

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): **January 10, 2025**

iBio, Inc.

(Exact name of registrant as specified in charter)

Delaware

(State or other jurisdiction of incorporation)

001-35023

(Commission File Number)

26-2797813

(IRS Employer Identification No.)

**8800 HSC Parkway
Bryan, Texas 77807**

(Address of principal executive offices and zip code)

(979) 446-0027

(Registrant's telephone number including area code)

N/A

(Former Name and Former Address)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of 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(b) 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, \$0.001 par value per share | IBIO | 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 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by checkmark 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.

iBio, Inc. (the “Company”) has updated its corporate presentation. A copy of the updated corporate presentation is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in this Item 7.01 and in the corporate presentation attached as Exhibit 99.1 to this Current Report on Form 8-K shall not be deemed to be “filed” for purposes of Section 18 of the Securities Act of 1934, as amended, or otherwise subject to the liabilities of that section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended. The information contained in this Item 7.01 and in the corporate presentation attached as Exhibit 99.1 to this Current Report on Form 8-K shall not be incorporated by reference into any filing with the Securities and Exchange Commission made by the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

The corporate presentation attached as Exhibit 99.1 to this Current Report on Form 8-K includes “safe harbor” language pursuant to the Private Securities Litigation Reform Act of 1995, as amended, indicating that certain statements contained therein are “forward-looking” rather than historical.

The Company undertakes no duty or obligation to update or revise the information contained in this Current Report on Form 8-K, although it may do so from time to time if its management believes it is appropriate. Any such updating may be made through the filing of other reports or documents with the Securities and Exchange Commission, through press releases or through other public disclosures.

Item 8.01. Other Events.

The Company has updated its corporate presentation, a copy of which is attached as Exhibit 99.1 to this Current Report on Form 8-K, for use in meetings with investors, analysts and others. The information on slides 8, 14, 15, 19, 21, 22, 23 and 25 of Exhibit 99.1 is incorporated by reference herein.

The Company, in collaboration with AstralBio Inc., has developed an antibody that inhibits the function of Activin E, a promising therapeutic target for cardiometabolic disorders and obesity using the Company’s patented Machine-Learning Antibody Engine. Using its advanced epitope engineering technology, the Company created antibodies targeting all five epitopes on the Activin E protein without producing Activin E itself.

Data collected from preclinical studies conducted by the Company show strong antibody binding to Activin E and the ability to block its signaling. The compound discovered by the Company demonstrates exceptional potency, with binding experiments indicating sub-nanomolar kinetics. In multiple cell-based assays, including studies on human adipocytes, the antibody has achieved complete blockade of Activin E-mediated signaling. Activin E plays a significant role in regulating energy homeostasis in adipose tissue and overall metabolic health.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

The following exhibits are furnished with this Current Report on Form 8-K:

| Exhibit No. | Description |
|--------------------|--|
| 99.1 | Corporate Presentation of iBio, Inc., dated January 2025 |
| 104 | Cover Page Interactive Data File (the cover page XBRL tags are embedded within the inline XBRL document) |

SIGNATURES

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

IBIO, INC.

Date: January 10, 2025

By: /s/ Marc A. Banjak

Name: Marc A. Banjak

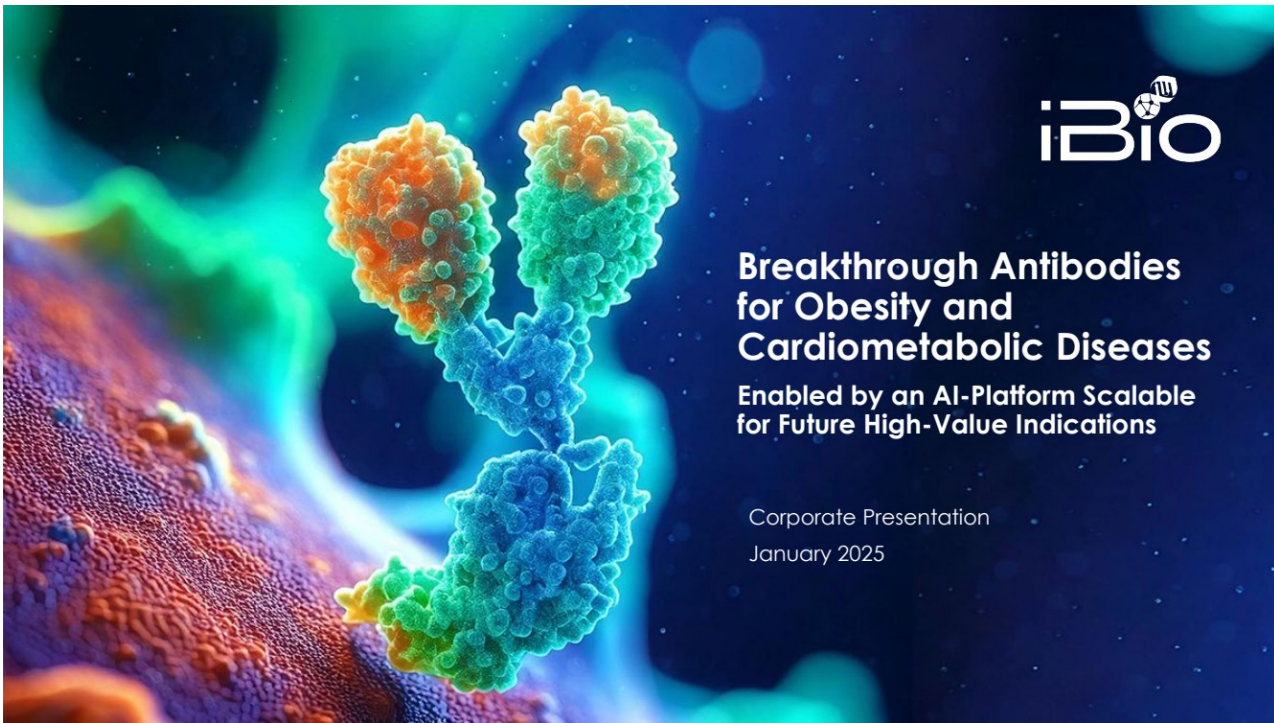
Title: Chief Legal Officer



Breakthrough Antibodies for Obesity and Cardiometabolic Diseases

Enabled by an AI-Platform Scalable
for Future High-Value Indications

Corporate Presentation
January 2025



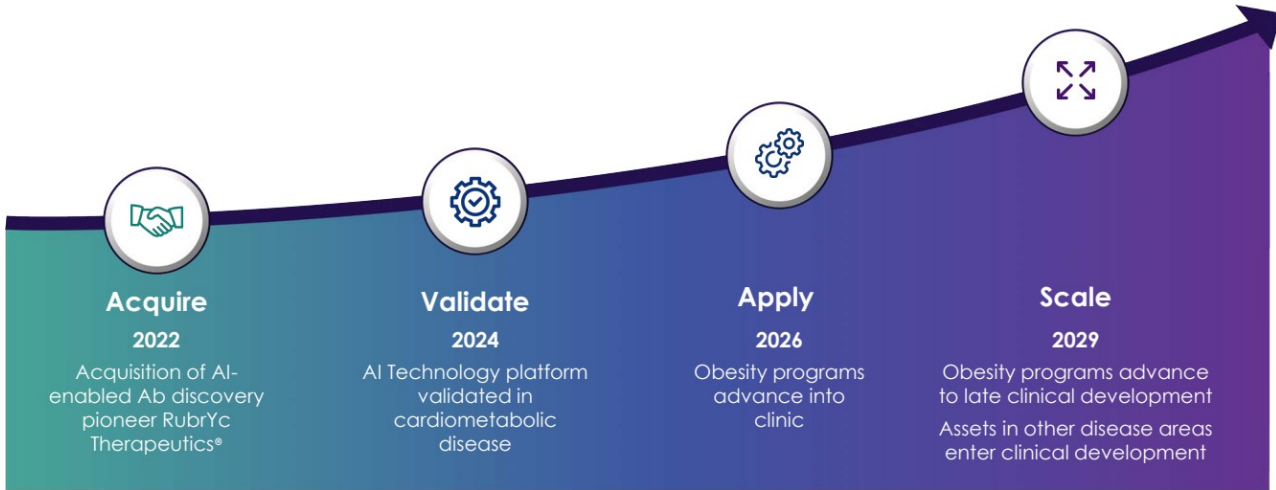
Forward looking statements

Certain statements in this presentation constitute "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Words such as "may," "might," "will," "should," "believe," "expect," "anticipate," "estimate," "continue," "predict," "forecast," "project," "plan," "intend" or similar expressions, or statements regarding intent, belief, or current expectations, are forward-looking statements. These forward-looking statements are based upon current estimates and includes statements regarding near term catalysts. While iBio, Inc., a Delaware corporation (including its consolidated subsidiaries, "iBio," the "Company," "we," "us" or "our") believes these forward-looking statements are reasonable, undue reliance should not be placed on any such forward-looking statements, which are based on information available to us on the date of this presentation. These forward-looking statements are subject to various risks and uncertainties, many of which are difficult to predict that could cause actual results to differ materially from current expectations and assumptions from those set forth or implied by any forward-looking statements. Important factors that could cause actual results to differ materially from current expectations include, among others, the Company's ability to obtain regulatory approvals for commercialization of its product candidates, or to comply with ongoing regulatory requirements, regulatory limitations relating to its ability to promote or commercialize its product candidates for specific indications, acceptance of its product candidates in the marketplace and the successful development, marketing or sale of products, its ability to attain license agreements, the continued maintenance and growth of its patent estate, its ability to establish and maintain collaborations, its ability to obtain or maintain the capital or grants necessary to fund its research and development activities, competition, its ability to retain its key employees or maintain its NYSE American listing, and the other factors discussed in the Company's most recent Annual Report on Form 10-K and the Company's subsequent filings with the SEC, including subsequent periodic reports on Forms 10-Q and 8-K. The information in this presentation is provided only as of today, and we undertake no obligation to update any forward-looking statements contained in this presentation on account of new information, future events, or otherwise, except as required by law.



An Antibody (Ab) Discovery Platform for Cardiometabolic Disease and Beyond

Advancing Antibodies Against Difficult Targets With an Integrated and Validated AI Technology Stack



iBio's AI-Driven Antibody Discovery Platform Has Delivered



Corporate Highlights

- AI-driven antibody discovery Platform including patented *Epitope steering*, *StableHu™*, *EngageTx™*, and *ShieldTx®*
- Platform has delivered Development Candidates in as little as 7 months
- 11 active programs:
 - 5 Cardiometabolic/Obesity programs - 3 of which are partnered - demonstrating the value of our approach
 - 6 in-house pre-clinical programs in immuno-oncology

Near Term Catalyst

2025

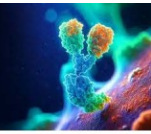
- Long-acting anti-Myostatin program; IND by Q4 '25/Q1 '26

2026

- Ph 1 trial for long-acting anti-Myostatin program initiated by 2H '26
- Additional IND by 2H '26

Any Epitope on Any Drug Target

AI Epitope Engineering and Antibody Optimization Engines unlock challenging target classes



iBio's Discovery Engine

We use our Tech Stack to generate new IP against **hard-to-drug targets** – from **idea to Development Candidate** in **7 months**



iBio's Proprietary AI Technology Platform

- **Multi-layer technology platform** addresses multiple challenges in Ab discovery
- **Patented Epitope Steering** technology
- **Single-step Ab** StableHu x Mammalian Display
- **Masked** (ShieldTx) Antibodies
- **T-cell engager panel** (EngageTx)



AI-guided precision hits that are epitope class agnostic

- Selectively targets **functional epitopes**
- Epitopes with **complex modes of action**
- Unlocks **novel target** classes
- Accelerates discovery of Ab against **validated targets**



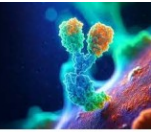
Generative AI meets mammalian display: Ab optimization in 3 weeks

- Gen AI creates **mammalian display** libraries with phage-like diversity
- Single-shot **multidimensional lead optimization**
- Compatible with **multi-specific** antibody formats
- Antibody **format agnostic**



iBio's AI Tech Stack is a Fully Integrated Solution for Antibody Discovery

Enables and accelerates Antibody Discovery & Development Against Hard-to-Drug Targets



Hard to Drug Targets



Through Complex
MOAs

AI-Enabled Epitope
Engineering



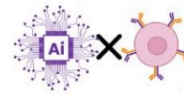
Patented
Epitope Steering

Antibody Hits



Epitope Specific
Antibody Library

StableHu Whole
Antibody Optimization



Gen AI meets
Mammalian Display

Conditionally Activated (CA)
Antibodies *ShieldTx*



Pipeline
Programs

TROP2 x CD3_CA
MUC16 x CD3_CA

CD3 T-cell Engager
Panel *EngageTx*



TROP2 x CD3
MUC16 x CD3

Bispecifics



Myostatin x Activin A



**Harnessing the Power of
Our Platform to Address
Challenges in Cardio-
metabolic Disease**



iBio's Rapidly Advancing High Value Obesity and Cardiometabolic Pipeline

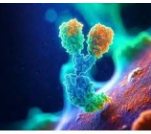


| Therapeutic Area | Program | Early Discovery | Late Discovery | Lead Optimization | IND-Enabling |
|------------------|---|-----------------|----------------|--------------------|--------------|
| Cardio-metabolic | IBIO-600 Myostatin (obesity) | | | | |
| | Myostatin x Activin A (obesity/ potentially PH-HFpEF) | | | | |
| | Activin E (obesity) | | | | |
| | Target 3 (obesity) | | | Partnered with | |
| | Target 4 (obesity) | | | | |



Current Treatments in Obesity Fall Short

Significant Unmet Medical Need for Innovation to Improve Overall Metabolic Health and Function



iBio's AI-enabled platform is addressing the challenges of current anti-obesity medicines


Losing fat is good, but losing muscle isn't
Researchers call for makers of new anti-obesity drugs to study results of body composition in addition to weight loss


News | Published: 05 March 2024
After obesity drugs' success, companies rush to preserve skeletal muscle


What's Next for Obesity Therapeutics? Higher Quality Weight Loss


GLP-1 discontinuation affirms need for holistic weight-loss plan

The Next Generation

Potential Avenues:

- **Preservation of muscle mass** during GLP-1 agonist induced weight loss
- **Improved fat burning** and prevention of dyslipidemia
- Improved cardiac function and **treatment of cardiovascular disease** related to metabolic syndrome



A Clear Strategy to Create a High-Value Pipeline of Differentiated Products

A prime opportunity exists for GLP-1 complementary therapeutic approaches



Address Challenges With Current GLP-1 Drugs

- **Muscle mass loss**
- **Side effects** leading to discontinuation
- Inconvenient **dosing frequency**
- Room for **high quality** weight loss



Focus on Highly Validated Targets

- **Preserve** and **build** muscle mass
- **Fat-specific** weight reduction
- Targeting both sides of the equation, **calorie intake** and **energy expenditure**



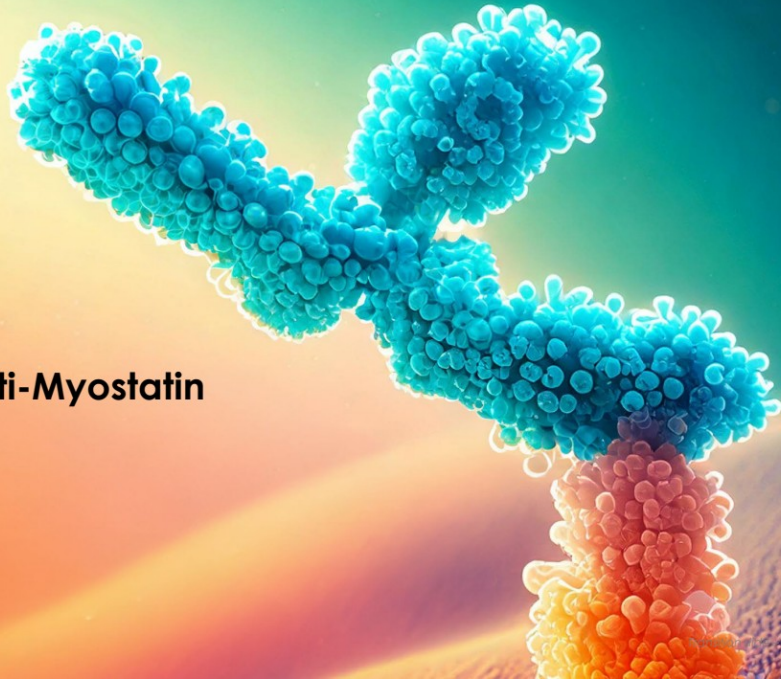
iBio's Platform Fuels a High-Value Pipeline

- Tackling **complex**, hard to drug targets
- Optimizing **function** and **developability** simultaneously
- Rapidly optimizing **multi-specifics**



IBIO-600

**Long-Acting Anti-Myostatin
Antibody**



Myostatin Antagonism

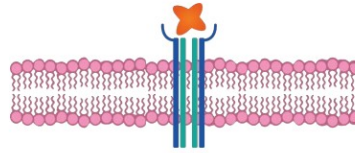
Enhancing the Quality of Weight Loss by Maintaining Muscle Mass During and After Weight Loss with GLP-1s

We are developing Myostatin inhibitors to **preserve and increase muscle mass, complementary to treatment with GLP-1 drugs**

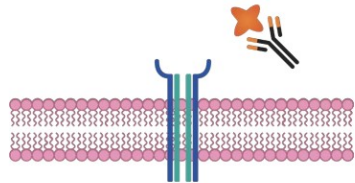
Why We Target Myostatin

- **Incretin drugs** reduce caloric intake, causing **weight loss in both fat and muscle**
- Myostatin is a **highly validated key negative regulator** of muscle mass¹
- Inhibition of Myostatin function drives significant **muscle growth without apparent adverse health effects**
- Beyond its effects on muscle, Myostatin plays a role in the **regulation of total body fat mass**²

Binding of Myostatin to cells leads to **muscle atrophy**



Blocking of Myostatin leads to **muscle growth**



1. Schuelke M. (2004). *New England Journal of Medicine* 350(2682-2688).
2. Deng, B. (2017). *Nutrition and Metabolism*, 14(29).

IBIO-600: A Long-Acting First-in-Class Anti-Myostatin Antibody

First Anti-Myostatin Antibody With a Target Product Profile Specifically Tailored for an Obese Patient Population



IBIO-600

Long-Acting Anti-Myostatin Antibody

First-in-class innovation: First Myostatin therapy tailored for large, chronic disease populations

Convenient Dosing: Half-life extension anticipated to support dosing every 2-3 months

Broad Potential: Opportunities for expansion into sarcopenia, frailty, and other age-related disorders

Highly Developable: Resistant to various stress conditions, improved expression, high thermostability¹



Target product profile characteristics for obese patients

- Well-tolerated for long-term use
- Infrequent subcutaneous self-administration



AI-enabled CDR design

- Rapidly generates novel IP
- Large library of novel lead molecules



Single-shot multi-dimensional lead optimization

- Optimized for affinity, half-life and manufacturability

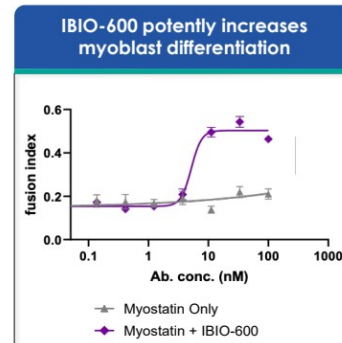
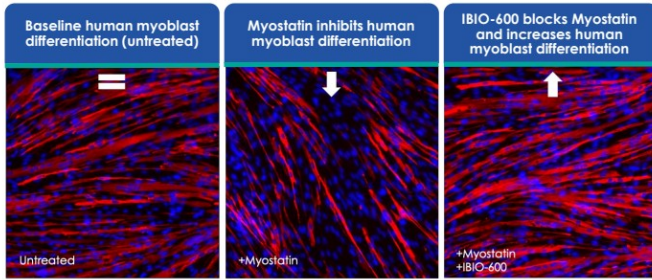


IBIO-600 Increases Muscle Differentiation in Primary Human Myoblast Cells

Red indicates muscle cell growth and development (as measured by myoblast differentiation)



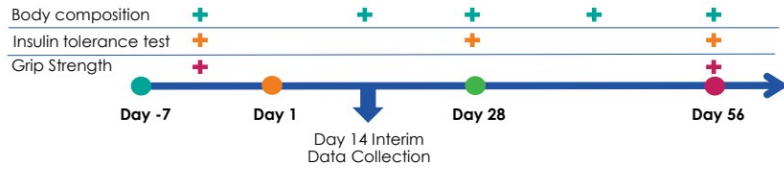
The **human Myoblast differentiation** model is **highly predictive** of **muscle growth** in humans



Interim Data: IBIO-600 Preserves Muscle Mass in GLP-1 Treated Diet Induced Obesity Mice

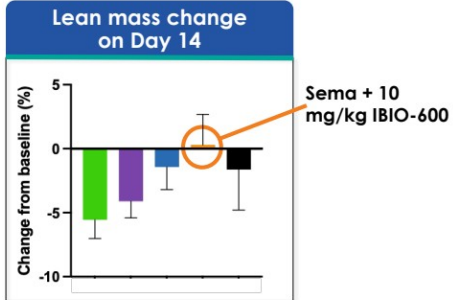
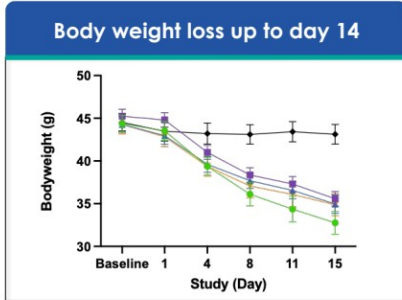


Study Design



Interim Data

- Sema only
- Sema + 1mg/kg IBIO-600
- Sema + 3mg/kg IBIO-600
- Sema + 10mg/kg IBIO-600
- No treatment



In this study the murine surrogate antibody of IBIO-600 was used

**Anti-Myostatin x Activin A
Bispecific Antibody**



Combined Myostatin and Activin A Antagonism

Synergistic Effect on Muscle Growth and Potential Treatment for Pulmonary Hypertension (PH) in Heart Failure With Preserved Ejection Fraction (HFpEF)

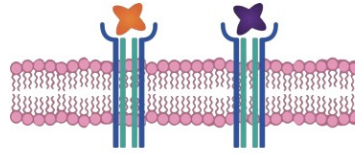


For obesity, we are developing bi-specific **co-inhibitors of Myostatin and Activin A** to **enhance muscle growth** and **improve quality of weight loss** during and after treatment with incretin drugs

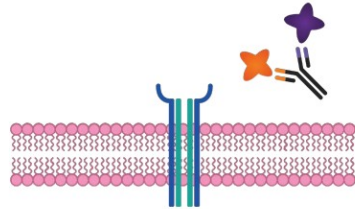
Why Myostatin & Activin A

- Myostatin and Activin A are **key negative regulators** of muscle mass
- Both are members of the TGF β superfamily
- Activin A mechanism is **pharmacologically validated**^{1, 2}
- **Combined** Activin A and Myostatin **inhibition, causes more pronounced muscle growth**³
- Myostatin and Activin A inhibition are **key features for treating PH-HFpEF**

Binding of Myostatin and Activin A to cells leads to **muscle atrophy**

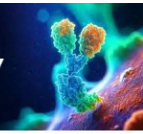


Simultaneous blocking of Myostatin and Activin A leads to **muscle growth**



1. Villanueva, J. et al. Am J Cardiovasc Drugs (2024).
2. US20220119514A1, Regeneron corporate slides
3. Latres, E. et al. Nat Commun 8, 15153 (2017).

A Long-Acting First-in-Class Anti-Myostatin x Activin A Bispecific Antibody



Myostatin x Activin A Bi-specific

First-in-class innovation: Myostatin x Activin A bispecific antibody with unique therapeutic potential

Convenient Dosing: Half-life extension potentially enables dosing every 2-3 months

Optimize Potency: Higher-valency antibody format might increase potency and reduce dose

Potential Advantage: May avoid BMP* inhibition, minimizing bleeding risks associated with ligand traps



Target product profile for obese and potentially Ph-HFpEF patients

- Well-tolerated for long-term use
- Infrequent subcutaneous self-administration



AI-enabled CDR design

- Generates novel IP
- Large library of novel lead molecules



Single-shot multi-dimensional lead optimization

- Bi-specific optimized for affinity, half-life and manufacturability



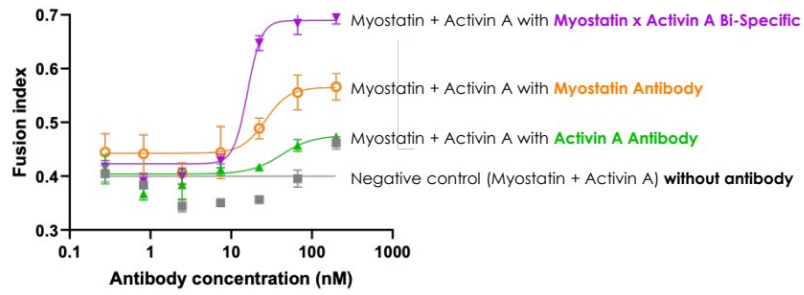
iBio's Myostatin and Activin A Bi-Specific Targets Both Key Negative Muscle Regulators, Synergistically Increasing Muscle Mass



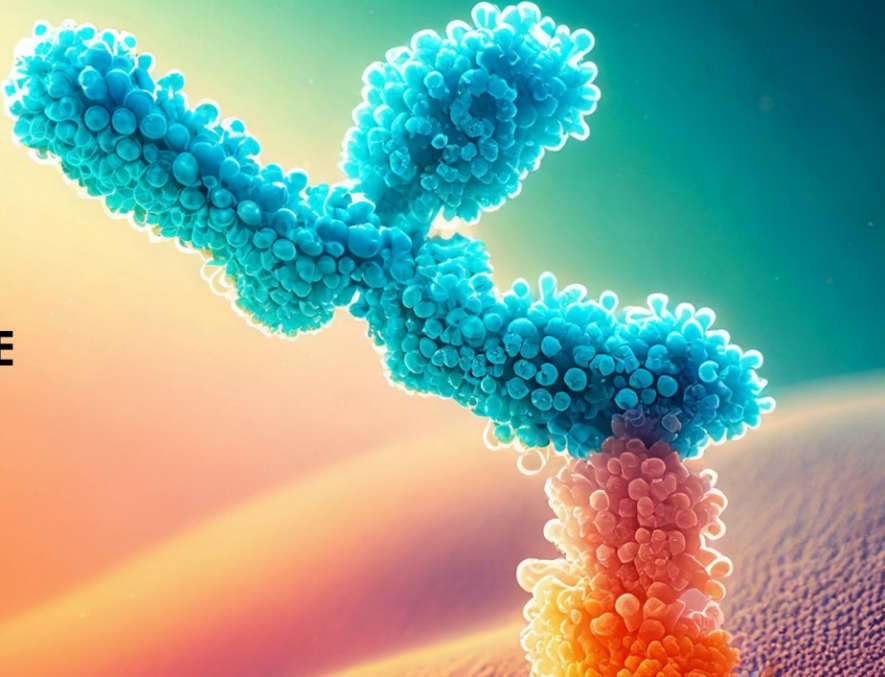
In Vitro Data

Only a Myostatin x Activin A bi-specific antibody fully blocks both muscle growth suppressors, enabling optimal growth, while single-target antibodies fall short

Increased muscle fusion index in human muscle stem cells is a surrogate of muscle growth



**Anti-Activin E
Antibody**



Activin E Antagonism

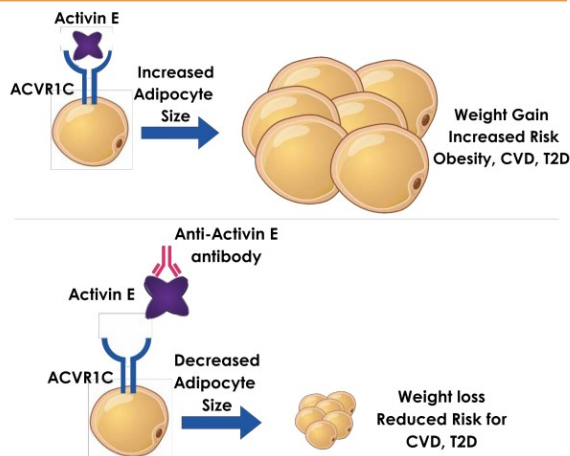
Attractive Fat-Specific Weight Loss Mechanism with Excellent Compatibility for Bi-Specific Pairing with Anti-Myostatin



We are developing **inhibitors of Activin E** to **promote fat-specific weight loss**, either as a standalone drug or as a bi-specific antibody with Myostatin.

Why We Target Activin E

- Activin E is a Hepatokine, produced in the liver and a member of the TGF β family
- Activin E and its receptor are highly genetically validated
- Genetic loss of function decreases adiposity and risk for Diabetes / Cardiovascular Disease (CVD)
- **2 RNA targeting molecules provide preclinical pharmacological validation**
- Challenge to produce active recombinant Activin E until recently has proven to be extremely difficult for antibody discovery



Type 2 Diabetes (T2D)

21



iBio's AI-Enabled Epitope Steering Engine Bypasses Recombinant Activin E, Creating Functional Antibodies Directly from the Target Sequence



Activin E Antibody

Innovative AI solution: Epitope steering engine overcame the challenge of full-length Activin E unavailability, creating a first-in-class antibody targeting Activin E

Convenient Dosing: Half-life extension potentially enables dosing every 2-3 months

Versatile Combinability: Easily integrates with other TGF β family targets into bi-specific antibodies, offering a potential alternative to incretin drugs (fat-specific weight loss with increase in muscle mass)



AI epitope engineering breaks barrier to discovery

- First-in-class functional antibody for Activin E



AI-enabled CDR design

- Rapidly generates novel IP
- Large library of novel lead molecules



Single-shot multi-dimensional lead optimization

- Optimized for affinity, half-life and manufacturability



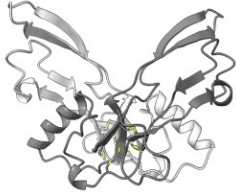
iBio's AI Engineered Epitope Engine Delivers a First-in-Class Functional Activin E Antibody



We have **uniquely solved an industry-wide problem** with our proprietary epitope engineering engine to create functional Activin E antibodies

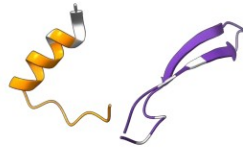
Challenge

Active, native recombinant **Activin E unavailable until recently**



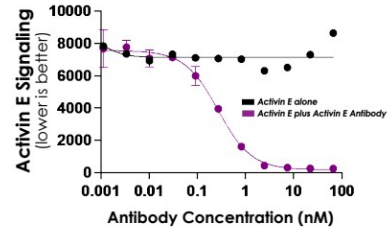
iBio's Solution

Create Engineered Epitopes to guide Antibodies against full-length Activin E



Breakthrough

First-in-Class **Activin E Antibody Blocks Activin E Signaling**



Immuno-Oncology



Beyond Cardiometabolic – Driving Value Within Our Oncology Pipeline



| Program | MoA | Potential Indications | Early Discovery | Late Discovery | Lead Optimization | IND-Enabling | Highlights |
|--|---|----------------------------------|-----------------|----------------|-------------------|--------------|---|
| IBIO-101 | Treg depletion, IL-2 sparing | Solid tumors, orphan indications | | | | | Synergistic efficacy with checkpoint inhibitors |
| CCR8 | Tumor-infiltrating Treg depletion | Solid tumors | | | | | Highly selective vs. closely related GPCRs |
| Trop-2 x CD3 ShieldTx EngageTx | Tumor-protease activated T cell engager | Solid tumors | | | | | ShieldTx technology enables masking; delivery as pro-drug activated in TME* |
| MUC16 x CD3 ShieldTx EngageTx | Tumor-protease activated T cell engager | Ovarian and pancreatic cancer | | | | | Binds membrane-proximal epitope, distinct from Regeneron MUC16xCD3 |
| EGFRvIII | ADCC-enhanced Fc | Glioblastoma | | | | | Highly selective for EGFRvIII over EGFR |
| Target 5 | Protein Complex Stabilization | Solid tumors | | | | | Innovative mechanism of action locking protein complex in inactive form |



*Tumor Micro Environment

A Leadership Team with Deep Industry Experience



Martin Brenner, DVM, Ph.D.
CEO & CSO



Felipe Duran
CFO



Marc Banjak
CLO



Kristi Sarno
Senior VP BD



Executive Summary



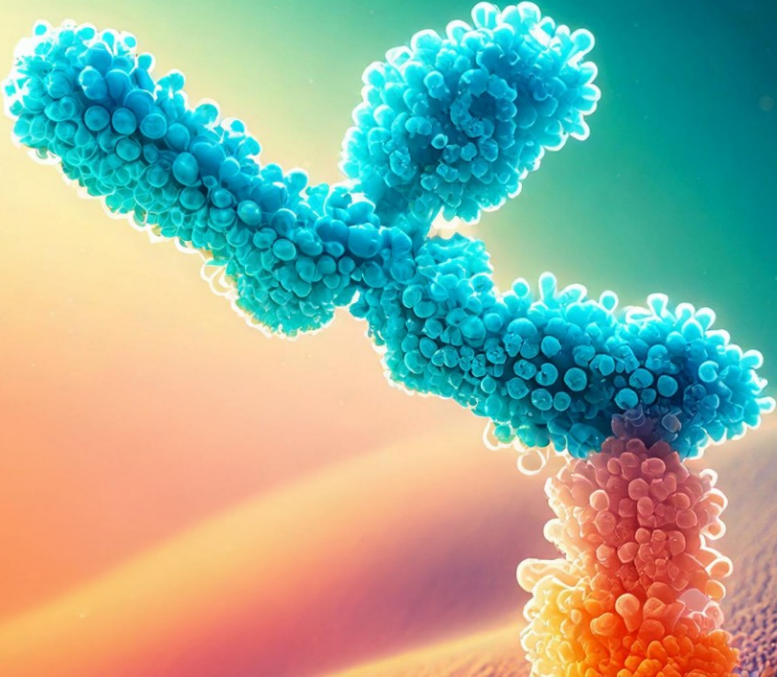
Corporate Highlights

- Patented AI-driven Discovery Tech Stack which can:
 - Rapidly advance a highly developable pre-clinical pipeline
 - Solve hard-to-drug problems
 - Pipeline of cardio/obesity rapidly progressing
 - Pipeline of immuno-oncology molecules ready for strategic partners

Financial Highlights

- \$11.3M in Cash and Restricted cash as of September 30, 2024
- Cash runway into Q1 FY26
- 9.1M shares outstanding as of November 21, 2024

Appendix



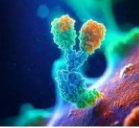
**Technology
Platform &
Preclinical
Pipeline**



Technology Stack



iBio's Tech Stack Aims to Solve Major Challenges in Antibody Discovery & Development



Epitope Steering

Unlocking Novel Biology

Pursuit of Elusive Targets

GPCRs, Ion Channels, Protein Complexes

Complex modalities

Agonistic Antibodies, Cell Activators, Protein Complex Stabilizers



Proprietary Naïve mAb Library

Improved Speed and Developability

Fully human Ab

Reduced immunogenicity risk by clinically validated Ab frameworks

Speed

Rapid hit ID vs immunization campaigns

Improved Developability

Known sequence liabilities eliminated



StableHu & Mammalian Display

Library Diversity

ML tools create focused diversity with smaller library size

Speed

Simultaneous, Multi-Dimensional Optimization

Improved Developability

Mammalian Display with production cell lines exclusively yields expressible clones



Optimized Antibody Leads

Reduced Lead-Optimization Time

Optimization in less than **4 weeks**

Minimized Developability Risk

Mammalian Display in Manufacturing Cell Line

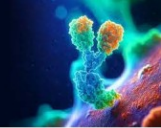
Potential for Improved Safety

Selective "on-tissue" action of masked antibodies

First in Class Antibodies and / or Best in Class Antibodies



iBio's Tech Stack Addresses Immuno-oncology Discovery and Development Challenges



EngageTx

2nd Gen T-cell Engager Panel

Sequence Diversity

Increased humanness and broad CD3 activity for optimized pairing with antigen arms

Hu-Cyno Cross Reactivity

Risk reduction via cyno monkey toxicity study compatibility

Range of Cytokine Release

Tailored cytokine release for expanded therapeutic window



ShieldTx

Greater Safety With Tissue Specificity

Seamlessly Integrated Ab Masking

Engineered epitopes serve dual purpose for raising and masking of Abs

Flexibility in Candidate Selection

Simultaneous co-optimization of Ab, mask and linker provides maximized flexibility in candidate selection



Enhanced Efficacy and Safety of I/O Antibody Leads

Finely tuned T-cell engagement

Adjustable T-cell engagement to fit any tumor target engager

Improved safety prediction

Cyno cross reactivity allows for better preclinical safety assessment

Improved Safety Profile

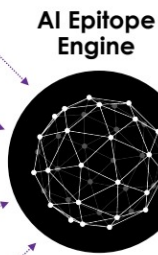
Tissue selective action through "smart", conditionally activated, antibodies



Unlocking High-Value Drug Targets: AI-Engineered Epitopes are Generalizable to a Broad Set of Complex Structural Drug Binding Sites



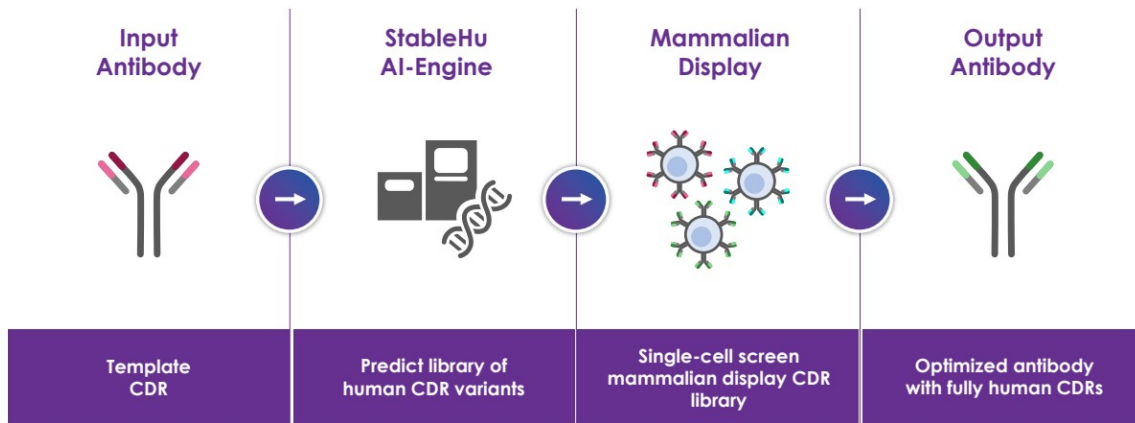
- Loop Display
- Junctional Epitopes
- Complex Secondary Structures
- Membrane Proteins (e.g. GPCR)



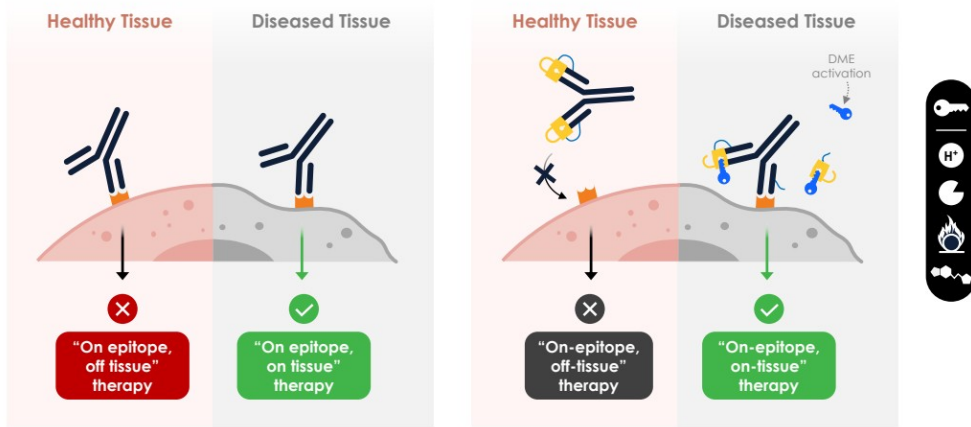
| | | |
|---|--------------------------------------|--|
| 1 | Match Engineered Structure to Target | |
| 2 | Refined for Greater Stability | |
| 3 | Optimized for Water Solubility | |



Accelerate Success: StableHu Antibody Optimization & Mammalian Display Screening Propel Faster, Cost-Effective Antibody Development



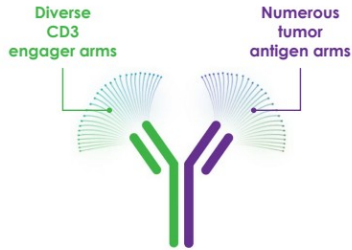
"Smart" Antibodies: ShieldTx Conditionally Activated Antibodies Strive to Improve Safety by Selectively Targeting Diseased but not Healthy Tissue



EngageTx, a CD3-Based T-Cell Engager Panel, Addresses 3 Key Challenges: Cytokine Release, NHP Cross-Reactivity and Immunogenicity Risk

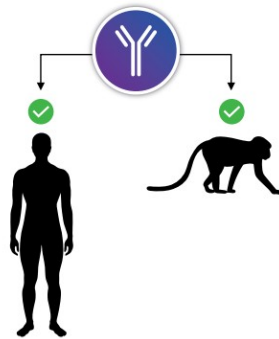
1 Sequence Diversity

Increased humanness and broad CD3 activity for optimized pairing with tumor antigen arms



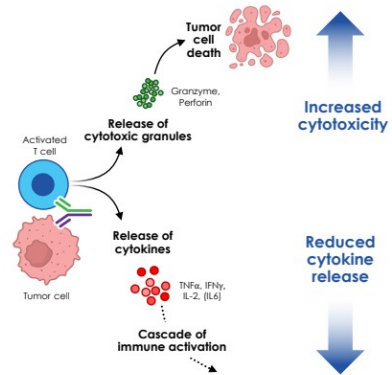
2 Hu-Cyno Cross-Reactivity

Risk reduction via cyno monkey toxicity study compatibility

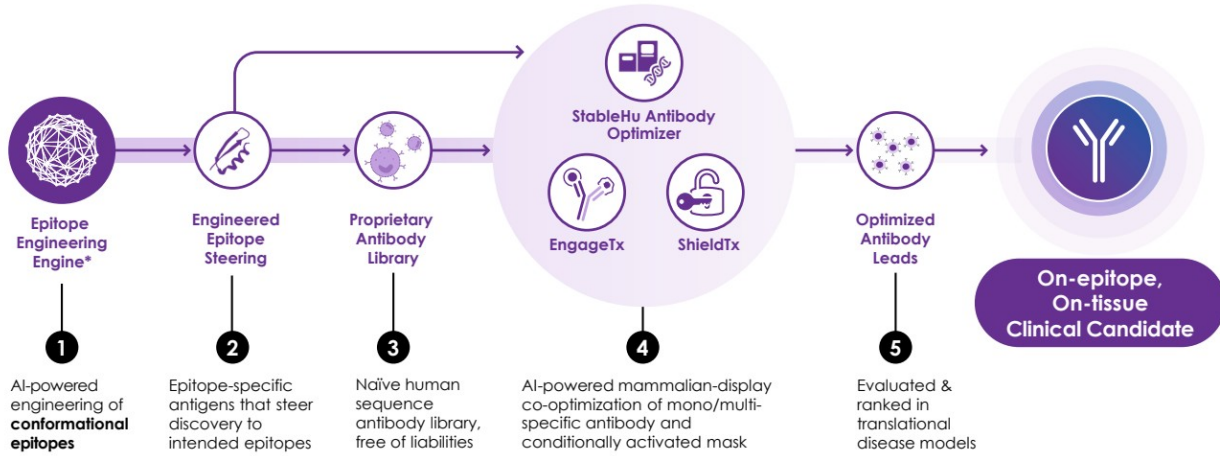


3 Range of Cytokine Release

Tailored cytokine release for expanded therapeutic window



iBio's Platform Tackles Discovery Challenges for the Next Era of Antibodies



* U.S. Patent No. 11,545,238 (issued January 3, 2023)

IBIO-101
IL-2 Sparing Anti-CD25



IBIO-101 for Regulatory T-Cell (T_{reg}) Depletion



Target Mechanism

Depletion of immunosuppressive T_{regs} via antibody dependent cellular cytotoxicity (ADCC), without disrupting activation of effector T-cells (T_{effs}) in the tumor microenvironment

Potential Indications

- Solid tumors
- Hairy cell leukemia
- Relapsed mult. myeloma
- Lymphoma
- Head & neck cancer

Differentiation / Opportunity

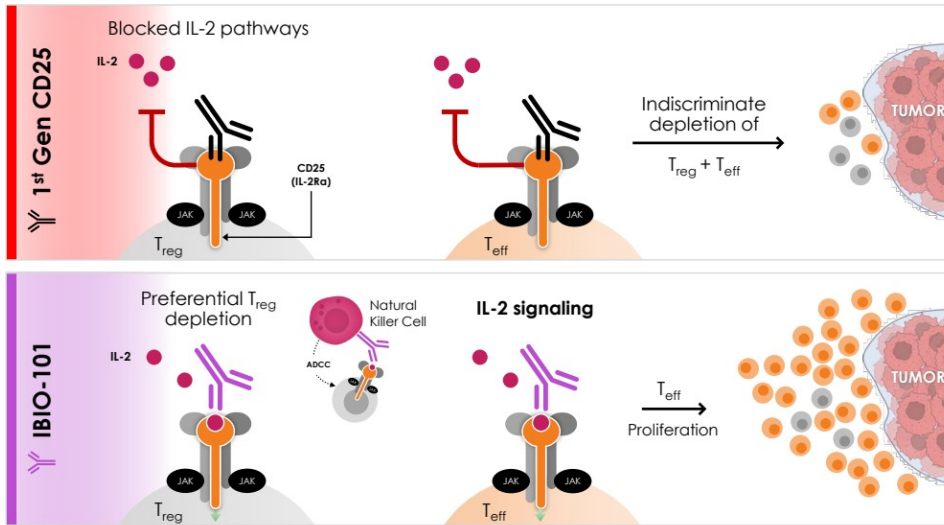
- IL-2 sparing anti-CD25 antibodies enables depletion of T_{regs} without affecting T_{effs}
- Fast-follower to Roche's RG6292 clinical molecule

Recent Transactions & Milestones



*Roche acquisition of Tusk Therapeutics completed for €70M upfront, acquiring worldwide rights to anti-CD25 program. Values converted to dollars as reported in public press releases
**Data presented by Roche at AACR 2023

IBIO-101 Reduces Tumor Growth in Preclinical Studies by Selectively Depleting Immunosuppressive T_{reg} s without Affecting Cancer Killing T_{eff} s



1st gen CD25 mAbs depleted immuno-suppressive T_{reg} and immuno-stimulatory T_{eff}

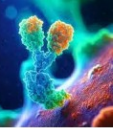
Limited efficacy

2nd gen IBIO-101 selectively targets T_{reg} s without blocking IL-2 signaling to T_{eff} s

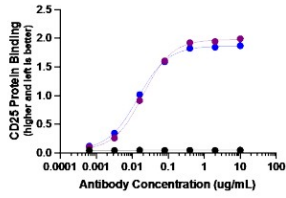
Strong preclinical anti-tumor response



IBIO-101 Selectively Depletes Tregs

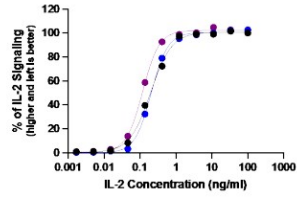


IBIO-101 potently binds recombinant CD25



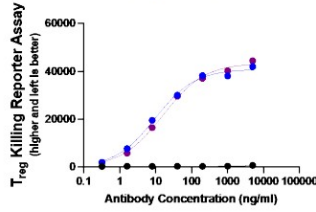
- Negative control, EC_{50} = no binding
- IBIO-101, EC_{50} = 16.4 ng/ml
- RG6292 (Roche), EC_{50} = 24.7 ng/ml

while preserving IL-2 signaling



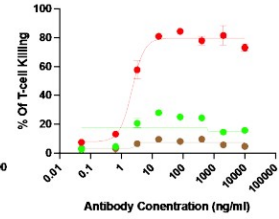
- IL-2, EC_{50} = 0.11 ng/ml
- IBIO-101, EC_{50} = 0.17 ng/ml
- RG6292, EC_{50} = 0.14 ng/ml

which leads to T_{reg} depletion



- Negative control, EC_{50} = no cell killing
- IBIO-101, EC_{50} = 4.7 ng/ml
- RG6292, EC_{50} = 18.6 ng/ml

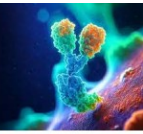
while sparing T_{effs}



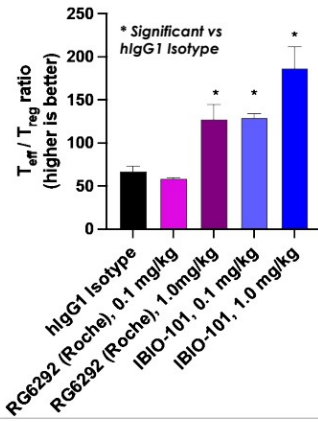
- T_{reg} killing, EC_{50} = 7.09 ng/ml
- Activated $CD4^+$ T_{eff} killing, EC_{50} = no activity
- Activated $CD8^+$ T_{eff} killing, EC_{50} = no activity



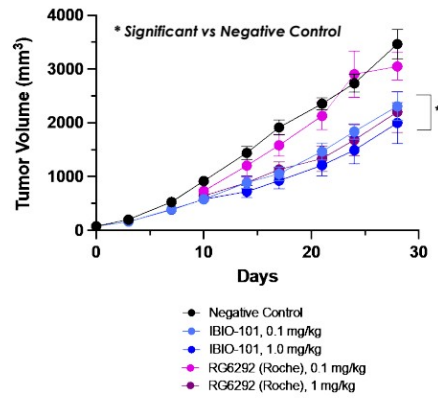
IBIO-101 Increases in T_{eff}/T_{reg} Ratio in Preclinical Studies Inhibiting Tumor Growth



Potently increases T_{eff}/T_{reg} ratio¹



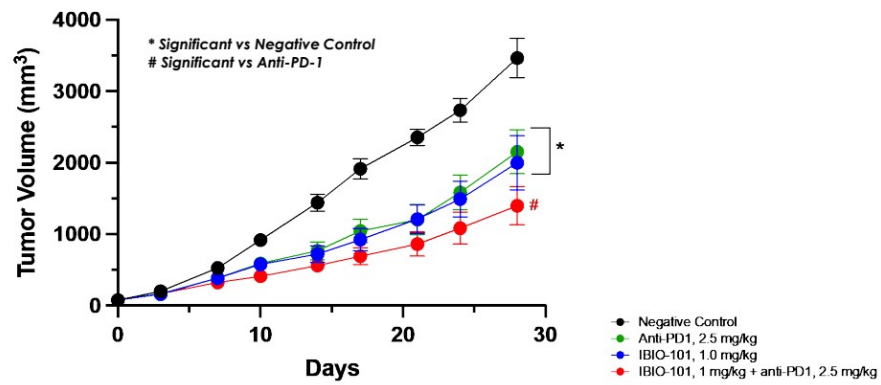
Tumor growth inhibition correlates with T_{eff}/T_{reg} ratio



IBIO-101 in Combination With a Checkpoint Inhibitor Shows Greater Efficacy



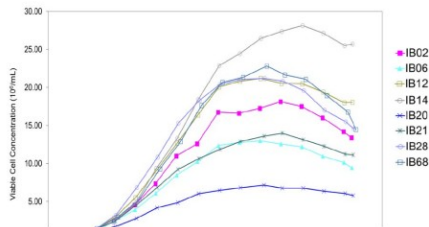
IBIO-101 + PD-1 Checkpoint Inhibitor In PreClinical Studies Enhances Tumor Suppression



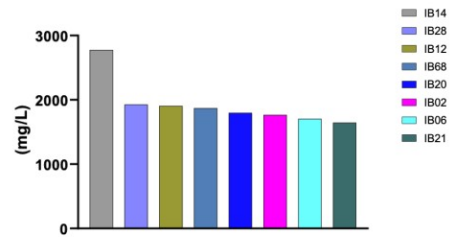
IBIO-101 is an Antibody With Favorable Characteristics for CMC Development



Potential for Master Cell Bank (MCB) Development From 8 Promising Cell Lines



Unoptimized Cell Lines Already Show Promising IBIO-101 Yields



- Identified manufacturing partner to produce IBIO-101 for Phase 1&2 clinical trials
- Discovered suitable cell lines for manufacturing MCB
- Established IBIO-101 CMC methodology for producing high yield, high purity, stable product under cGMP conditions



Anti-CCR8

High ADCC Anti-CCR8
for the Depletion of
T-regulatory Cells



CCR8 for Tumor-Infiltrating T_{reg} Depletion



Target Mechanism

Tumor-infiltrating Tregs highly express CCR8. iBio program targets depletion of highly immunosuppressive CCR8+ Tregs in tumor microenvironment via an ADCC mechanism.

Potential Indications

- Broadly applicable in solid tumors
- Prospective combination therapy

Differentiation / Opportunity

- Selective binding to CCR8 over its close homolog, CCR4

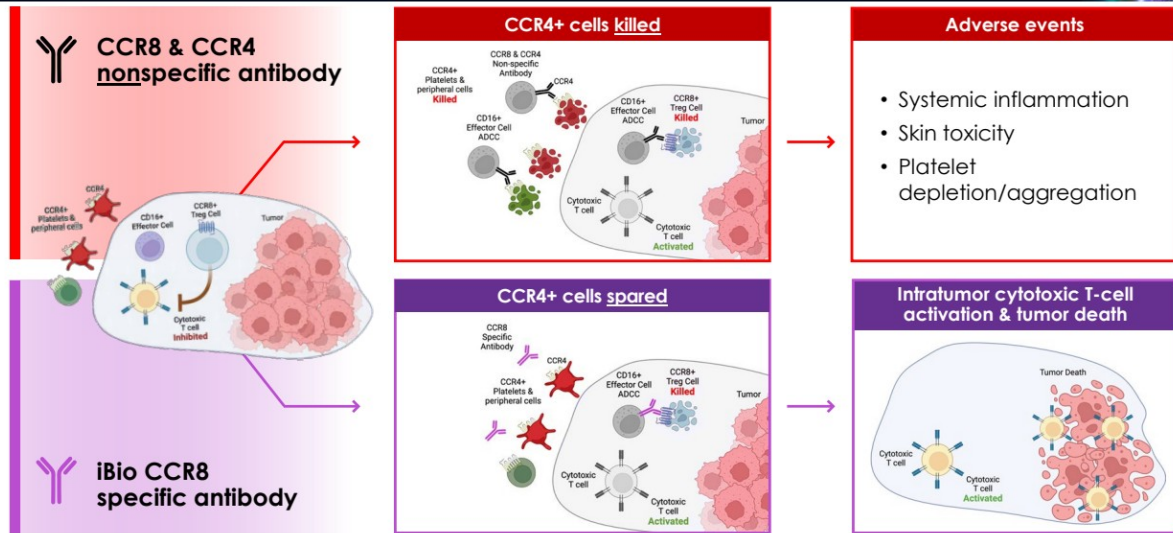
Recent Transactions & Milestones



*Fibrogen / HIFIBio: Fibrogen purchased option to multiple programs in June 2021, then exercised the option for excl. license to CCR8 program in Dec. 2021.
 **Gilead / Jounce: Exclusive worldwide license to anti-CCR8 antibody.
 *** Coherus / Surface Oncology: acquisition, announced in June 2023, adds two clinical assets, including a phase 2 anti-IL-27 and a phase 1/2 anti-CCR8 for oncology.

CCR8+ T_{reg} Cells Are Tumor Infiltrating and Highly Immunosuppressive

Depletion of CCR8+ Treg cells has potential to evoke potent tumor immunity

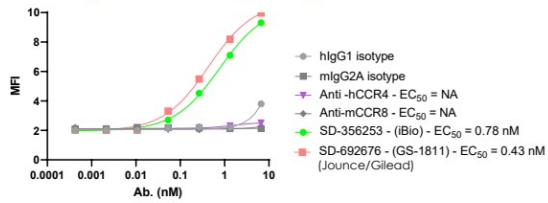


Afucosylated Anti-CCR8 Antibody Exhibits High Specificity, CCL1 Antagonism and CCR8-Specific Cell Killing

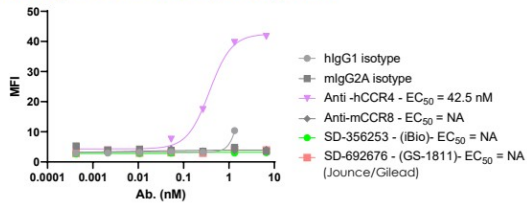


High Specificity CCR8 Cell Binding

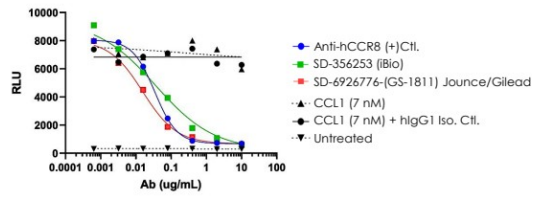
Potent binding to CCR8 overexpressing cells



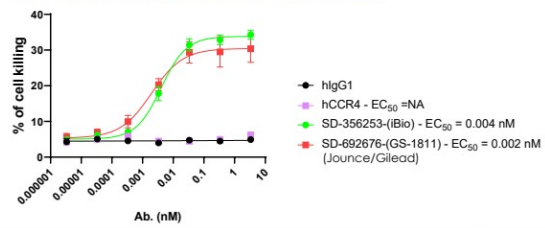
No binding to CCR4 overexpressing cells



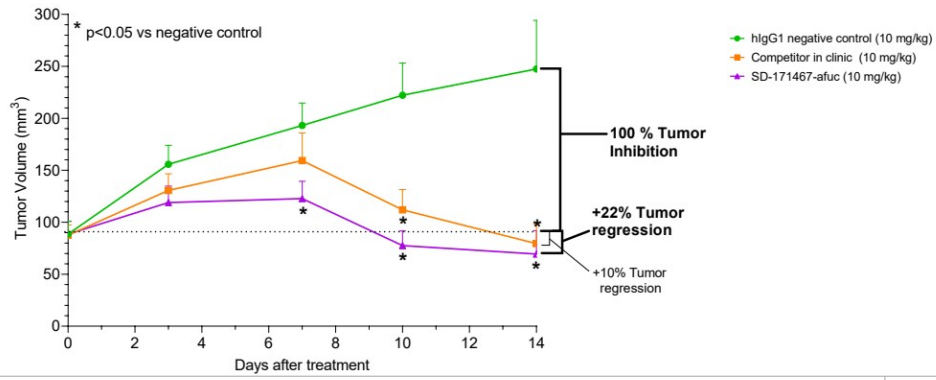
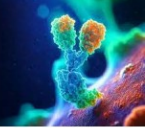
CCR8-CCL1 Antagonism



PBMC-Induced CCR8 Cell Killing



iBio's CCR8-Specific High ADCC Antibody Induces Tumor Regression in a Transgenic Human CCR8 Mouse Model





**Unlocking the Power of
Bi-Specific Antibodies
with EngageTx, Our Versatile
CD3 mAb Panel**

Wide Range of Affinities, NHP Cross
Reactivity, High Developability

Next Generation Anti-CD3 T Cell Engagers



Target Mechanism

T-cell-redirecting bispecific antibodies are a new therapeutic class that simultaneously targets CD3 on T cells and tumor antigens, inducing T cell mediated tumor cell killing

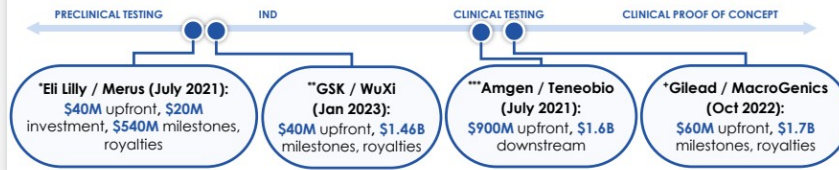
Potential Indications

- Broad solid tumor potential
- Expands therapeutic options across programs

Differentiation / Opportunity

- Range of T cell activation for diverse tumor antigens
- Cyno-tox study compatibility
- StableHu optimized sequence reduces downstream risks

Recent Transactions & Milestones

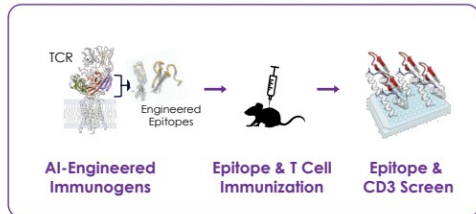


*Eli Lilly / Merus: Fibrogen Research collaboration using Merus' proprietary platform to develop up to three CD3-engaging T-cell re-directing bispecific antibody therapies.
 ** GSK / WuXi: License of WuXi's preclinical CD3 bi-specific, plus 3 earlier stage programs
 ***Amgen / Teneobio: Teneobio was developing a heavy-chain only platform as well as its CD3 engager technology. TNB-585, the lead program, was in phase 1.
 + Gilead / MacroGenics: Gilead granted option to MGD024, a phase 1 CD3 bi-specific, plus collaboration on two additional research programs.

Dual Approaches to a Diverse Panel of Anti-CD3 Antibodies

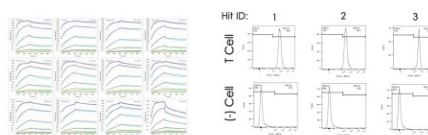


Structural-Epitope Immunization & Screening



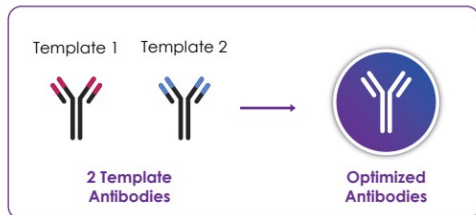
Hu/Cyno CD3 & T Cell

Binding



AI Discovery Engine

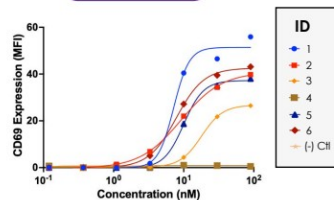
StableHu Optimizer



SCREEN

T Cell

Activation



Data on file

52



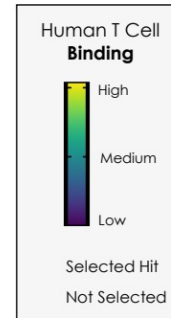
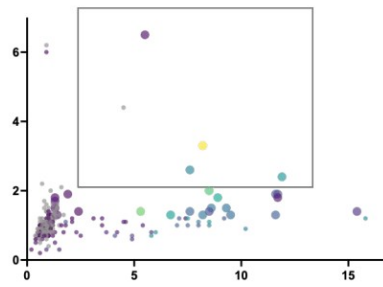
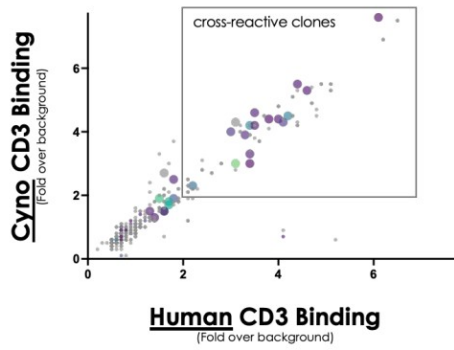
Libraries and Screens Discover Hu-Cyno CD3 Cross-Reactive Antibodies



Library
Screen:

StableHu
Mammalian-Display

Epitope-Steered
Immunization

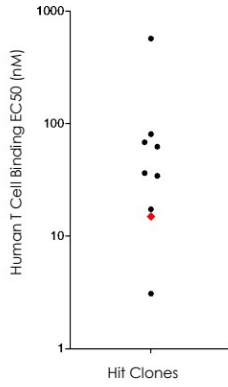


EngageTx is Selected for a Diversity of T Cell Binding and Activation

T Cell Assay:

Binding

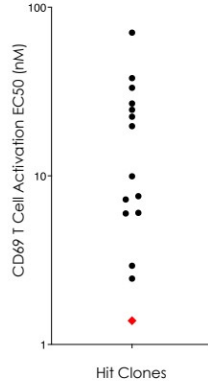
EC50: 3 – 570 nM



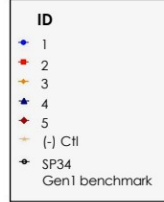
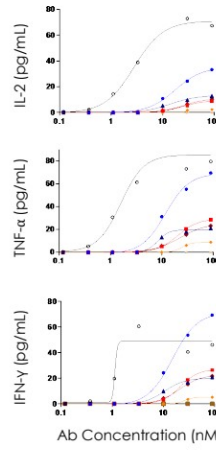
◆ SP34 Gen 1 benchmark

Activation

EC50: 2.5 – 70 nM



Cytokines



ShieldTx

Antibody masking technology for
delivering on-epitope, on-tissue clinical
candidates with enhanced safety and
developability



On-Target-Off-Tissue Side Effects Severely Limit The Potential of Existing And Future Antibodies

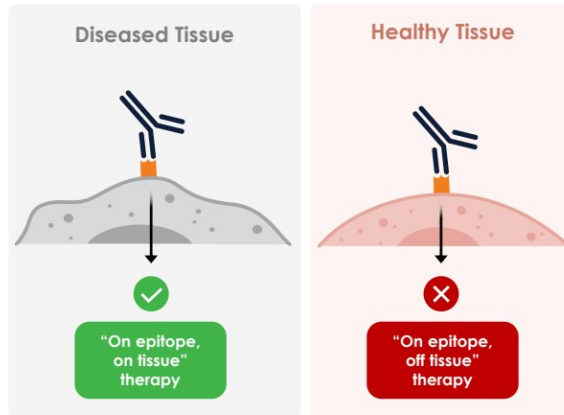


"(...) targeting antibody delivery to selected organs and tissues (...) represents a major unmet challenge that if ultimately solved may rewrite medical textbooks" - Paul J. Carter and Arvind Rajpal, Cell, 2022.

Even exquisitely specific antibodies fail in clinical trials by doing exactly what they are asked to do – hit the target. The problem often lies in the target being also expressed on *healthy* tissue.

Many potential targets remain unexplored as a drug target for fear of on-epitope off-tissue side effects.

The challenge: how do we achieve disease tissue specificity while avoiding healthy tissue expressing the same epitope?



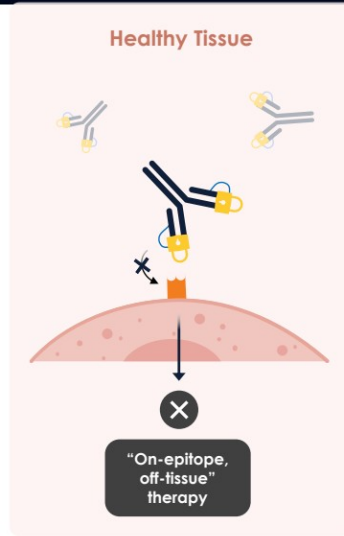
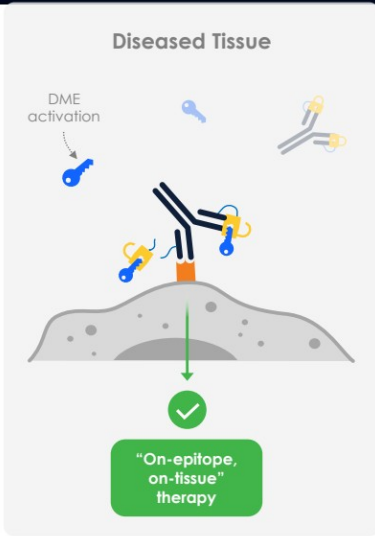
Our Engineered Epitopes Provide an Integrated Solution for Identifying And Subsequently Masking Antibodies



Antibodies are activated by the removal of the mask in the diseased tissue.

Masks can be removed by tumor-specific enzymes, pH, redox state, and disease-specific metabolites.

The technology can be employed for other indications i.e. inflammatory and auto-immune diseases.



Antibodies remain inactive in healthy tissue



Masked Antibodies are a Proven Concept and iBio's Platform has the Potential to Solve Key Remaining Challenges

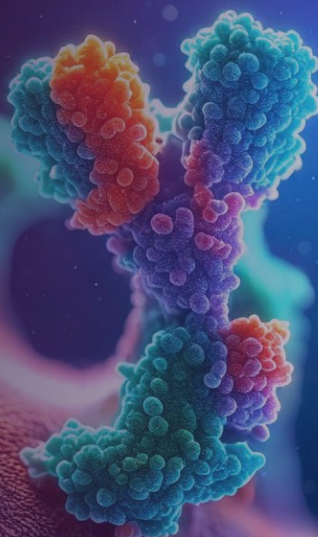


| | THE PROBLEM | OUR SOLUTION |
|---|---|--|
| 1 | Discovery process <i>Separate antibody and mask discovery process is inefficient</i> | Co-discovery of epitope-steered antibody and mask is more efficient |
| 2 | Masking performance <i>Separate discovery processes does not co-evolve an optimal antibody, mask, linker combination</i> | Co-evolution of libraries of antibody, mask and linker for maximized effectiveness of masking and unmasking |
| 3 | Developability <i>Antibody + mask + linker combinations not screened for high developability in production cell lines</i> | Mammalian-display libraries of antibody, mask and linker combinations screened for developability in production CHO cell lines |
| 4 | Immunogenicity <i>Random peptide or anti-idiotypic masks increase masked antibody immunogenicity risk</i> | Engineered epitope masks are designed with intention to maximize the natural sequence of the epitope and minimize immunogenicity |



Anti-Trop-2 x CD3

Bi-Specific Antibody against Tumor-Specific Trop-2 Cancer Cells



Trop-2 x CD3 Bi-Specific Antibody Potentially for Head & Neck and Other Cancer



Target Mechanism

Select killing cancer cells that up-regulate Trop-2 expression while improving safety margin in reducing cytokine release syndrome (CRS)

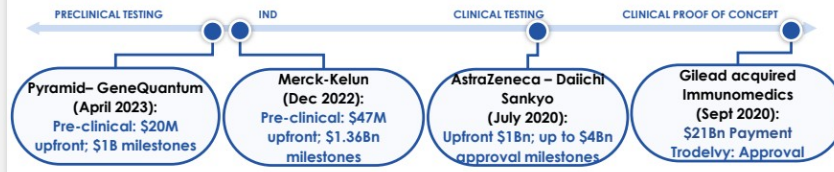
Potential Indications

- Head & neck cancer
- Lung cancer
- Ovarian cancer
- Breast cancer
- Pancreatic cancer

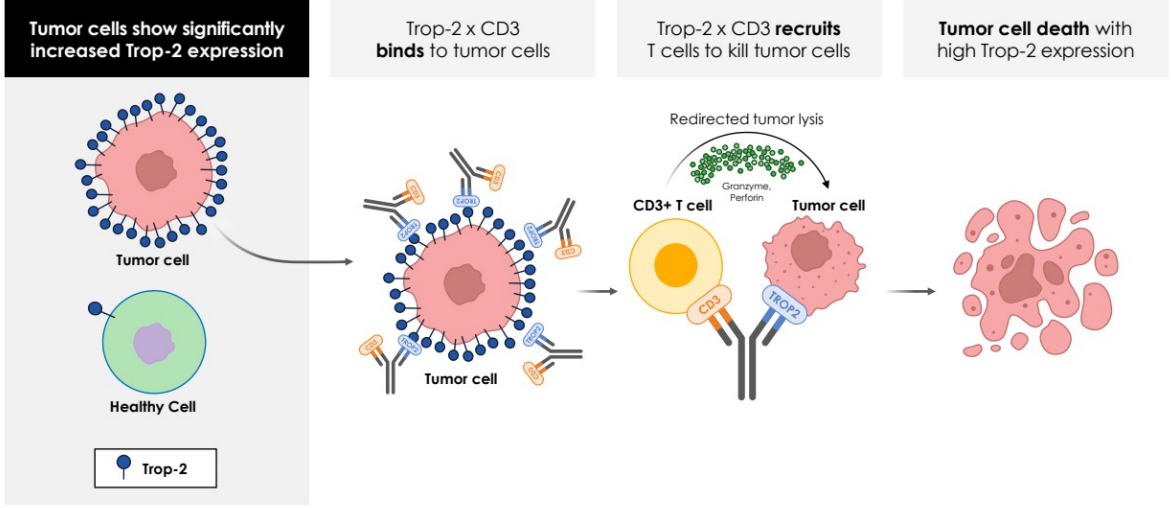
Differentiation / Opportunity

- Novel Trop-2 epitope with extreme high affinity to target
- Trop-2 binder with mouse/cyno/human cross reactive enables early safety profile optimization
- Optimal iBio CD3 engager with low CRS and cyno/human cross reactive

Recent Trop-2 ADC Transactions & Milestones



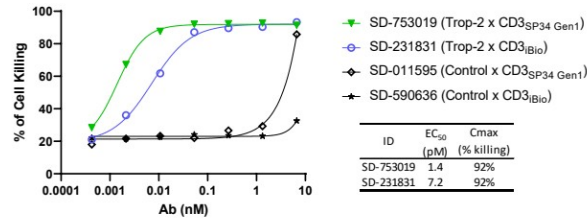
Trop-2 x CD3 Bi-Specific Antibody Selective Target Overexpress Trop-2 Cancer Cells



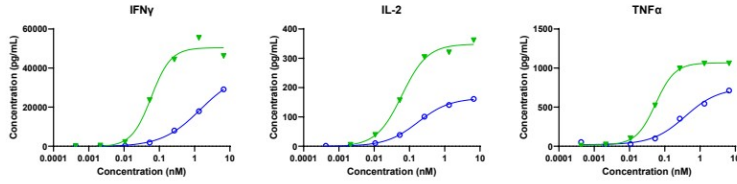
iBio's Trop-2 x CD3 Bi-Specific Antibody Potently Kills Tumor Cells with Low Cytokine Release



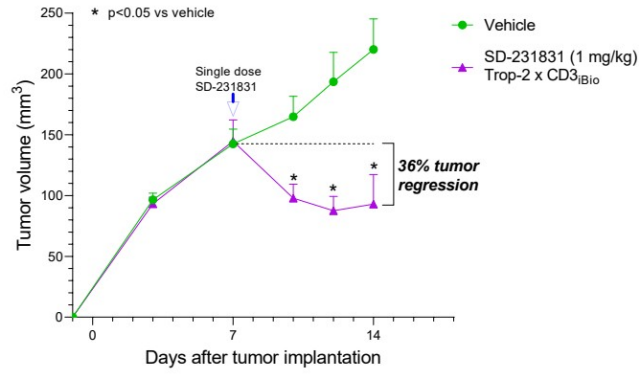
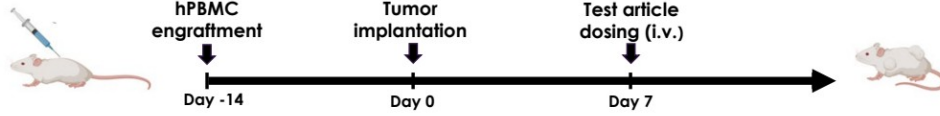
Potent Cancer Cell Killing




Minimal Cytokine Release



A Single Dose of iBio's Bispecific Trop-2 x CD3 Antibody Induces Tumor Regression in a Humanized Mouse Cancer Model





**Conditionally Activated
Anti-MUC16 x CD3
Bispecific Antibodies
Targeting the Non-Shed
MUC16 Region**

Leveraging iBio's Epitope Steering,
ShieldTx, and EngageTx Technologies

MUC16 Potentially for Ovarian and Other Cancers



Target Mechanism

Bind a membrane-proximal MUC16 epitope

Membrane-proximal binding avoids epitope elimination by tumors

Bind a non-glycosylated epitope to avoid altered glycosylation on tumors

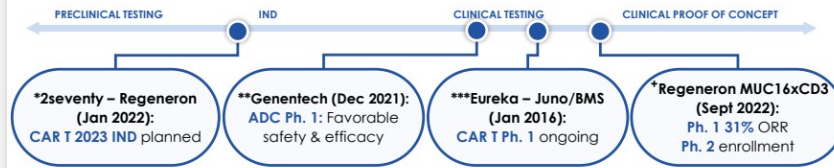
Potential Indications

- Ovarian
- Uterine
- Pancreatic

Differentiation / Opportunity

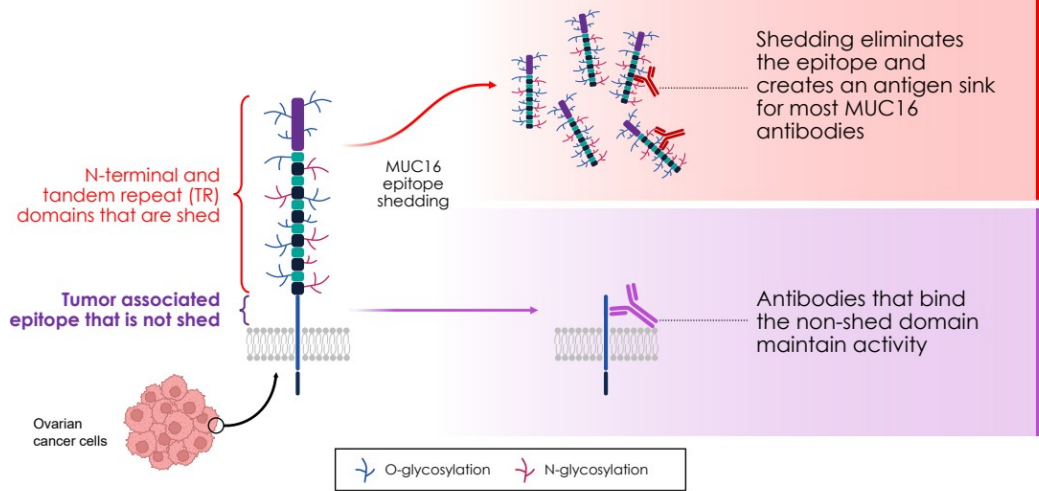
- MUC16 epitope avoids primary modes of tumor evasion
- Enabling modalities: T Cell engager, ADC, CAR-T

Recent Transactions & Milestones



***Eureka Therapeutics Announces Exclusive License Agreement between Memorial Sloan Kettering Cancer Center and Juno Therapeutics for Use of a Novel, Fully-Human MUC16 Binder in CAR T Cell Immunotherapy
 *Regeneron, 2seventy name the target of their first solid tumor CAR-T, aim for 2023 IND
 **Lu et al., An open-label phase I dose-escalation study of the safety and pharmacokinetics of DMUC4064A in patients with platinum-resistant ovarian cancer
 *Novel Regeneron Bispecific Antibodies Show Encouraging Anti-Tumor Activity in Two Advanced Solid Tumors

MUC16 Is Overexpressed and Shed by Tumor Cells

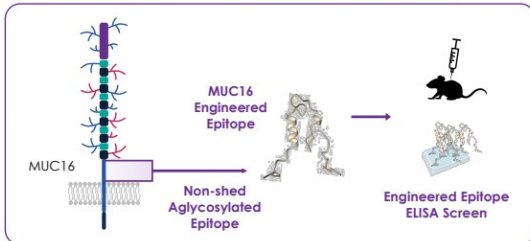


Immunizations Were Steered to a MUC16 Epitope that Avoids Epitope Shedding

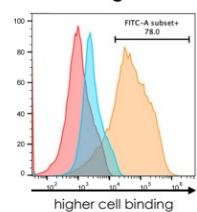


AI Discovery Engine

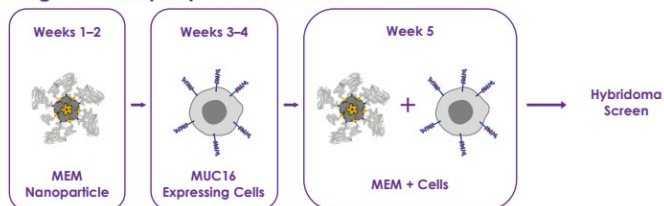
Structural-epitope Immunization & Screening



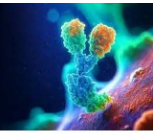
OVCAR-3 MUC16^{high} Cell Binding Screen



Engineered Epitope Prime + MUC16 Cell Boost



Top Three Hit Clones Bind the Non-Glycosylated MUC16 Epitope Closest to the Membrane



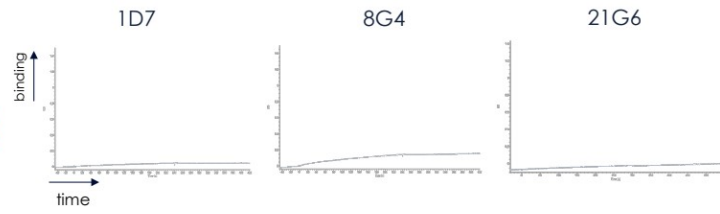
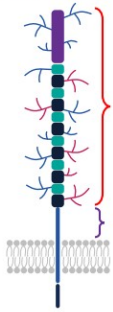
Hits do not bind shed 230-mer

N-terminal and tandem repeat (TR) domains that are shed

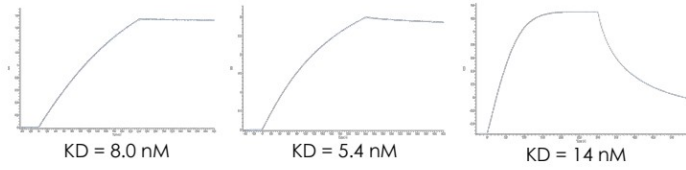
Epitope

Shed 230-mer

Aglycosylated non-shed 29-mer



Hits bind non-glycosylated non-shed 29-mer



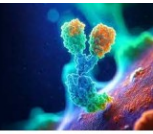
→ O-glycosylation → N-glycosylation



Data on file

68

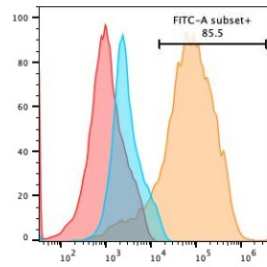
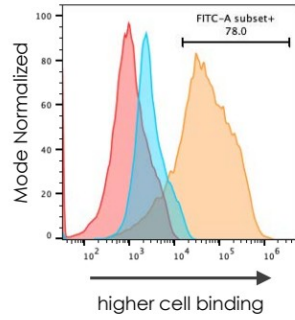
Top MUC16 Clone 8G4 Binds OVCAR-3 Cells Comparable to Regeneron Benchmark



Clone ID: 8G4
top clone

Regeneron
benchmark

- Unstained
- Secondary Only
- OVCAR-3 Cells

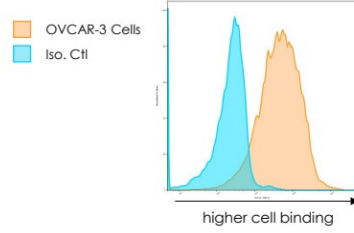


8G4 Clone Maintains OVCAR-3 Cell and MUC16 Epitope Binding in a Fully Human Framework



8G4 with fully human framework reduces immunogenicity risk

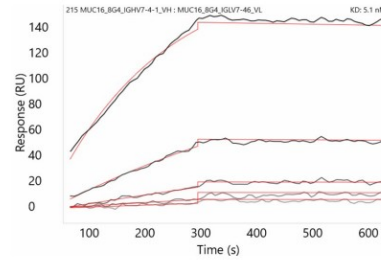
Cell binding



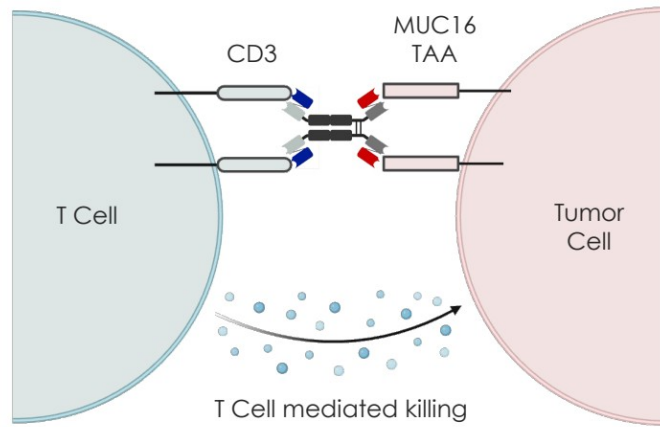
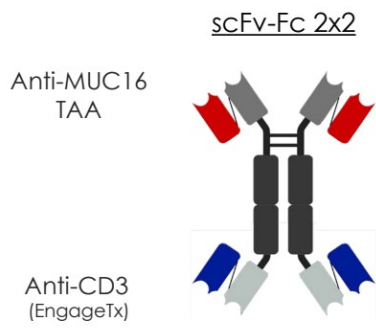
Glycosylated MUC16 membrane-proximal epitope SPR:

KD = 5.1 nM

Epitope binding



Efficient Expression with 2x2 Format: Anti-CD3 x MUC16 Bispecific T-Cell Engagers



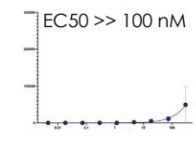
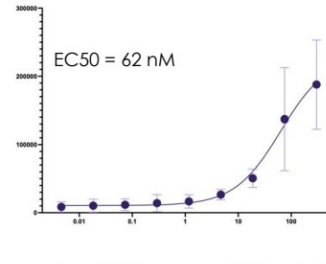
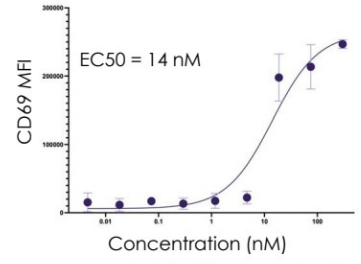
2X2 Anti-CD3 X MUC16 T Cell Engagers Stimulate T Cells in Donor PBMCs



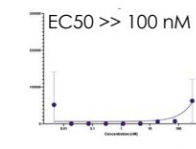
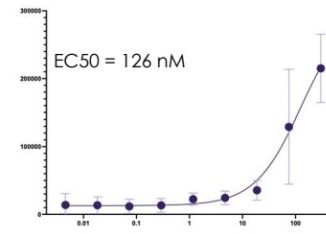
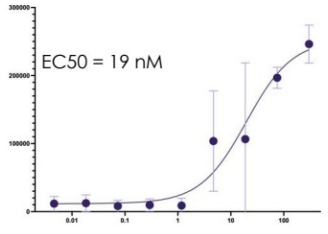
MUC16 Arm 1 MUC16 Arm 2 CD3 Arm only

CD3 Arms

Epitope-Steered
Immunized Hit



StableHu
Hit



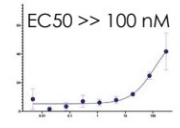
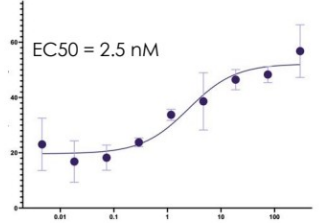
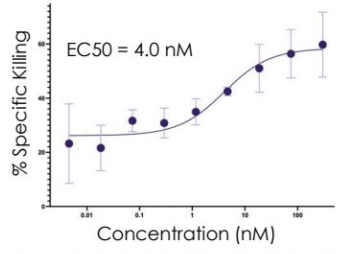
2X2 Anti-CD3 X MUC16 T Cell Engagers Kill OVCAR-3 Ovarian Cancer Cells



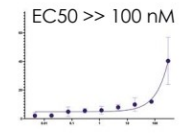
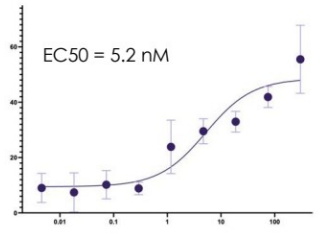
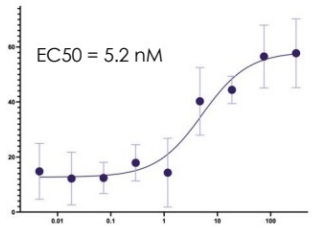
MUC16 Arm 1 MUC16 Arm 2 Anti-CD3 Arm Only

CD3 Arms

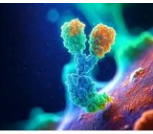
Epitope-Steered
Immunized Hit



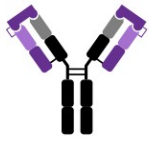
StableHu
Hit



ShieldTx Engineered Epitope Mask Conditionally Activates MUC16 and CD3 Hits



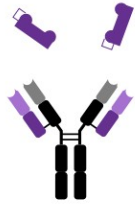
Engineered Epitope Mask Intact



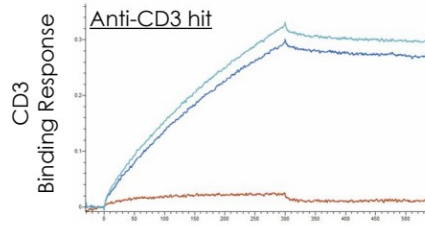
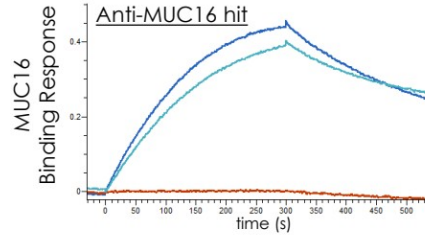
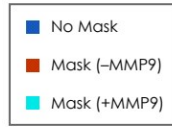
Inactive Antibody



Mask Cleavage



Active Antibody

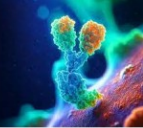


Anti-EGFRvIII

High ADCC mAb Against
Tumor-Specific EGFRvIII Cells



EGFRvIII Potentially for Glioblastoma and Other Cancers



Target Mechanism

Binding a tumor-specific mutation of EGFR variant III with an afucosylated antibody for high ADCC.

EGFRvIII is constantly "switched on" which can lead to the development of a range of different cancers.

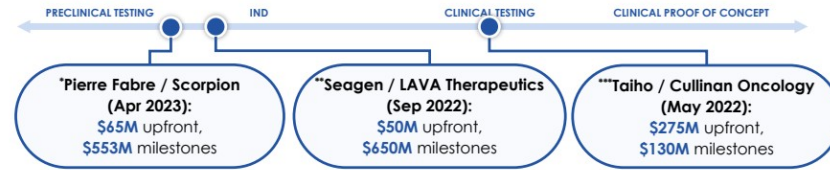
Potential Indications

- Glioblastoma
- Head & neck cancer
- Non-small cell lung cancer

Differentiation / Opportunity

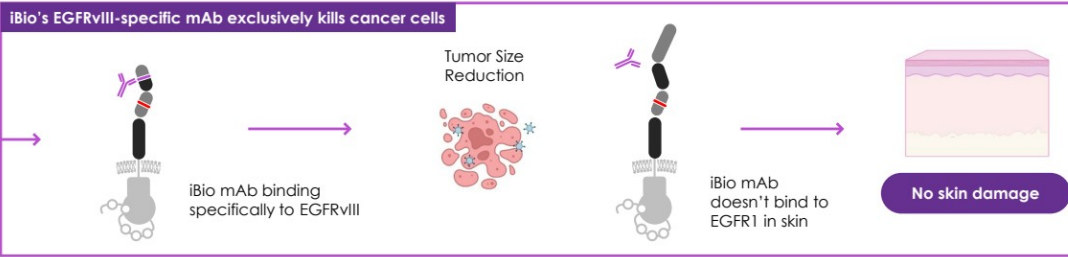
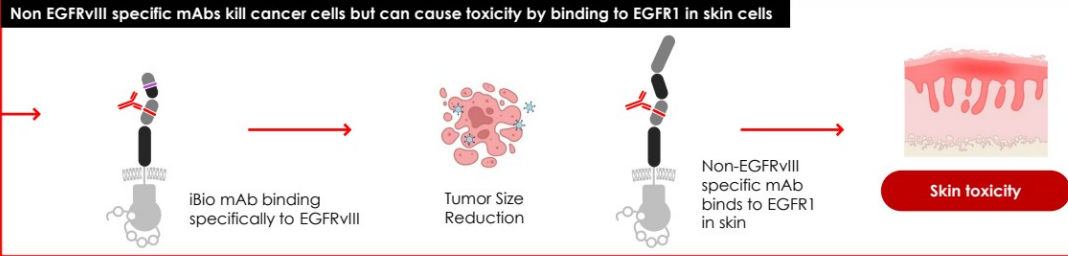
- Novel EGFRvIII high ADCC mechanism, potentially further reducing toxicity & expanding therapeutic window
- Other enabling modalities: T Cell engager, ADC, CAR-T

Recent Transactions & Milestones

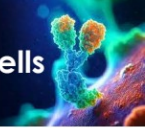


* Pierre Fabre / Scorpion: Scorpion licensed two preclinical-stage programs to Pierre Fabre which are targeted to specific EGFR mutations in lung cancer.
 **Seagen transaction with LAVA Therapeutics was an exclusive license to LAVA-1223 (EGFR program), plus additional projects using LAVA's platform.
 ***Taiho transaction to acquire Cullinan Oncology's subsidiary, Cullinan Pearl, which has worldwide rights outside of Japan to CLN-081/ITAS6417 (EGFR mutant mAb).

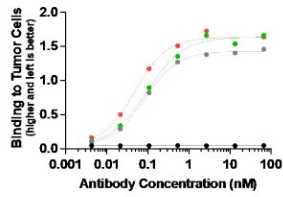
iBio's Anti-EGFRvIII mAbs Selectively Kill EGFRvIII-Positive Tumor Cells and Not EGFR1-Expressing Cells in Healthy Tissues



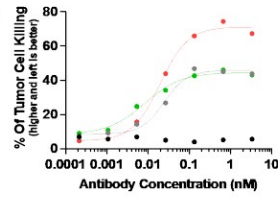
iBio's EGFRvIII-Selective mAbs Kill Tumor Cells without Affecting Healthy Cells



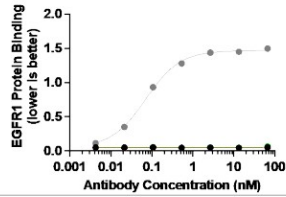
iBio EGFRvIII mAbs bind recombinant EGFRvIII



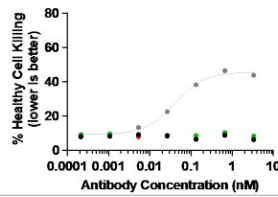
which leads to tumor cell killing



but not binding wild-type EGFR1



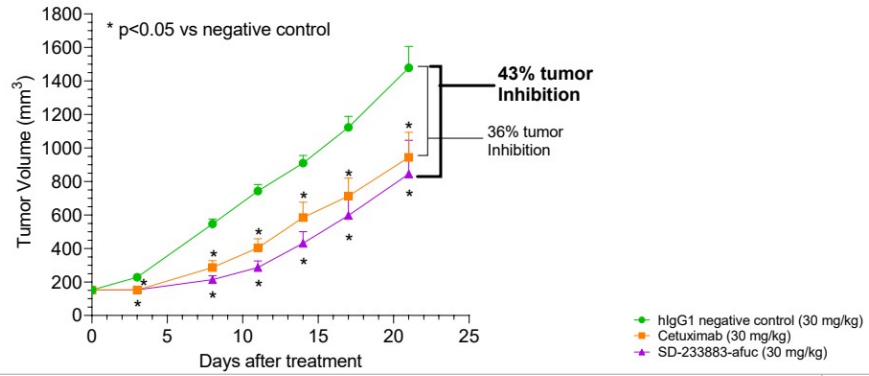
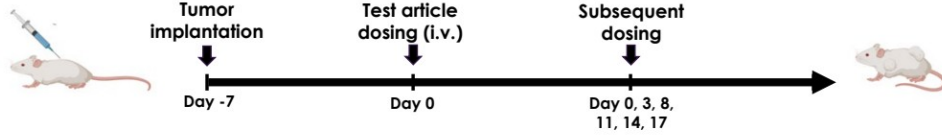
and thus not affecting healthy cells



- Negative control, EC₅₀ = no binding
- Cetuximab, EC₅₀ = 0.018 nM
- SD-233883, EC₅₀ = 0.008 nM
- SD-710726, EC₅₀ = 0.020 nM



iBio's EGFRvIII-Specific High-ADCC Antibody Inhibits Tumor Growth in an EGFRvIII Tumor Xenograft Mouse Model





Market-Tested Potential in Immuno- Oncology

Competitor Early-Stage Deals
Signal Promising Opportunities

Market-Tested Potential: Immuno-Oncology Early-Stage Deals



| Pre-2020 | 2021 | 2022 | 2023 | 2024 |
|---|---|---|---|--|
| <p>SEP 2018 CD25 Roche / Tusk Therapeutics*: \$81M upfront, \$677M milestones</p> <p>SEP 2020 CCR8 Gilead / Jounce*: \$85M upfront, \$35M equity investment, \$685M milestones</p> <p>JUL 2020 TROP-2 AstraZeneca / Daiichi*: \$1B upfront (some deferred), \$5B milestones</p> <p>SEP 2020 TROP-2 Gilead / Immunomedics*: acquired for \$21B</p> | <p>FEB 2021 PD-1 agonist Merck / Pandion*: acquired for \$1.85B</p> <p>JUN & DEC 2021 CCR8 Fibrogen / HiFiBio*: \$25M option fee, \$35M option exercise, \$1.1B milestones</p> <p>JUL 2021 CD3 Eli Lilly / Merus*: \$40M upfront, \$20M investment \$540M milestones</p> <p>JUL 2021 CD3 Amgen / Teneobio*: \$900M upfront, \$1.6B milestones</p> <p>DEC 2021 ShieldTx Sanofi / Amunix* acquired for \$1B, \$225M milestones</p> | <p>MAY 2022 EGFRvIII Taiho / Cullinan Oncology*: \$275M upfront, \$130M milestones</p> <p>AUG 2022 PD-1 agonist Gilead / Mirbio*: acquired for \$405M</p> <p>SEP 2022 EGFRvIII Seagen / LAVA Therapeutics*: \$50M upfront, \$650M milestones</p> <p>OCT 2022 CD3 Gilead / MacroGenics*: \$60M upfront, \$1.7B milestones</p> <p>NOV 2022 ShieldTx Regeneron / Cytomx* \$30M upfront, \$2B milestones</p> | <p>JAN 2023 CD3 GSK / WuXi Biologics*: \$40M upfront, \$1.46B milestones</p> <p>JAN 2023 CCR8 Gilead / Jounce*: \$67M for remaining stake in CCR8 program</p> <p>APR 2023 TROP-2 BioNTech / Duality Biologics*: \$170M upfront, \$1.5B milestones</p> <p>APR 2023 EGFRvIII Pierre Fabre / Scorpion*: \$65M upfront, \$553M milestones</p> <p>JUN 2023 CCR8 Coherus / Surface Oncology*: acquired for \$65M</p> | <p>DEC 2023 CD25 Neoleukin / Neurogene*: all-stock transaction</p> <p>JAN 2024 TROP-2 Biohaven / Pyramid*: acquired for \$55M</p> <p>MAR 2024 TROP-2 Merck / Harpoon*: acquired for \$680M</p> <p>APR 2024 MUC16 Regeneron / 2Seventy Bio: multi-asset purchase for \$5M upfront w/milestone</p> |



* Acquisition / Merger
* License or collaboration