.C., with AnalytiCon Discovery LLC, which has been located there since 2011. The US branch Biocatalysts Inc. has been based in Chicago, Illinois since 2011.

Revolutionising Wound Care

— **SolasCure** focuses on developing, certifying and marketing novel medical products based on the wound-cleaning enzyme Aurase®, discovered by BRAIN.

→ www.solascure.com

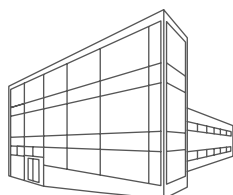


20 bn

The global market for wound treatment products and bandages is expected to grow to a sales volume of more than US\$ 20 billion per year by 2020.

40 m

There are over 40 million wound patients around the globe. About one third of patients in Germany develop chronic wounds.



SolasCure Ltd. is a spin-off jointly established in 2018 by BRAIN and Dr. Sam Bakri, who is the company's Executive Chairman and an entrepreneur with extensive experience in the healthcare sector. Professor Keith Harding (CBE), founder of the Welsh Wound Innovation Centre and a proven expert in the field of wound bed preparation, is Chair of SolasCure's Medical Advisory Council. BRAIN AG has transferred patents for the commercialization of future Aurase®-based products to the company, and will also provide the novel enzymatic active ingredient for the treatment of chronic wounds for customers in the healthcare sector.

Facts & figures

1993

was the year in which BRAIN was founded. It went public in 2016 and celebrated its 25th anniversary in 2018.

> 300

colleagues are currently employed within the BRAIN Group in Europe and North America.

30.5

million euros – the total operating performance of the BRAIN Group in fiscal 2017/18

64 %

was the share of the product-related BioIndustrial business segment in the total operating performance of the BRAIN Group in fiscal 2017/18.

→ www.brain-biotech.de/en