



**MAIA**  
BIOTECHNOLOGY

**TELOMERE TARGETING IMMUNOTHERAPIES FOR CANCER**  
**NYSE AMERICAN: MAIA**

September 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](http://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.

## **New science for cancer therapy with dual MoA: telomere targeting and immunogenicity.**

- ✓ Lead molecule Ateganosine (THIO) in clinic
- ✓ Second generation compounds in R&D

## **Phase 2 trial THIO-101 expansion in 2025: Ateganosine (THIO) + Libtayo® in NSCLC.**

- ✓ Unprecedented disease control, response and survival data
- ✓ Regeneron: continued clinical supply agreement for Libtayo
- ✓ Potential for accelerated approval

## **Phase 3 trial THIO-104: Ateganosine (THIO) + Libtayo® vs. Investigator's Choice in NSCLC.**

- ✓ Interim analysis can lead to potential early full commercial approval
- ✓ Final analysis for potential for commercial approval with very high probability of technical success (based on THIO-101 survival data)

## **Multiple Ateganosine (THIO) + tislelizumab trials planned for 3 additional cancer indications.**

- ✓ Colorectal cancer (CRC), liver (HCC), and small cell lung cancer (SCLC)
- ✓ BeOne Medicines: clinical supply agreement for tislelizumab

## **Significant market opportunity in hard-to-treat cancers with unmet need.**

- ✓ Non-small cell lung cancer (NSCLC): largest tumor type globally, \$34B annual sales
- ✓ Roche: master agreement signed in 2025 for a future clinical trial
- ✓ 3 FDA Orphan Drug Designations: liver (HCC), lung (SCLC) and brain (malignant gliomas)
- ✓ 1 FDA Rare Pediatric Disease Designation for children's brain cancers
- ✓ 1 FDA Fast Track Designation: 3L NSCLC patients resistant to chemo and CPI

## Ateganosine (THIO) Telomere Targeting Agent

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

## 2<sup>nd</sup> 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



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## Cancer is the most dominant age-related disease

**Population aged  
>80 expected to  
triple by 2050**

**155  
million**

**2021**

**459  
million**

**2050**



**45 countries  
have life  
expectancy  
>80 years**

**At age 90:  
40% will be diagnosed,  
20% will die of it**





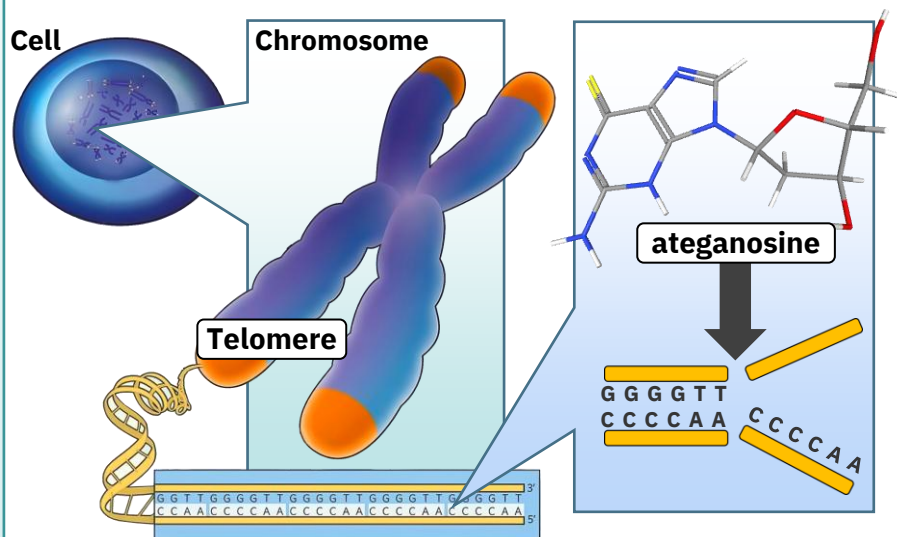
**Ateganosine (THIO)  
is the only direct  
telomere targeting  
anticancer agent  
in clinical development**



# TREATMENT WITH ATEGANOSINE

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

- 1 Telomere targeting
- 2 Immunogenic effect

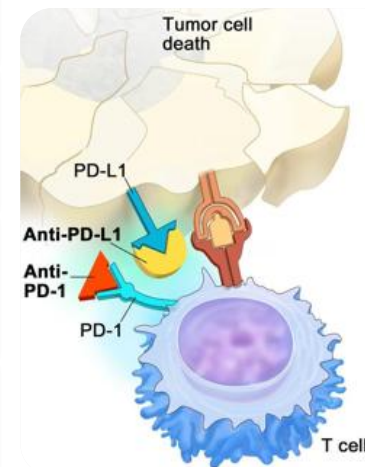


- 3 FDA Orphan Drug Designations: HCC, SCLC, Malignant Gliomas
- 1 Rare Pediatric Disease Designation (RPDD): Pediatric Gliomas

**Followed by**  
**Immune Checkpoint Inhibitor (CPI)**

**Examples of commercially available CPIs**

<b>LIBTAYO</b> (cemiplimab) <b>REGENERON</b>	<b>TEVIMBRA</b> (tisnelizumab) <b>BeOne</b>
<b>TECENTRIQ</b> (atezolizumab) <b>Genentech</b> <small>A Member of the Roche Group</small>	<b>KEYTRUDA</b> (pembrolizumab) <b>MERCK</b>
<b>IMFINZI</b> (durvalumab) <b>AstraZeneca</b>	<b>Jemperli</b> (dostarlimab-gxly) Injection 500 mg <b>GSK</b>
<b>OPDIVO</b> (nivolumab) <b>Bristol Myers Squibb</b>	<b>BAVENCIO</b> avelumab Injection 20 mg/mL <b>EMD SERONO</b>

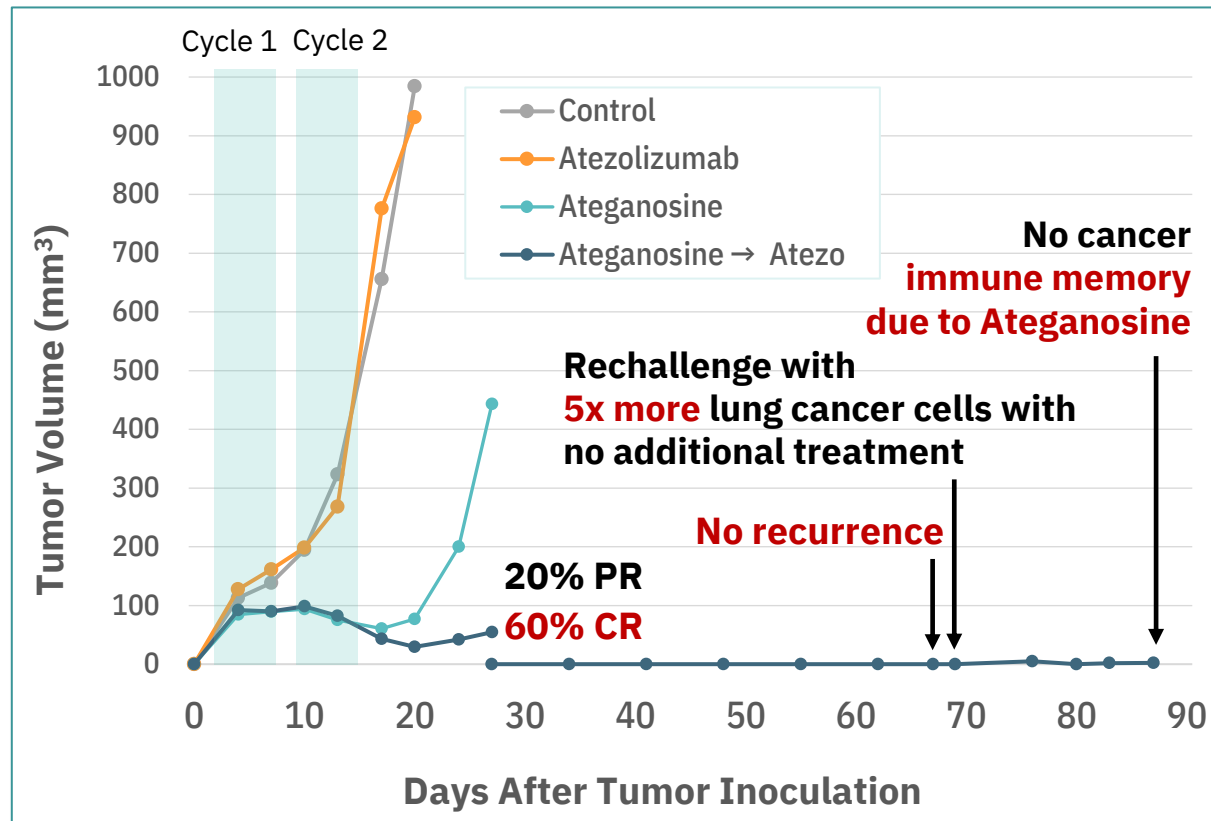


- Clinical supply agreement with Regeneron for NSCLC on THIO-101
- Clinical supply agreement with BeOne Medicines for CRC, SCLC and HCC on THIO-102 planned trials
- Master agreement with Roche for a future clinical trial



## 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



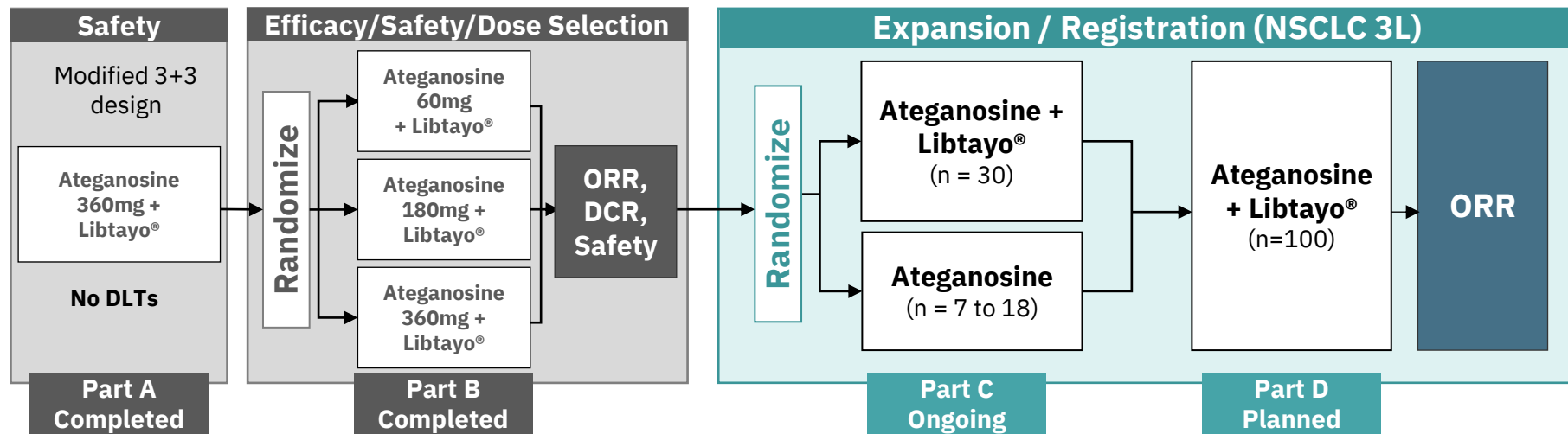
# NSCLC CLINICAL TRIALS



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# THIO-101 PHASE 2 PIVOTAL TRIAL (ONGOING)

**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

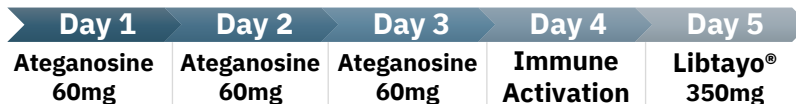
- Up to 148 patients – Part C enrollment started in Jul'25
- Patient population:
  - CPI Resistance (SITC)
  - Chemotherapy Resistance

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

## Treatment with ateganosine (THIO) + Libtayo®



**Ateganosine (THIO)**  
Cycles every 3 weeks



**Scans every 6 weeks**

# THIO-104 PHASE 3 PIVOTAL TRIAL (INITIATING)

**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

Randomize 1:1

Every 3 Weeks

**Ateganosine +  
Libtayo®**  
(n=150)

**Investigator Choice<sup>1</sup>**  
(n=150)

OS

<sup>1</sup> Investigator Choice options:  
gemcitabine, vinorelbine, 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

## THIO-101 (Pivotal Phase 2, ongoing):

- Median Overall Survival (OS) is at **17.8 months**<sup>1</sup>
  - 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<sup>2</sup>

## 3L NSCLC is an excellent market entry segment:

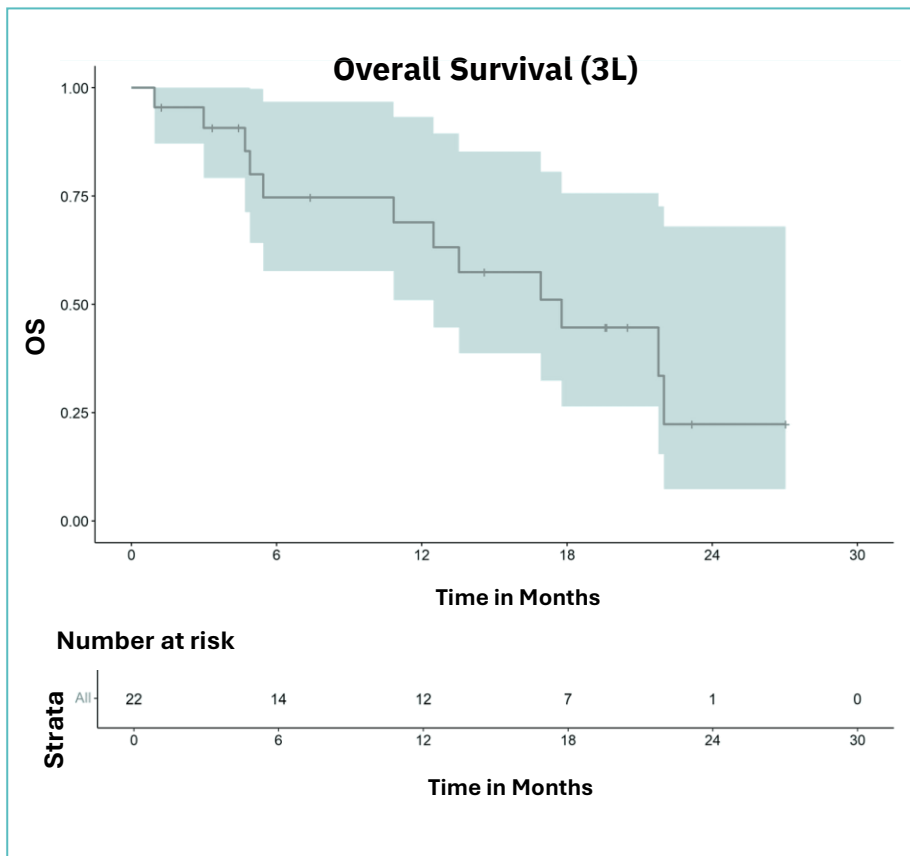
- Best results observed in THIO-101
- Highly unmet medical need in this immunotherapy-resistant and chemotherapy-resistant population
- Large population
- No current standard of care for this setting
- Limited competition for clinical trials patients

## 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 **30Jun2025** 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](#).

## THIO-101 Phase 2

	Ateganosine + Libtayo® (n = 137-148)
Target Population	<ul style="list-style-type: none"> <li>• CPI + Platinum Resistant</li> <li>• Prior treatment with docetaxel</li> </ul>
ORR	>30% <sup>1</sup>

## THIO-104 Pivotal Phase 3

	Ateganosine + Libtayo® (n = 150)	Chemotherapy (n = 150)
Target Population	<ul style="list-style-type: none"> <li>• CPI + Platinum Resistant</li> <li>• Stratified: prior docetaxel vs. no prior docetaxel</li> </ul>	
OS	<b>Expected:</b> >12 months <b>Needed:</b> 7.8 months	5.8 months <sup>2</sup>

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.

## THIO-104 Design

- OS is the primary endpoint
- 90% power to detect HR=0.62, median 9.4 months vs 5.8 months<sup>1</sup> (chemo)
- Interim analysis boundary 1-sided  $p < 0.0074$  at 131 deaths
- Final analysis boundary 1-sided  $p < 0.0228$  at 186 deaths

## Bayesian Assurance<sup>2</sup> Calculation

### All 3L patients from THIO-101

#### Control:

- Median OS assumption (literature):
  - ✓ 6.1 months (95% CI: 2.8, 8.9)<sup>3</sup>

#### Ateganosine (THIO):

- Using 3L data from THIO-101 (n=22):
  - ✓ 17.8 months (95% CI: 12.5, 22.5)<sup>4</sup>

Probability to succeed at the interim analysis = **96%**

Probability to succeed at the final analysis = **99%**

1. Girard N, et al. J Thorac Onc 2009;12:1544-1549.
2. O'Hagan A, Stevens JW, Campbell MJ. Assurance in clinical trial design. Pharmaceutical Statistics 2005; 4:187-201.
3. A.T. Freeman et al. Curr Oncol. 2020 May 1;27(2):76-82 (<https://pmc.ncbi.nlm.nih.gov/articles/PMC7253749/>)
4. Observed median OS from THIO-101 as of 30-Jun-2025.



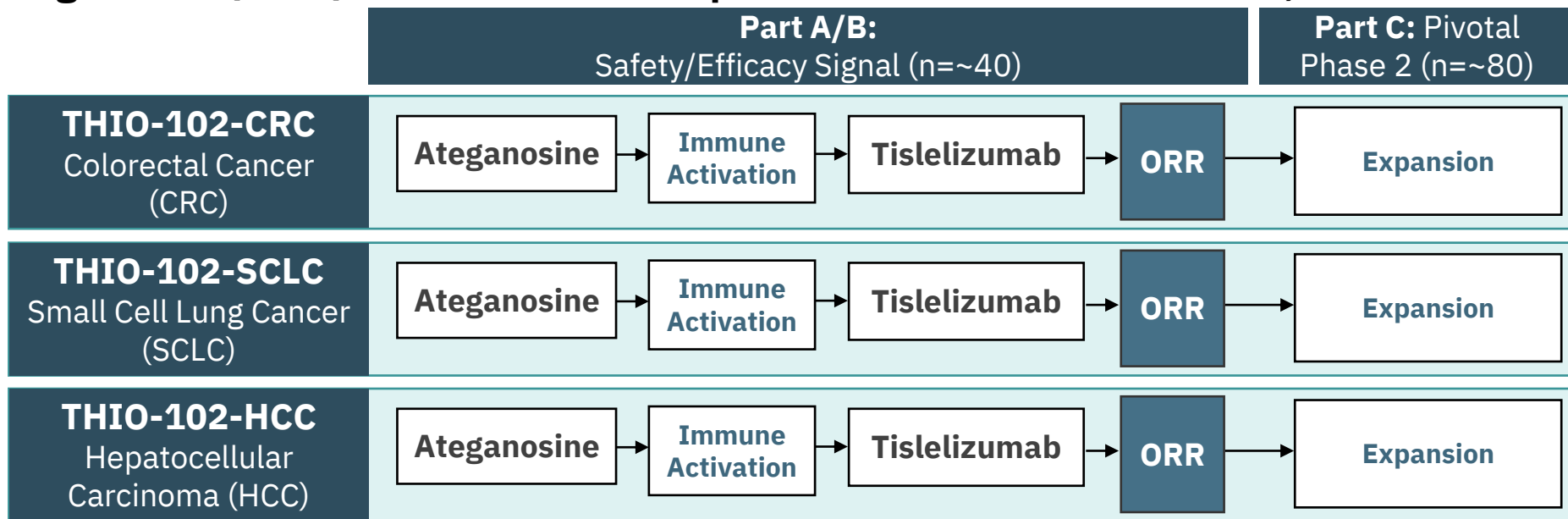
# PLANNED TRIALS IN OTHER TUMOR TYPES



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# THIO-102 TRIALS (PLANNED)

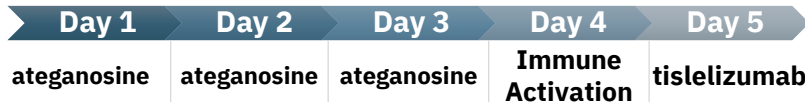
## Multicenter, Open-label, Phase 2 Trials Evaluating the Safety and Efficacy of Ateganosine (THIO) Administered in Sequence with Tislelizumab in CRC, SCLC and HCC



### Treatment with Ateganosine (THIO) + tislelizumab



**ateganosine (THIO)**  
Cycles every 3 weeks

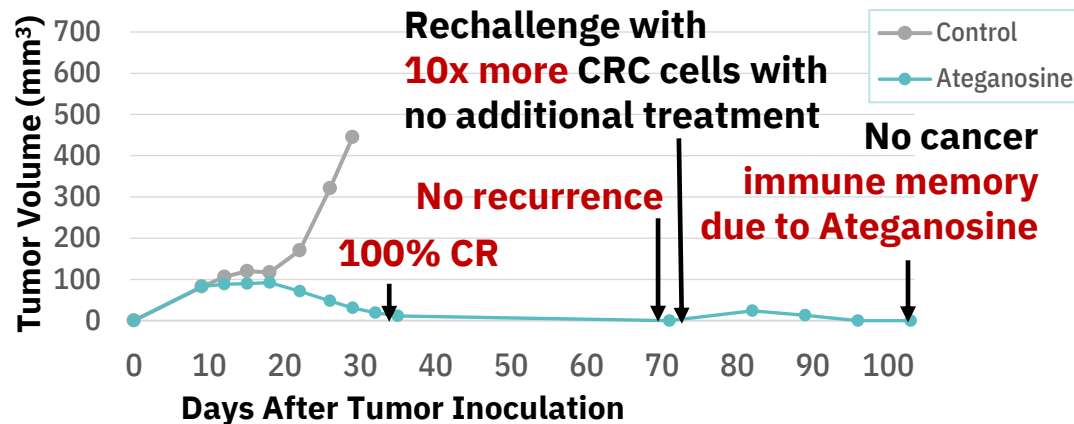
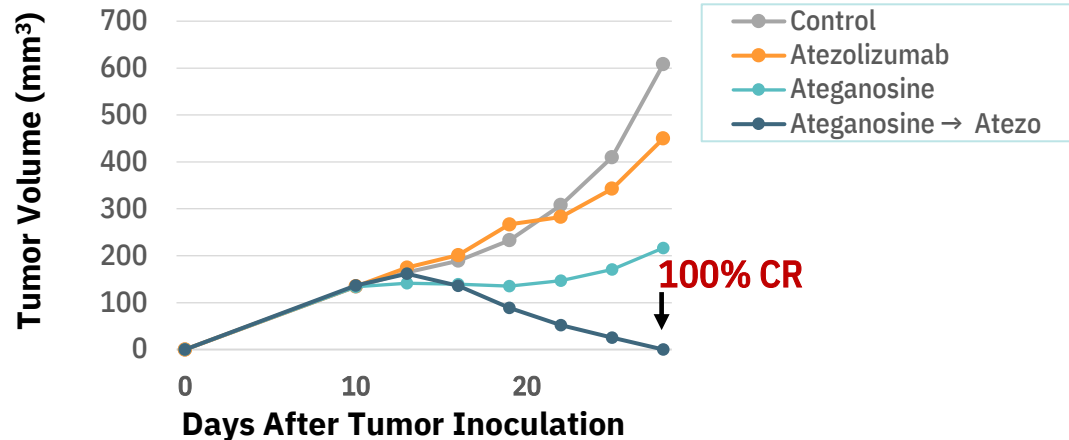


**Scans every 6 weeks**

**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.

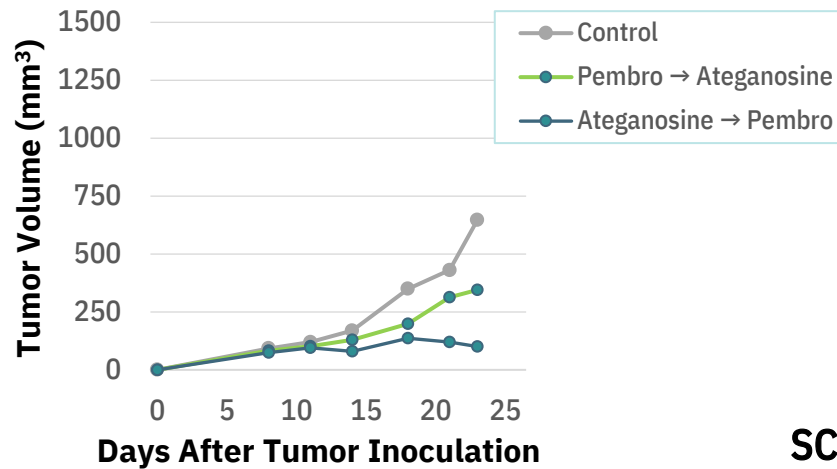
## Preclinical Studies in Colorectal Cancer (CRC)

- 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



## Preclinical Studies in Small Cell Lung Cancer (SCLC)

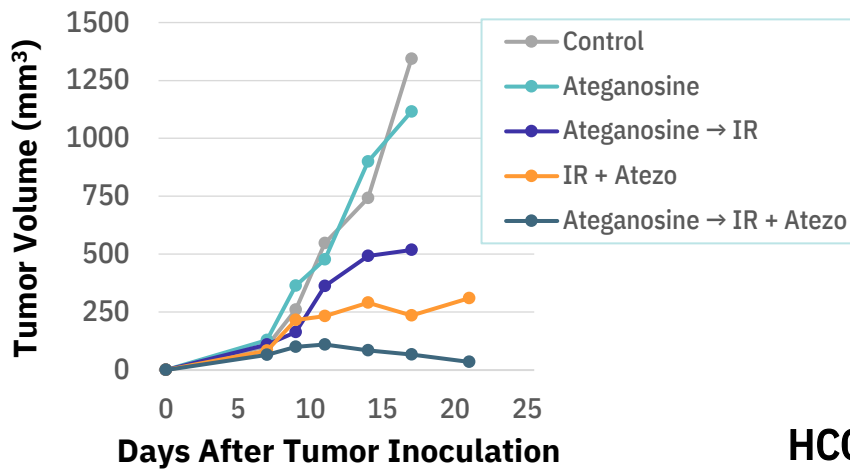
- Ateganosine (THIO) is synergistic with anti-PD-1 agent Pembrolizumab in Small Cell Lung Carcinoma (H2081) *in vivo* in humanized murine cancer model
- Treatment with ateganosine (THIO) followed by Pembrolizumab results in highly potent anticancer effect, as compared to Pembrolizumab alone
- Ateganosine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



**SCLC**

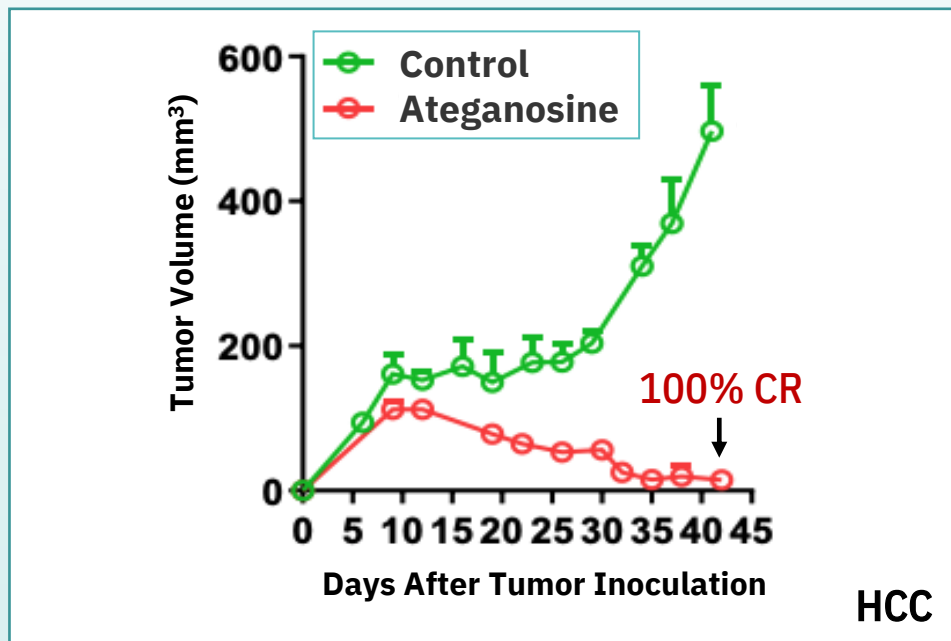
## Preclinical Studies in Hepatocellular Carcinoma (HCC)

- 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

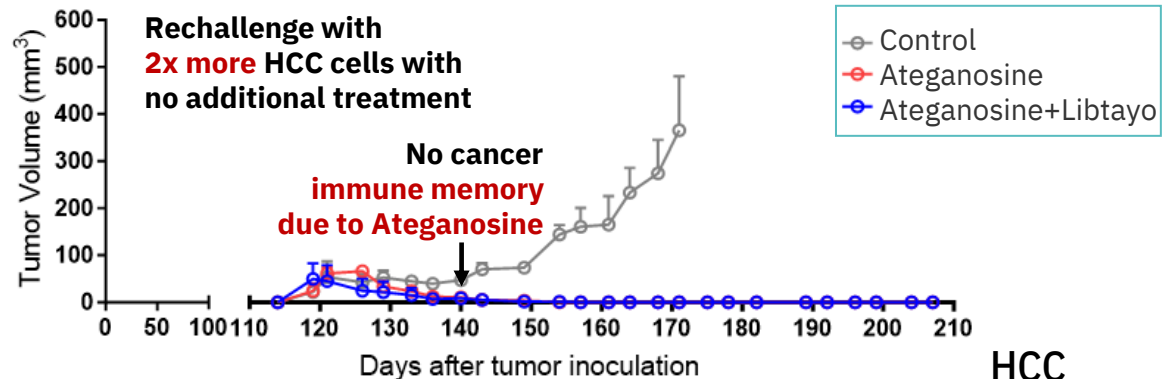
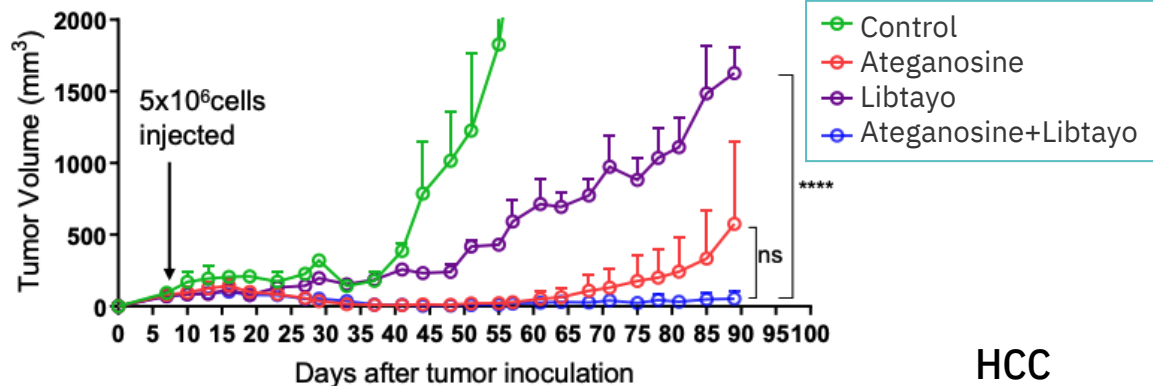


**HCC**

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



- 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



# INVESTMENT OPPORTUNITY



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# EXPERIENCED MANAGEMENT TEAM



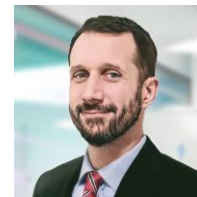
**Vlad Vitoc,  
MD, MBA**  
Founder and CEO

- 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



## Goal: New Chemical Entity (NCE) Marketing Exclusivity

- Ateganosine (THIO) has never been previously approved by the FDA for commercialization
- Robust exclusivity
  - **US:** Upon FDA approval - 5 years NCE (with additional 2 years based on Hatch Waxman for potential generic challenge), 2 years Rare Pediatric Disease designation, and 7 years Orphan Drug Designation (ODD); MAIA has obtained ODD for HCC, SCLC, Malignant Gliomas (including GBM).
  - **EU, Japan, other markets:** 10 years

### Robust and Growing Patent Portfolio for THIO

- 10 issued patents and Europe validated in 19 countries
- 36 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)

### Next generation – Composition of matter patents

- MAIA-001, Multiple Tumor Types, exclusivity to 2043
- MAIA-002, Multiple Tumor Types, exclusivity to 2044
- MAIA-003, Multiple Tumor Types, exclusivity to 2044



## 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

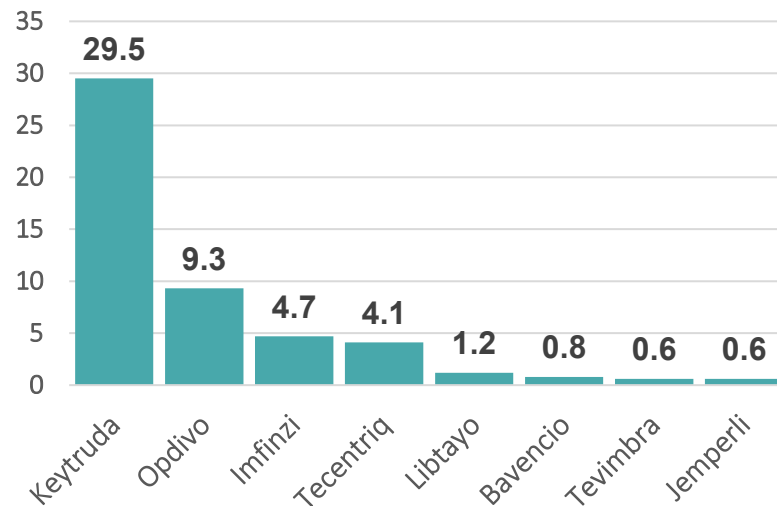


## \$50B CPIs Group (2024 Sales)

- 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

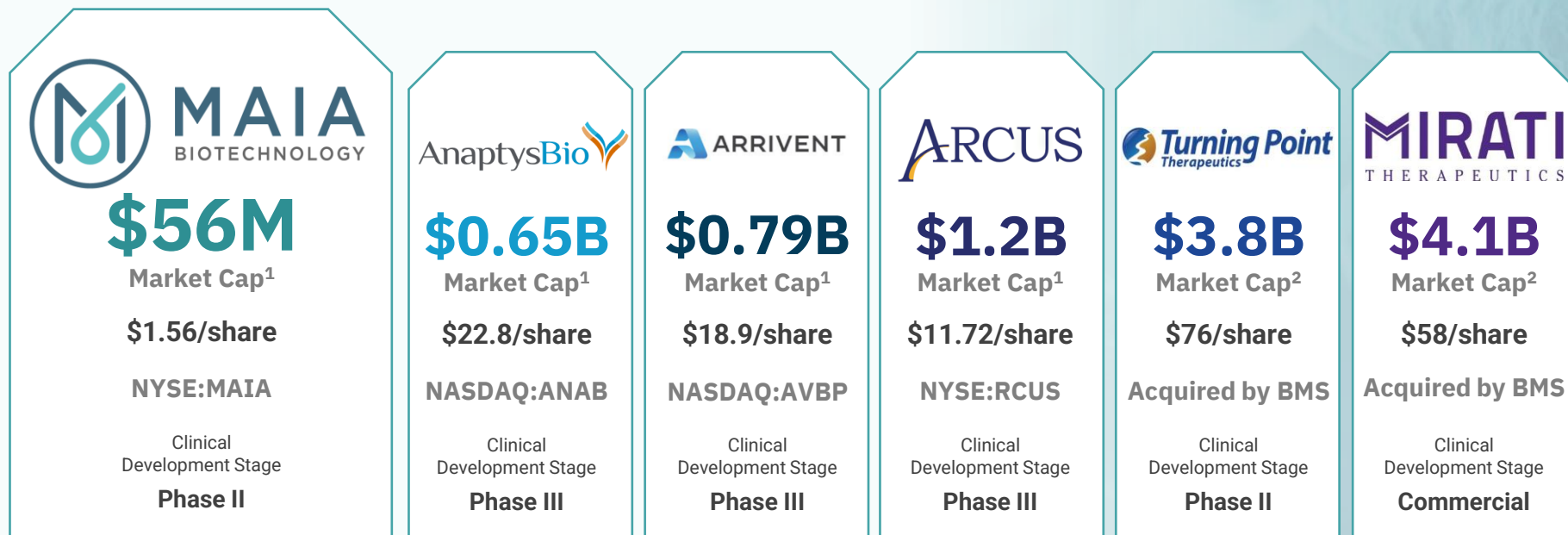
Sales (\$ B)



- Keytruda® expected to hit \$35B in 2027, biosimilars expected by 2028

# COMPARABLE COMPANIES

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



1. Market cap and share price (close) as of September 10, 2025 (Source: Yahoo! Finance)

2. Last known market cap and share price before acquisition (Source: companiesmarketcap.com)

# THANK YOU

## **Investor Relations Contact**

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## **MAIA Biotechnology, Inc.**

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# APPENDIX



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## 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

## 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.

## 1 Fast Track Designation (FTD)

### ☐ Non-Small Cell Lung Cancer

- The FDA Fast Track is a process designed to **facilitate development and expedite the review of drugs** for treating serious conditions and filling an unmet medical need, as in providing a therapy where none exists or which may be potentially better than available therapy. If relevant criteria are met during the Fast Track process, a drug will be eligible for FDA Accelerated Approval and Priority Review (FDA decision within six months).