NEWS RELEASE

MAIA Biotechnology Announces Potent Anticancer Activity of THIO in Gliomas

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CHICAGO--(BUSINESS WIRE)-- MAIA Biotechnology, Inc. (NYSE American: MAIA), a clinical stage company developing telomere-targeting immunotherapies for cancer, today announced that its lead asset THIO showed highly potent anticancer activity in gliomas, an aggressive type of brain tumor that originates from glial cells. THIO's novel dual mechanism of action - direct telomere targeting and immune system activation, has previously demonstrated similar efficacy in multiple types of telomerase-active tumors.

THIO was evaluated in various in vitro and in vivo models of gliomas. The results demonstrate the promising therapeutic role of THIO for the treatment of primary and temozolomide-resistant recurrent gliomas through specific telomerase-mediated induction of telomeric DNA damage in glioma cells

"High grade adult gliomas are among the most difficult-to-treat cancers, with less-than-desirable clinical outcomes. These encouraging results further highlight THIO's excellent anti-cancer activity across several cancer indications," said Vlad Vitoc, M.D., MAIA's Chief Executive Officer. "We look forward to evaluate THIO as a treatment for brain cancer in clinical setting."

"THIO was effective in the majority of human and mouse glioma cell lines with no apparent toxicity against normal astrocytes. As a monotherapy, THIO demonstrated efficacy in multiple glioma cell lines that had acquired resistance to the current state-of-the art care temozolomide (TMZ). THIO induced apoptosis in several human glioma cell lines that grow as three-dimensional tumor mass-mimicking neurospheres," said MAIA's Chief Scientific Officer Sergei Gryaznov, Ph.D. "Additionally, THIO produced telomeric DNA damage responses not only in glioma cell lines, but also in diverse human-derived tumor specimens (PDXs). In vivo, THIO significantly decreased tumor proliferation in glioblastoma xenografts and a PDX model of glioblastoma."

The reviewed results were published in: Clin Cancer Res (2021) 27 (24): 6800–6814.

About THIO

THIO (6-thio-dG or 6-thio-2′-deoxyguanosine) is a first-in-class investigational telomere-targeting agent currently in clinical development to evaluate its activity in Non-Small Cell Lung Cancer (NSCLC). Telomeres, along with the enzyme telomerase, play a fundamental role in the survival of cancer cells and their resistance to current therapies. The modified nucleotide 6-thio-2′-deoxyguanosine (THIO) induces telomerase-dependent telomeric DNA modification, DNA damage responses, and selective cancer cell death. THIO-damaged telomeric fragments accumulate in cytosolic micronuclei and activates both innate (cGAS/STING) and adaptive (T-cell) immune responses. The sequential treatment with THIO followed by PD-(L)1 inhibitors resulted in profound and persistent tumor regression in advanced, in vivo cancer models by induction of cancer type–specific immune memory. THIO is presently developed as a second or later line of treatment for NSCLC for patients that have progressed beyond the standard-of-care regimen of existing checkpoint inhibitors.

About MAIA Biotechnology, Inc.

MAIA is a targeted therapy, immuno-oncology company focused on the development and commercialization of potential first-in-class drugs with novel mechanisms of action that are intended to meaningfully improve and extend the lives of people with cancer. Our lead program is THIO, a potential first-in-class cancer telomere targeting agent in clinical development for the treatment of NSCLC patients with telomerase-positive cancer cells. For more information, please visit **www.maiabiotech.com**.

Forward Looking Statements

MAIA cautions that all statements, other than statements of historical facts contained in this press release, are forward-looking statements. Forward-looking statements are subject to known and unknown risks, uncertainties, and other factors that may cause our or our industry's actual results, levels or activity, performance or achievements to be materially different from those anticipated by such statements. The use of words such as "may," "might," "will," "should," "could," "expect," "plan," "anticipate," "believe," "estimate," "project," "intend," "future," "potential," or "continue," and other similar expressions are intended to identify forward looking statements. However, the absence of these words does not mean that statements are not forward-looking. All forward-looking statements are based on current estimates, assumptions and expectations by our management that, although we believe to be reasonable, are inherently uncertain. Any forward-looking statement expressing an expectation or belief as to future events is expressed in good faith and believed to be reasonable at the time such forward-looking statement is made. These forward-looking statements are only predictions and may differ materially from actual

results due to a variety of factors including: (i) the initiation, timing, cost, progress and results of our preclinical and clinical studies and our research and development programs, (ii) our ability to advance product candidates into, and successfully complete, clinical studies, (iii) the timing or likelihood of regulatory filings and approvals, (iv) our ability to develop, manufacture and commercialize our product candidates and to improve the manufacturing process, (v) the rate and degree of market acceptance of our product candidates, (vi) the size and growth potential of the markets for our product candidates and our ability to serve those markets, (vii) our ability to obtain and maintain intellectual property protection for our product candidates and (viii) other risks and uncertainties detailed from time to time in our filings with the Securities and Exchange Commission, including without limitation our periodic reports on Form 10-K and 10-Q, each as amended and supplemented from time to time. Any forward-looking statement speaks only as of the date on which it was made. We undertake no obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future events or otherwise, except as required by law. In this release, unless the context requires otherwise, “MAIA,” “Company,” “we,” “our,” and “us” refers to MAIA Biotechnology, Inc. and its subsidiaries.

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