

SARCOMATRIX

Saving Lives by Restoring Muscles

2024 BIO International Conference, San Diego, CA USA

David Craig, MBA

President CEO

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Option 2

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Unmet Need — No Cures Few Solutions in Development

Broken Muscle Repair	Debilitating and Expensive
Broken Gene = Muscular Dystrophy	↓ Ambulation ↓ Cardiac function ↑ Breathing challenges
Diseases = Cachexia	↑ Hospitalization ↑ Healthcare Costs
Aging = Sarcopenia	↓ Strength ↓ Balance ↑ Falls/Breaks



Shorter, less vibrant lives

Current Therapies have failed, our drugs needed

- × No cures — Tx delay progression
- × 30 different types of Muscular Dyst.
- × Genetic basis >10,000 mutations
- × Skeletal + Smooth + Cardiac Muscle
- × Combination therapy - solution

$\alpha 7 \beta 1$ Integrin Enhancers

Protein Replacement

Cell Therapy

Gene Therapy

MAbs

Our Prospects and Why — our path and strategy

$\alpha 7 \beta 1$

Small Molecules portfolio increases expression of $\alpha 7 \beta 1$ to stabilize and regenerate

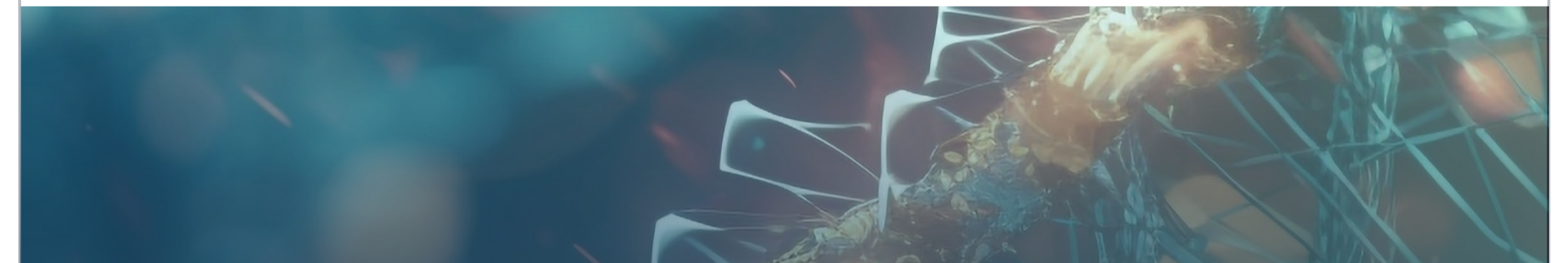
Protein solution



S-969

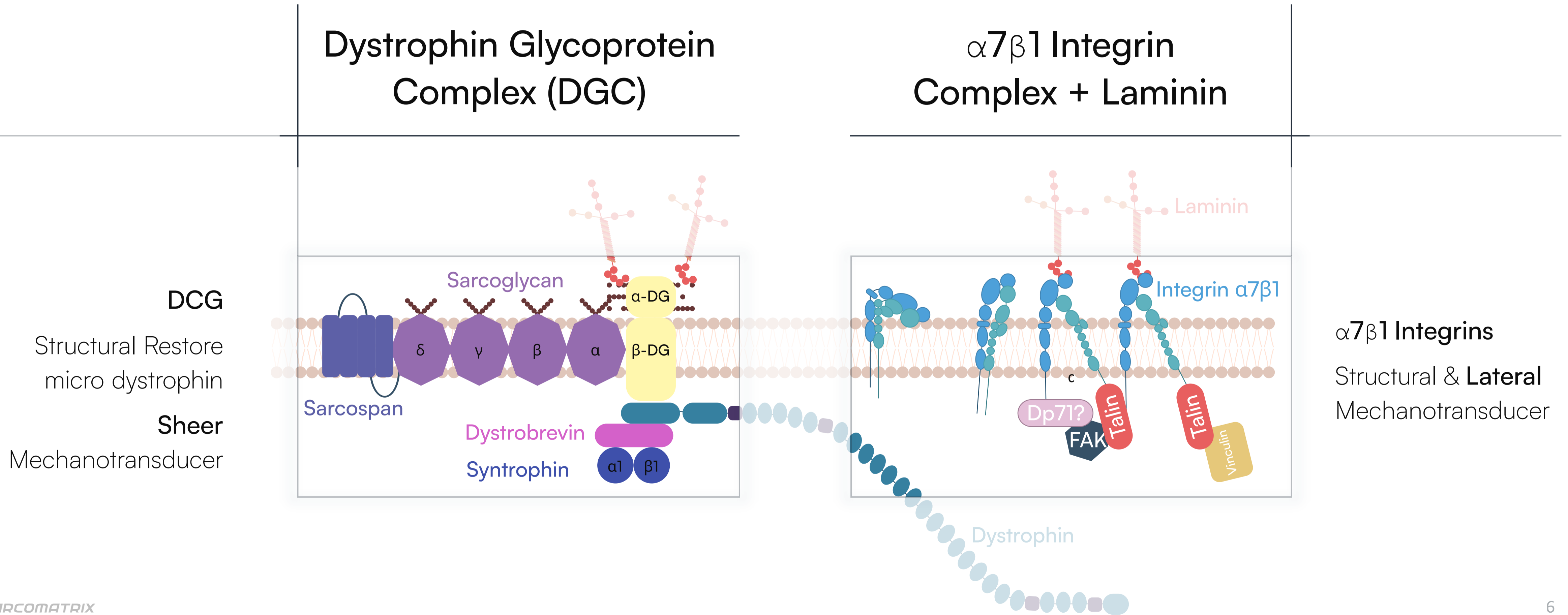
Lead small molecule S-969 our near term focus

Lead protein — other promising things in pipeline



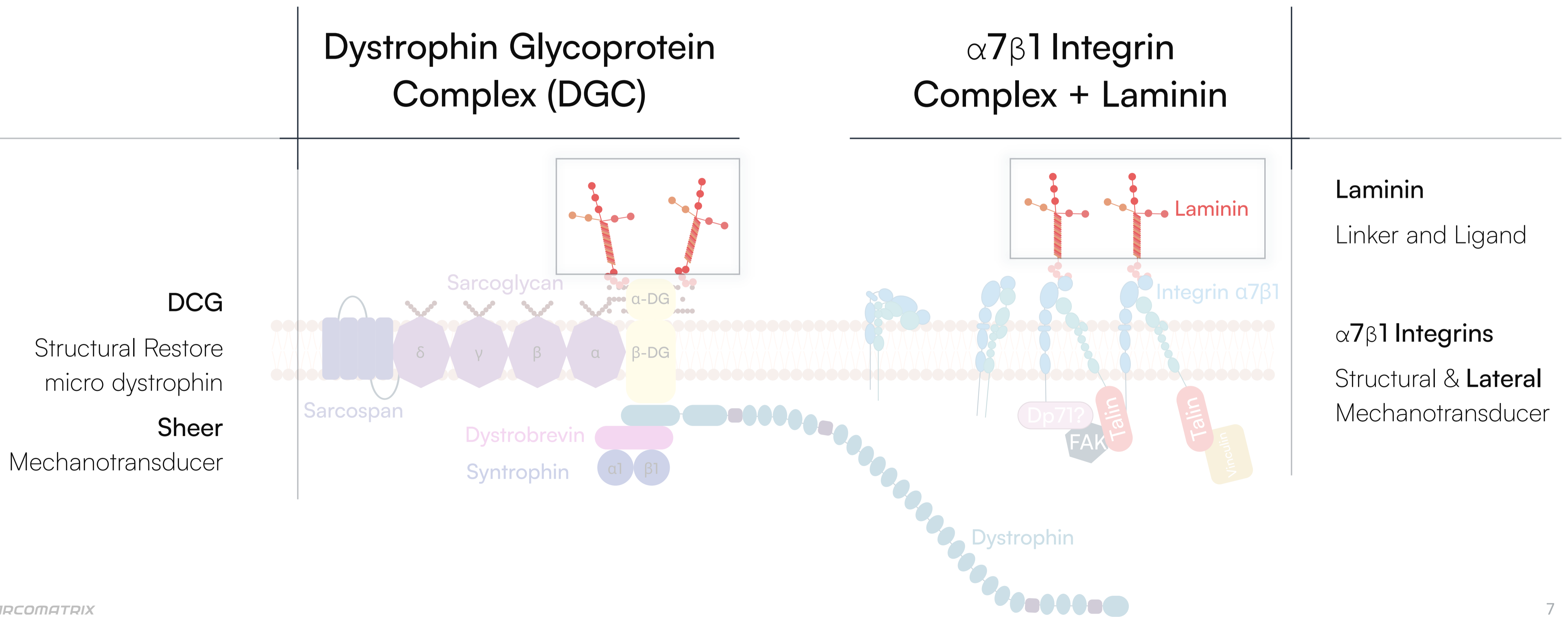
Solution — Unique Mechanism of Action

Addressing Unique Targets

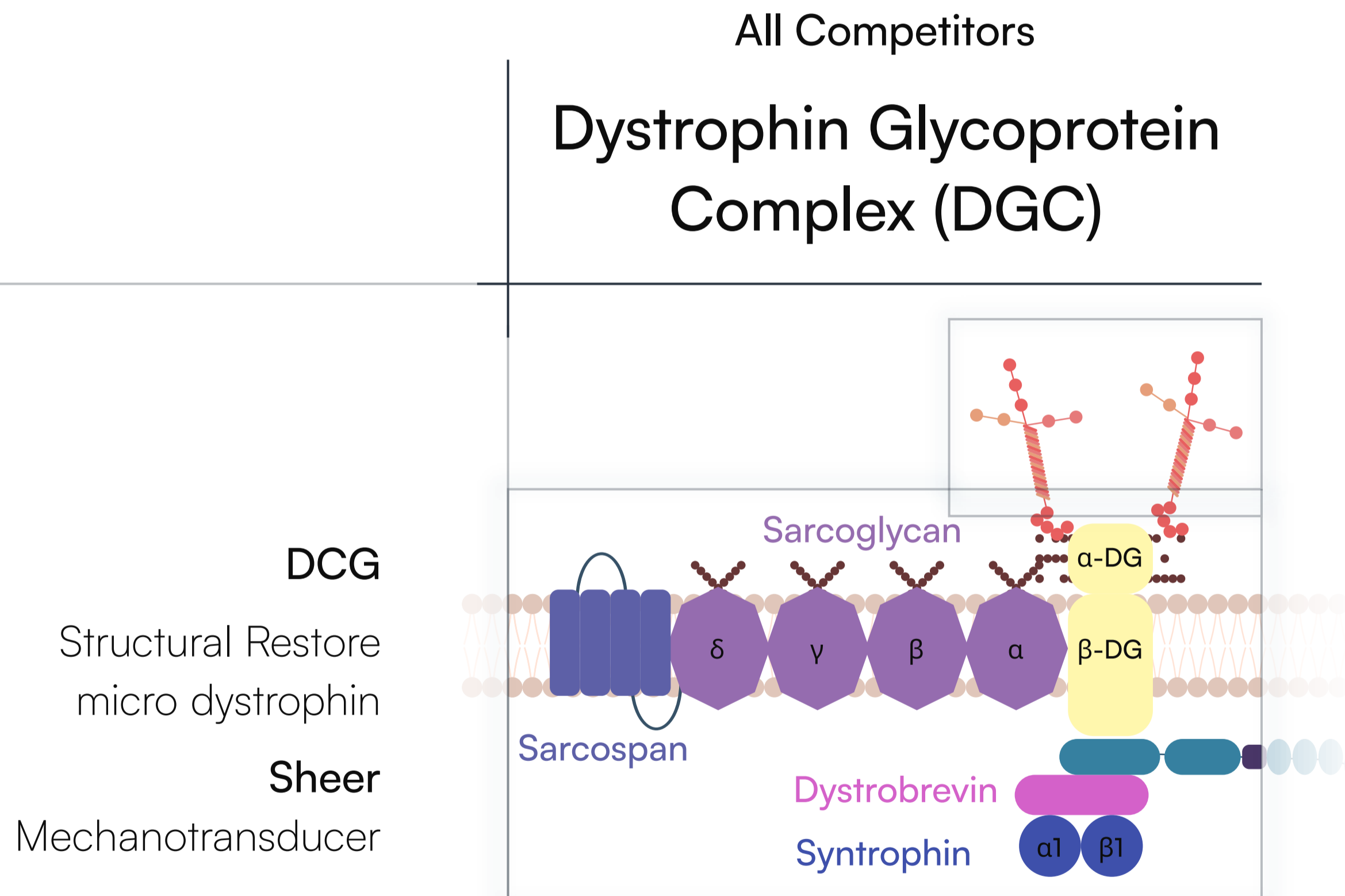


Solution — Unique Mechanism of Action

Addressing Unique Targets



Solution — Unique Mechanism of Action Addressing Unique Targets



All our competitors focus on the DGC

Complex and the “shock absorbing” Dystrophin protein
To date they have had limited success

Gene therapy has not proven effective to Date

Solution — Unique Mechanism of Action

Addressing Unique Targets

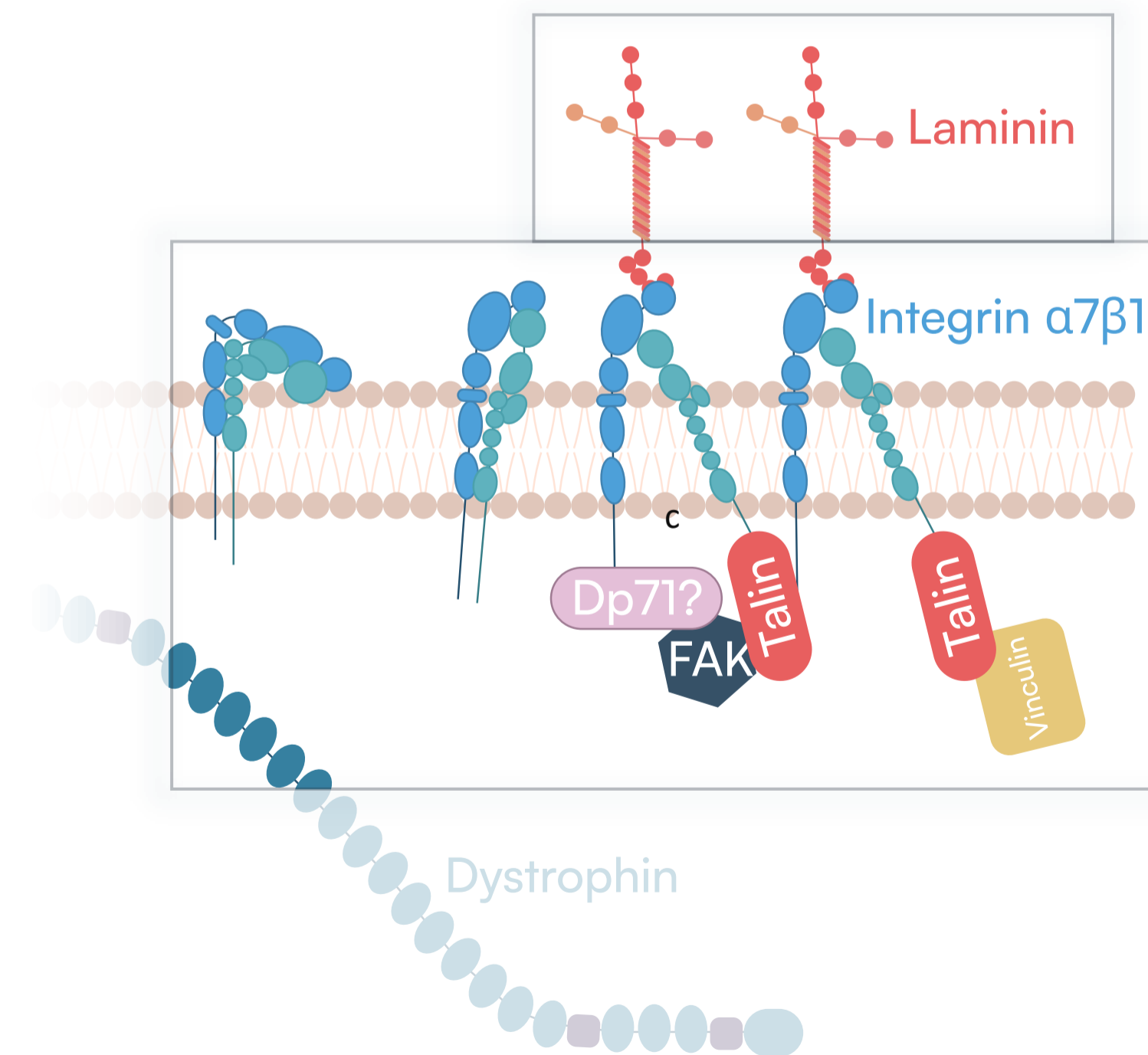
What sets Sarcomatrix apart is our focus on the $\alpha 7\beta 1$ integrin complex, as our treatments increase the number of proteins expressed on the Sarcolemma

Our bodies naturally increase this protein expression 200 to 500 percent for two days following rigorous exercise, repairing muscle through myogenesis

Our drugs act as an “exercise memetic”, tricking unexercised or dysfunctional muscle (as seen in DMD) to stabilize and regenerate muscle

SARCOMATRIX

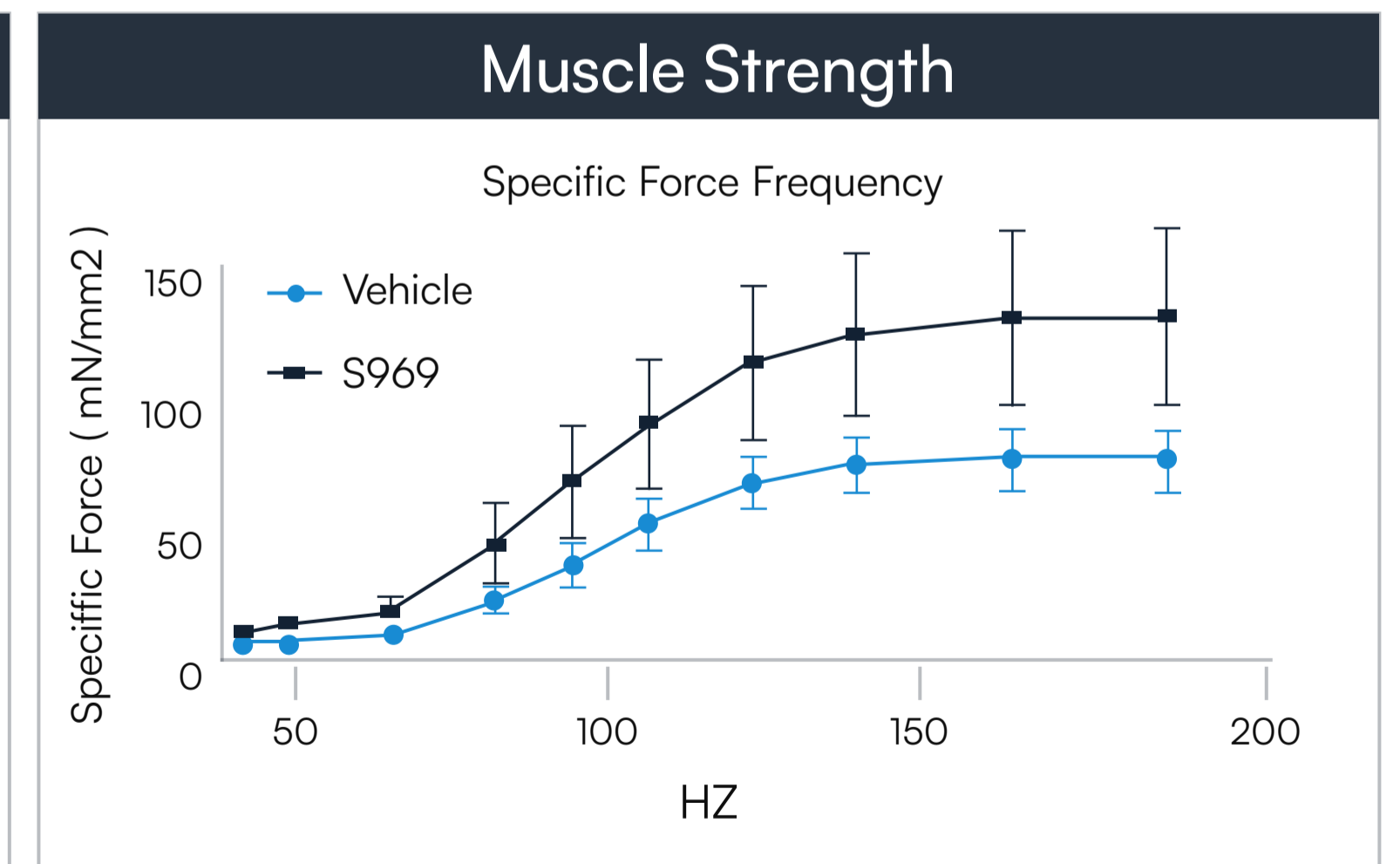
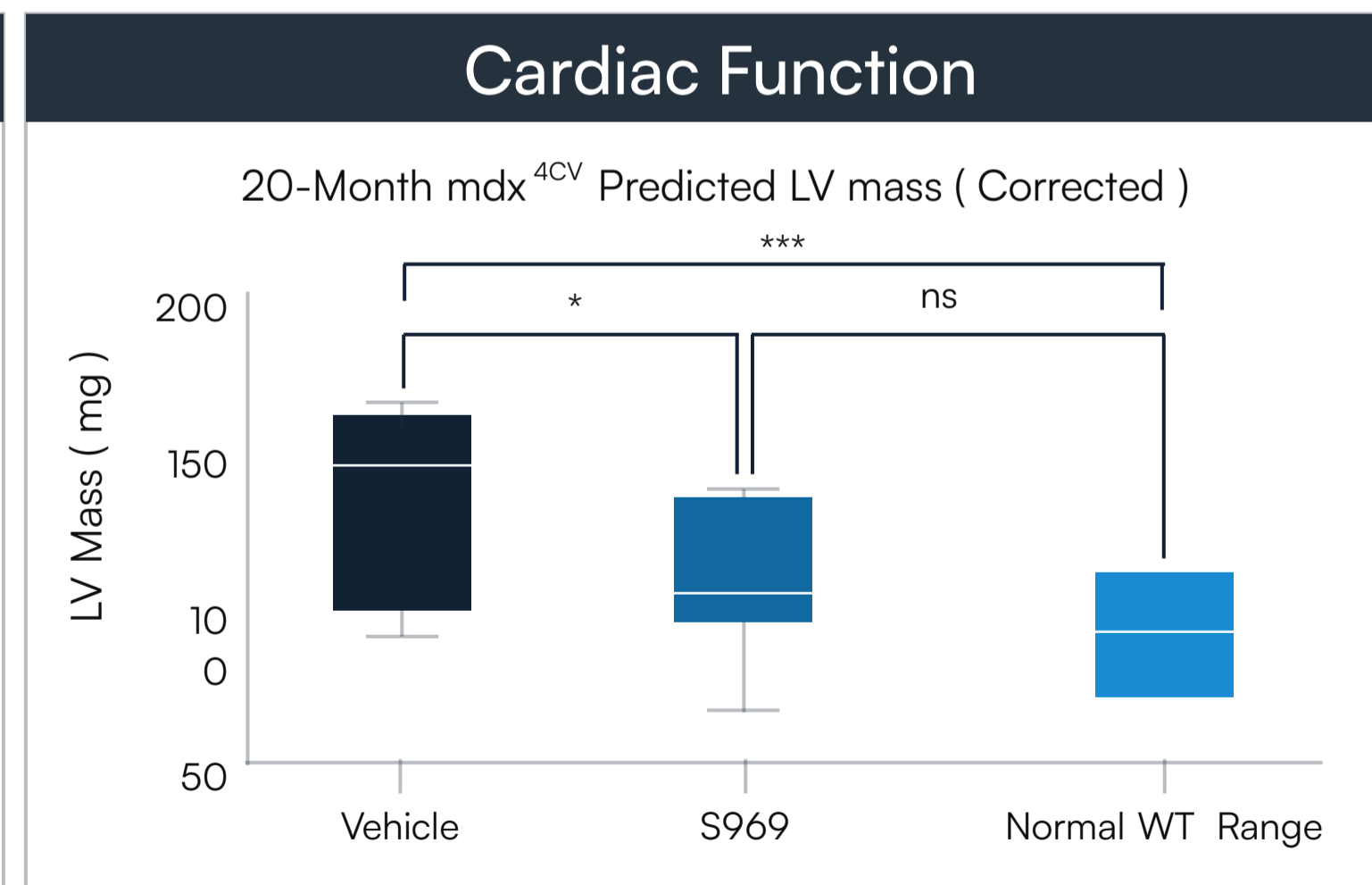
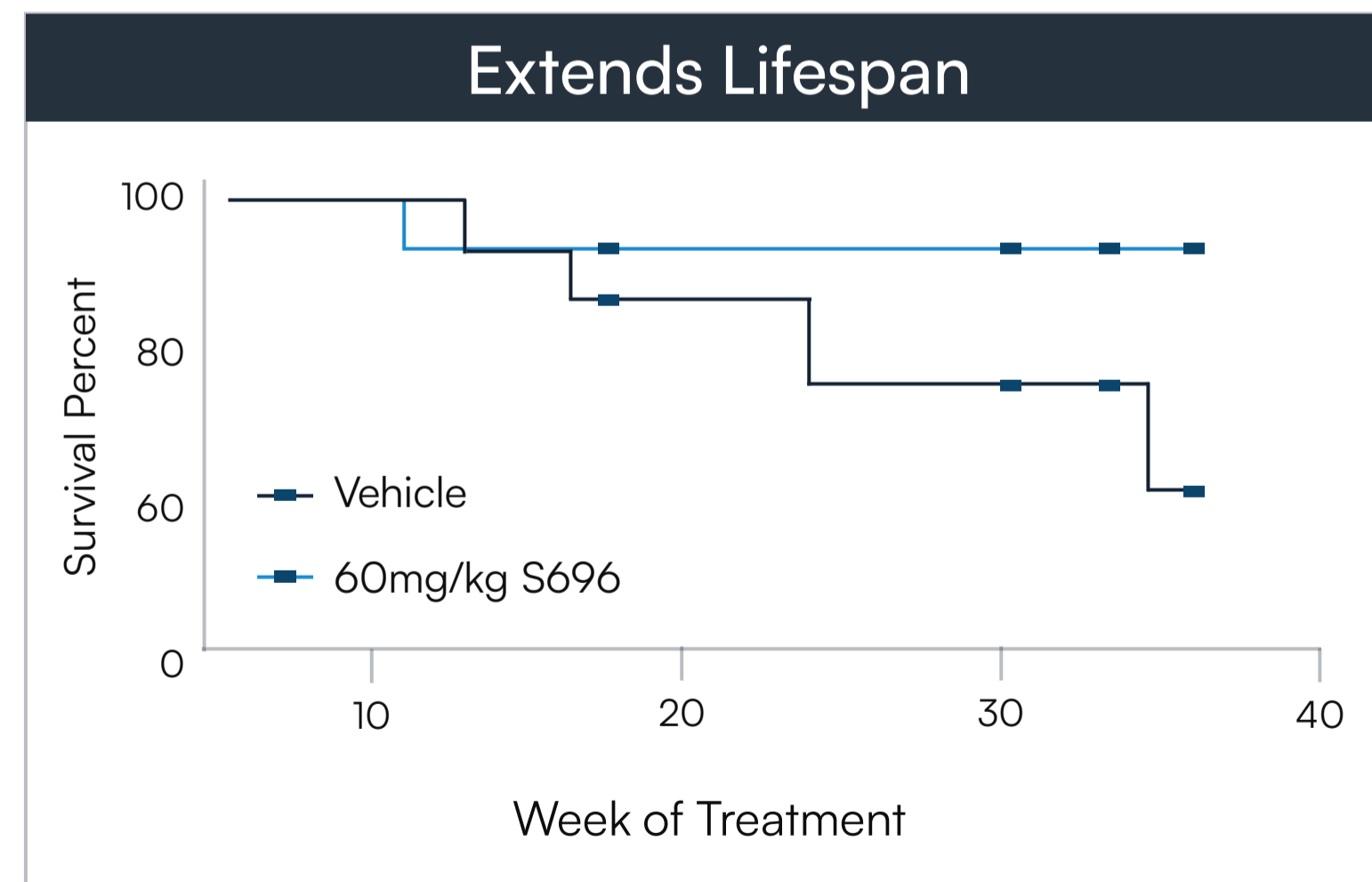
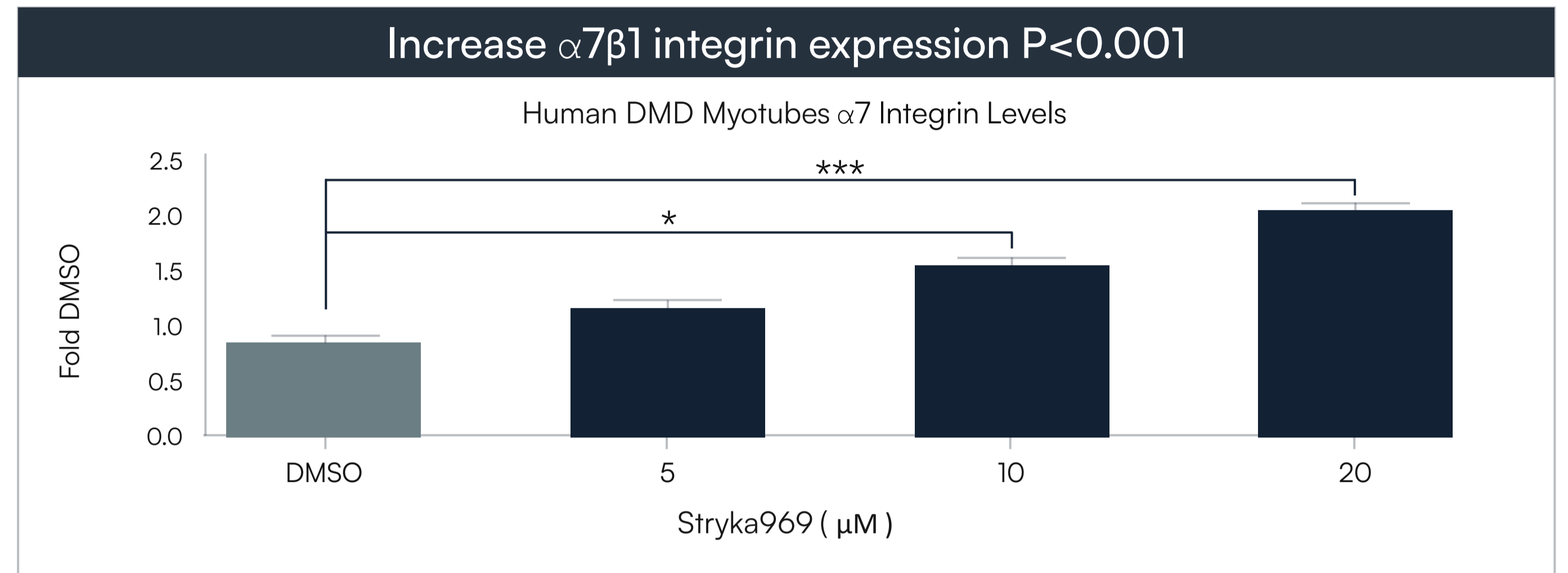
$\alpha 7\beta 1$ Integrin Complex + Laminin



$\alpha 7\beta 1$ Integrins
Structural & **Lateral**
Mechanotransducer

S-969 Science

- Novel first-in-class small molecules
- Unique MOA
- Efficacy in small animals and cells
- Excellent safety profile



Solution for LAMA2-RD — Protein Replacement Injections

LAM-111 replaces LAM-211, restores muscle function & regeneration in dyW mice	
<ul style="list-style-type: none"> • Extends life expectancy by >30 weeks 	<ul style="list-style-type: none"> • Corrects muscle atrophy, apoptosis
<ul style="list-style-type: none"> • Restores animal activity, rearing... 	<ul style="list-style-type: none"> • Stimulates muscle fiber creation
<ul style="list-style-type: none"> • LAM-111 treatment superior to LAM-211 treatment in 2020 Barraza-Flores study 	

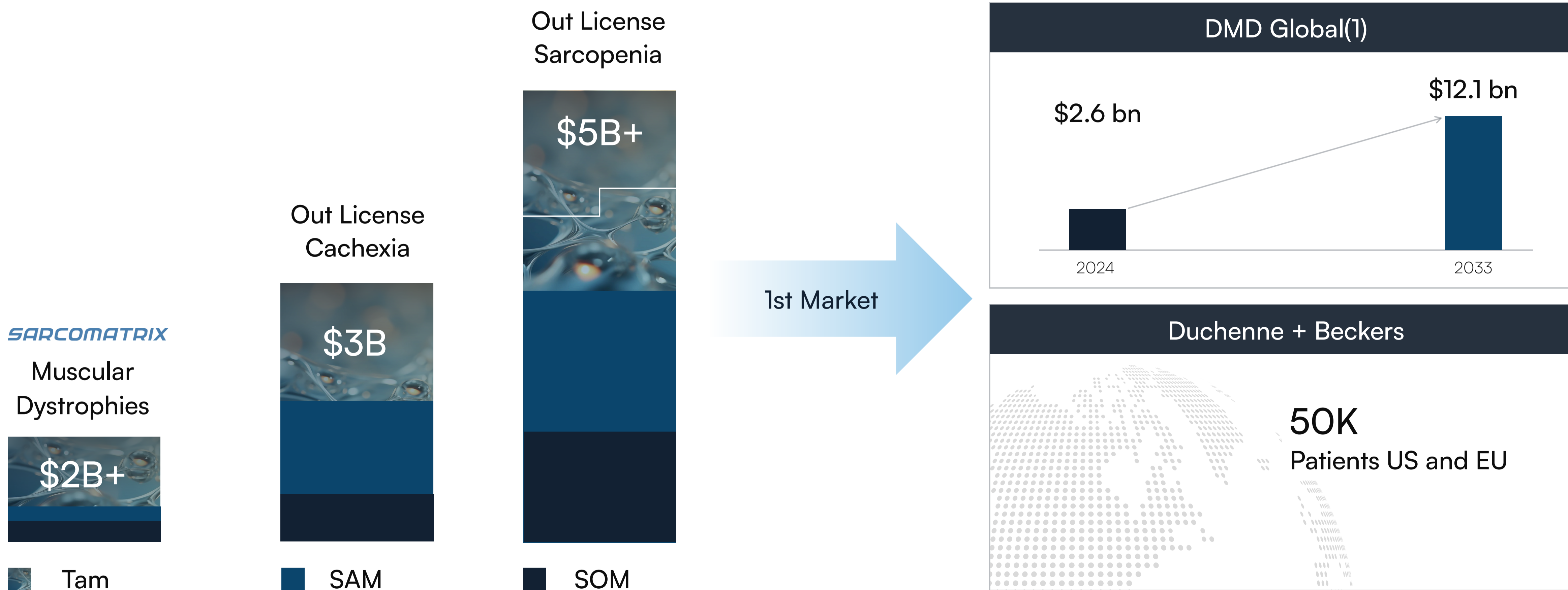


6000
patients estimated
in US / EU5

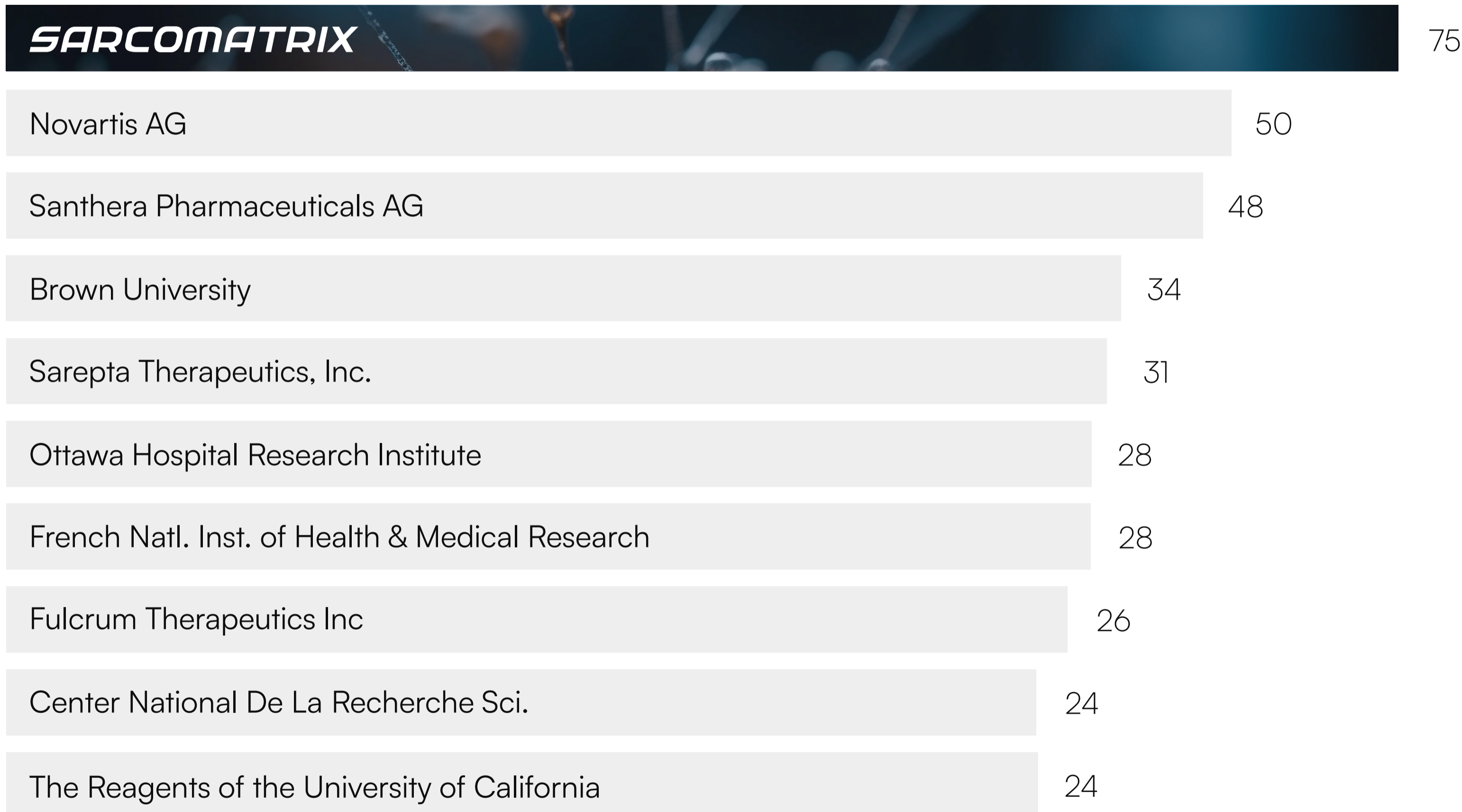
Study	Method	Results	Author
Mouse LAM-111 (young dyW mice)	Weekly dosing 10 mg/kg (IP) 75+ total doses up to 85 weeks	<ul style="list-style-type: none"> • Restores animal activity; rearing, distance traveled, endurance & lifespan • Corrects muscle atrophy, apoptosis, inflammation, fibrosis & regeneration • Reverses muscle disease by stimulating new muscle fiber creation 	Rooney et al., 2012; Van Ry et al., 2013
rhLAM-111 (young dyW/ NOD:SCID mice)	Weekly dosing 1 mg/kg (RO) 5 doses over 6.5 weeks of age	<ul style="list-style-type: none"> • rhLAM-111 restores rearing, activity & endurance better than rhLAM-211 	Barraza-Flores et al., 2020

EDL — Extensor digitorum longus; GRMD — Golden Retriever Model of Duchenne; IM — Intramuscular(ly); IP — Intraperitoneal(ly); IV — Intravenous(ly); KO — knockout; NOD — Non-Obese Diabetic; RO — Retro-orbitally; SCID — Severe Combined Immunodeficiency; TA — Tibialis anterior

Market Opportunity — Muscular Dystrophies Leading to Muscle Wasting

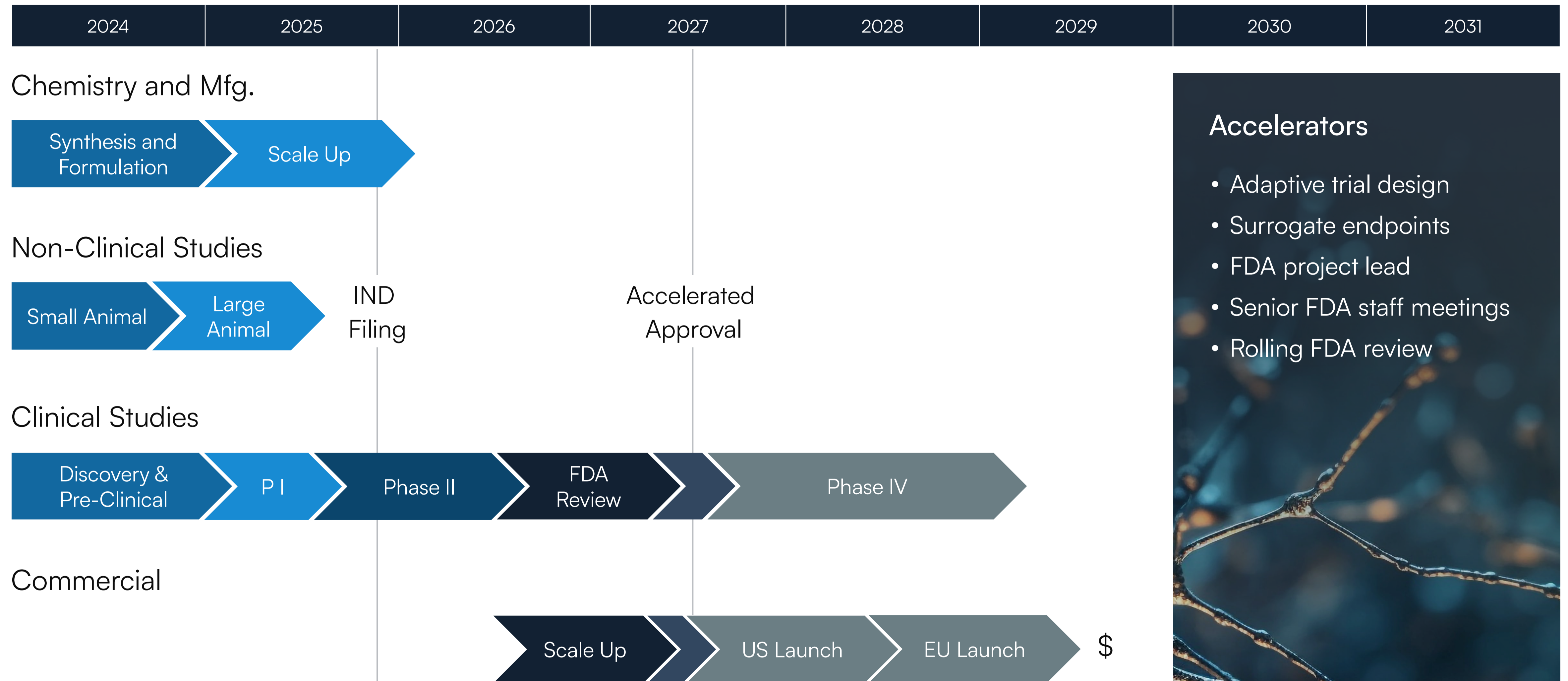


IP Strategy and Status — Extensive Small Molecule Patents, Laminin Orphan Drug Status



- First Generation S-969 method USA and Canada through 2033
- Second generation method and utility patents in progress
- Laminin-111 Orphan Drug in EU
- All programs eligible for Fast Track, Accelerated Approval, and Orphan Drug exclusivity and reduced filing fees

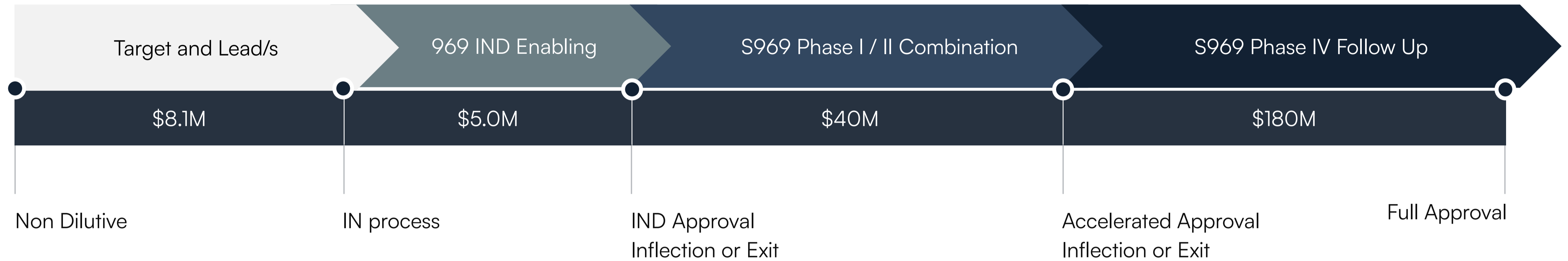
S-969 Advancing to IND and First-in-Human Trials



Accelerators

- Adaptive trial design
- Surrogate endpoints
- FDA project lead
- Senior FDA staff meetings
- Rolling FDA review

Traction - Commercial Strategy Leads to Exit in 2027



Go-to-Market Strategy - establish a specialty pharmaceutical company

Projected first launch 2027 with peak annual sales greater than \$1B

Critical inflection point —Phase I / II Proof of Concept Studies

Out License large Cachexia and Sarcopenia indications

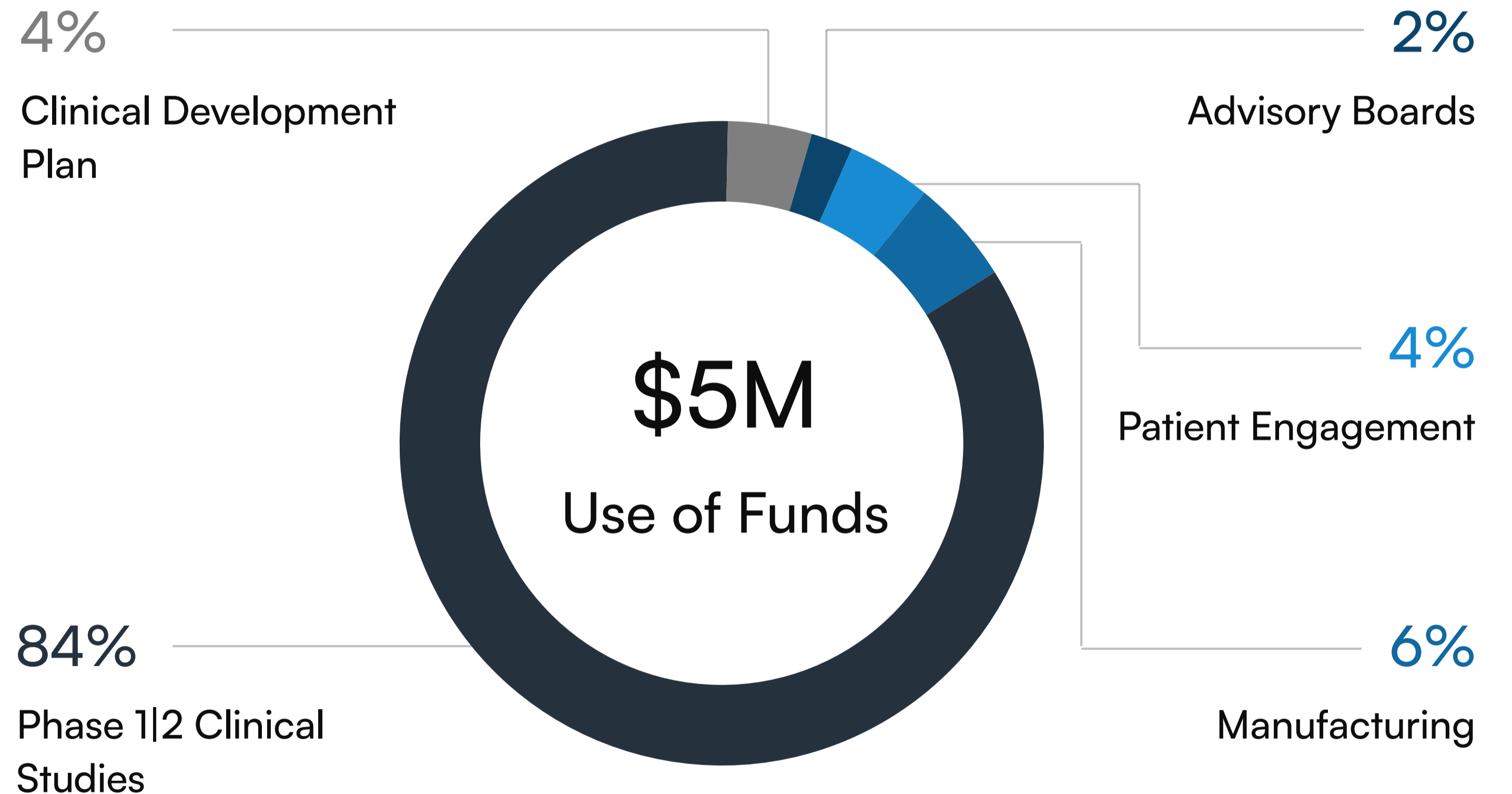
Seed of \$5M Advances to First-in-Human Studies

\$5M Seed Raise

\$1M Soft Circled

Reg CF

StartEngine/ Sarcomatrix



Leadership Team

Leadership 130+ years Experience Developing & Commercializing 20+ drugs;
World Class Scientific and Business Advisors



David Craig
MBA President and CEO

Ryan Wuebbles
PhD Chief Science Officer

David Maine
BS, MEcon, Business Officer

	J. M MD, PhD* Chief Medical Officer
	J. P PhD* Chief Technical Officer

Scientific Advisors	Business Advisors
Professor Dean Burkin, PhD 	Mick Hitchcock, PhD Chairman 
Professor Rachelle H. Crosbie-Watson, PhD 	Sheldon Koenig, MBA President & CEO 
Professor Jeffrey Chamberlain, PhD 	Reza Oliyai, PhD President & CEO 
Professor Alan Beggs, PhD 	Danna Dunn President 



SARCOMATRIX

Target $\alpha7\beta1$ Integrin
Missing Link

All Muscular Dystrophy
Types and Mutations

Experienced, Effective
Management

David Craig, MBA

President CEO

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Additional slides

Additional slides



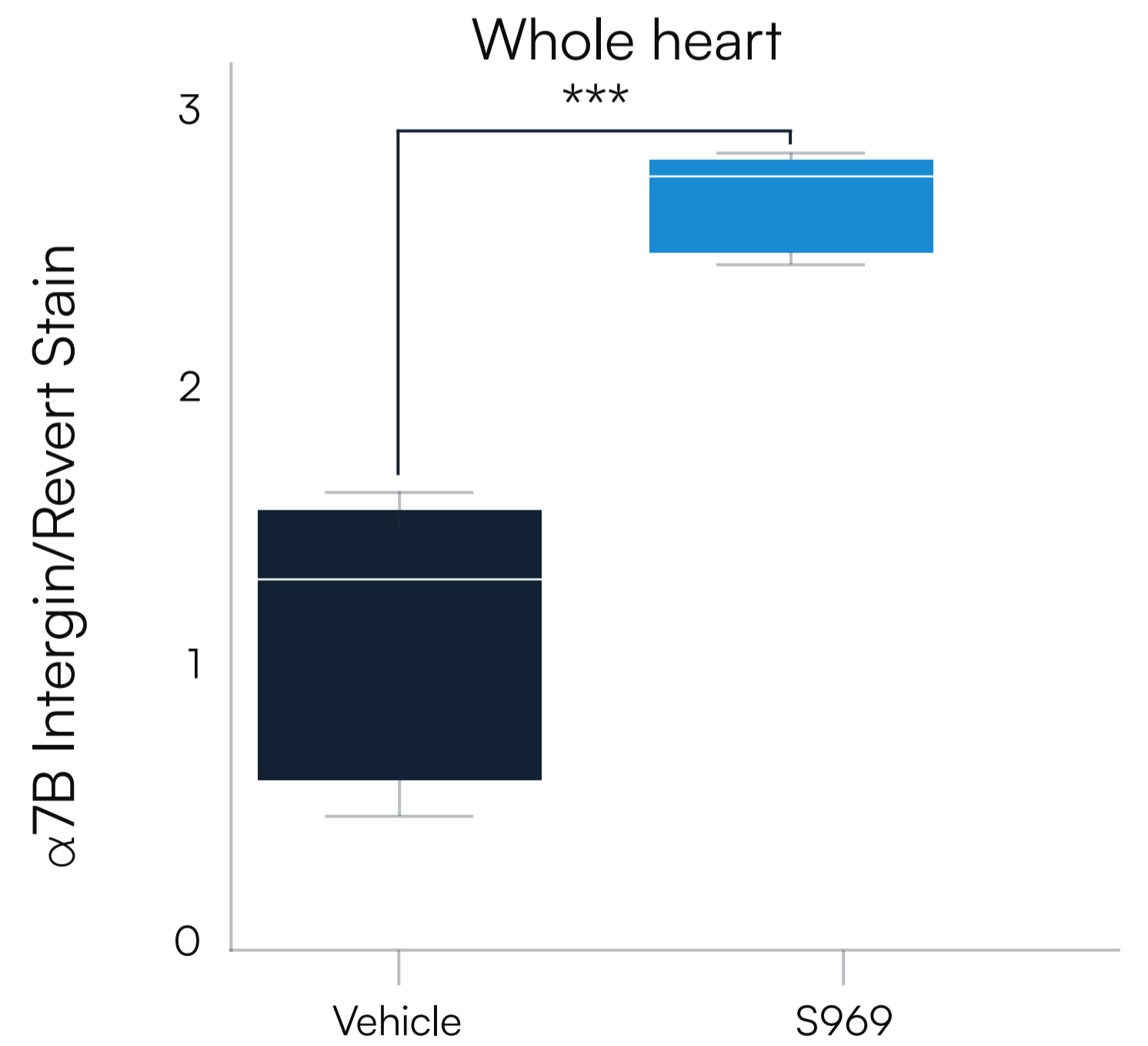
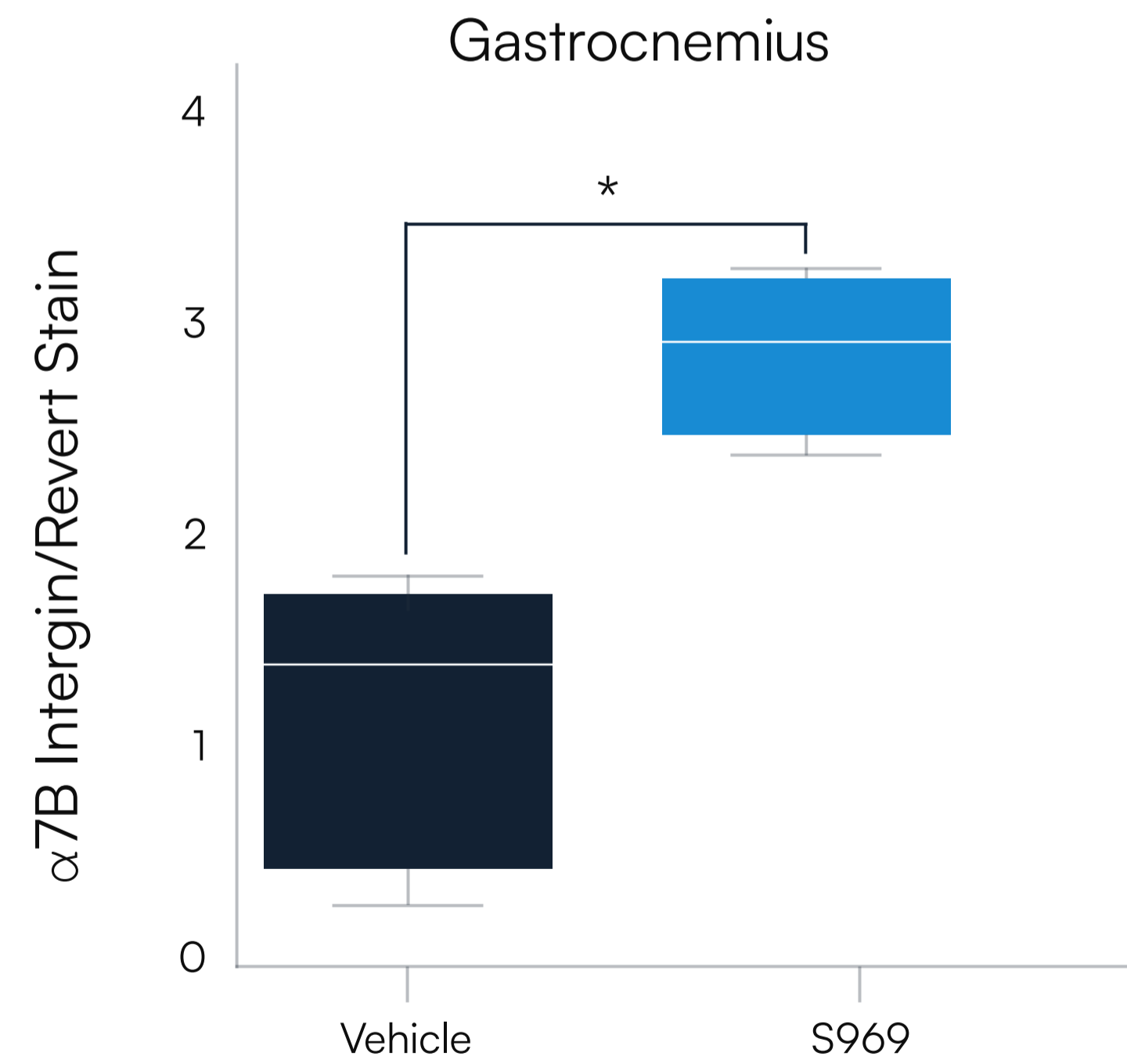
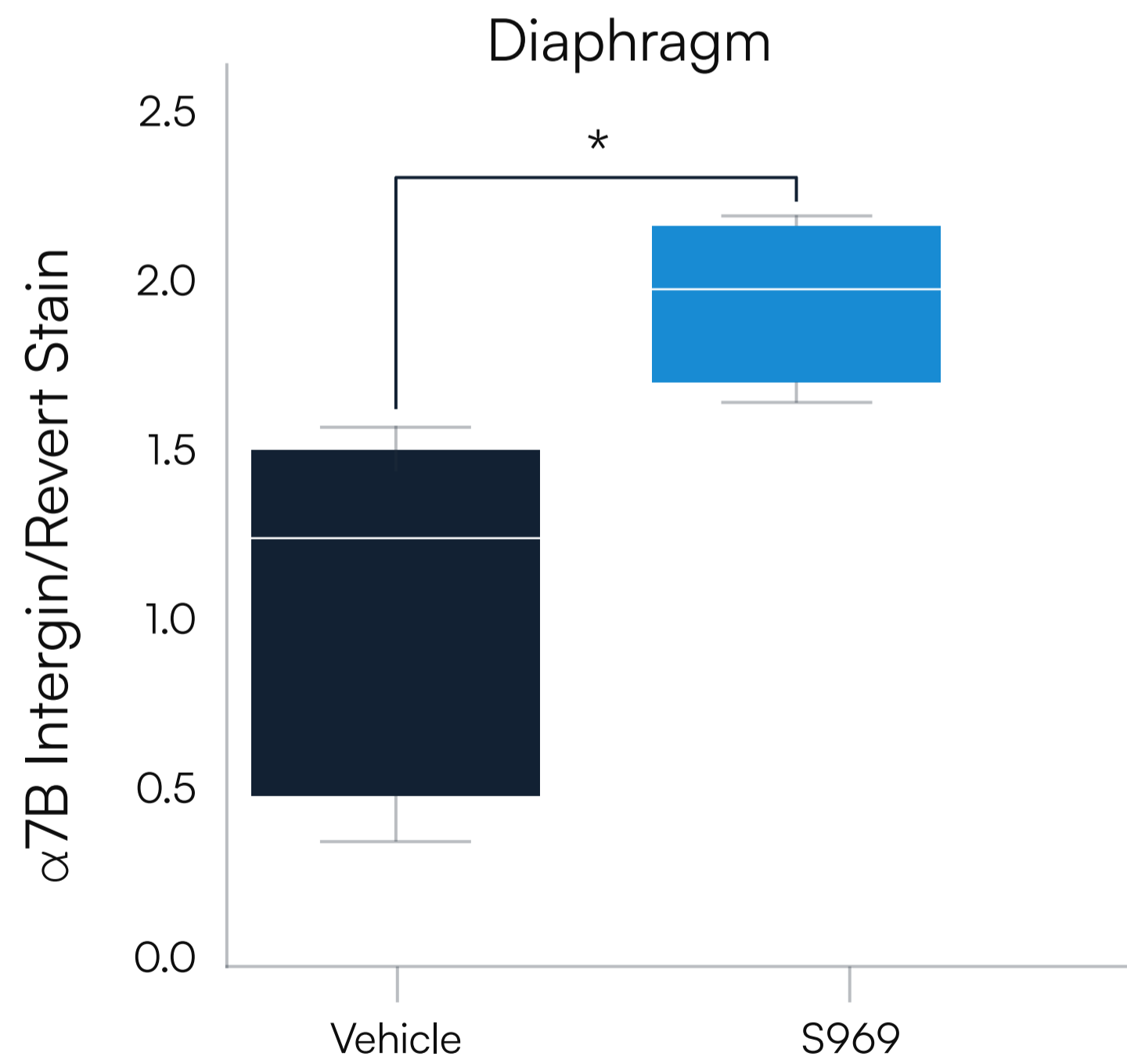
Portfolio of Small Molecules and Proteins

	Lead	Indication	Discovery	Lead optimization	IND enabling	Clinical			Treatment eligible US+EU5	Global rights
						Phase I	Phase II	Phase III		
Wholly Owned	969 \$3M(1) 	Duchenne Muscular Dystrophy				2024			30,000	<i>S</i>
		Becker Muscular Dystrophy							10,000	<i>S</i>
		Limb Girdle Muscular Dystrophy							10,000	<i>S</i>
	LAM 111 \$27M(1)	Congenital Muscular Dystrophy				TBD			6,000	<i>S</i>
		Other MDs							19,000	<i>S</i>
	Novel Target \$3M(1) 	Duchenne Muscular Dystrophy				TBD			30,000	<i>S</i>
		Becker Muscular Dystrophy							10,000	<i>S</i>
		MD Cardiac Myopathy							200,000+	<i>S</i>

Active All Muscle Types — Smooth, Skeletal and Cardiac

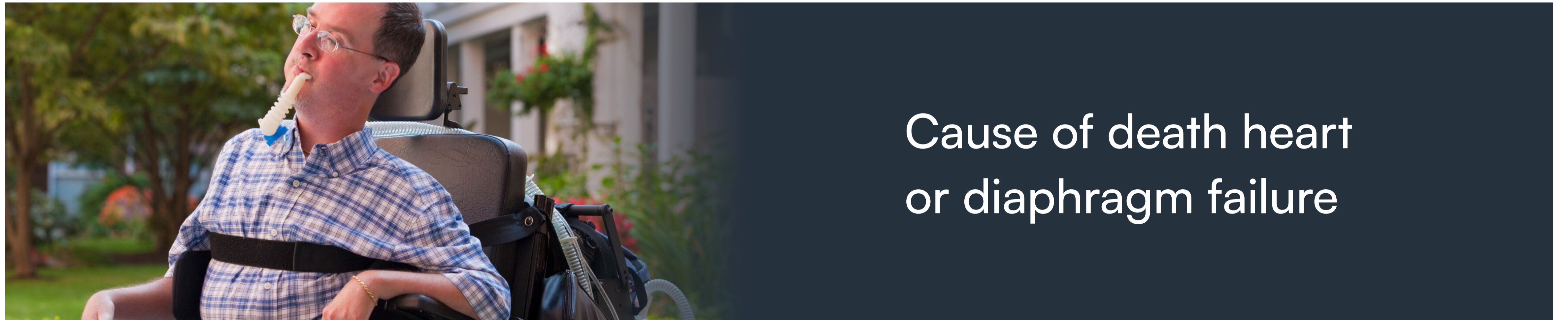
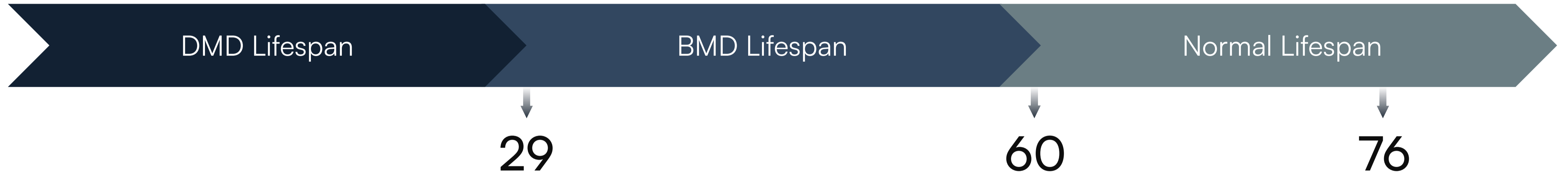
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Skeletal	Skeletal	Cardiac
184% increase	201% increase	236% increase



*** $P > 0.005$; ** $P < 0.01$; * $P < 0.05$
Otherwise n.s.

Short Life & Frequently Die from Heart or Lung Failure



Large and Growing Unmet Needs



Sarcopenia
\$4B+



Cachexia
\$3B+



Muscular Dystrophies
\$2B+

Market Size

Severity

Few Studies Needed to First-In-Human Trials

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CRO Performed Studies	
Pathway Assessment	✓
Receptor Binding Assessment	✓
Tier 1 Safety Scan	✓
hERG Calcium Channel Inhibition	✓
Compound Stability	✓

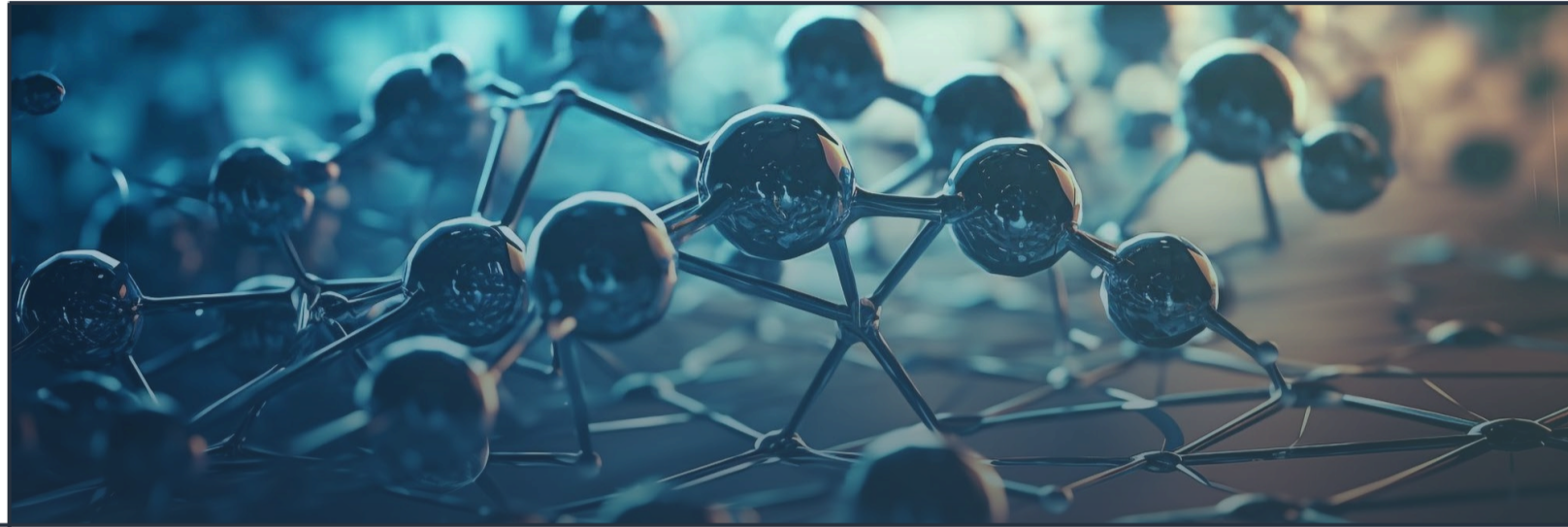
In Vitro Myogenic Cell Studies	
Myoblast and Myotube Screening	✓
SAR Screening	✓
On Target Activity	✓
$\alpha 7\beta 1$ Integrin Sarcolemma Exposure	✓

Completed
 In Progress
 In Planning

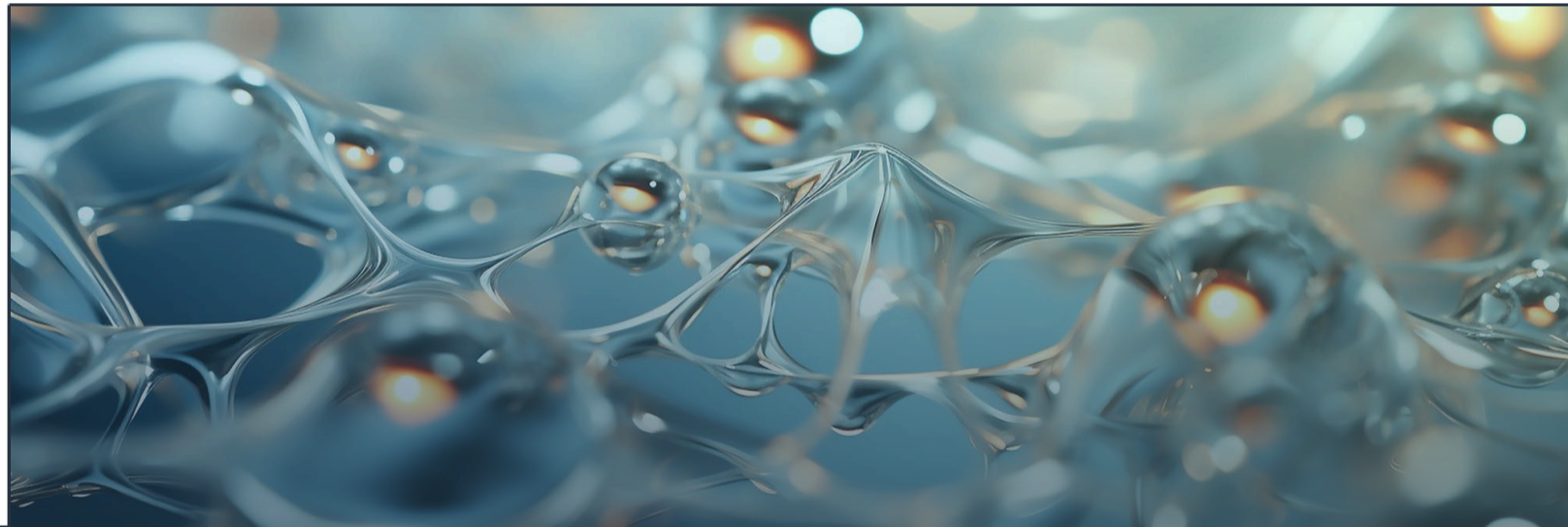
mdx4CV PreClinical Mouse Studies	
Safety-Toxicity Evaluation	✓
Serum Pharmacokinetic Profile	✓
Tissue Pharmacodynamics	
10-week Efficacy (Skeletal Muscle)	
52-week Efficacy (Skeletal Muscle)	
Aged Cardiac Efficacy	

IND-Enabling Studies	
GMP Manufacturing	
GRMD* Pharmacokinetics	
GRMD Dose Escalation Study	
GRMD Efficacy Study	

Key Take Aways



Target $\alpha 7 \beta 1$ Integrin complex — a missing piece

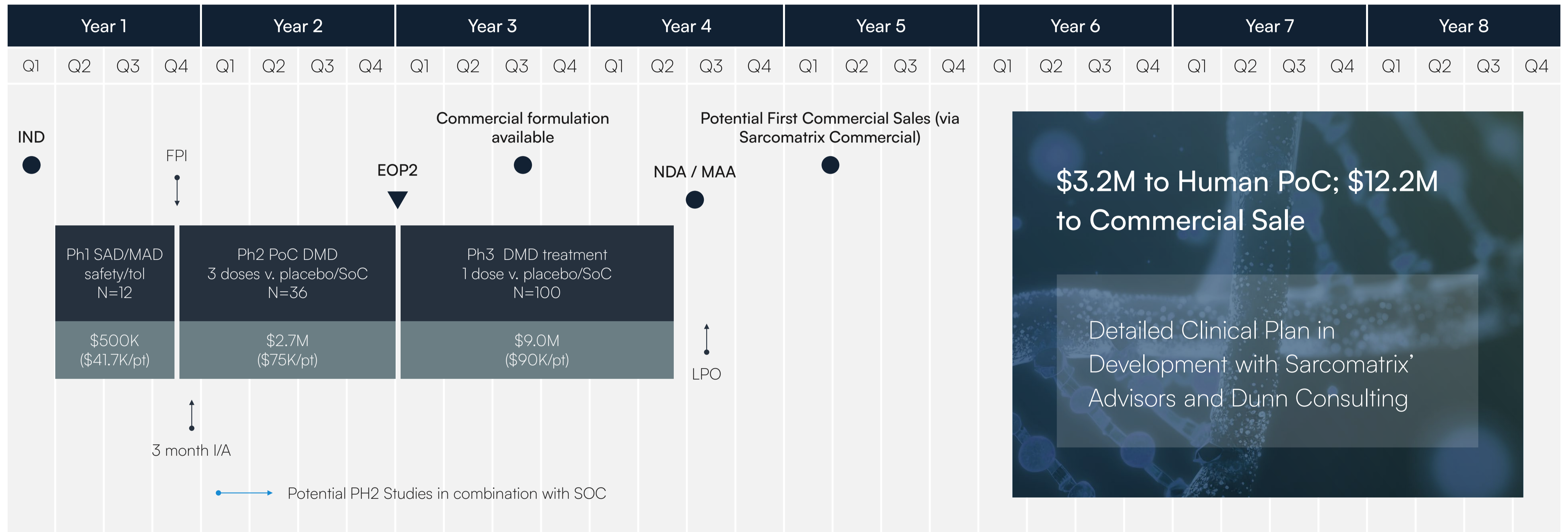


969 solves the unmet needs for effective, affordable and easy to take



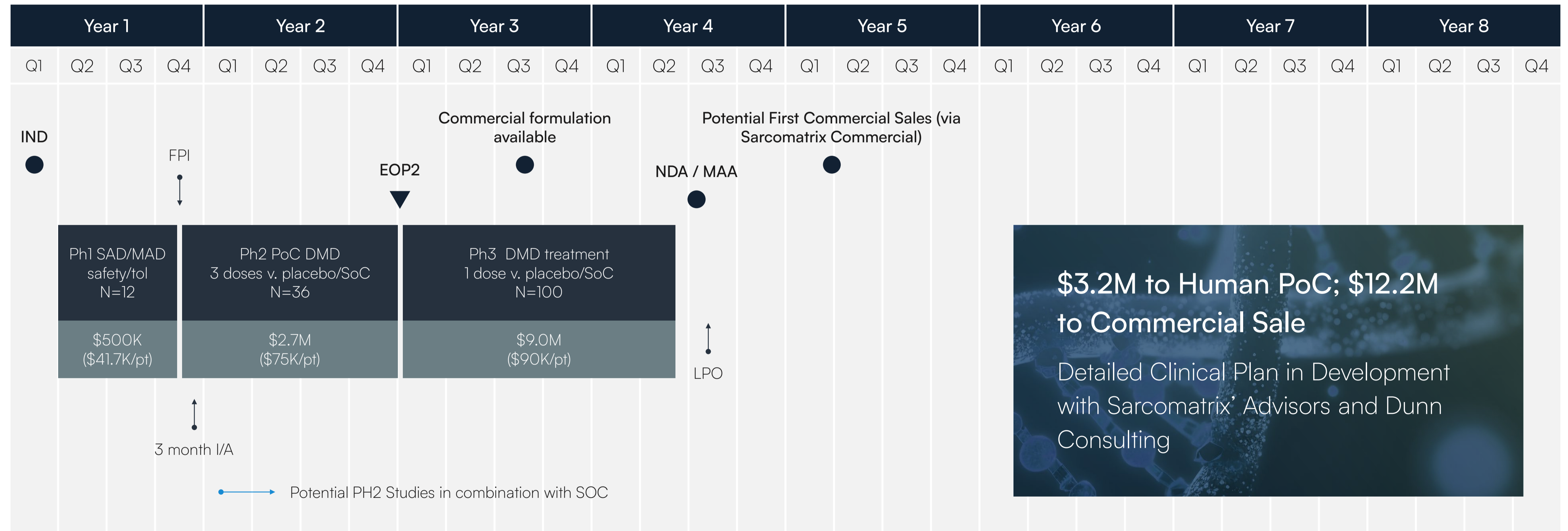
Our team is passionate & committed, with the skills and experience to execute the business plan

S-969 Duchenne Muscular Dystrophy Clinical Development Plan Overview - \$3.2M to PoC & \$12.2M to Commercial



Abbreviations: TLF (Top line Tables, Listings, & Figures); I/A (Interim Analysis); FPI (First Patient In); LPI (Last Patient In); PoC (Proof of Concept); SAD (Single ascending dose); MAD (Multiple ascending dose); DMD (Duchenne Muscular Dystrophy); SoC (Standard of Care)

S-969 Duchenne Muscular Dystrophy Clinical Development Plan Overview - \$3.2M to PoC & \$12.2M to Commercial



\$3.2M to Human PoC; \$12.2M to Commercial Sale

Detailed Clinical Plan in Development with Sarcomatrix' Advisors and Dunn Consulting

Abbreviations: TLF (Top line Tables, Listings, & Figures); I/A (Interim Analysis); FPI (First Patient In); LPI (Last Patient In); PoC (Proof of Concept); SAD (Single ascending dose); MAD (Multiple ascending dose); DMD (Duchenne Muscular Dystrophy); SoC (Standard of Care)

Sarcomatrix — Evolving into a fully integrated global company

The Company

- Founded in 2022 and 2013*
- Delaware — C Corp positioned for growth
- 3 Employees/3 Pending/Consultants
- Co-Founders Dean Burkin Lab, University of Nevada Reno & Industry Veterans

Programs Targeting High Unmet Medical Need

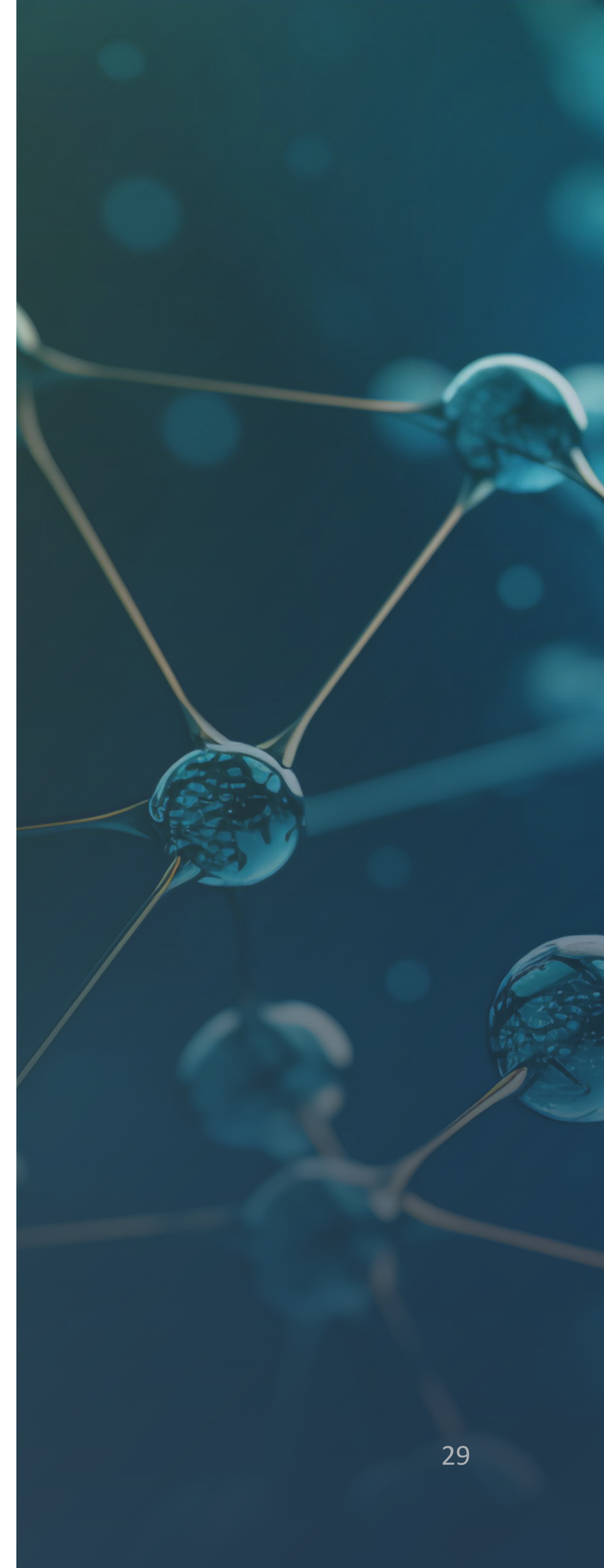
- Broad variety of muscle wasting diseases
- Active in most muscular dystrophies
- IND submission expected 2024/2025

Industry-Leading Muscle Research

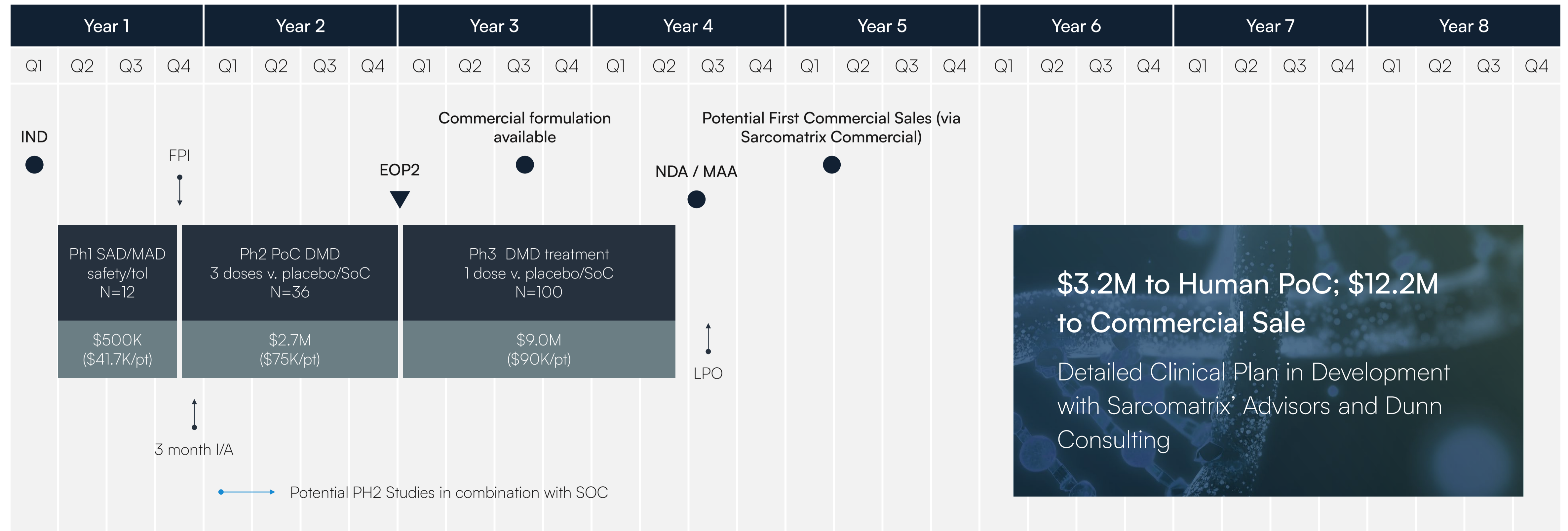
- Innovative muscle research
- Discovery platform and novel screening platform
- Robust IP hundreds of scaffolds supporting thousands of compounds

Assets For Strategic Partnerships

- Stealth alliance to discover and develop laminins for ultra rare diseases
- Open to licensing opportunities
- Worldwide patent protection and ownership






S-969 Duchenne Muscular Dystrophy Clinical Development Plan Overview - \$3.2M to PoC & \$12.2M to Commercial



Abbreviations: TLF (Top line Tables, Listings, & Figures); I/A (Interim Analysis); FPI (First Patient In); LPI (Last Patient In); PoC (Proof of Concept); SAD (Single ascending dose); MAD (Multiple ascending dose); DMD (Duchenne Muscular Dystrophy); SoC (Standard of Care)

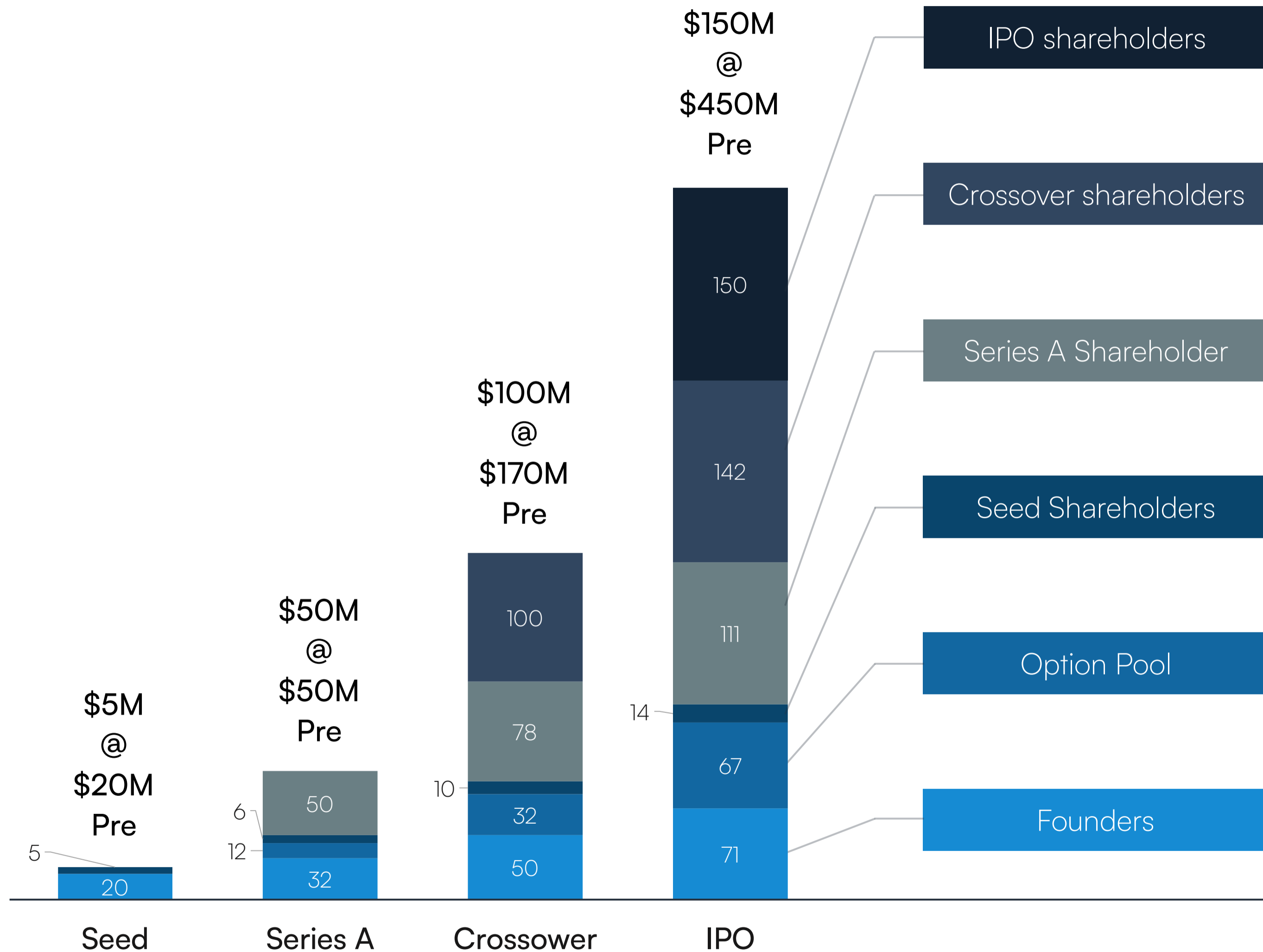
We Address Unmet Needs for Effective, Affordable, Easy to Take

Treatment	Cost/Patient	Dystrophy Type	Muscle Type	Delivery
S-969	\$XXX,000	All	Skeletal Smooth Cardiac	
Exon Skipping ⁽²⁾	\$0.75M - 1.5M	DMD	Skeletal	
Gene Therapy ⁽²⁾	\$3M	DMD	TBD	

(1) Consensus of Advisory Boards & rare disease drug comparisons

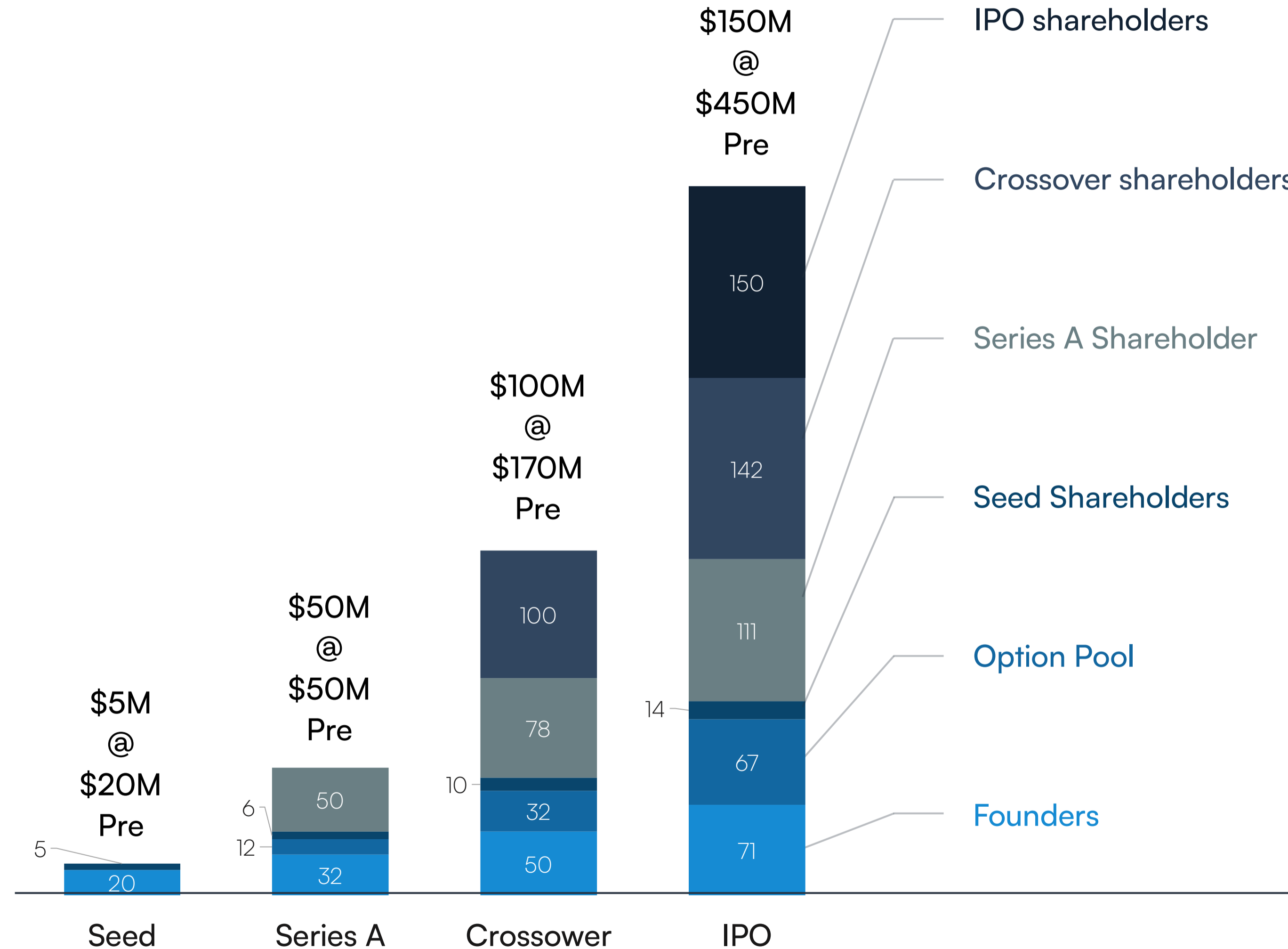
(2) Duration and frequency or repeat treatments to be determined

Value Step Up — Seed to IPO, \$M



Select Assumptions	
Seed Assumptions	
Seed Round Pre-Money Valuation	\$20,000,000
Seed Round New Investment	\$5,000,000
Available Seed Round Option Pool	12%
Series A Assumptions	
Series A Pre-Money Valuation	\$50,000,000
Series A New Investment	\$50,000,000
Available Series A Option Pool	12%
Crossover Assumptions	
Crossover Pre-Money Valuation	\$170,000,000
Crossover New Investment	\$100,000,000
Available Cross Over Option Pool	12%
IPO Assumptions	
IPO Pre-Money Valuation	\$405,000,000
IPO Raise	\$150,000,000
Available IPO Option Pool	12%

Value Step Up — Seed to IPO, \$M



Select Assumptions	
Seed Assumptions	
Seed Round Pre-Money Valuation	\$20,000,000
Seed Round New Investment	\$5,000,000
Available Seed Round Option Pool	12%
Series A Assumptions	
Series A Pre-Money Valuation	\$50,000,000
Series A New Investment	\$50,000,000
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Crossover Assumptions	
Crossover Pre-Money Valuation	\$170,000,000
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IPO Assumptions	
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IPO Raise	\$150,000,000
Available IPO Option Pool	12%