UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

Current Report

Pursuant to Section 13 or 15(d)
of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): May 31. 2025

MAIA Biotechnology, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**001-41455**	**83-1495913**
(State or other jurisdiction of incorporation)	**(Commission File Number)**	**(IRS Employer Identification No.)**

444 West Lake Street, Suite 1700	
Chicago, IL	**60606**
(Address of principal executive offices)	**(Zip Code)**

(312) 416-8592
(Registrant's telephone number, including area code)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	**Trading Symbol(s)**	**Name of each exchange on which registered**
Common Stock	MAIA	NYSE American

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (17 CFR §230.405) or Rule 12b-2 of the Securities Exchange Act of 1934 (17 CFR §240.12b-2).

Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Item 7.01 Regulation FD Disclosure.

MAIA Biotechnology, Inc. (the "Company") has prepared a poster (the "Poster") showing the efficacy data from its Phase 2 THIO-101 clinical trial evaluating THIO sequenced with the immune checkpoint inhibitor (CPI) cemiplimab (Libtayo®) in patients with advanced non-small cell lung cancer (NSCLC) who failed 2 or more standard-of-care therapy regimens. The Poster was selected as an "abstract" and originally presented and displayed at the 2025 ASCO (American Society of Clinical Oncology) Annual Meeting on May 31, 2025. The Poster will also be posted to the Company's website on June 2, 2025, a copy of which is filed as Exhibit 99.1 to this Current Report on Form 8-K (this "Report") and is hereby incorporated by reference.

The information contained in the Poster is summary information that should be considered in the context of the Company's filings with the Securities and Exchange Commission and other public announcements the Company may make by press release or otherwise from time to time. The Poster speaks as of the date of this Report. While the Company may elect to update the Poster in the future to reflect events and circumstances occurring or existing after the date of this Report, the Company specifically disclaims any obligation to do so.

The Poster contains forward-looking statements, and as a result, investors should not place undue reliance on these forward-looking statements.

The information set forth in under Item 7.01 of this Report, including, without limitation, the Poster, is not be deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that Section, nor shall it be incorporated by reference into a filing under the Securities Act of 1933, as amended, or the Exchange Act, regardless of any general incorporation language in such filing, except as shall be expressly set forth by specific reference in such a filing. This Report (including the exhibits hereto) will not be deemed an admission as to the materiality of any information required to be disclosed solely to satisfy the requirements of Regulation FD.

Item 8.01 Other Events

The Company has made available a presentation about the Company's business and was posted to the Company's website on June 2, 2025, a copy of which is filed as Exhibit 99.2 to this Current Report on Form 8-K ("Report") and is hereby incorporated by reference.

The information contained in the presentation is summary information that should be considered in the context of the Company's filings with the Securities and Exchange Commission and other public announcements the Company may make by press release or otherwise from time to time. The presentation speaks as of the date of this Report. While the Company may elect to update the presentation in the future to reflect events and circumstances occurring or existing after the date of this Report, the Company specifically disclaims any obligation to do so.

The presentation contains forward-looking statements, and as a result, investors should not place undue reliance on these forward-looking statements.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Poster
99.2	Presentation Materials
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Dated: June 2, 2025

MAIA BIOTECHNOLOGY, INC.

By: */s/ Vlad Vitoc*
Name: Vlad Vitoc
Title: Chief Executive Officer

Abstract 8585

Poster Board 65

Phase 2 Study of Telomere-Targeting Agent THIO Sequenced With Ceniplimab in Third-Line Immune Checkpoint Inhibitor-Resistant Advanced NSCLC: Evaluation of Overall Survival

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Introduction

- Despite recent advances for the first-line treatment of advanced Non-Small Cell Lung Cancer (NSCLC), long-term prognosis remains poor with a 5-year survival rate of 28%[1] and limited options exist in patients' refractory or resistant to immune checkpoint inhibitors (ICI).
- THIO (ataganosine, 6-thio-2'-deoxyguanosine, 6-thio-dG) is a small molecule, first-in-class direct cancer telomere targeting agent that selectively kills telomerase positive (TERT+) cancer cells:
  - Over 80% of all cancers and approx. 78-83% of all NSCLC types are TERT+.[2,3]
  - THIO is incorporated into de novo synthesized telomeres leading to chromatin uncapping, generation of DNA damage signals, and rapid apoptosis.[4]
- In preclinical models, sequential treatment of THIO and ICIs overcame ICI resistance and showed a potent and durable antitumor activity.[5]
- Preliminary trial results in NSCLC indicates that low doses of THIO induce sensitivity to ICIs when administered prior to an ICI in tumors which otherwise are resistant or do not respond to an ICI.
- Here we describe a phase 2 dose-optimization study (NCT05208944) for adult patients with advanced NSCLC who progressed or relapsed after 1–4 prior treatment lines including first-line ICI alone or in combination with platinum chemotherapy and new biomarker findings.
- Treatment options for immune checkpoint inhibitor (ICI)-resistant patients are limited. THIO, a telomere-targeting agent, modifies telomeres in cancer cells, Including circulating tumor cells (CTCs), confirming its mechanism of action and demonstrating efficacy independent of PD-L1 expression.
- Biomarkers assessing telomere damage in cancer cells are becoming increasingly important for accurately determining efficacy following treatment.

Methods

- Using a modified 3+3 design, the safety lead-in (Part A) enrolled 10 patients who received THIO 360 mg IV (120 mg QD, D1–3), followed by 350 mg ceniplimab on D5, Q3W. Following completion of Part A, enrollment was opened in the dose-finding portion of the study (Part B).
- Using a Simon 2-stage design, 79 patients were assigned to one of the THIO doses: 360, 180, or 60 mg followed by ceniplimab Q3W for up to 1 year in Part B.
- Disease status is assessed at Cycle 3 Day 1, Cycle 5 Day 1 and every 9 -12 weeks thereafter.
- The trial completed enrollment for Parts A and B in February 2024. We report here data from the 79 patients enrolled on the study, who received at least one dose of the treatment.
- An expansion cohort is planned based on data from Part B: up to 48 patients in Part C (one arm with the combination of THIO + ceniplimab, one arm with THIO as monotherapy) and up to 100 patients in Part D.
- Data was averaged using three gating strategies to determine CTC counts and PDL1 fraction in potential CTCs were measured using flow cytometry.

Baseline characteristics

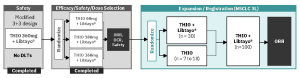
- At the time of data cut-off (May 15, 2025), 79 patients with advanced NSCLC had received ≥1 dose of THIO.
- All patients had previously failed ≥1 prior line of ICI ± chemotherapy in the advanced setting and had documented disease progression at study entry.
- 34% of patients had ≥2 prior treatment lines at study entry.

Table 1. Baseline characteristics

Characteristic	60 mg (n=24)	180 mg (n=41)	360 mg (n=14)	Total (N=79)
Median age (range), years	67 (52–85)	68 (45–81)	68 (50–75)	67 (45–85)
Sex, n (%)				
Female	10 (42)	11 (27)	7 (50)	28 (35)
Male	14 (58)	30 (73)	7 (50)	51 (65)
Number of prior lines, n (%)				
1	17 (71)	30 (73)	5 (36)	52 (66)
2	6 (25)	10 (25)	6 (43)	22 (28)
3	1 (4)	0 (0)	2 (14)	3 (4)
4	0 (0)	1 (2)	1 (7)	2 (3)
ECOG PS, n (%)				
0	6 (25)	8 (20)	7 (50)	21 (27)
1	18 (75)	33 (80)	7 (50)	58 (73)
Histology, n (%)				
Non-Squamous cell carcinoma	15 (63)	25 (61)	8 (57)	48 (61)
Squamous cell carcinoma	9 (37)	16 (39)	6 (43)	31 (40)
Brain metastases, n (%)	1 (4)	1 (2)	2 (14)	4 (5)
Liver metastases, n(%)	4 (17)	5 (12)	3 (21)	12 (15)

Study Design

Figure 1. THIO-101 study schema



- Total of 79 patients enrolled (24 treated in 60mg dose group, 41 in 180 mg, and 14 in 360mg)
- Dose dose: 180mg - selected on Nov'23
- Enrollment completed Feb'24

- Up to 148 patients – Enrollment to start 4Q'25
- Patient population:
  - CPI Resistance (SITC)
  - Chemotherapy Resistance

- **Primary endpoints:** Safety, ORR, DCR (CR, PR and SD).
- **Secondary endpoints:** DoR; PFS; OS.
- **Exploratory endpoints:** PK and PD (activity of THIO in circulating tumor cells measured by specific biomarkers).

Safety findings

Table 2. Related TEAEs by dose level reported in ≥2 patients

Preferred Term	60mg (N=24)	180mg (N=41)	360mg (N=14)	Total (N=79)
Aspartate aminotransferase increased	6 (25%)	11 (26.8%)	4 (28.6%)	21 (26.6%)
Alanine aminotransferase increased	6 (25%)	9 (22%)	3 (21.4%)	18 (22.8%)
Nausea	2 (8.3%)	5 (12.4%)	7 (50%)	10 (12.7%)
Neutropenia	2 (8.3%)	2 (4.9%)	0(0%)	4 (5.1%)
Anaemia	0(0%)	2 (4.9%)	1 (7.1%)	3 (3.8%)
Pyrexia	0(0%)	2 (4.9%)	1 (7.1%)	3 (3.8%)
Decreased appetite	0(0%)	1 (2.4%)	2 (14.3%)	3 (3.8%)
Blood alkaline phosphatase increased	1 (4.2%)	1 (2.4%)	0(0%)	2 (2.5%)
Blood bilirubin increased	0(0%)	1 (2.4%)	1 (7.1%)	2 (2.5%)
Gamma-glutamyltransferase increased	0(0%)	2 (4.9%)	0(0%)	2 (2.5%)
Leukopenia	1 (4.2%)	0(0%)	1 (7.1%)	2 (2.5%)
Asthenia	0(0%)	2 (4.9%)	0(0%)	2 (2.5%)
Erythema	0(0%)	2 (4.9%)	0(0%)	2 (2.5%)
Hypothyroidism	0(0%)	2 (4.9%)	0(0%)	2 (2.5%)
Infusion related reaction	0(0%)	2 (4.9%)	0(0%)	2 (2.5%)

Table 3. Related Grade ≥3 TEAEs

Preferred Term	060mg (N=24)	180mg (N=41)	360mg (N=14)	Total (N=79)
Alanine aminotransferase increased	3 (12.5%)	4 (9.8%)	2 (14.3%)	9 (11.4%)
Aspartate aminotransferase increased	5 (20.8%)	2 (4.9%)	2 (14.3%)	9 (11.4%)
Neutropenia	2 (8.3%)	1 (2.4%)	0(0%)	3 (3.8%)
Blood alkaline phosphatase increased	0(0%)	1 (2.4%)	0(0%)	1 (1.3%)
Gamma-glutamyltransferase increased	0(0%)	1 (2.4%)	0(0%)	1 (1.3%)
Lipase increased	1 (4.2%)	0(0%)	0(0%)	1 (1.3%)
Weight decreased	0(0%)	1 (2.4%)	0(0%)	1 (1.3%)
Nausea	0(0%)	0(0%)	1 (7.1%)	1 (1.3%)
Multiple organ dysfunction syndrome	0(0%)	1 (2.4%)	0(0%)	1 (1.3%)
Hyperkalaemia	1 (4.2%)	0(0%)	0(0%)	1 (1.3%)
Ischaemic stroke	0(0%)	1 (2.4%)	0(0%)	1 (1.3%)

Note: Cerebellar and ischaemic strokes reported refer to the same event. The medical monitor assessment was unrelated.

- THIO + ceniplimab has been generally well tolerated in a heavily pre-treated population, with most events being Grade 1–2 in severity.
- Most TEAEs were laboratory value elevations, except nausea (12.7% overall and 2.4% at the 180 mg dose) and decreased appetite (3.8% overall and 2.4% at the 180 mg dose).
- No DLTs have been reported in the Part A safety lead-in.
- A related Grade ≥3 ALT increase was reported in 9 patients (11.4%), including 2 patients receiving 360 mg, 4 at 180 mg, and 3 at 60 mg. No clinical symptoms were associated with the elevated laboratory values, and all returned to baseline or normal without sequelae.
- All other related Grade ≥3 events occurred in <5% of patients.
- Following an event of Grade 4 LFT elevation in a patient receiving 360 mg in Part B, enrollment into the 360 mg arm was paused.
- Enrollment was completed in Part B at the selected dose of 180 mg/cycle in February 2024.
- THIO mechanism of action allows for more selective targeting of cancer cells, potentially reducing the frequency of adverse events relative to non-targeted therapies.[6,7]

Efficacy findings

Figure 2. OS for patients receiving THIO as 3L treatment, all dose levels (n=22)*

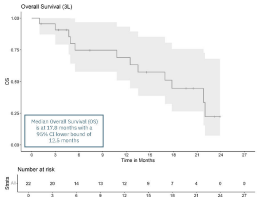


Figure 3. Patients receiving THIO as 3L treatment, all dose levels (n=22)*

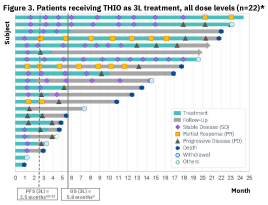
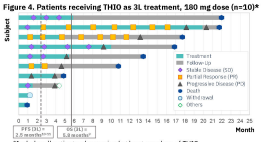


Figure 4. Patients receiving THIO as 3L treatment, 180 mg dose (n=10)*

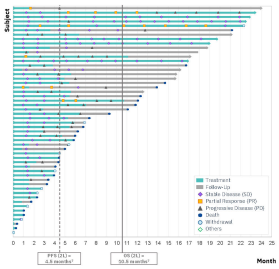


*Includes all patients who received at least one dose of THIO.

- 79 subjects received at least one dose of THIO
- Partial Responses (PRs) RECIST 1.1 were reported for 10 subjects (6 in 2L, 4 in 3L), with 8 PRs confirmed by a 2nd scan per Investigators' assessment (4 in 2L, 4 in 3L)
- 36 patients with survival follow-up above 12 months (22 in 2L, 14 in 3L+)
- 16 patients with treatment or follow-up ongoing (14 in 2L, 2 in 3L)
- 1 patient completed 32 cycles of therapy
- In the 3L setting (n=22):
  - 22 subjects received at least 1 dose of THIO
  - Estimated Median Overall Survival (OS) is at 17.8 months with a 95% CI lower bound of 12.5 months.
  - DCR 77% vs 25-35% chemotherapy.[8]
  - 14/22 (63%) patients crossed 5.8 months OS threshold.[9]
  - 17/22 (77%) crossed 2.5 months PFS threshold.[10,11]

Efficacy findings (continued)

Figure 5. Patients receiving THIO as 2L treatment, all dose levels (n=52)*

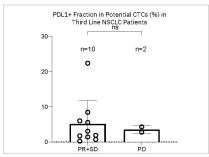


*Includes all patients who received at least one dose of THIO.

Biomarker findings

- Circulating tumor cells (CTCs) were marked by PDL1 to evaluate PDL1 status at cycle 1 day 1 (C1D1, baseline) in NSCLC patients receiving sequential treatment of THIO and ceniplimab as third line treatment.
- The response to THIO and ceniplimab, demonstrated by PR+SD, is independent of baseline PDL1 status (unpaired t- test, p< 0.05 is statistically significant) (Figure 6).

Figure 6. PDL1+ Fraction in CTCs (Patient Status)



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Conclusions

- **Current data in third-line indicates that as of May 15, 2025, estimated Median Overall Survival (OS) is at 17.8 months with a 95% CI lower bound of 12.5 months.**
- **Treatment has the potential to be given for longer, which usually translates into longer survival.**
- **The combination of THIO + ceniplimab has durable activity in this hard-to-treat patient population (CPI resistant and chemotherapy resistant progressors).**
- **THIO + ceniplimab has so far been generally well-tolerated in a heavily pre-treated population, with most events being Grade 1-2 in severity and very few Grade ≥3, mostly ALT increase reported in 9 patients (11.4%).**
- **The ongoing Phase 2 study selected the best dose of THIO 180 mg which has shown better safety and superior efficacy compared with other doses: to date, 9.8% of patients receiving the 180 mg dose reported related Grade ≥3 AEs.**
- **THIO can be effective across patients regardless of their PDL1 status.**

Acknowledgements

- This study is sponsored by MAIA Biotechnology, Inc.
- The authors would like to thank the patients and research staff who contributed to this study.
- The sponsor would like to send a special thanks to REGENERON, CROMOS and NOVA-CLIN for their exceptional contribution to this study.

Author disclosures

- Tomasz Jankowski, M.D. consulting for BMS, MSD, Amgen, Takeda, Pfizer and AstraZeneca.

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2025 ASCO ANNUAL MEETING
May 30 – June 3, 2025
Chicago, IL & Online

Exhibit 99.2


MAIA
BIOTECHNOLOGY
TELOMERE TARGETING IMMUNOTHERAPIES FOR CANCER
NYSE AMERICAN: MAIA
June 2025

FORWARD-LOOKING STATEMENTS

All statements in this presentation, other than those relating to historical facts, are "forward-looking statements." These forward-looking statements may include, but are not limited to, statements relating to our objectives, plans, and strategies; statements that contain projections of results of operations or of financial condition; statements relating to the industry and government policies and regulations relating to our industry; and all statements (other than statements of historical facts) that address activities, events, or developments that we intend, expect, project, believe, or anticipate will or may occur in the future. Forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties. We have based these forward-looking statements on assumptions and assessments made by our management 2024, their experience and their perception of historical trends, current conditions, expected future developments, and other factors they believe to be appropriate. Important factors that could cause actual results, developments, and business decisions to differ materially from those anticipated in these forward-looking statements include, among other things: the overall global economic environment; general market, political, and economic conditions in the countries in which we operate: projected capital expenditures and liquidity; changes in our strategy; government regulations and approvals; the application of certain service license; and litigation and regulatory proceedings. Factors that may cause such differences also include, but are not limited to, those discussed under Risk Factors set forth in our Annual Report on Form 10-K for the year ended December 31, 2024, and other periodic reports filed by the Company from time to time with the Securities and Exchange Commission. You may get these documents for free by visiting EDGAR on the Commission's website at www.sec.gov. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and the development of the industry in which we operate may differ materially from the forward-looking statements contained in this presentation 2024, among other factors, the factors referenced in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2024. In addition, even if our results of operations, financial condition and liquidity, and the development of the industry in which we operate are consistent with the forward-looking statements contained in this presentation, they may not be predictive of results or developments in future periods. This presentation shall not constitute an offer to sell or the solicitation of an offer to sell or the solicitation of an offer to buy any of our securities nor shall there be any sale of securities in any jurisdiction in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such jurisdiction. Any offering of securities can only be made in compliance with applicable securities laws. You should read carefully the factors described in the "Risk Factors" section of our Annual Report on Form 10-K for the year ended December 31, 2024, to better understand the risks and uncertainties inherent in our business and underlying any forward-looking statements. These statements are only current predictions and are subject to known and unknown risks, uncertainties, and other factors that may cause our or our industry's actual results, levels of activity, performance, or achievements to be materially different from those anticipated by the forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. Except as required by law, we are under no duty to update or revise any of the forward-looking statements, whether as a result of new information, future events or otherwise, after the date of this prospectus. These forward-looking statements speak only as of the date of this presentation, and we assume no obligation to update or revise these forward-looking statements for any reason.

INVESTMENT PROFILE

MAIA BIOTECHNOLOGY
NYSE American: MAIA

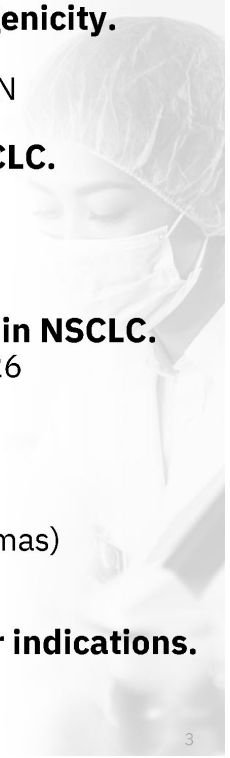
New science for cancer therapy with dual MoA: telomere targeting and immunogenicity.
- Lead molecule Ateganosine (THIO) in clinic; 2nd generation compounds in R&D
- Ateganosine approved as non-proprietary (generic) name for THIO by USAN and INN

Phase 2 trial THIO-101 expansion in 2025: Ateganosine (THIO) + Libtayo® in NSCLC.
- Unprecedented disease control, response and survival data
- Continued clinical supply agreement with Regeneron (Libtayo)
- Potential filing for accelerated approval in 2026

Phase 3 trial THIO-104: Ateganosine (THIO) + Libtayo® vs. Investigator's Choice in NSCLC.
- Interim analysis can lead to potential filing for early full commercial approval in 2026
- Final analysis for potential filing for commercial approval in 2027

Significant market opportunity in hard-to-treat cancers with unmet need.
- Non-small cell lung cancer (NSCLC): largest tumor type globally, $34B annual sales
- 3 FDA Orphan Drug Designations: liver (HCC), lung (SCLC) and brain (malignant gliomas)
- 1 FDA Rare Pediatric Disease Designation for children's diffuse high-grade gliomas

Multiple Ateganosine (THIO) + tislelizumab trials planned for 3 additional cancer indications.
- Colorectal cancer (CRC), Liver (HCC), and SCLC to start enrollment in 2026
- Clinical supply agreement with BeOne Medicines (tislelizumab)



ROBUST PIPELINE

MAIA BIOTECHNOLOGY
NYSE American: MAIA

Ateganosine (THIO) Telomere Targeting Agent

Clinical Trial	Indication	Treatment	Status	Preclinical	Phase 1	Phase 2	Phase 3	Rights
THIO-104	NSCLC 3L	Ateganosine → Libtayo®	Initiating Phase 3					Worldwide rights owned by MAIA
THIO-101	NSCLC 2L+	Ateganosine → Libtayo®	Ongoing Phase 2			Clinical supply agreement with REGENERON		
THIO-102-CRC	CRC 3L+	Ateganosine → tislelizumab	Planned Phase 2			Clinical supply agreement with BeOne		
THIO-102-HCC	HCC 2L+	Ateganosine → tislelizumab	Planned Phase 2			Clinical supply agreement with BeOne		
THIO-102-SCLC	SCLC 2L+	Ateganosine → tislelizumab	Planned Phase 2			Clinical supply agreement with BeOne		
THIO-103	NSCLC 1L, SCLC 1L	Ateganosine → tislelizumab	Planned Phase 2/3					

2nd Generation Telomere Targeting Agents

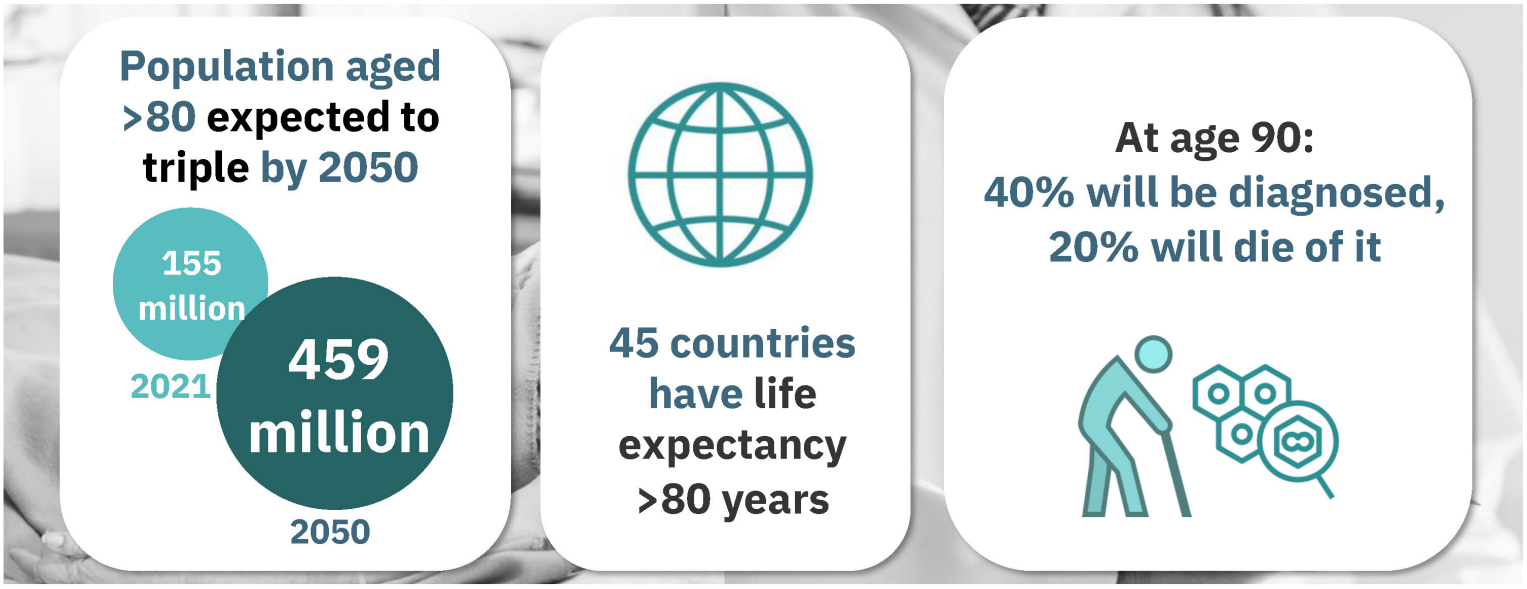
Agent	Indication	Status	Preclinical	Phase 1	Phase 2	Phase 3	Rights
MAIA-2021-020	Multiple Tumor Types	IND Enabling					Developed in-house fully-owned by MAIA
MAIA-2022-012	Multiple Tumor Types	IND Enabling					
MAIA-2021-029	Multiple Tumor Types	IND Enabling					

MISSION AND APPROACH

MAIA BIOTECHNOLOGY

NYSE American: MAIA

Cancer is the most dominant age-related disease



Source: UN (World Social Report, 2023); Worldometer (Life Expectancy of the World Population, 2024).

NOVEL TREATMENT

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Ateganosine (THIO) is the only direct telomere targeting anticancer agent in clinical development

TREATMENT WITH ATEGANOSINE

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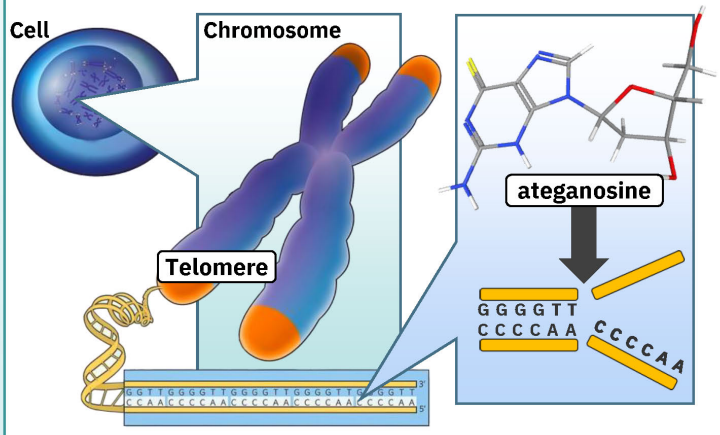
Ateganosine (THIO, 6-thio-2'-deoxyguanosine) has a novel dual mechanism of action

1 Telomere targeting
2 Immunogenic effect

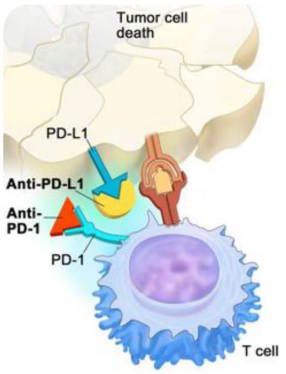


- 3 FDA Orphan Drug Designations: HCC, SCLC, Malignant Gliomas
- 1 Rare Pediatric Disease Designation (RPDD): Pediatric Gliomas

Followed by Immune Checkpoint Inhibitor (CPI)

Examples of commercially available CPIs

- LIBTAYO (cemiplimab) REGENERON
- TEVIMBRA (tislelizumab) BeOne
- KEYTRUDA (pembrolizumab) MERCK
- IMFINZI (durvalumab) AstraZeneca
- TECENTRIQ (atezolizumab) Genentech
- Jemperli (dostarlimab-gxly) GSK
- OPDIVO (nivolumab) Bristol Myers Squibb
- BAVENCIO (avelumab) EMD SERONO



- Clinical supply agreement with Regeneron for NSCLC on THIO-101
- Clinical supply agreement with BeOne Medicines for HCC, SCLC and CRC on THIO-102 planned trials

THIO-101 NSCLC TRIAL - RATIONALE

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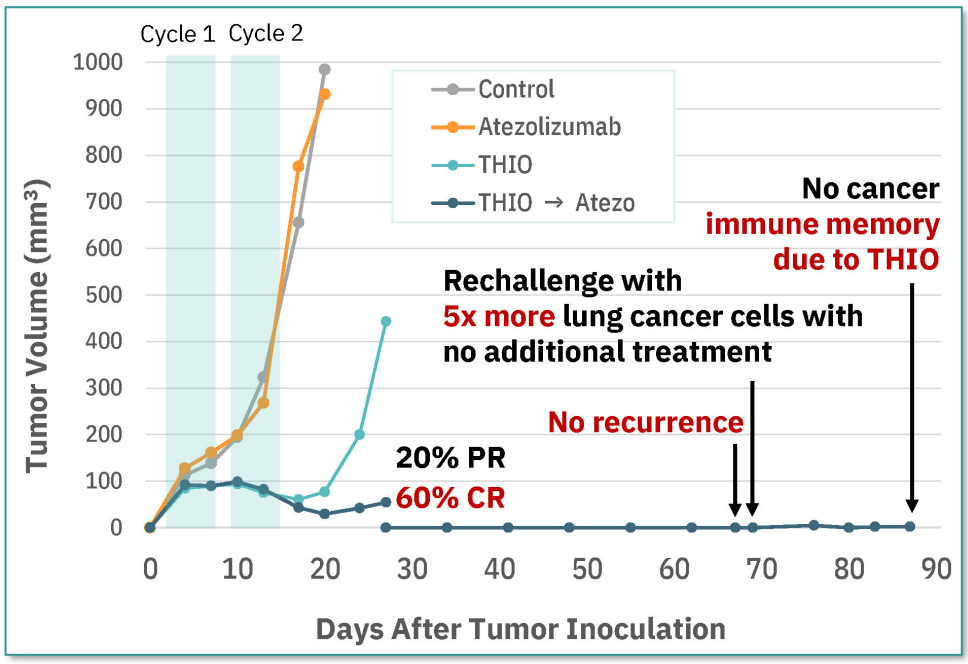
Preclinical Studies in NSCLC

- Ateganosine (THIO) followed by CPI results in 60% complete response
- Only 2 cycles of therapy were administered on weeks 1 and 2; no further therapy throughout the study
- No recurrence after long-term follow-up
- Anticancer immune memory has been induced: no cancer after rechallenge with 5x more lung cancer (LLC) cells with no additional therapy



Source: Mender et al, Cancer Cell, 2020; THIO followed by Tecentriq (atezolizumab; Roche/Genentech) tested first; repeated later with THIO followed by Keytruda (pembrolizumab; Merck); and Libtayo (cemiplimab; Regeneron). Data from preclinical results.

NSCLC CLINICAL TRIALS

THIO-101 PHASE 2 PIVOTAL TRIAL (ONGOING)

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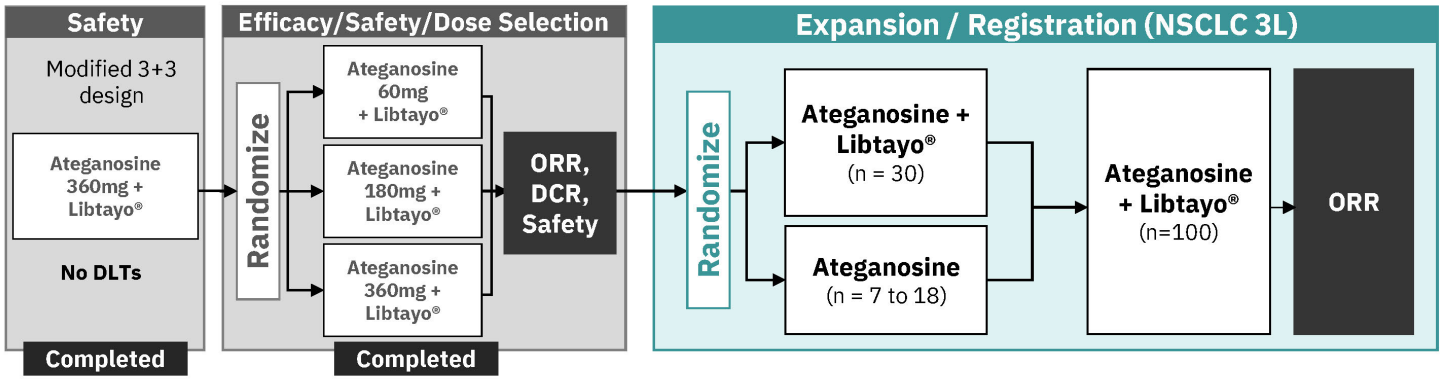
A Multicenter, Open-label, Dose-Finding Phase 2 Trial Evaluating the Safety and Efficacy of Ateganosine (THIO) Administered in Sequence with Libtayo® (cemiplimab) in NSCLC Patients Who Are Resistant to Checkpoint Inhibitors



- Total of 79 patients enrolled (24 treated in 60mg dose group, 41 in 180mg, and 14 in 360mg)
- Best dose: 180mg - selected on Nov'23
- Enrollment completed Feb'24

- Up to 148 patients – Enrollment to start in H1 2025
- Patient population:
  - CPI Resistance (SITC)
  - Chemotherapy Resistance

ClinicalTrials.gov: https://clinicaltrials.gov/study/NCT05208944

Treatment with ateganosine (THIO) + Libtayo®

Ateganosine (THIO)
Cycles every 3 weeks

Day 1	Day 2	Day 3	Day 4	Day 5
Ateganosine 60mg	Ateganosine 60mg	Ateganosine 60mg	Immune Activation	Libtayo® 350mg

Scans every 6 weeks

THIO-104 PHASE 3 PIVOTAL TRIAL (INITIATING)

MAIA BIOTECHNOLOGY
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A Multicenter, Open-label, Pivotal Phase 3 Trial Evaluating the Efficacy of Ateganosine (THIO) Administered in Sequence with Libtayo® (cemiplimab) in NSCLC Patients Who Are Resistant to Checkpoint Inhibitors and Chemotherapy

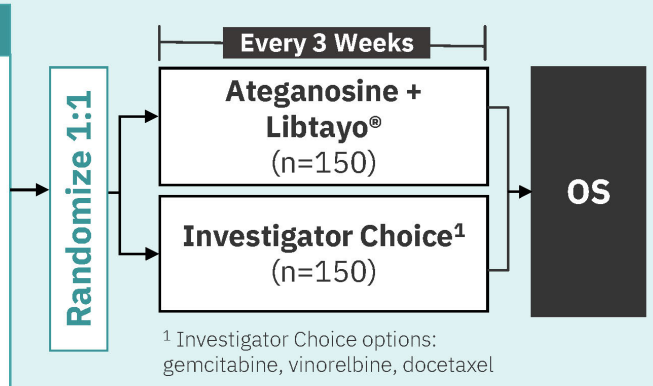
NSCLC 3L

Patient Population:

- CPI Resistance (SITC criteria)
- Prior Platinum Therapy
- 2 prior lines of systemic therapy
- Excluding Driver Mutations
- Exclude untreated or symptomatic CNS mets
- PS 0-1

Stratified by:

- Prior docetaxel vs. no prior docetaxel



Primary Endpoints	**Target OS:** 9.3m v. 5.8m (HR 0.62); **Minimum OS:** 7.8m v. 5.8m (HR 0.74)
Secondary Endpoints	DCR; ORR; DoR; PFS; Safety
Exploratory Endpoints	PK and PD: activity of Ateganosine (THIO) in circulating tumor cells measured by specific biomarkers

BEST RESULTS IN THIRD-LINE NSCLC

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THIO-101 (Pivotal Phase 2, ongoing):

- Median Overall Survival (OS) is at **17.8 months**[1]
  - 95% CI lower bound: 12.5 months
  - 99% CI lower bound: 10.8 months
- The treatment has been generally well-tolerated to date in this heavily pre-treated population[2]

3L NSCLC is an excellent market entry segment:

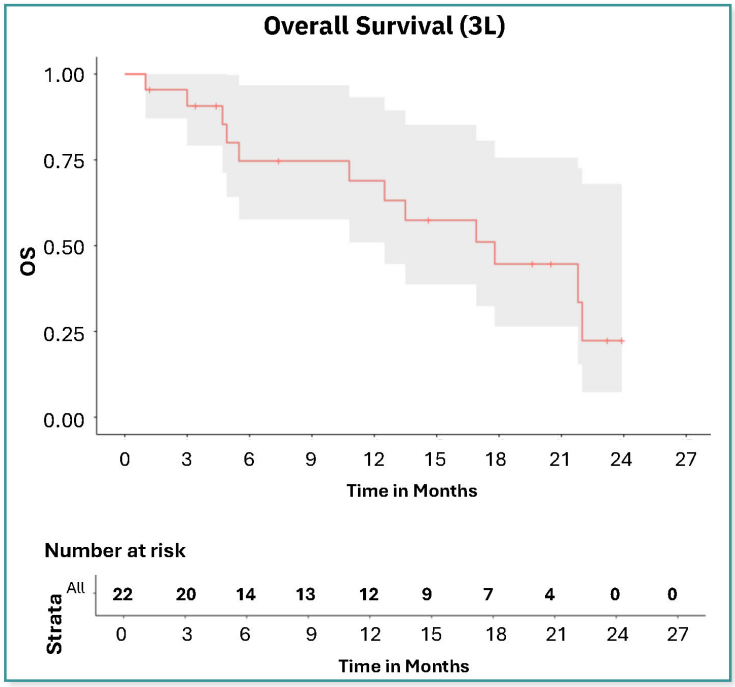
- Best results observed in THIO-101
- Highly unmet medical need in this immunotherapy-resistant and chemotherapy-resistant population
- Large population
- No current standard of care for this setting
- Limited competition for clinical trials patients

THIO-104 (Phase 3, planned):

- Full approval trial planned to start in 2025

Focus on execution:

- Probability of OS to be > 7.8 months (HR 0.74 vs. chemo) is >99%



1. Clinical data presented from **15May2025** data cut and includes all patients who received at least one dose of THIO (intent to treat population). This is a snapshot including ongoing subjects and data pending full verification. Due to short duration of treatment and/or follow up, data is subject to change.
2. Details on safety can be found on the announced ASCO 2025 poster available on MAIA's website.

EXPECTED EFFICACY IN TRIALS IN NSCLC 3L

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THIO-101 Phase 2

	Ateganosine + Libtayo® (n = 137-148)
Target Population	• CPI + Platinum Resistant • Prior treatment with docetaxel
ORR	>30%[1]

THIO-104 Pivotal Phase 3

	Ateganosine + Libtayo® (n = 150)	Chemotherapy (n = 150)
Target Population	• CPI + Platinum Resistant • Stratified: prior docetaxel vs. no prior docetaxel	
OS	**Expected:** >12 months **Needed:** 7.8 months	5.8 months[2]

1. Chemotherapy has overall response rates of ~6-10% (Girard N, et al. J Thorac Onc 2009;12:1544-1549).
2. Girard N, et al. J Thorac Onc 2009;12:1544-1549.

Note: Estimates based on the interim results observed from THIO-101.

PLANNED TRIALS IN OTHER TUMOR TYPES

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THIO-102 TRIALS (PLANNED)

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Multicenter, Open-label, Phase 2 Trials Evaluating the Safety and Efficacy of Ateganosine (THIO) Administered in Sequence with Tislelizumab in HCC, SCLC and CRC

	Part A/B: Safety/Efficacy Signal (n=~40)					**Part C:** Pivotal Phase 2 (n=~80)
THIO-102-HCC Hepatocellular Carcinoma (HCC); 2L+	Ateganosine	→ Immune Activation	→ Tislelizumab	→ ORR	→	Expansion
THIO-102-SCLC Small Cell Lung Cancer (SCLC); 2L+	Ateganosine	→ Immune Activation	→ Tislelizumab	→ ORR	→	Expansion
THIO-102-CRC Colorectal Cancer (CRC); 3L+	Ateganosine	→ Immune Activation	→ Tislelizumab	→ ORR	→	Expansion

Treatment with Ateganosine (THIO) + tislelizumab

ateganosine (THIO)
Cycles every 3 weeks

Day 1	Day 2	Day 3	Day 4	Day 5
ateganosine	ateganosine	ateganosine	Immune Activation	tislelizumab

→ **Scans every 6 weeks**

Note: Clinical trials currently in planning stage. Names of trials, indications and number of patients are subject to review and may be updated before trial initiation. Trials in solid tumors, such as Breast, Prostate, Gastric, Pancreatic and Ovarian may be pursued via investigator sponsored trials.

COLORECTAL RATIONALE

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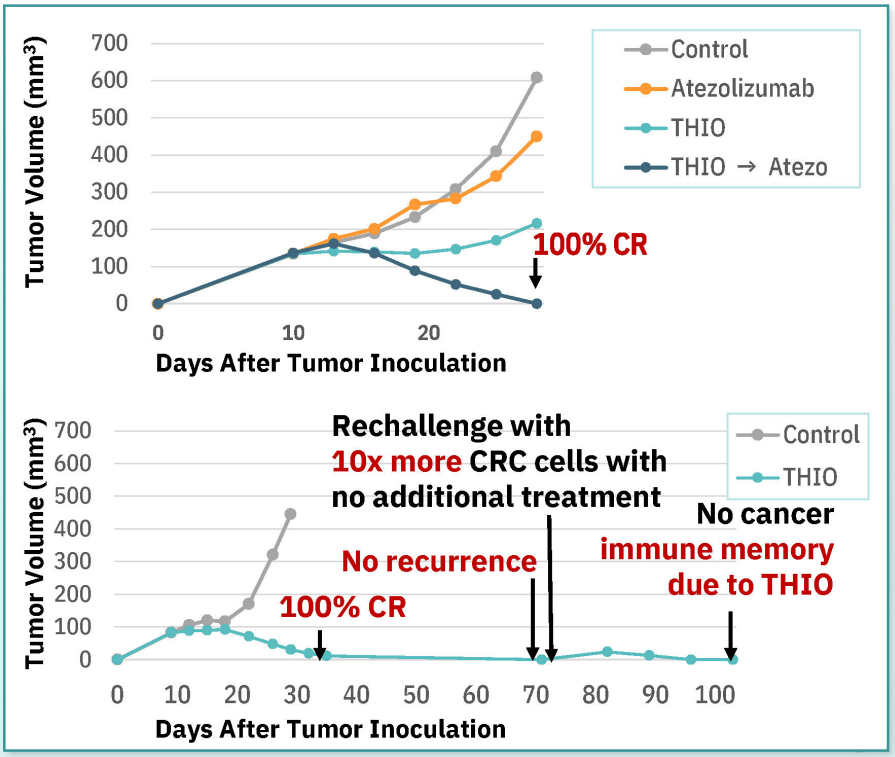
Preclinical Studies in Colorectal Cancer (CRC)

- Ateganosine (THIO) followed by CPI results in 100% complete response
- Only 2 cycles of therapy were administered on weeks 1 and 2; no further therapy throughout the study
- No recurrence after long-term follow-up
- Anticancer immune memory has been induced: no cancer after rechallenge with 10x more CRC cells with no additional therapy



Source: Mender et al, Cancer Cell, 2020.

SCLC & HCC – AWARDED ORPHAN DRUG DESIGNATIONS

MAIA BIOTECHNOLOGY
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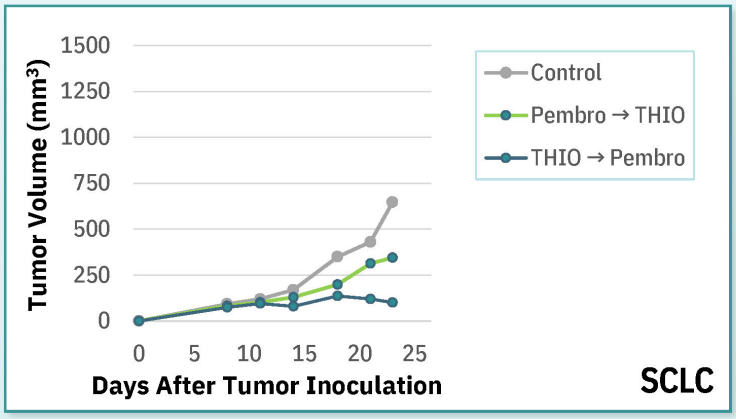
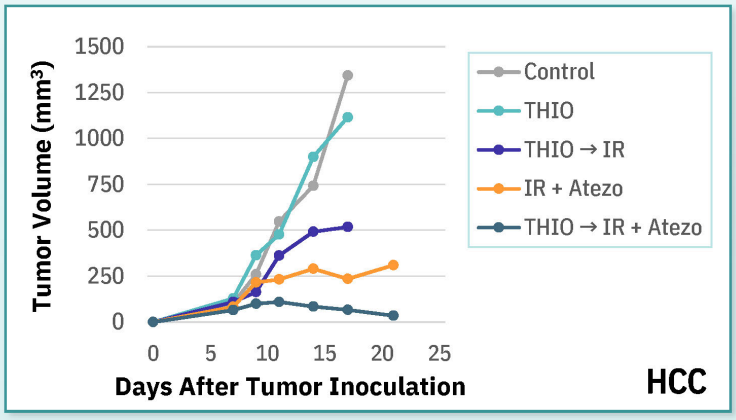
Preclinical Studies in Small Cell Lung Cancer (SCLC)

- Ateganosine (THIO) is synergistic with anti-PD-1 agent Pembrolizumab in Small Cell Lung Carcinoma (H2081) *in vivo* in humanized murine cancer model
- Treatment with ateganosine (THIO) followed by Pembrolizumab results in highly potent anticancer effect, as compared to Pembrolizumab alone
- Ateganosine (THIO) converts immunologically "cold non-responsive" SCLC tumor into "hot and responsive" to Pembrolizumab



Preclinical Studies in Hepatocellular Carcinoma (HCC)

- Ateganosine (THIO) is highly synergistic and effective in combination with anti-PD-L1 agent Atezolizumab and Ionizing Radiation (IR 10Gy) in HCC53N Hepatocellular Carcinoma
- Treatment with ateganosine (THIO) in combination with IR and Atezolizumab results in a complete regression of aggressive HCC tumors. The combination of IR and Atezolizumab is just partially efficacious



EXCELLENT EFFICACY IN HCC MODELS

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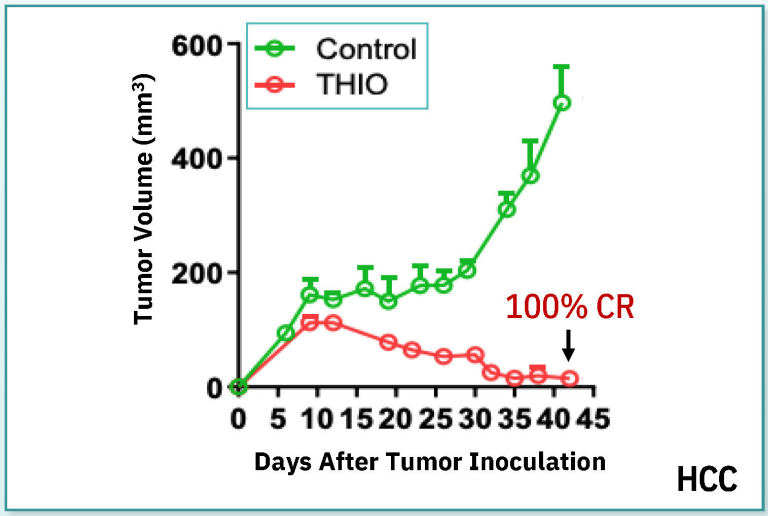
Ateganosine (THIO) achieved **complete and durable responses in Hepatocellular Carcinoma (HCC)**, the dominant histology in primary liver cancer (90%), in *in vivo* models



HCC ANTI-CANCER IMMUNE MEMORY

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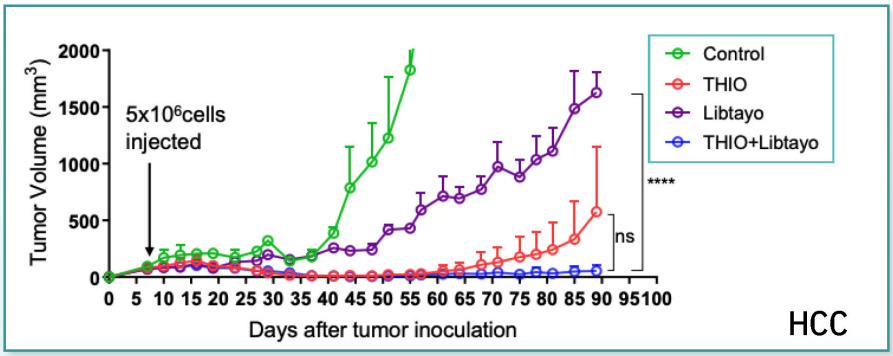
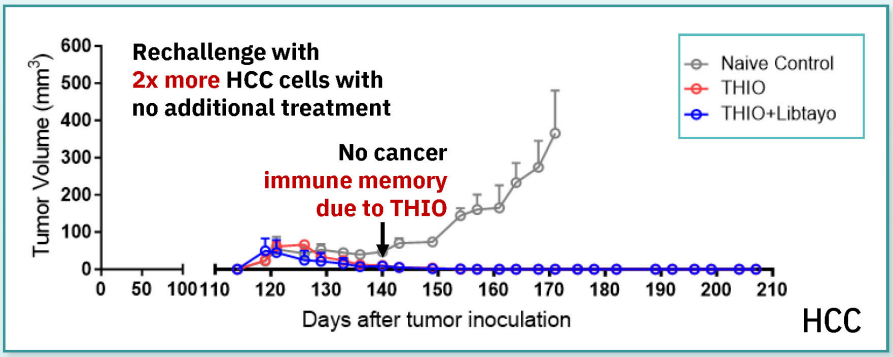
- When combined with immunotherapy checkpoint inhibitor Libtayo®, duration of response was further potentiated
- Upon rechallenge with two times more cancer cells and no additional treatment, tumor growth was completely prevented
- Administration of ateganosine (THIO) alone and in combination with Libtayo® generated anti-cancer immune memory





THIO-103 TRIAL (PLANNED)

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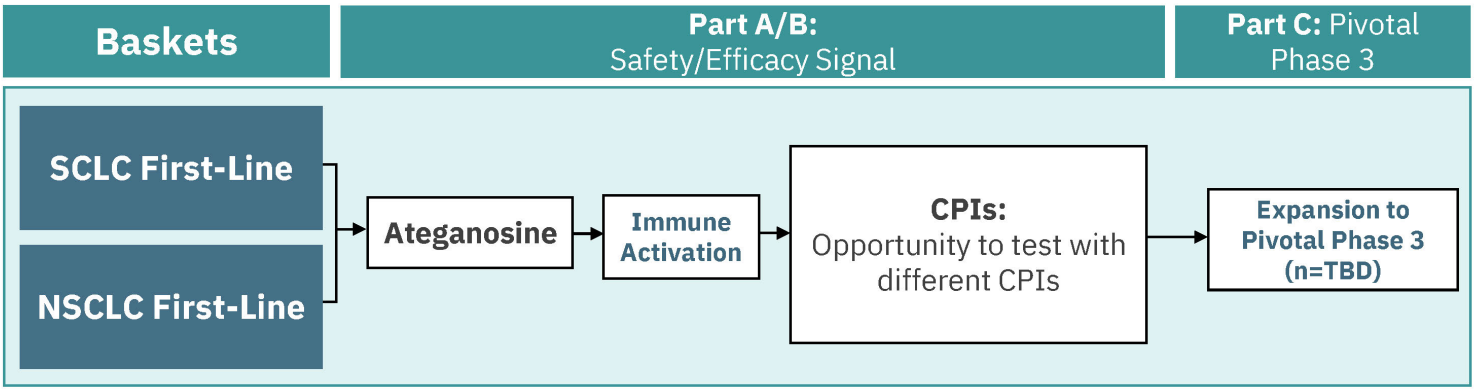
A Multicenter, Open-label, Phase 2 Trial Evaluating the Safety and Efficacy of Ateganosine (THIO) Administered in Sequence with a Checkpoint Inhibitor (CPI)



Note: Clinical trial currently in planning stage. Names of trials, indications and number of patients are subject to review and may be updated before trial initiation.

INVESTMENT OPPORTUNITY

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EXCLUSIVITY AND INTELLECTUAL PROPERTY

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Goal: New Chemical Entity (NCE) Marketing Exclusivity

- Ateganosine (THIO) has never been previously approved by the FDA for commercialization
- Robust exclusivity
  - **US:** 7 years
  - **EU, Japan, other markets:** 10 years

Robust and Growing Patent Portfolio for THIO
- 9 issued patents
- 22 pending patent applications

Current patents/provisional applications broadly cover the following key areas:
- Telomere targeting compounds (2034+)
- Ateganosine's (THIO) immunogenic treatment strategy: sequential combination with CPIs (2041)

EXPERIENCED MANAGEMENT TEAM

MAIA BIOTECHNOLOGY
NYSE American: MAIA

Vlad Vitoc, MD, MBA
Founder and CEO

- 25+ years in Oncology Pharma/ Biotech: Commercial, Medical
- 12 compounds launched across 20+ tumor types
- Leadership roles at Bayer (Nexavar), Astellas (Tarceva, Xtandi), Cephalon (Treanda), Novartis (Zometa), Incyte (Jakafi)

Sergei Gryaznov, PhD
Chief Scientific Officer

- 26+ years as Scientist
- Expert Drug Discovery and Development, Oncology with 120+ publications
- Head of the J&J Oligonucleotide Center of Excellence Worldwide
- Expert of telomeres and telomerase in cancer, co-inventor of THIO

Jeffrey Himmelreich, MBA
Head of Finance

- 20+ years of financial expertise
- CFO for privately held and publicly traded companies in the healthcare and manufacturing industries
- Active CPA licensed in the state of Pennsylvania and is a Chartered Global Management Accountant

NOVARTIS astellas Pfizer BAYER janssen Incyte Cephalon Oncology geron PHARMACIA exicure

SIGNIFICANT MARKET OPPORTUNITY

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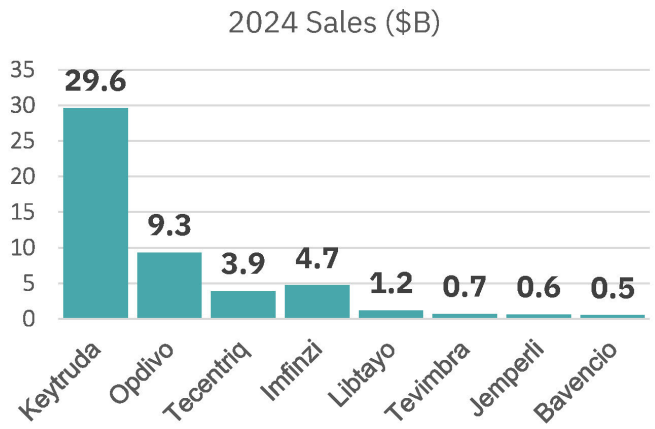
Developing agents for the top tumor types markets globally

NSCLC (#1 WW) **Mortality:** 1.7M / **Sales:** $34B	**HCC** **Mortality:** 0.8M / **Sales:** $3B
CRC (#2 WW) **Mortality:** 1.0M / **Sales:** $20B	**SCLC** **Mortality:** 0.3M / **Sales:** $2B

$50B CPIs Group (2024 Sales)

- 5 CPIs approved for NSCLC:
  > 30% of NSCLC drug sales
  > 40% of total CPI sales
- Keytruda®: NSCLC ~30% of $29.6B total

Checkpoint Inhibitors Market



- Keytruda® expected to hit $30B in 2026, biosimilars expected by 2028

COMPARABLE COMPANIES

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- **August 2022** - Bristol Myers Squibb (BMS) completed **$4.1B** acquisition of Turning Point Therapeutics
- **January 2024** - BMS completed **$5.8B** acquisition of Mirati Therapeutics

MAIA BIOTECHNOLOGY	AnaptysBio	ARRIVENT	ARCUS	Turning Point Therapeutics	MIRATI THERAPEUTICS
$60.4M	**$0.58B**	**$0.69B**	**$0.88B**	**$3.8B**	**$4.1B**
Market Cap[1]	Market Cap[1]	Market Cap[1]	Market Cap[1]	Market Cap[2]	Market Cap[2]
$2.04/share	$19.6/share	$20.1/share	$8.3/share	$76/share	$58/share
NYSE:MAIA	NASDAQ:ANAB	NASDAQ:AVBP	NYSE:RCUS	Acquired by BMS	Acquired by BMS
Clinical Development Stage	Clinical Development Stage	Clinical Development Stage	Clinical Development Stage	Clinical Development Stage	Clinical Development Stage
Phase II	**Phase III**	**Phase III**	**Phase III**	**Phase II**	**Commercial**

1. Market cap and share price (close) as of May 9, 2025 (Source: Yahoo! Finance)
2. Last known market cap and share price before acquisition (Source: companiesmarketcap.com)

MULTIPLE VALUE-DRIVING MILESTONES

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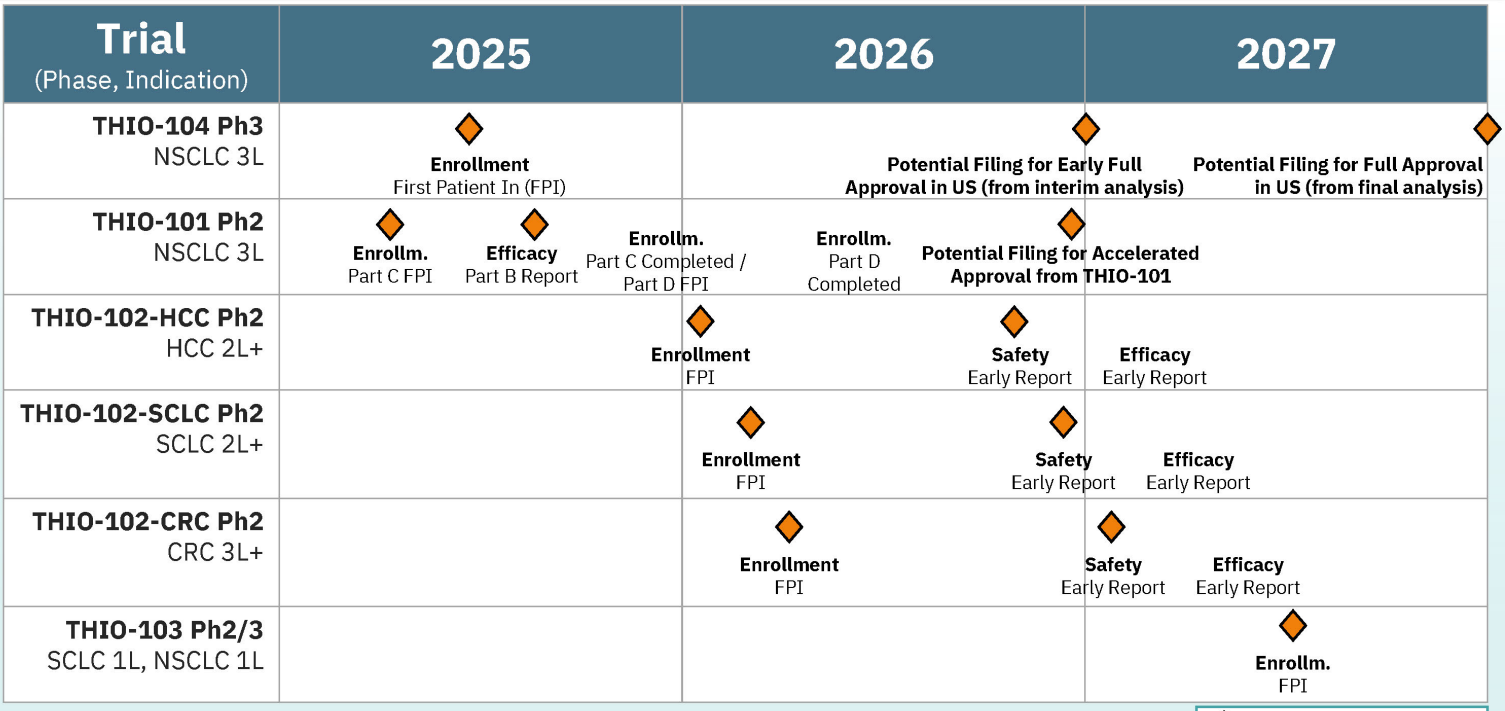

Note: Estimated timelines. Trial names, targeted indications and projected dates may be subject to changes.

THANK YOU

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APPENDIX

U.S. FDA Granted 3 Orphan Drug Designations and 1 Rare Pediatric Disease Designation to ateganosine (THIO)

- **THIO has been granted 3 Orphan Drug Designations (ODD):**
  - ✓ Hepatocellular Carcinoma (HCC, 90% of primary liver cancers)
  - ✓ Small Cell Lung Cancer (SCLC, deadliest lung cancer)
  - ✓ Glioblastoma (brain cancer)
  - The FDA's Orphan Drug Act of 1983 is designed to incentivize the development of therapies that demonstrate promise for the treatment of rare (orphan) diseases or conditions
  - Rare disease - affects fewer than 200,000 people total in the U.S, or if the cost of developing a drug and making it available in the U.S. will exceed any potential profits from its sale due to the small target population size
  - Multiple incentives - to make development more financially possible for companies to pursue:
    - ✓ up to 7 years of market exclusivity
    - ✓ up to 20 years of 25% federal tax credit for expenses the U.S.
    - ✓ waiver of Prescription Drug User Fee Act (PDUFA) fees, a value of ~$2.9 million in 2021
- **THIO has been granted 1 Rare Pediatric Disease Designation (RPDD):**
  - ✓ Pediatric-type diffuse high-grade gliomas
  - The rare pediatric disease program aims to incentivize drug development for rare pediatric diseases. A sponsor who receives an approval for a drug or biological product for a rare pediatric disease may qualify for a voucher that can be redeemed to receive priority review for a different product.