

February 4, 2025



MAIA Biotechnology Announces Positive Efficacy Updates for Phase 2 THIO-101 Trial in Advanced Non-Small Cell Lung Cancer

- Median overall survival (OS) from THIO treatment extends to 16.9 months
- Newest data strengthens regulatory strategy

CHICAGO--(BUSINESS WIRE)-- **MAIA Biotechnology, Inc., (NYSE American: MAIA)** ("MAIA", the "Company"), a clinical-stage biopharmaceutical company developing targeted immunotherapies for cancer, today announced positive updated data from its THIO-101 pivotal Phase 2 clinical trial evaluating its lead clinical candidate, THIO, sequenced with Regeneron's immune checkpoint inhibitor (CPI) cemiplimab (Libtayo[®]) in patients with advanced non-small cell lung cancer (NSCLC) who failed two or more standard-of-care therapy regimens.

As of January 15, 2025, third line (3L) data showed median overall survival (OS) of 16.9 months for the 22 NSCLC patients who received at least one dose of THIO (the intent-to-treat population) in parts A and B of the trial. The analysis demonstrated a 95% confidence interval (CI) lower bound of 12.5 months and a 99% CI lower bound of 10.8 months. The treatment has been generally well-tolerated to date in this heavily pre-treated population¹. Studies of standard-of-care (SOC) chemotherapy treatments for NSCLC in a similar setting have shown OS of 5 to 6 months.²

"Treatment with THIO now shows a 99% probability that overall survival will extend past chemotherapy's measure by a wide margin," said Vlad Vitoc, M.D., CEO of MAIA. "THIO's efficacy in advanced stages of NSCLC continues to exceed our expectations, especially in third-line treatment where the cancer is typically even more resistant to therapy. Our findings suggest great benefits to patients with unmet medical needs who see little hope for the future.

"With our latest overall survival results, our outlook for potential FDA commercial approval of THIO is stronger than ever," Dr. Vitoc concluded.

Based on its regulatory strategy, MAIA believes there could be an opportunity for accelerated FDA approval of THIO depending on final results from the ongoing expansion of the THIO-101 trial.

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 THIO-101, a Phase 2 Clinical Trial

THIO-101 is a multicenter, open-label, dose finding Phase 2 clinical trial. It is the first trial designed to evaluate THIO's anti-tumor activity when followed by PD-(L)1 inhibition. The trial is testing the hypothesis that low doses of THIO administered prior to cemiplimab (Libtayo[®]) will enhance and prolong immune response in patients with advanced NSCLC who previously did not respond or developed resistance and progressed after first-line treatment regimen containing another checkpoint inhibitor. The trial design has two primary objectives: (1) to evaluate the safety and tolerability of THIO administered as an anticancer compound and a priming immune activator (2) to assess the clinical efficacy of THIO using Overall Response Rate (ORR) as the primary clinical endpoint. Treatment with THIO followed by cemiplimab (Libtayo[®]) has been generally well-tolerated to date in a heavily pre-treated population. For more information on this Phase II trial, please visit [ClinicalTrials.gov](https://clinicaltrials.gov/ct2/show/study/NCT05208944) using the identifier NCT05208944.

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. For example, all statements we make regarding (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, and (vii) our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates, are 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. However, these statements are not guarantees of future events and are subject to risks and uncertainties and other factors beyond our control that may cause actual results to differ materially from those expressed in any forward-looking statement. 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.

¹ Details on safety can be found on the previously announced SITC 2024 presentation available on [MAIA's website](#).

² Girard N, et al. J Thorac Onc 2009;12:1544-1549.

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Source: MAIA Biotechnology, Inc.