
Zwingenberg, Germany, May 6th, 2021

Genome Editing Tool Developed by BRAIN

- **Novel CRISPR Cas system**
- **Holding significant economic potential**
- **Different commercialization models currently being explored**

BRAIN Biotech AG has successfully completed the first development phase for a novel genome editing CRISPR Cas system applying its advanced metagenomics sequencing and protein engineering capabilities. BRAIN's technology enabled by a novel and independent Non-CAS9-Nuclease will significantly speed up in-house developments and promises significant economic upside.

Genome editing has lately become one of the most exciting technologies in biotechnology. It allows for the directed and precise insertion, deletion or modification in the genome of a living organism. The CRISPR-CAS system has provided a genetic tool with speed as well as simplicity that was previously unavailable to science.

BRAIN has developed a novel CRISPR Cas tool using metagenomics sequencing and protein engineering to isolate a **Non-Cas9** genome editing nuclease. Our scientist have achieved this breakthrough employing their expertise and practical R&D experience with genome editing knowledge available throughout the BRAIN Group.

BRAIN's novel CRISPR associated nuclease has been validated internally as well as with partners and it has demonstrated DNA targeting activity in selected bacteria, fungi and yeast. Activity in plants has been achieved but still needs to be validated. Genome editing tests for additional application fields such as mammalian cell lines have been initiated and a first IP application to protect our nuclease sequence is already submitted.

Dr. Michael Krohn, Head R&D at BRAIN Biotech AG emphasizes: "The market for genome editing tools based on the CRISPR Cas mechanism is just emerging and offers significant growth opportunities. Our BRAIN developed CRISPR associated nuclease will give us internal freedom to operate and we are currently exploring its potential beyond microorganisms and plants. This success is further evidence of our stated mission to create Breakthroughs. It makes me very proud that the innovative spirit of our scientists keeps creating new projects with real breakthrough potential."

Adriaan Moelker, CEO BRAIN Biotech AG, comments: "We have stated in the past that we have several projects beyond the feasibility phase with significant economic potential which might reach maturity to enter our BRAIN Incubator. This project does exactly that. Our BRAIN developed CRISPR associated nuclease will enable us to speed up projects for our customers as

well as the internal development of high efficiency producer strains. Our next step is to explore and develop appropriate business models to commercialize this exciting technology.”

Lukas Linnig, CFO BRAIN Biotech AG, says: “ We are very pleased by what we have already achieved and currently explore the best business model to further accelerate the development of this exciting genome editing tool. We aim to balance time too market, fields of application, investment requirements and potential partnering with the best interest of our shareholders for value creation.“

Disclaimer

This press release contains forward-looking statements. These statements reflect the current views, expectations, and assumptions of the management of BRAIN Biotech AG, and are based on information currently available to the management.

Forward-looking statements are no guarantees of future performance, and entail both known and unknown risks as well as uncertainties that could cause actual results, performance or events to differ materially from those expressed or implied in such statements. Numerous factors exist that could influence the future performance by, and future developments at, BRAIN Biotech AG and the BRAIN Group. Such factors include, but are not limited to, changes in the general economic and competitive environment, risks associated with capital markets, currency exchange rate fluctuations, changes in international and national laws and regulations, in particular with respect to tax laws and regulations, as well as other factors.

BRAIN Biotech AG does not undertake any obligation to update or revise any forward-looking statements.

About BRAIN

BRAIN Biotech AG (“BRAIN”) is a leading European specialist in industrial biotechnology. As a technology provider and developer of bio-based products and solutions for nutrition, health and the environment, the company supports the biologization of industry and contributes to a more sustainable economy. BRAIN is the parent company of the BRAIN Group. Two pillars form BRAIN Group's business: The BioScience segment includes contract research for renowned industrial partners as well as an incubator for the development of the company's own highly innovative products. In the BioIndustrial segment, the company focuses on specialty business in the production and refinement of enzymes, microorganisms and bioactive natural products and the respective distribution.

The BRAIN Group maintains its own diverse collection of natural resources: the BRAIN Bioarchive comprises microorganisms, genetic material and natural substances. Based on this collection and with a comprehensive technology portfolio, BRAIN addresses technological challenges and develops bio-based products and solutions that are already successfully employed in the industry. The BRAIN Group has its own production facilities in Germany, UK and the US, which together with the associated biotechnological production expertise, complete the value chain within the Group.

Since its IPO in 2016, BRAIN Biotech AG has been listed in the Prime Standard of the Frankfurt Stock Exchange (ISIN DE0005203947 / WKN 520394).

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