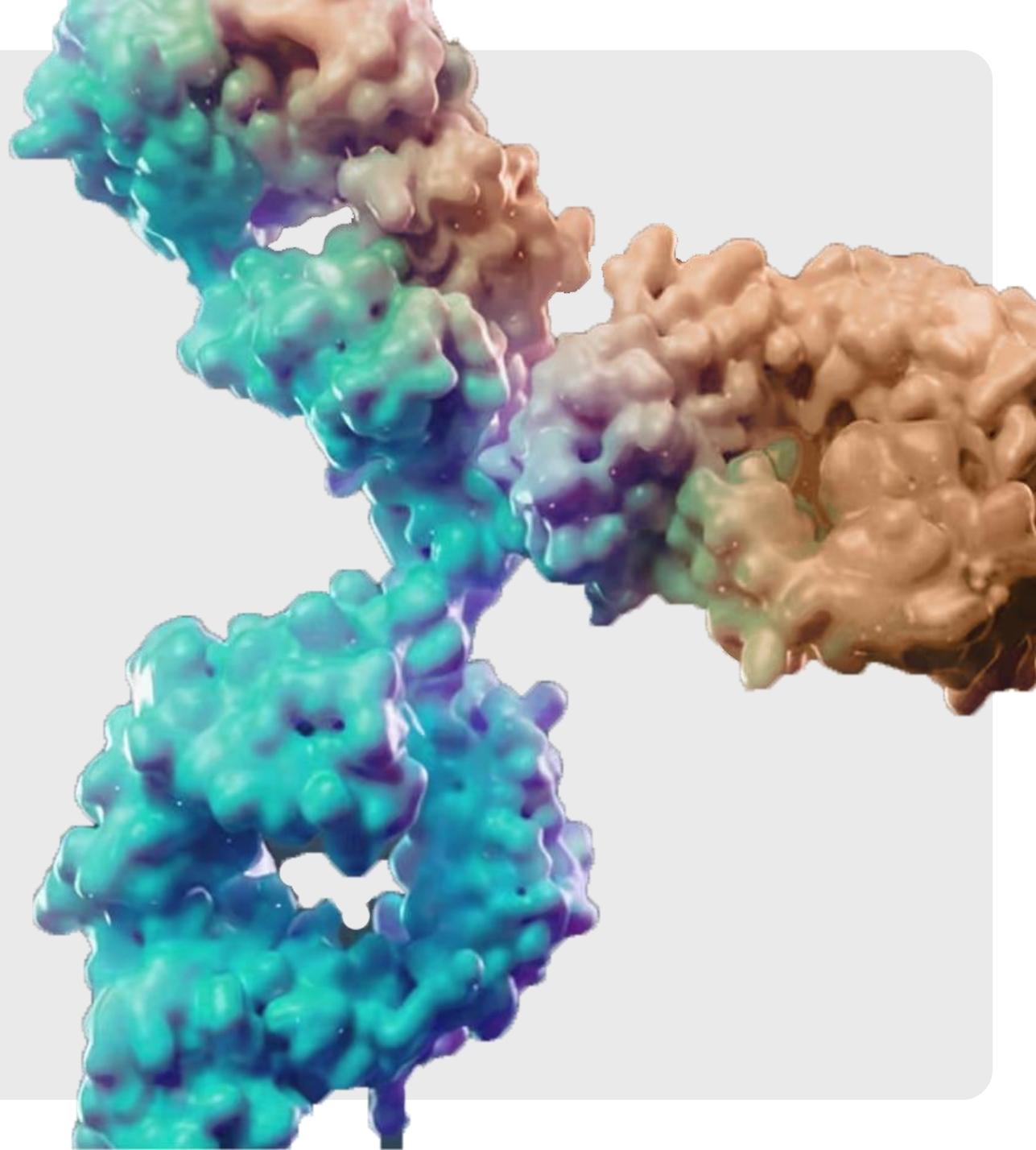


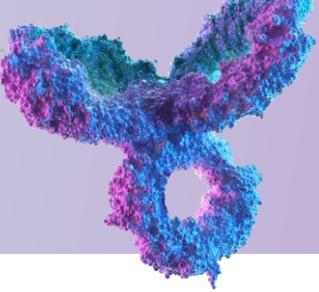


IBIO-600

Long-Acting Myostatin
Antibody



Strengthening the Weight Loss Journey: Myostatin Inhibition to Preserve Muscle Mass

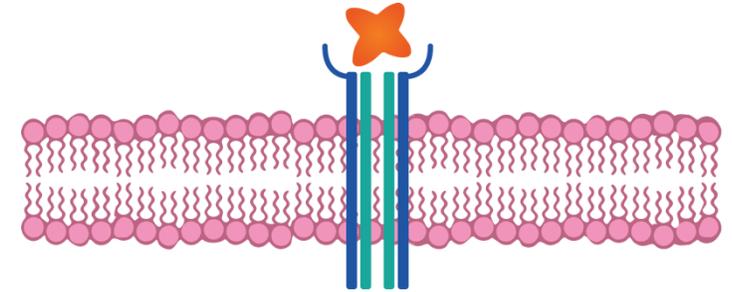


We are developing Myostatin inhibitors to potentially preserve and increase muscle mass, complementary to current treatments

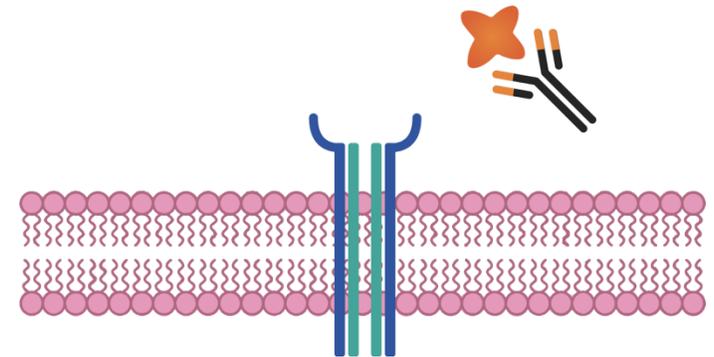
Why We Target Myostatin

- **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 observed to drive significant **muscle growth** with a generally positive safety profile in some third-party studies
- Beyond its effects on muscle, Myostatin plays a role in the **regulation of total body fat mass**²

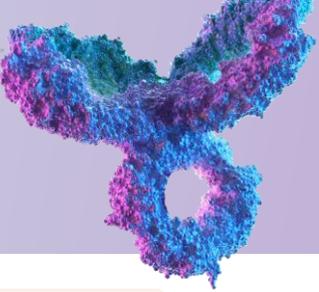
Binding of Myostatin to cells leads to muscle atrophy



Blocking of Myostatin leads to muscle growth



IBIO-600: A Differentiated Long Acting Anti-Myostatin Program



IMPROVED PHARMACOKINETICS

Potential best-in-class PK based on allometric scaling and dosing regimen suggests **2-4x improved PK** over competitors

DUAL MECHANISM

Dual myostatin and GDF11 blockade has potential for **improved lean mass preservation** and **fat mass reduction**

ENHANCED MANUFACTURABILITY

Optimized for **high expression** and **stability** to enable efficient manufacturing process

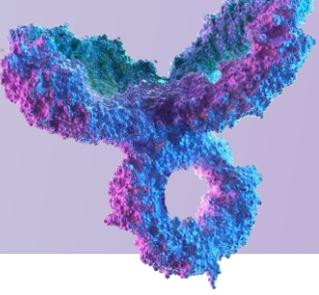
COFORMULATION OPTIONALITY

High formulation concentration to **lower injection** volume

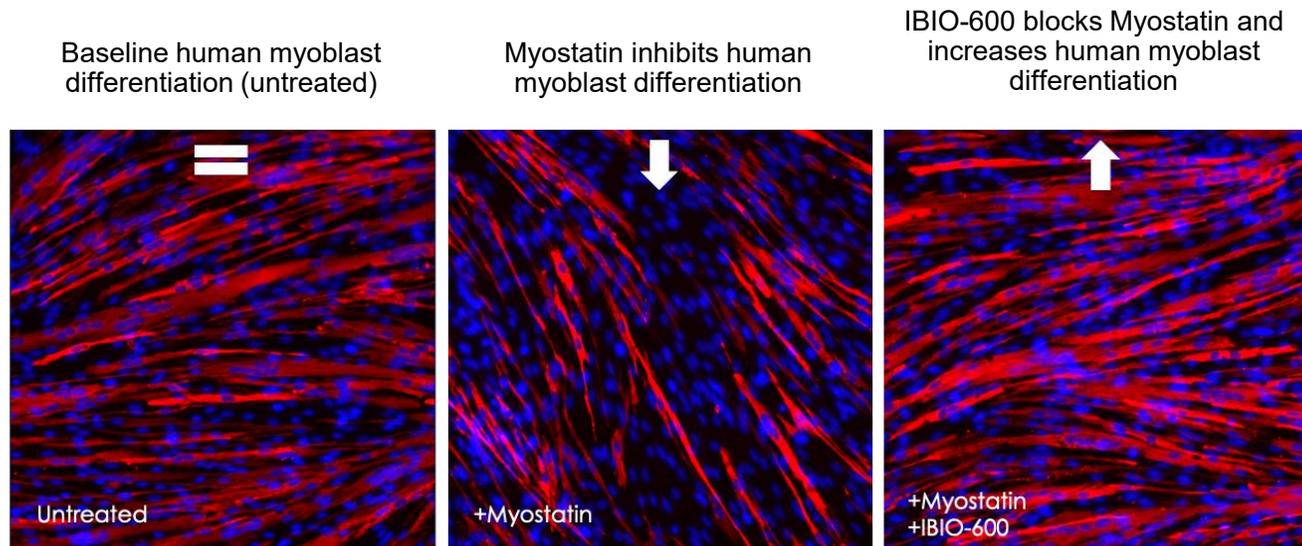
CONVENIENCE

Potential administration potentially as infrequent as **twice a year**

IBIO-600 Enhances Muscle Differentiation in Human Myoblasts by Targeting the Two Growth Suppressors Myostatin and GDF11

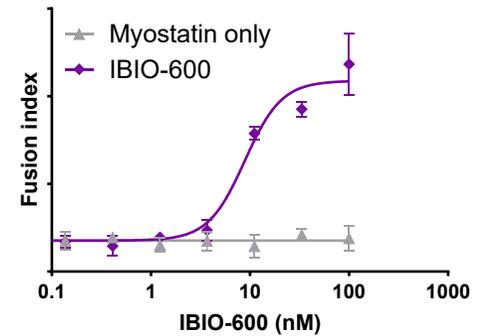


The **human Myoblast differentiation** model is **highly predictive** of muscle growth in humans¹

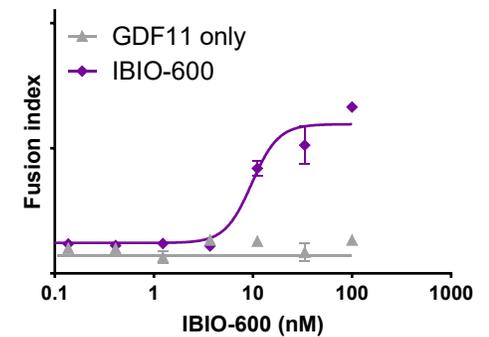


IBIO-600 Increases Myoblast Differentiation

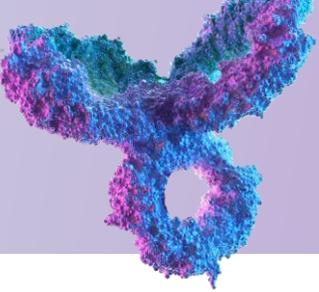
Myostatin



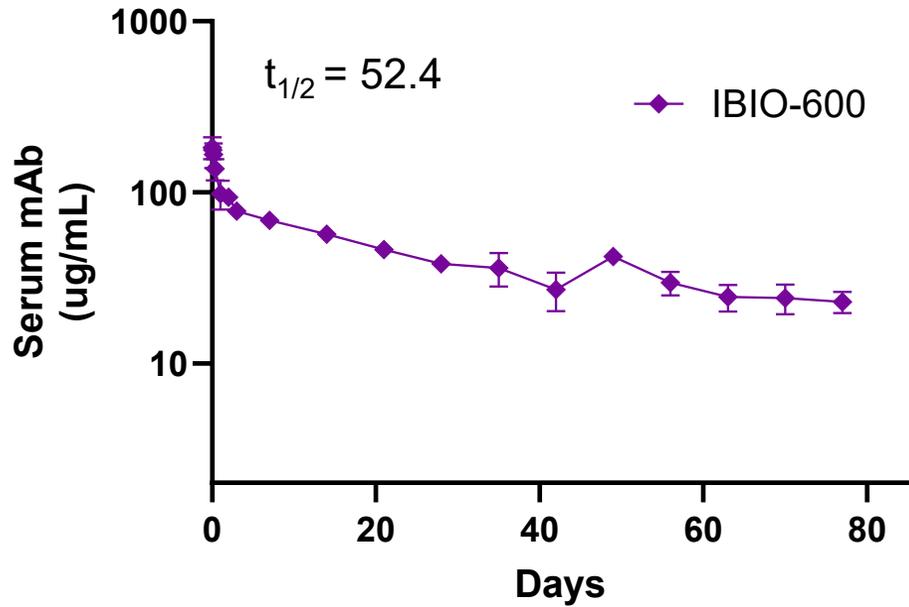
GDF11



IBIO-600 Fc Engineering Drives Extended Half-Life in Obese NHPs



12 Week Pharmacokinetics Data¹



IBIO-600 Fc Engineering Results in Enhanced FcRn Binding

Clone	Fc	Fold increase over standard IgG
IBIO-600 FAB	Standard IgG4	1.0
IBIO-600	Engineered IgG4	16.5

IBIO-600 Observed to Have Extended Half-Life in NHPs

Dose	$t_{1/2}$ (days)
5 mg/kg, I.V.	52.4

Study Details:

- Obese, aged NHPs
- Monthly DEXA scan for body composition
- Periodic PK sampling

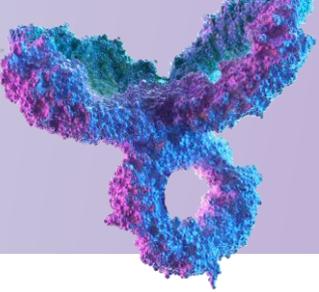
Study Design:

- N=3 per group
- 5mg/kg single I.V. dose



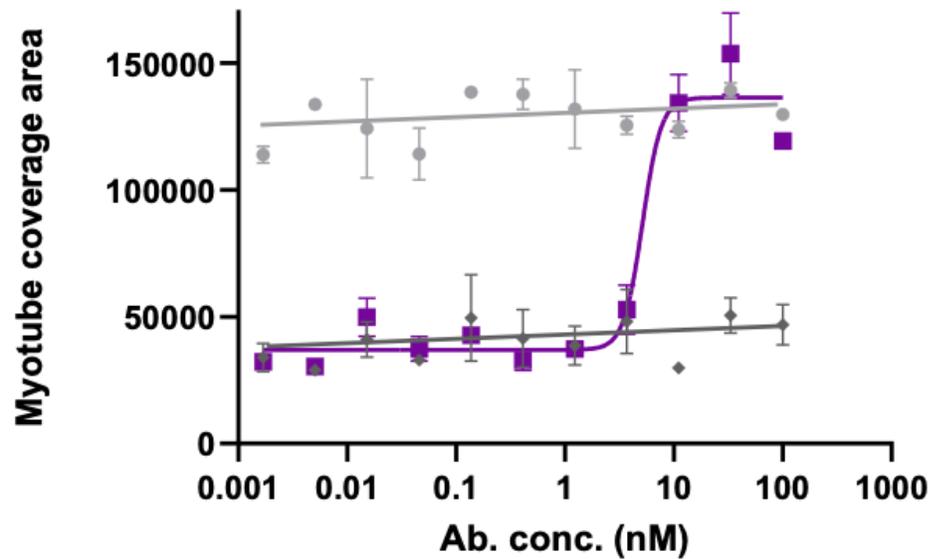
1. Linear elimination phase used to estimate half-life with simple linear model
Data on file

IBIO-600 Dose Modeling From Human Muscle Cells and Monkey PK Suggests Low Dose Requirements to Block Myostatin for Extended Durations



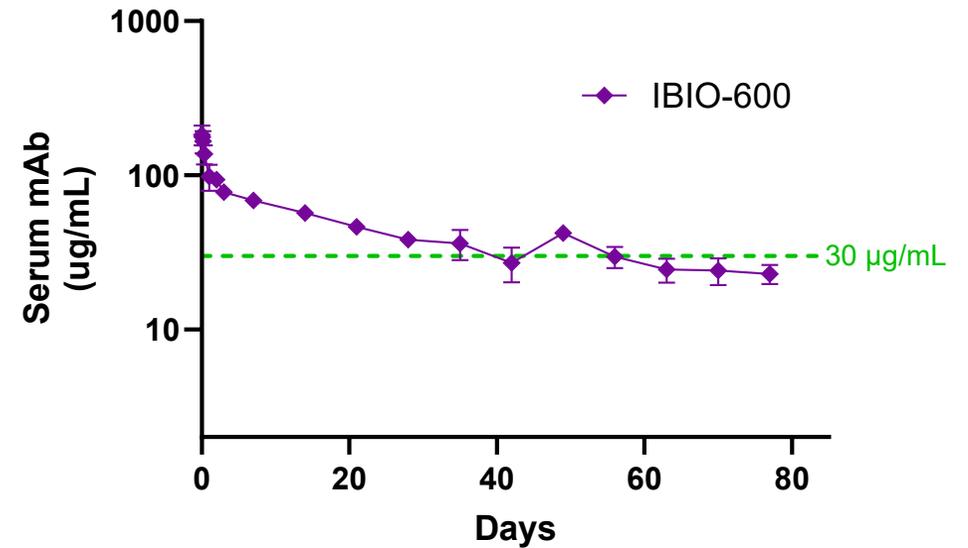
IBIO-600 BLOCKED THE EFFECT OF MYOSTATIN ON HUMAN MUSCLE CELLS

IC₉₀ (90% inhibition level) = 1.2 ug/mL (7.97 nM)

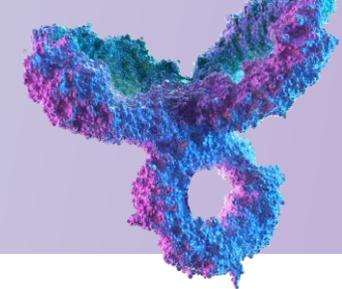


AT 5 MG/KG DOSE, IBIO-600 ACHIEVED >90% MYOSTATIN INHIBITION FOR 8 WEEKS

IC₉₀ in muscle (1.2 ug/mL) translates to 30 ug/ml plasma levels assuming mAb Muscle/Plasma Ratio ~4%

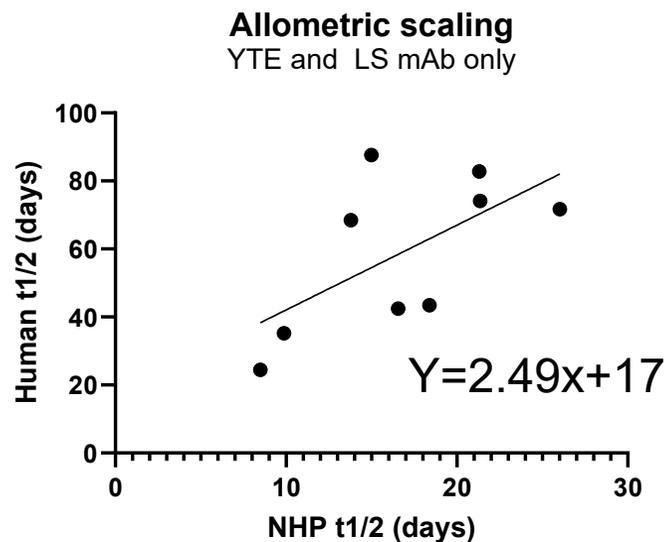


Allometric Scaling Predicts Potentially Extended Half-Life for IBIO-600, Enabling Infrequent Dosing and Prolonged Myostatin Inhibition



ALLOMETRIC SCALING MODEL FOR HALF-LIFE EXTENDED ANTIBODIES¹

Generic allometric scaling model for antibodies²

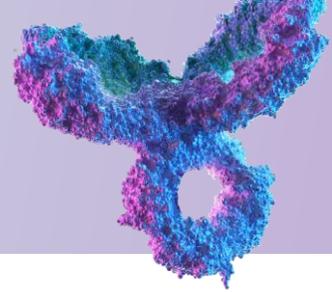


$$T_{1/2\text{Human}} = T_{1/2\text{NHP}} \times \left[\frac{\text{Human Body Weight}}{\text{NHP Body Weight}} \right]^{0.15}$$

Measured NHP and Expected Human Half-Life of IBIO-600

Dose	NHP t _{1/2} (actual)	Human t _{1/2} (predicted) ^{1,2}
5 mg/kg, I.V.	52.4	74-147 days

PK Modeling Suggests IBIO-600 Can Be Dosed Twice-Yearly, Quarterly, or Co-Formulated With Weekly GLP-1s



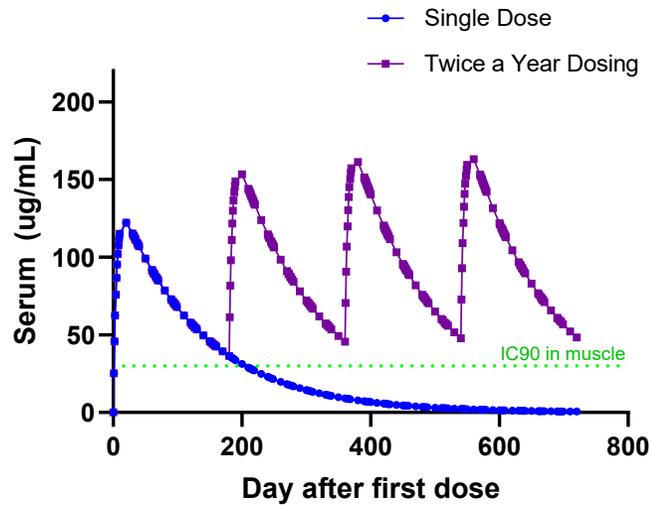
Modeling Assumptions:

150 mg/mL formulation

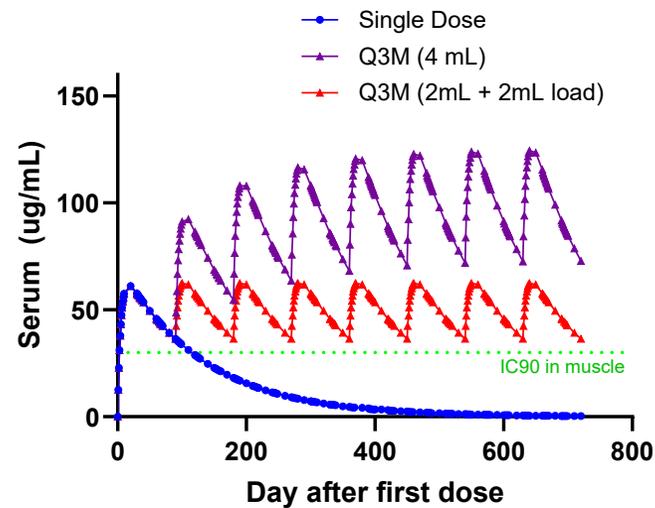
$T_{1/2} = 90$ days

Bioavailability = 70%

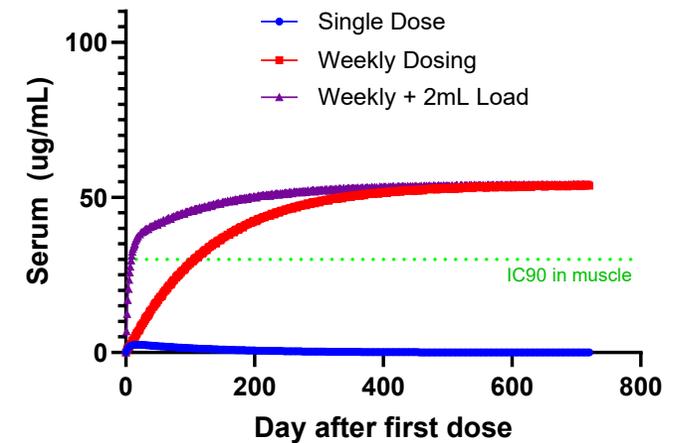
TWICE PER YEAR DOSING (4 x 2 mL s.c.)



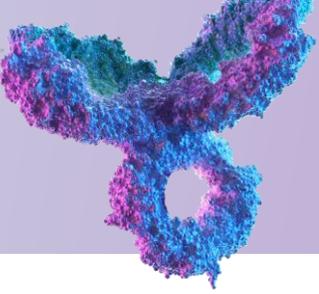
QUARTERLY DOSING (2 x 2 mL s.c. or 1 x 2 mL s.c. + 2 mL loading dose)



CO-DOSING WITH WEEKLY GLP-1 (1 x 0.167 mL s.c. injections)

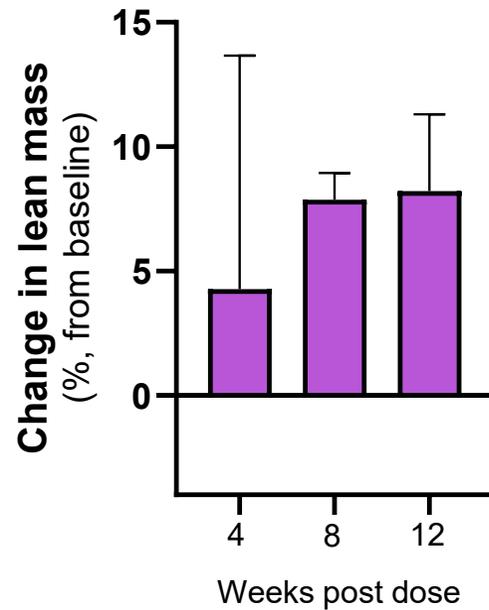


Single Clinically Relevant Low Dose of IBIO-600 Observed to Drive Sustained Muscle Gain and Fat Loss in Aged, Obese Non-Human Primates



PERCENT INCREASE IN LEAN MASS

Single 5 mg/kg Dose



PERCENT DECREASE IN FAT MASS

Single 5 mg/kg Dose

