

Scientist from BRAIN Biotech AG receives VAAM Innovation Award for the discovery of a novel CRISPR nuclease family

Zwingenberg, 12 September 2023 - Paul Scholz, scientist at BRAIN Biotech AG, today received the prestigious VAAM Innovation Award 2023 at the annual meeting of the Association for General and Applied Microbiology (VAAM). The bioinformatician and head of genome editing development in BRAIN Biotech's Akribion Genomics team received the award for his groundbreaking research on a novel family of CRISPR nucleases. Thanks to their targeted and programmable mechanism of action, these nucleases have immense potential for therapeutic applications, including the targeted killing of cells, e.g. in tumors.

Targeted destruction of cancer cells with G-dase E

Together with his team of scientists, Scholz has been able to demonstrate highly efficient genome editing in various organisms and cell types, including bacteria and mammalian cells. Among other things, the bioinformatics graduate discovered a nuclease called G-dase E® and described its enzymatic mechanism, which differs from that of previously known CRISPR systems. After detecting changes in the transcriptome of the treated cells, the patent-pending G-dase E® destroys their entire DNA and RNA, resulting in the immediate death of the cell. G-dase-E® thus offers a new approach to solving a wide range of medical problems, e.g. in the treatment of cancer. Scholz and the team at Akribion Genomics have set themselves the goal of making this groundbreaking technology usable for the development of therapeutics. The spin-off and further financing of Akribion Genomics into a separate subsidiary is currently in preparation.

Huge application potential for life sciences

Adriaan Moelker, CEO of BRAIN Biotech AG, comments on the Innovation Award: "We are pleased and proud that Paul Scholz's research on new CRISPR nucleases has been recognised as an innovation by the VAAM. We are convinced that his discoveries have enormous potential for novel cancer therapies, but also for other medical and other life science applications".

Dr Michael Krohn, designated co-CEO of Akribion Genomics, says: "Our entire team is honoured by Paul receiving the VAAM Innovation Award. We believe that our G-dase® nuclease-based technology platform can revolutionise therapies, especially in oncology. That's why we're working flat out in the lab to destroy cancer cells." Krohn continued: "We would like to thank our parent company BRAIN Biotech AG for their unwavering support in our basic

research and development towards genome editing and therapeutic applications. We now look forward to expanded collaborations, including with external companies, as well as to additional investment to accelerate the development of our technology.

The VAAM awards the VAAM Innovation Award every two years to strengthen microbiological research in the industry. In its statement, the jury emphasised in particular Paul Scholz's expertise in the fields of bioinformatics, protein engineering and cell physiology, as the new nucleases can also be used in microorganisms commonly used in industry. The jury was impressed not only by Scholz's scientific excellence, as evidenced by his publications and patents, but also by the high application potential of his research: "Paul Scholz has pursued and implemented this comprehensive development in a targeted manner," said VAAM Vice President **Prof. Dr. Stefan Pelzer** in his laudation. Pelzer continued: "The innovation is not only scientifically, but also economically promising, as the planned spin-off proves".

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VAAM press release on the Innovation Award 2023 (German language):

<https://vaam.de/aktivitaeten/preise-ehrungen/innovationspreis-der-vaam/>

Photo for the press:



Picture: Dr Paul Scholz, winner of the VAAM Innovation Award 2023 © BRAIN Biotech AG.

About Akribion Genomics

As a brand name of BRAIN Biotech AG, Akribion Genomics focuses on developing groundbreaking CRISPR nucleases into a new class of genetics-based cancer therapies and advanced genome editing tools, powered by the BRAIN Biotech Group BioIncubator. Akribion Genomics' flexible CRISPR-based gene editing technology platform features distinct technology families (G-dases®) with broad application in Industrial Biotechnology and Agriculture, and offers a groundbreaking technological advantage for therapeutic and diagnostic solutions.

Akribion Genomics is committed to using its technology with high ethical standards to improve products, processes and medical treatments. Its goal is to develop new treatment approaches in oncology by employing novel CRISPR technology that allows targeted cell depletion using RNA biomarkers. In addition, access to advanced CRISPR genome editing technology with freedom-to-operate will be made more feasible.

Akribion Genomics is a spin-off in founding of BRAIN Biotech AG, a renowned international group of companies providing innovative biobased products and solutions to industry.

For additional information, please visit www.akribion-genomics.com and [LinkedIn](#)

About BRAIN Biotech

BRAIN Biotech AG is a leading European supplier of biobased products and solutions such as enzymes and proteins, microbial production strains, natural compounds and biotechnological solutions for more sustainable industrial processes. The company focuses on the fields of nutrition, health and environment.

BRAIN Biotech AG is the parent company of the international BRAIN Biotech Group. The Group's business activities are divided into three segments: The BioProducts segment comprises the product business with specialty enzymes and other proteins, for which the Group operates fermentation facilities in the United Kingdom and production facilities in continental Europe and the United States. The BioScience segment offers research-intensive custom solutions based on enzyme technology, strain development, bioprocess development and natural product screening. The BioIncubator segment conducts its own R&D projects or those initiated with partners with high value-added potential. A particularly promising incubator project is the development of the Company's own CRISPR-based gene editing technology platform, which is currently being established and expanded by Akribion Genomics (in foundation planning).

Through its own R&D activities, BRAIN Biotech Group is continuously expanding its product portfolio in the field of specialty enzymes and small molecules. The latter are the starting point for screenings, e.g. for novel drug candidates for pharmaceutical applications.

BRAIN Biotech AG has been listed on the Prime Standard of the Frankfurt Stock Exchange since February 9, 2016 (ticker symbol: BNN; securities identification number: ISIN DE0005203947 / WKN 520394). The company employs approximately 330 people and generated revenues of EUR 49.5 million in the fiscal year 2021/22.

For more information, please visit: <https://www.brain-biotech.com>, [LinkedIn](#), [Twitter](#) and [YouTube](#).

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