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MAIA's Ateganosine Surges Ahead with Breakthrough Momentum as Pivotal Phase 3 Trial Initiates

CHICAGO, Dec. 11, 2025 (GLOBE NEWSWIRE) -- Ateganosine (THIO, 6-thio-2'-deoxyguanosine), a first-in-class telomere-targeting therapy under development by **MAIA Biotechnology (NYSE American: MAIA)**, appears to be gaining increasing attention in the oncology community as emerging clinical results continue to surpass expectations in advanced non-small cell lung cancer (NSCLC). With the therapy's Phase 2 trial ongoing and a pivotal Phase 3 program initiated this week, ateganosine is being closely watched as one of the most distinctive investigational approaches in solid-tumor treatment today.

We believe that MAIA has positioned itself at the forefront of a new scientific category in oncology. To our knowledge, Ateganosine remains the only direct telomere-targeting anticancer agent currently in clinical development anywhere—a key distinction in a treatment landscape where most therapeutic advances build upon established mechanisms rather than introduce entirely new ones.

According to management, statistical assessments of the Phase 3 trial points to a very [high probability of technical success](#) for regulatory approval of ateganosine.

The U.S. Food and Drug Administration (FDA) has granted Fast Track designation for ateganosine for the treatment of NSCLC.

A Dual Mechanism Unlike Existing Therapies

Ateganosine works through a dual mechanism of action that we believe differentiates it from existing chemotherapies, targeted agents, and immunotherapies.

First, the molecule is selectively incorporated into cancer-cell telomeres by telomerase, an enzyme active in more than 80% of human cancers. This incorporation disrupts telomeric structure and function, driving selective cancer-cell death.

Simultaneously, this disruption generates micronuclei carrying ateganosine-modified telomeric DNA fragments. These fragments interact with immune cells and trigger a potent immunogenic response involving both the cGAS/STING innate pathway and adaptive T-cell activation, further promoting tumor regression.

This integrated telomere-targeting-plus-immune-activation model represents a mechanism that to our knowledge is not seen in current NSCLC treatments and may hold implications for broader solid-tumor indications.

Phase 3 Outcomes are the Next Step

The launch of a Phase 3 trial reflects growing confidence in the maturing clinical profile. With NSCLC remaining one of the largest and most challenging oncology markets globally, in our opinion, the commercial opportunity for a first-in-class therapy with this level of early performance is substantial.

As the only telomere-targeting agent in clinical development that we are aware of, ateganosine could mark the start of a new therapeutic category. Should its results to date translate into later-stage confirmation, we believe the therapy could emerge as a major entrant in next-generation cancer treatment.

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 ateganosine (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.

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