

## BRAIN Biotech and TransCode Therapeutics join forces to develop a CRISPR-derived technology platform for cancer treatment

**Zwingenberg (Germany), 22 February, 2023** – BRAIN Biotech AG, industrial biotechnology and enzyme expert, today announced the signing of a joint development agreement (JDA) with TransCode Therapeutics, Inc. (Nasdaq: RNAZ), the RNA oncology company committed to more effectively treating cancer using RNA therapeutics. The objective of the JDA is to co-develop a platform technology that combines a Class 2 CRISPR nuclease, the cell-killing G-dase E, developed by BRAIN Biotech's Akribion Genomics unit with TransCode's TTX nucleic acid delivery platform for the treatment of cancer.

TransCode's proprietary TTX platform is designed to enable systemic delivery of targeted nucleic acid-based therapeutics to tumors and metastases. Akribion Genomics' proprietary nuclease is designed to seek out selective genomic characteristics based on the existence of specific RNA biomarkers within target cells. Combining these technologies could unlock the potential of CRISPR-like cell targeting approaches for the treatment of cancer.

In addition, the parties signed a memorandum of understanding to jointly commercialize the combined technologies in the form of joint out-licensing agreements. "Specific depletion of cancer cells based on RNA biomarkers is a novel and powerful approach," states **Dirk Sombroek**, PhD, member of the Akribion Genomics team of BRAIN Biotech AG. "The partnership with Transcode and a joint development could unleash the potential of our proprietary nucleases for therapeutic applications."

**Lukas Linnig**, lead of Akribion Genomics activities at BRAIN Biotech AG, emphasizes: "Our ultimate goal is to develop the combined technologies into a technology platform that provides a basis for the development of drugs to treat cancer. This partnership with TransCode is therefore an important step on our challenging path to enter the field of cancer therapeutics with a new class of cancer treatment.

**Zdravka Medarova**, PhD, Co-founder and CTO of TransCode, comments: "Cell targeting technology based on genomic characteristics holds tremendous potential for the treatment of cancer. However, to fulfill the promise of a Class 2 CRISPR toolbox in oncology, it is critical to achieve highly specific and targeted delivery to tumor cells. This capability relies on having a safe and effective delivery vehicle, such as TransCode's TTX is expected to represent, and a

very precise cell-depletion tool, such as BRAIN Biotech's G-dase E nucleases is believed to be." She adds: "Combining these technologies could enable the development of further CRISPR-derived RNA biomarker targeting drugs effective against previously undruggable but highly impactful therapeutic targets in cancer."

"This partnership has the potential to enable a functionally unique tool to fight cancer because unlike our other therapeutic candidates, it does not rely on inhibition or enrichment of cancer-relevant genetic targets but, instead, is designed to specifically kill a cell with a critical pathway dysfunction," comments **Michael Dudley**, Co-founder, President and CEO of TransCode. Dudley adds, "The timing of this partnership is ideal, given that we are in the process of initiating a first-in-human study aimed at demonstrating TTX's capability of targeting clinical metastases."

#### **About TransCode Therapeutics**

TransCode is an RNA oncology company created on the belief that cancer can be effectively treated using RNA therapeutics. The Company has created a platform of drug candidates designed to target a variety of tumor types with the objective of significantly improving patient outcomes. The Company's lead therapeutic candidate, TTX-MC138, is focused on treating metastatic cancer, which is believed to cause approximately 90% of all cancer deaths totaling over nine million per year worldwide. The Company believes that TTX-MC138 has the potential to produce regression without recurrence in a range of cancers, including breast, pancreatic, ovarian and colon cancer, glioblastomas and others. Two of the Company's other drug candidates, TTX-siPDL1 and TTX-siLIN28B, focus on treating tumors by targeting PD-L1 and LIN28B, respectively. TransCode also has three cancer-agnostic programs: TTX-RIGA, an RNA-based agonist of the retinoic acid-inducible gene I, or RIG-I, designed to drive an immune response in the tumor microenvironment; TTX-CRISPR, a CRISPR/Cas9-based therapy platform for the repair or elimination of cancer-causing genes inside tumor cells; and TTX-mRNA, an mRNA-based platform for the development of cancer vaccines designed to activate cytotoxic immune responses against tumor cells.

#### **About BRAIN Biotech**

BRAIN Biotech AG is a leading European specialist in industrial biotechnology with a focus on nutrition, health and the environment. As a technology and solution provider, the company supports the biologization of industry with biobased products and processes. From contract research and development with industrial partners to the development of own disruptive incubator projects and customized enzyme products, BRAIN's broad, innovative biotech know-how and its agile teams are the key to its success.

BRAIN Biotech AG is the parent company of the international BRAIN Group, which distributes B2B specialty products, including enzymes and bioactive natural products. The BRAIN Group has its own fermentation or production facilities in continental Europe, the UK and the USA, which, together with the associated biotechnological production know-how, complete the value chain within the Group.

As a participant in the United Nations Global Compact, BRAIN Biotech AG is committed to aligning its strategies and activities with universal principles on human rights, labor, the environment and anti-corruption, and to actively promote common social goals. BRAIN Biotech's products and services directly target at least five of the UN SDGs.

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