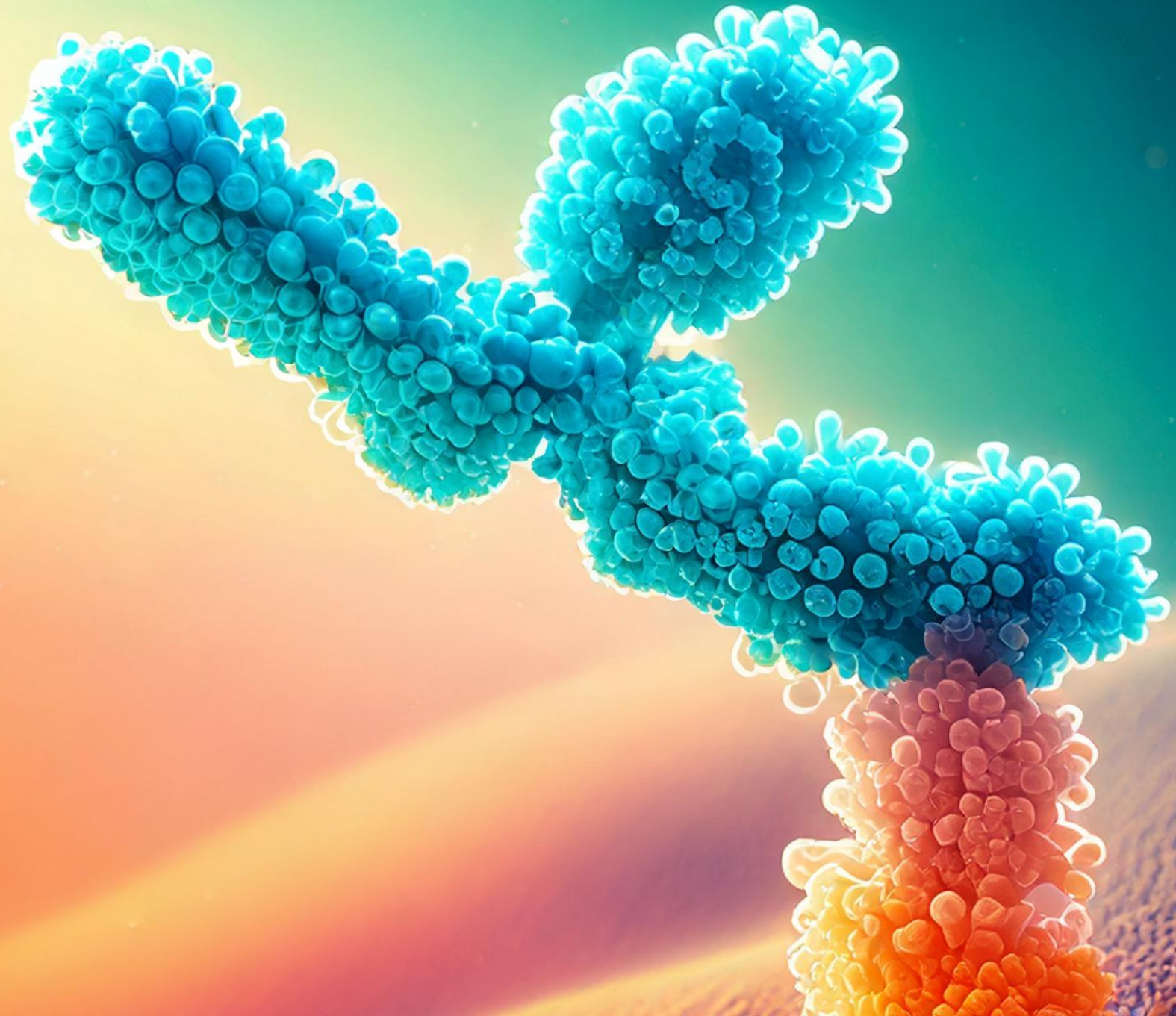
Anti-Activin E Antibody



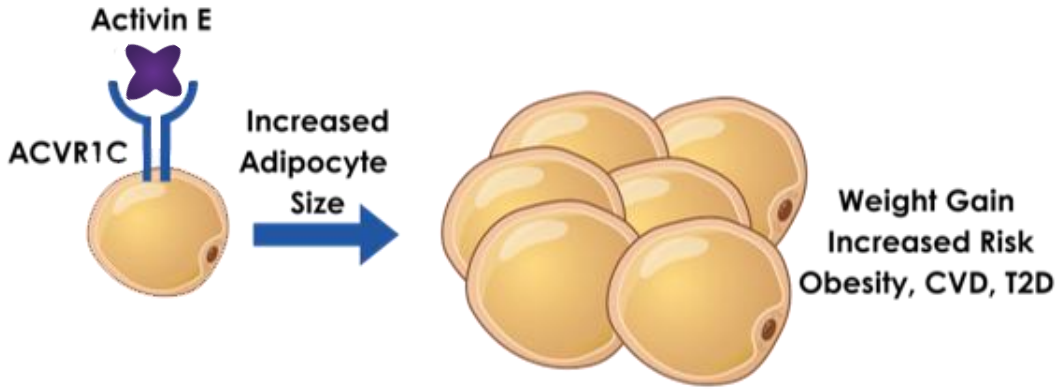
Activin E Antagonism

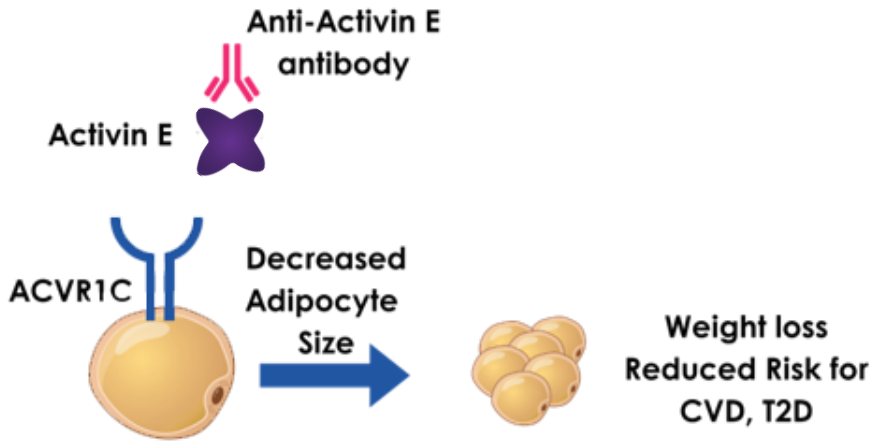
Attractive Fat-Specific Weight Loss Mechanism with Excellent Compatibility for Bi-Specific Pairing with Anti-Myostatin

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 TGFβ 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





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 TGFβ 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

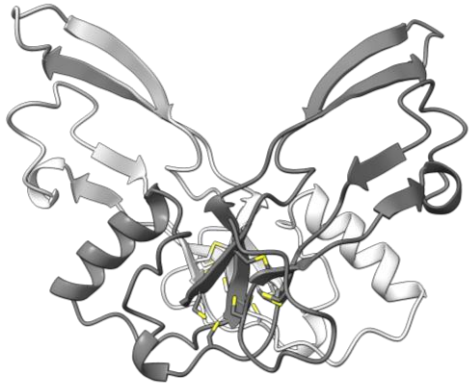
- Optimized for affinity, half-life and manufacturability

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

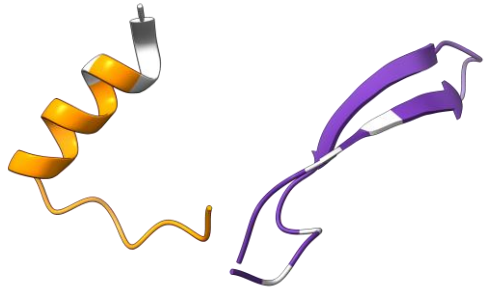
Challenge

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



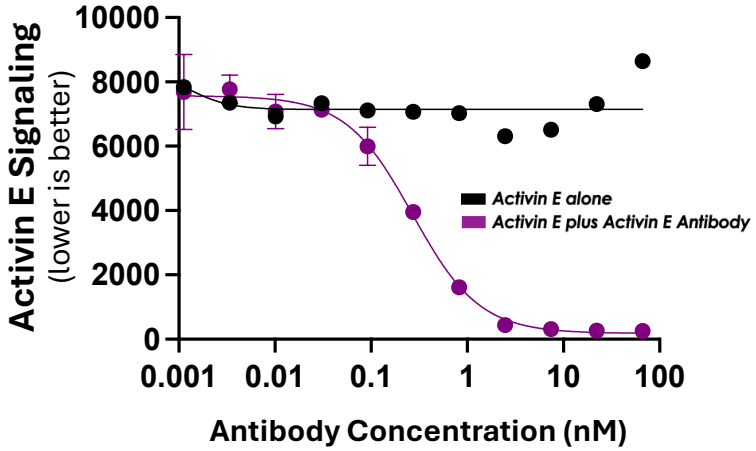
iBio's Solution

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



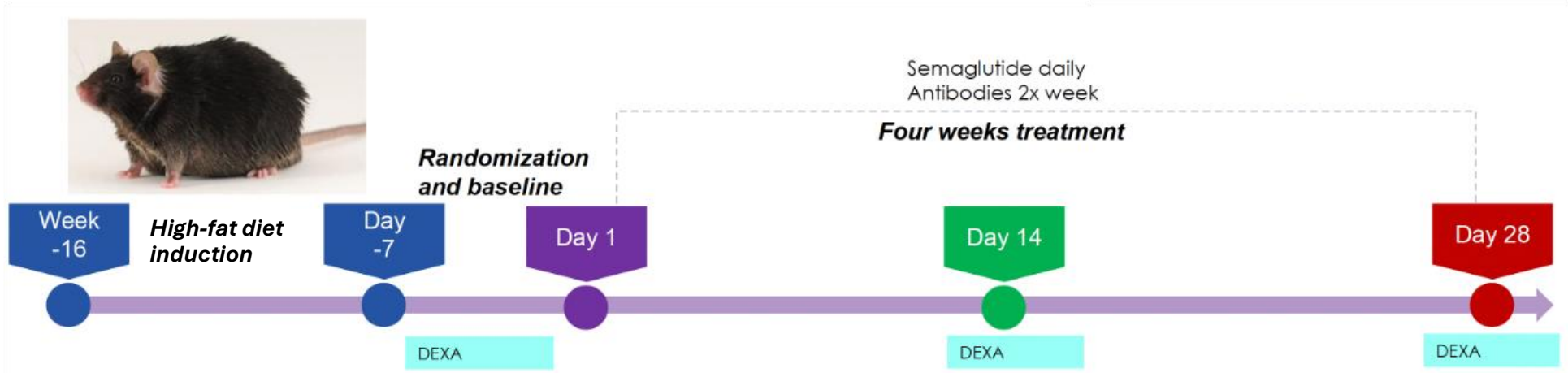
Breakthrough

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



Preclinical Study: Activin E Antibody in Combination With GLP-1 in Diet-Induced Obese Mice

Study Design



Treatment Arms

- Group 1: Vehicle / Vehicle
- Group 2: Vehicle / iBio Activin E mAb
- Group 3: Semaglutide / Vehicle
- Group 4: Semaglutide / iBio Activin E mAb

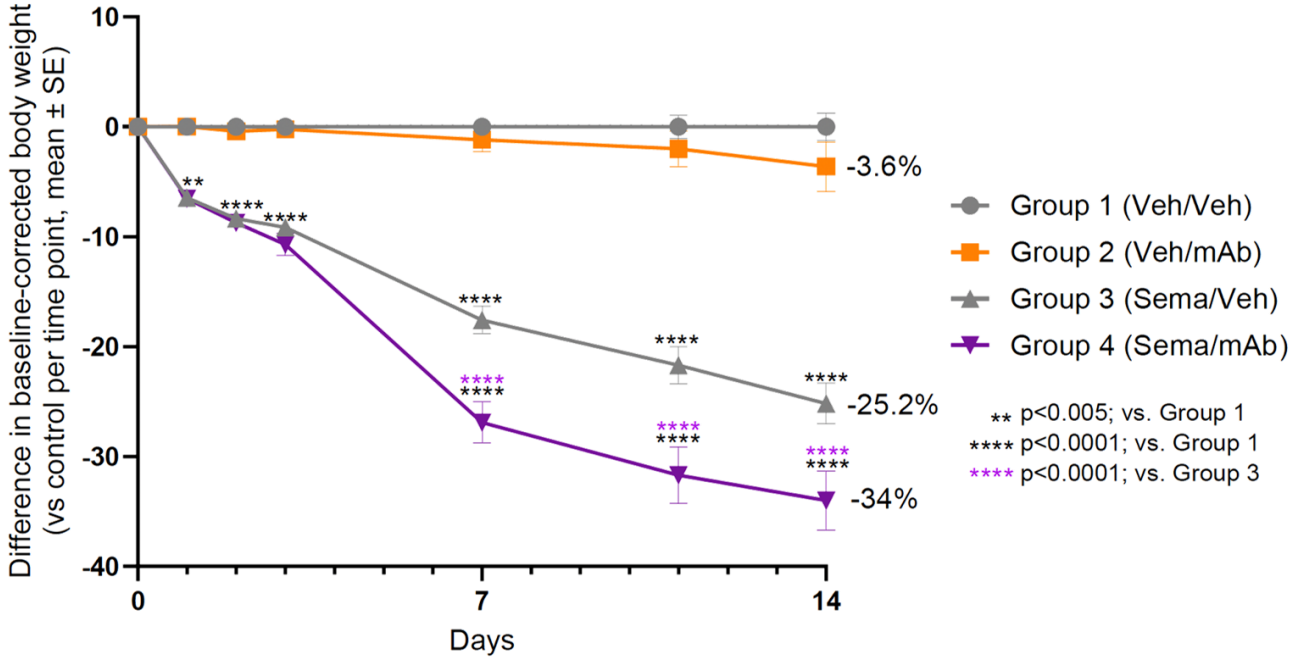
Study Details

- Activin E mAb: Mouse IgG1, human VH and VL
- Semaglutide: 40ug/kg (mimics human dose), daily
- iBio Activin E mAb: 10mg/kg, 2x/week
- Body composition (DEXA) and multiple terminal endpoints
- Ten mice per group

2 Week Interim Data: Activin E Antibody Alone and in Combination with GLP-1 Causes Fat-Specific Weight Loss

Body weight change

(2-week interim data)



Fat Mass (g)