SARCOMATRIX

Saving Lives by Restoring Muscles

JP Morgan Biotech Conference - January 12 - 16, 2025
San Francisco, United States

David Craig, MBA
President CEO
Cell +01 415-246-3311
david.craig@sarcomatrix.com

Sarcopenia (Aging)

Cachexia (Cancer Tx)

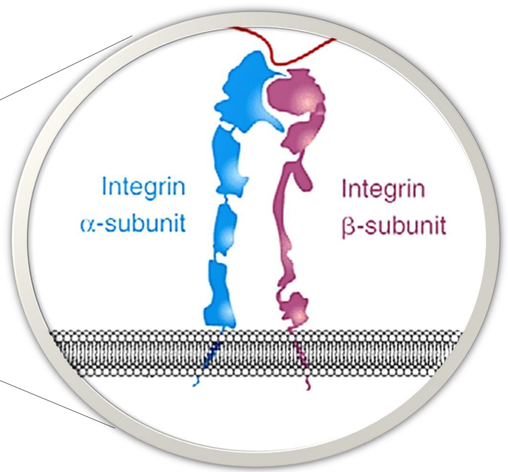
1,000,000

Muscular Dystrophy

Wears Out

Competitive Advantage & Novel Target α7β1 Integrin

α7β1 Integrin
↑300%



Mechanical Sensor

Myogenic Pathways

PI3K/Akt/mTOR

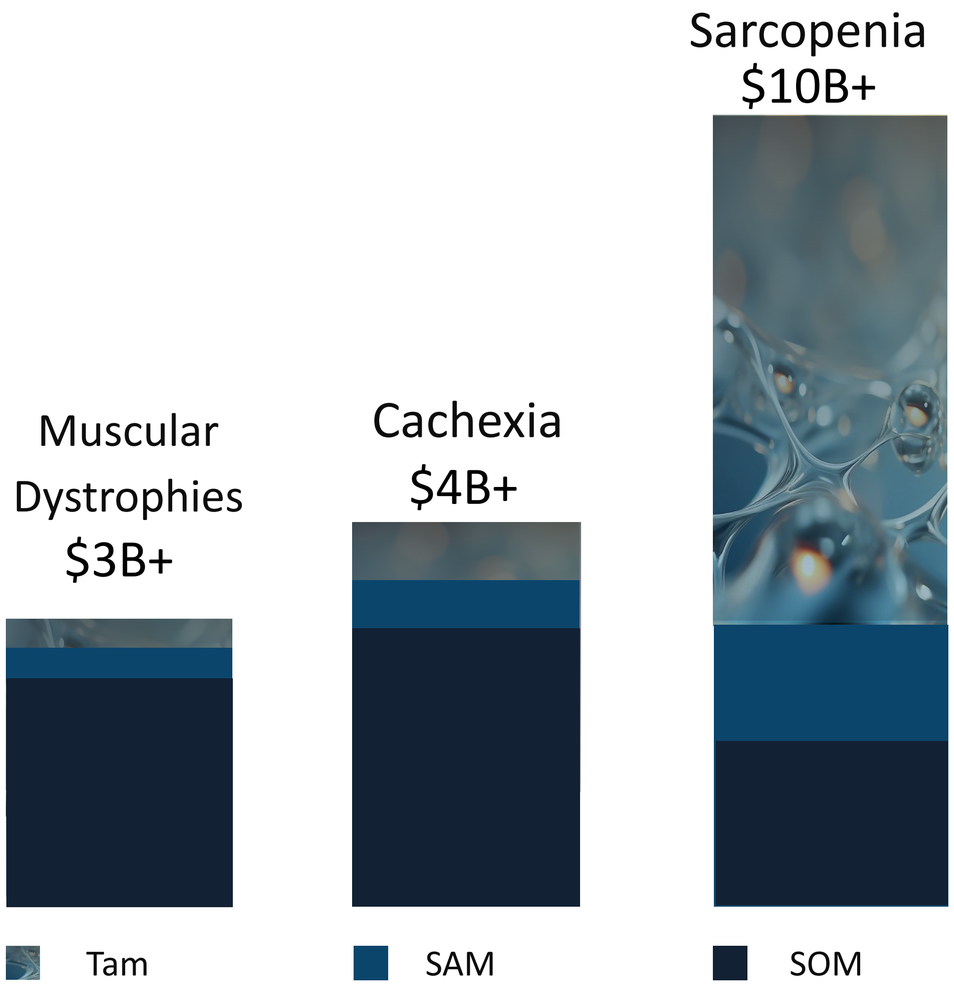
MAPK/ERK

Hippo-YAP

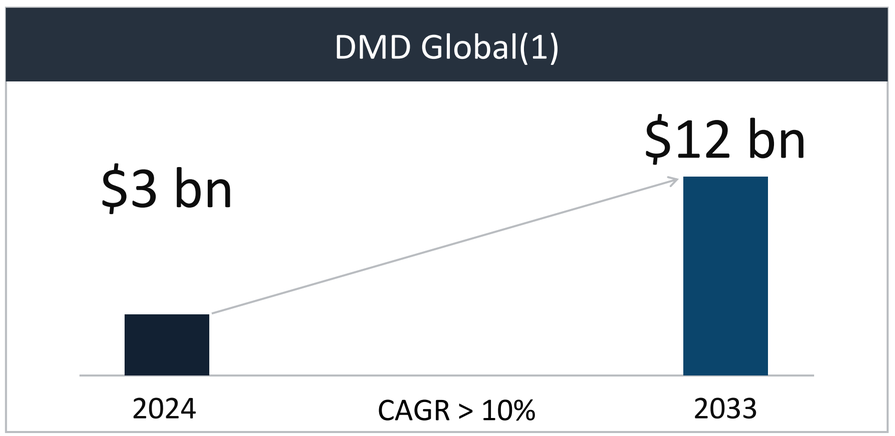
Wnt/β-Catenin

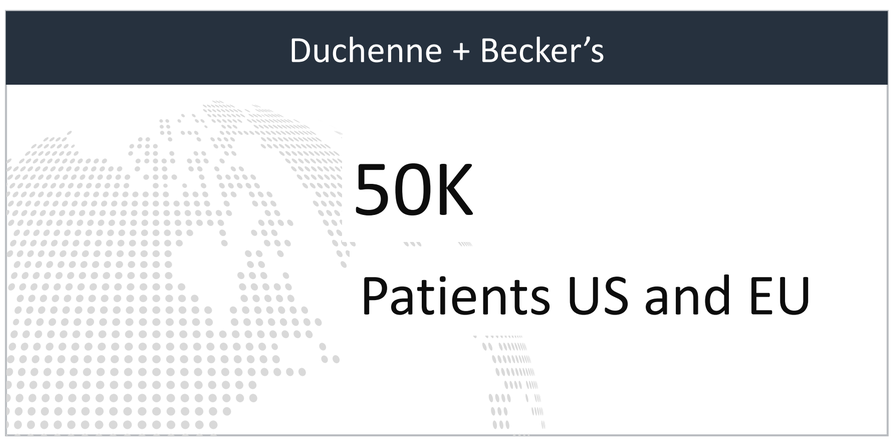
TGF-β/SMAD

Strategic Blueprint: Build A Specialty Biotech Enterprise



1st Market

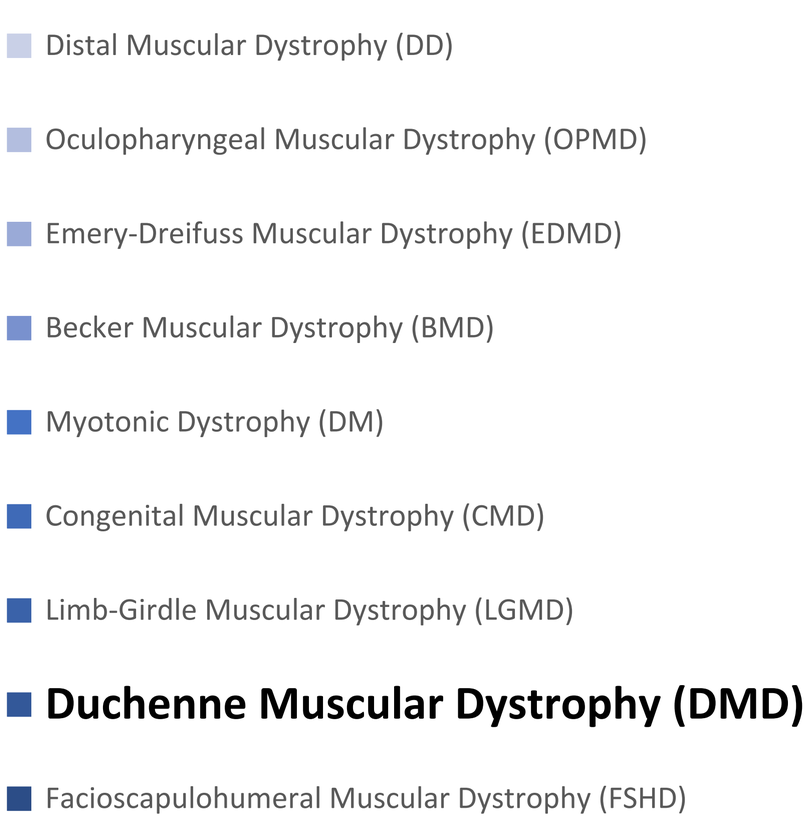


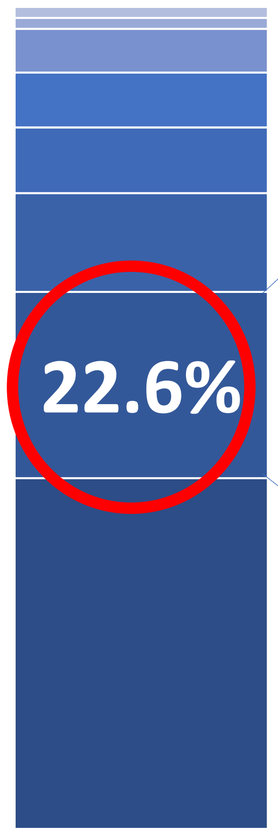


(1) https://josr-online.biomedcentral.com/articles/10.1186/s13018-022-02996-8: 5.1 per 100,000 people

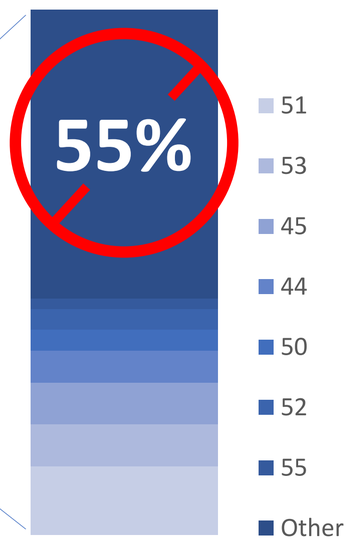
90% of Muscular Dystrophy Patients No Treatments

Duchenne Muscular Dystrophy (DMD) Represents ~23% of all Muscular Dystrophies





55% of DMD No Treatments



Duchenne Mutations

90% of All MDs No Treatments

S-969 Solves Unmet Needs: Affordable, Effective, Easy

Treatment	Cost/Patient	Dystrophy Type	Mutation	Muscle Type	Delivery
S-969	$TBD	**All**	**All**	Skeletal, **Cardiac**	
Exon Skipping(1)	$1.5M	DMD	51, 53 , 45	Skeletal	
Gene Therapy(2)	$3.2M	DMD	Many	Skeletal	
Givinostat	$700,000	DMD	Many	Skeletal	

(1) Consensus of Advisory Boards & rare disease drug comparisons
(2) Duration and frequency or repeat treatments to be determined

Clear Path to Approval 2029

2025 | 2026 | 2027 | 2028 | **2029** | 2030 | 2031 | 2032

Chemistry and Mfg.

Synthesis and Formulation → Scale Up

Non-Clinical Studies

Cells → Animal

IND Filing

Accelerated Approval

Clinical Studies

Discovery & Pre-Clinical → P I → Phase II → FDA Review → Phase IV

Commercial

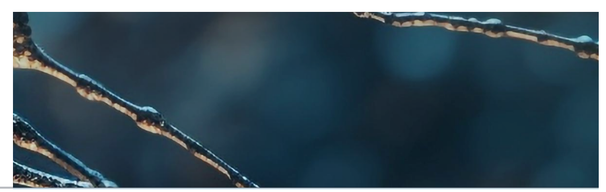
Scale Up → US Launch → EU Launch → $

Accelerators

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

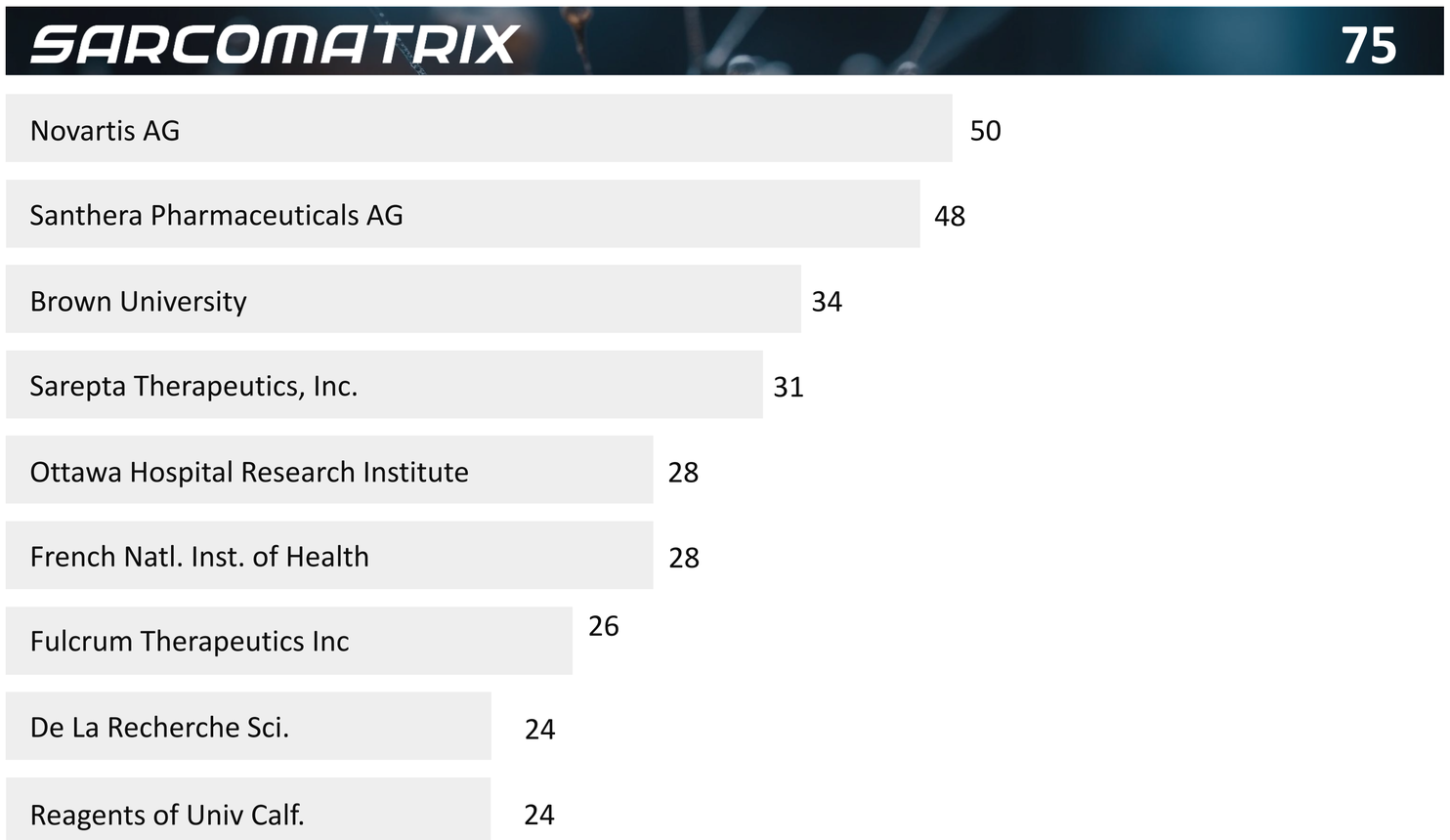
50% Cost*

33% Time



*Costs of Drug Development and Research and Development Intensity in the US, 2000-2018
Aylin Sertkaya, PhD1; Trinidad Beleche, PhD2; Amber Jessup, PhD2,3; et alBenjamin D. Sommers, MD, PhD4,5
Author Affiliations Article Information
JAMA Netw Open. 2024;7(6):e2415445. doi:10.1001/jamanetworkopen.2024.15445

Robust Intellectual Property Portfolio

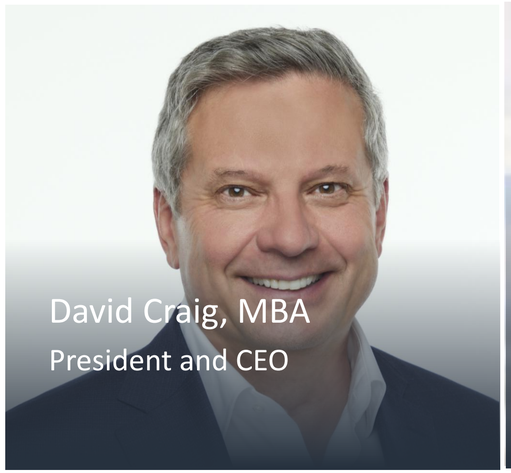


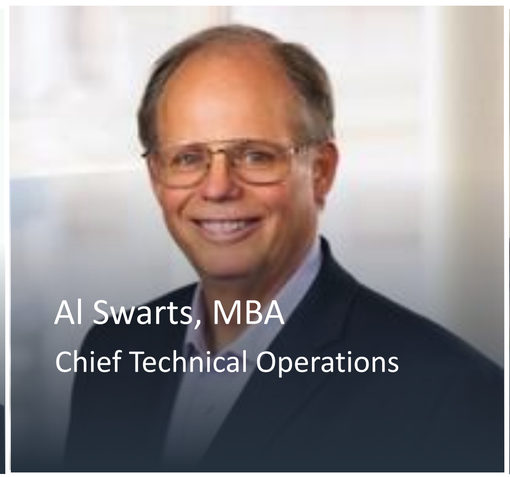
- First Generation S-969 method USA and Canada through 2033
- Second generation method and utility patents in progress
- Laminin-111 Orphan Drug in EU
- All programs eligible for Fast Track, Accelerated Approval, and Orphan Drug exclusivity and reduced filing fees

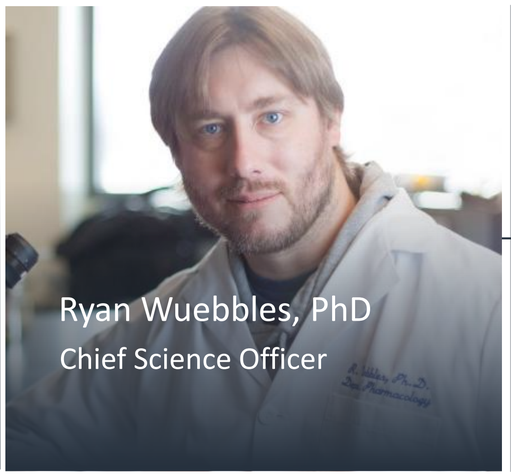
Source: Vikriti NIH Needs Assessment 12/2021

Experienced Leadership Team and Advisors

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







J. M.
MD, PhD*
Chief Medical Officer

Mick Hitchcock
PhD
Chief Operating Officer

Scientific Advisors		Business Advisors	
Professor Dean Burkin, PhD	University of Nevada, Reno School of Medicine	Mick Hitchcock, PhD Chairman	RENOGENYX
Professor Rachelle H. Crosbie-Watson, PhD	UCLA Health	Sheldon Koenig, MBA President & CEO	ESPERION
Professor Jeffrey Chamberlain, PhD	UW Medicine	Reza Oliyai, PhD President & CEO	Reza Oliyai
Professor Alan Beggs, PhD	HARVARD MEDICAL SCHOOL	Danna Dunn President	DUNN REGULATORY ASSOCIATES Part of Acacium Group

*Full time employment or Advisory pending funding

$8M Raised
NIH Non-Dilutive Grants

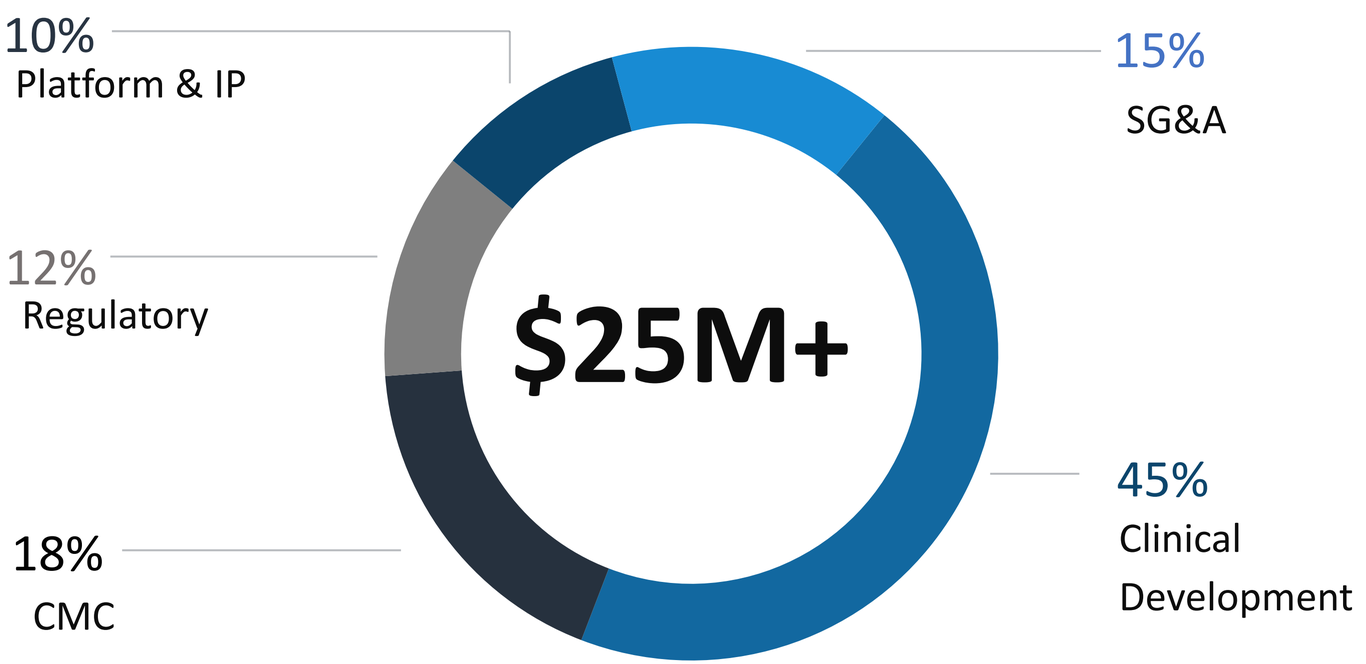
$5M Seed+ Now

$1M Soft Circled

Reg D Campaign - Equity

$377,000 Raised to Date

$25M+ Series A – Use of Funds



Unique Mechanism of Action

All Muscular Dystrophy Types and Mutations

Experienced, Effective and Passionate Management

David Craig, MBA

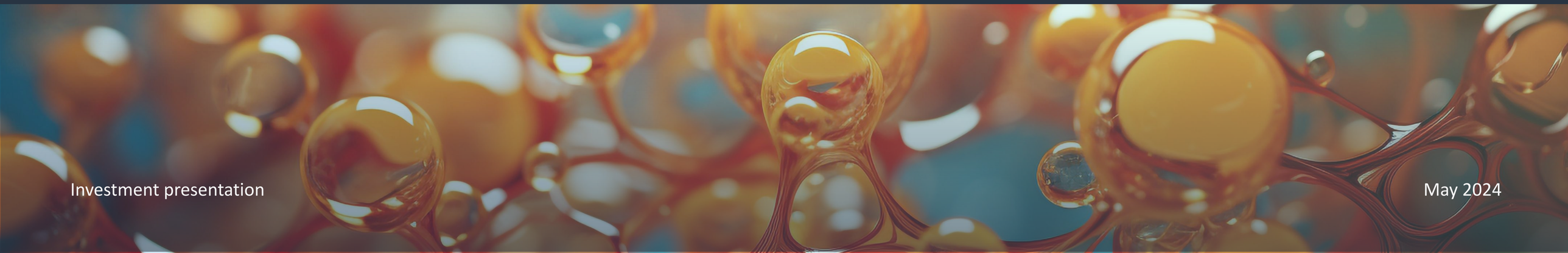
President CEO

Cell +01 415-246-3311

david.craig@sarcomatrix.com

SARCOMATRIX

Additional slides



Investment presentation

May 2024

Muscular Dystrophy
No Effective Treatments

No cures – delay progression

30 Types

>10,000 mutations

Skeletal - minimal

Cardiac – needed

Unmet
Medical Needs

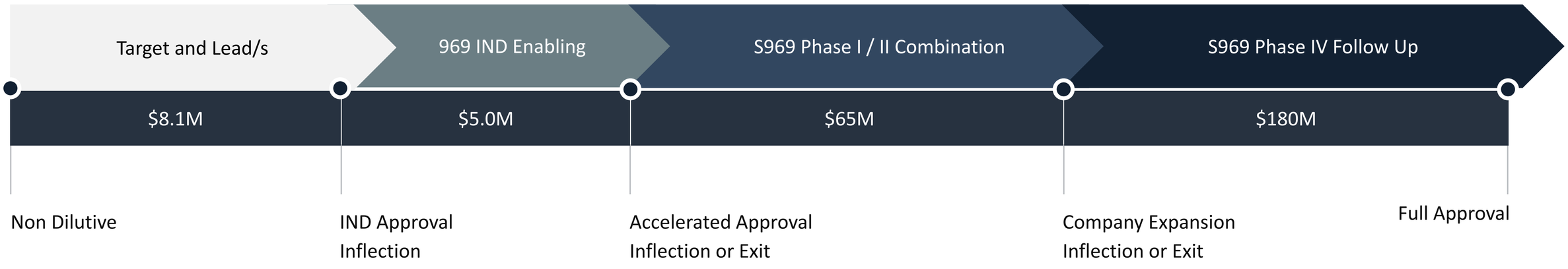
Affordable

Effective

Easy to Take

A Systematic Review and Meta-analysis on the Epidemiology of the Muscular Dystrophies

Traction - Becoming the Next Great Biotech Company



Strategy - establish a specialty pharmaceutical company

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

Projected US launch 2028/29 with peak annual sales greater than $1B

Out License large Cachexia and Sarcopenia indications

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

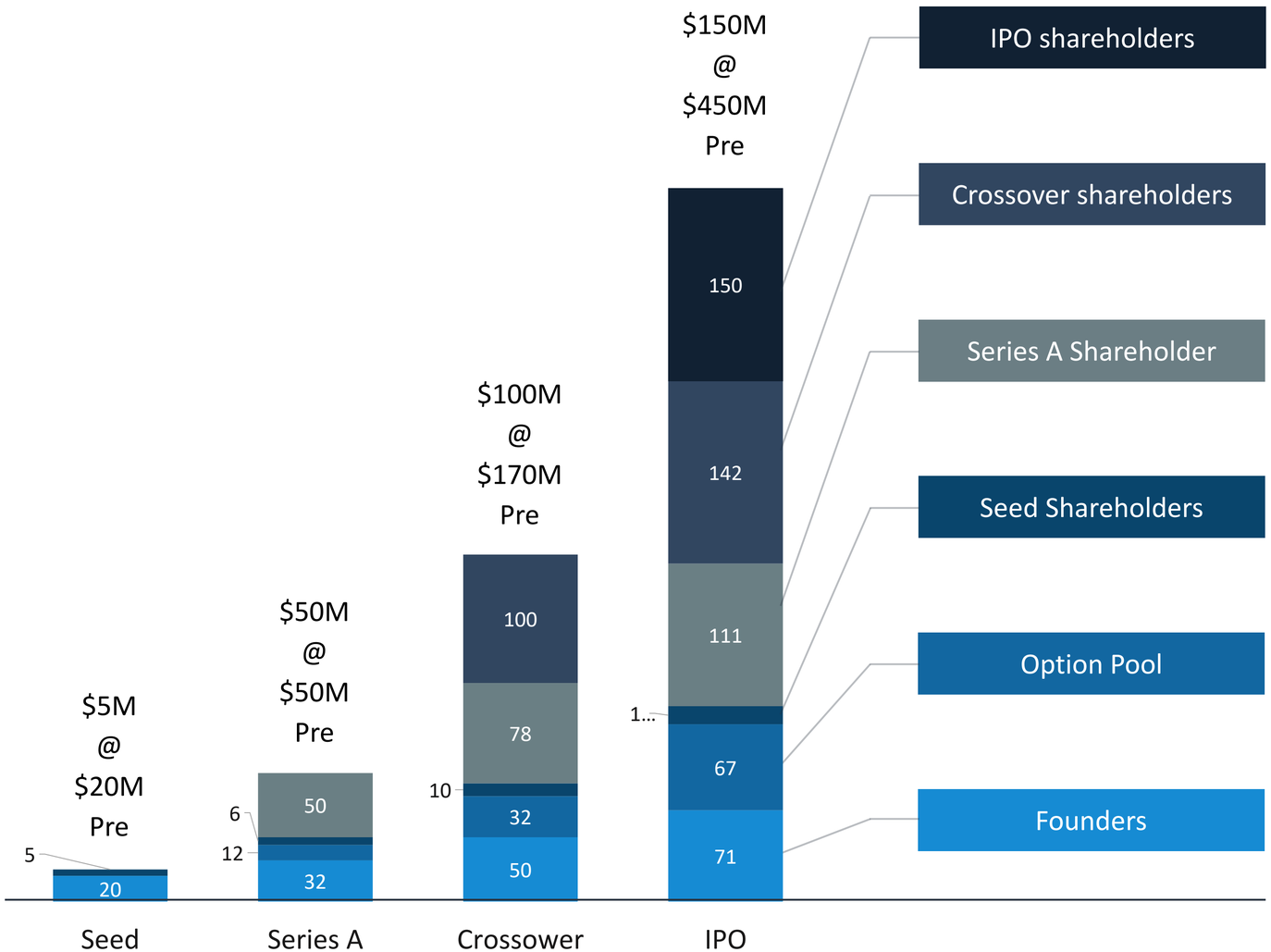
*Via acquisition Strykagen and Prothelia assets

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) NIH National Center for Advancing Translational Sciences NIH ORIP OFFICE OF RESEARCH INFRASTRUCTURE PROGRAMS	Duchenne Muscular Dystrophy				1Q25			**30,000**	
		Becker Muscular Dystrophy							**20,000**	
		Limb Girdle Muscular Dystrophy							**15.000**	
	LAM 111 $27M(1)	Congenital Muscular Dystrophy				3Q25			**6,000**	
		Other MDs							**60,000**	
	Novel Target $3M(1) NIH National Center for Advancing Translational Sciences NIH ORIP OFFICE OF RESEARCH INFRASTRUCTURE PROGRAMS	Sarcopenia				TBD			**10,000,000**	
		Cachexia							**1,00,000**	
		MD Cardiac Myopathy							**200,000+**	

(1) Investment to date for each program

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%

Solution – Unique Mechanism of Action Addressing Unique Targets

SAREPTA THERAPEUTICS

PTC THERAPEUTICS

NS Pharma

ITALFARMACO

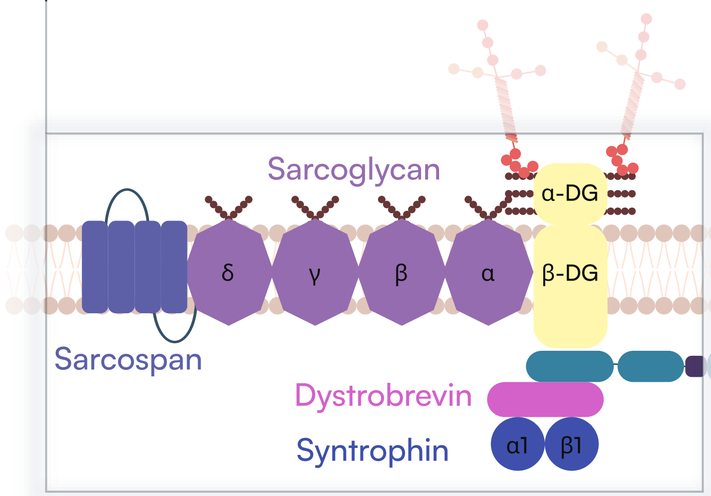
AVIDITY BIOSCIENCES

Dystrophin Glycoprotein Complex (DGC)

DCG

Structural Restore micro dystrophin

Sheer Mechanotransducer



α7β1 Integrin Complex + Laminin

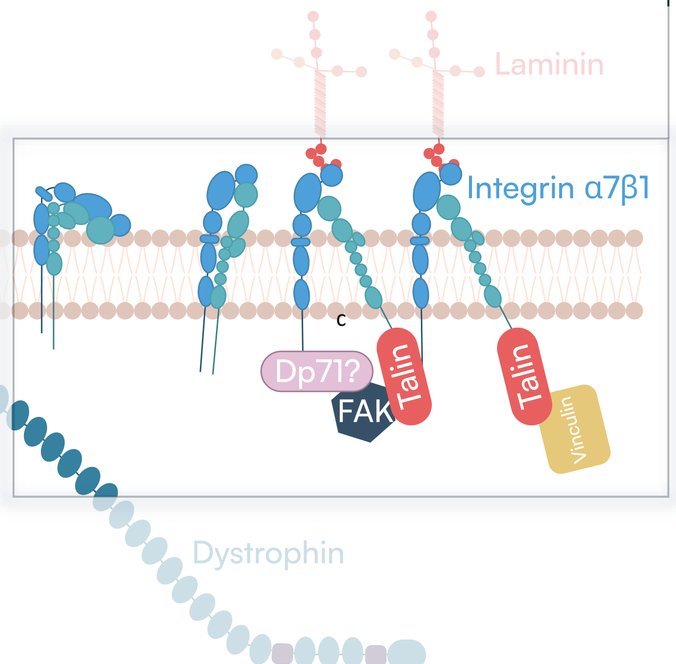
SARCOMATRIX

PLIANT THERAPEUTICS

α7β1 Integrins

Structural Stabilize sarcolemma

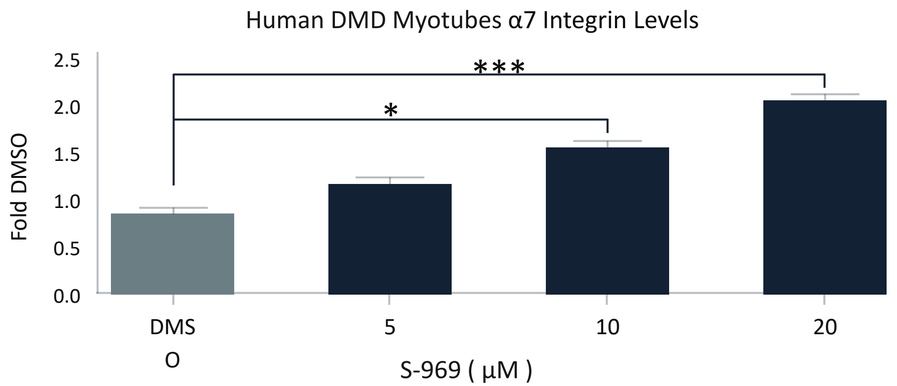
Lateral Mechanotransducer



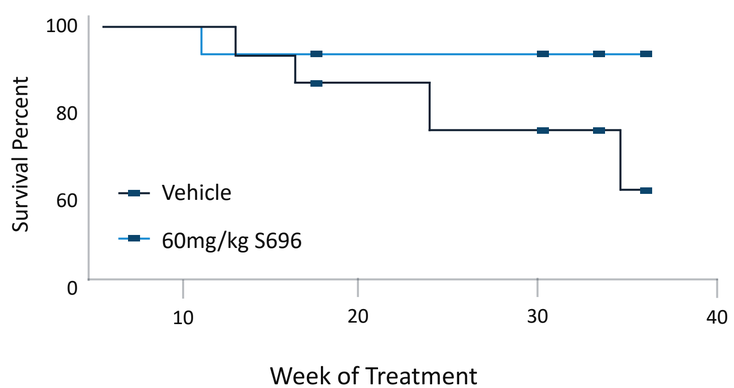
Early Studies Successful

- Unique Mechanism of Action
- Efficacious
- Excellent safety profile

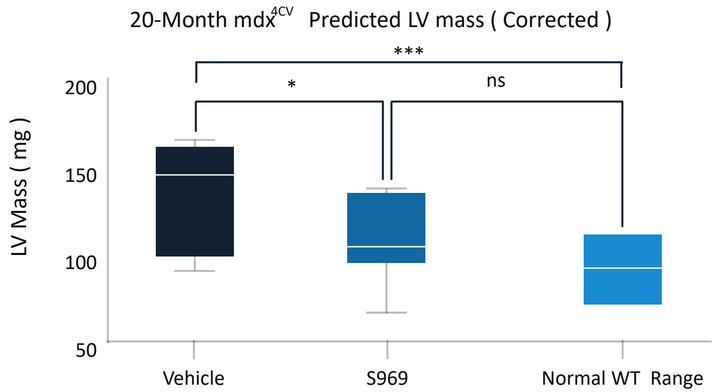
Increase α7β1 integrin expression P<0.001



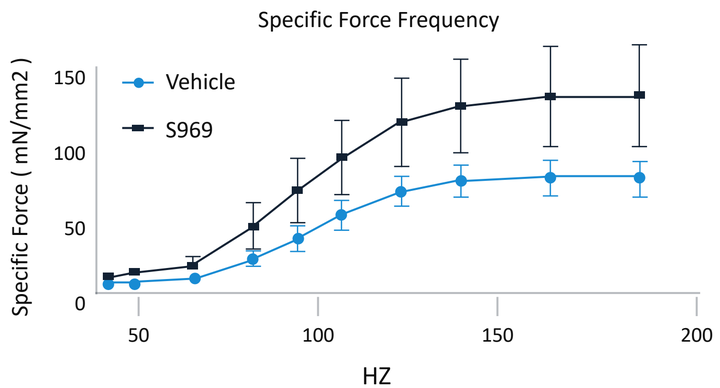
Extends Lifespan



Cardiac Function



Muscle Strength



*Full time employment or Advisory pending funding

Advancing to First-In-Human Trials in 2025

S-969

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	✓
α7β1 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	
NHP PK/PD Study	

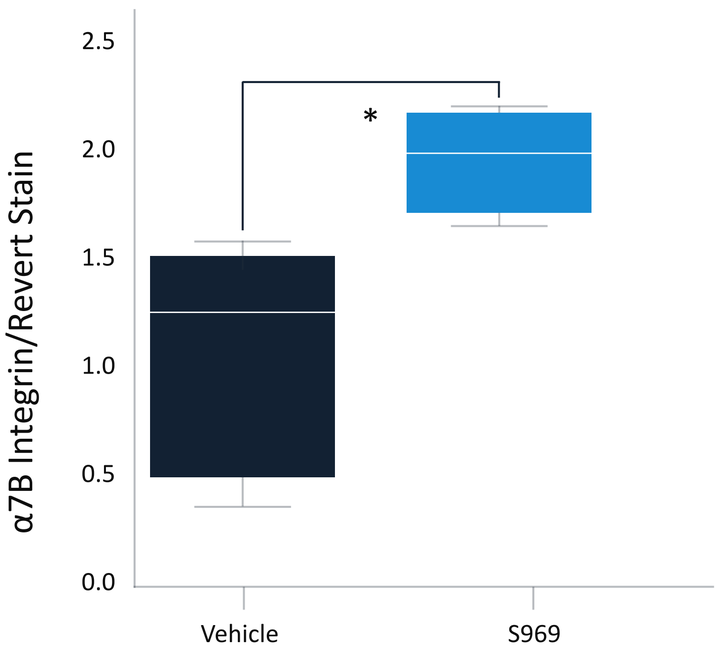
GRMD* Golden Retriever Muscular Dystrophy – large animal IND enabling

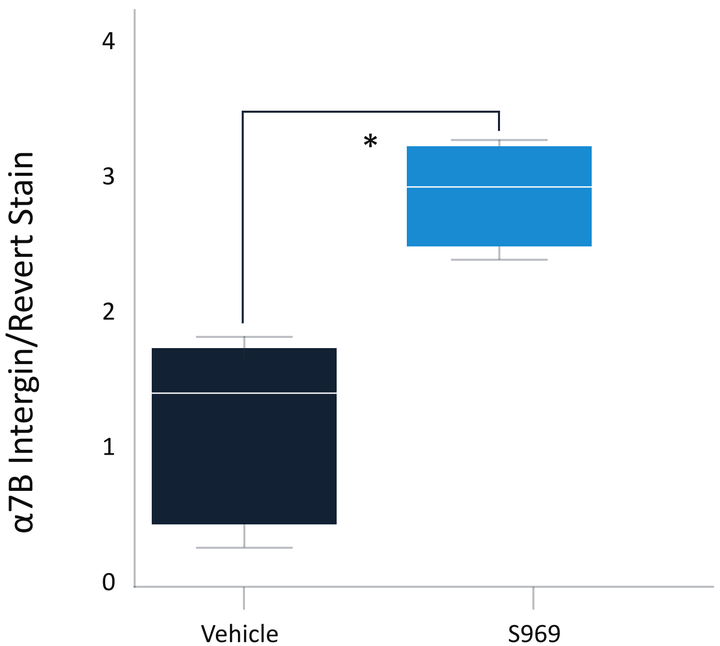
Need to address all muscle types

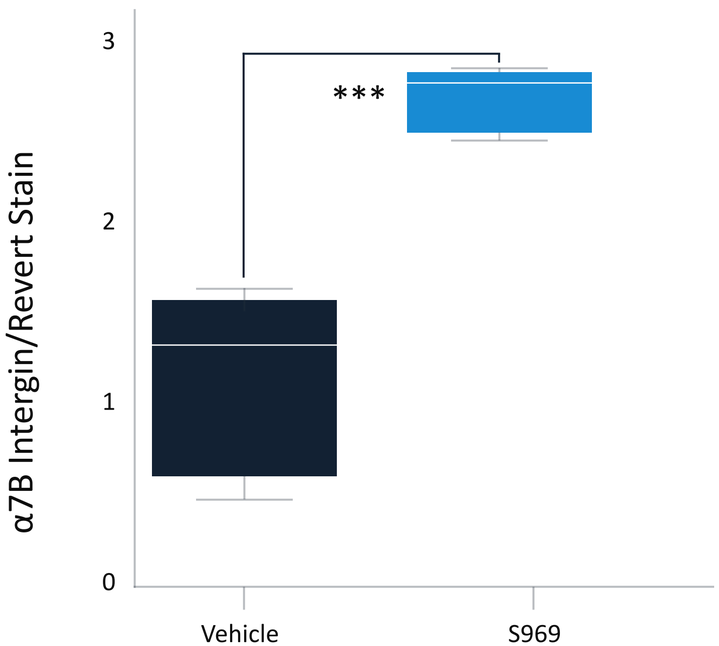
S-969

Add muscle types and connect how important to all of us, cardiac longevity, cardiac failure to them, number one reason for h

Diaphragm	Leg	Heart
184% increase	201% increase	236% increase







SARCOMATRIX

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

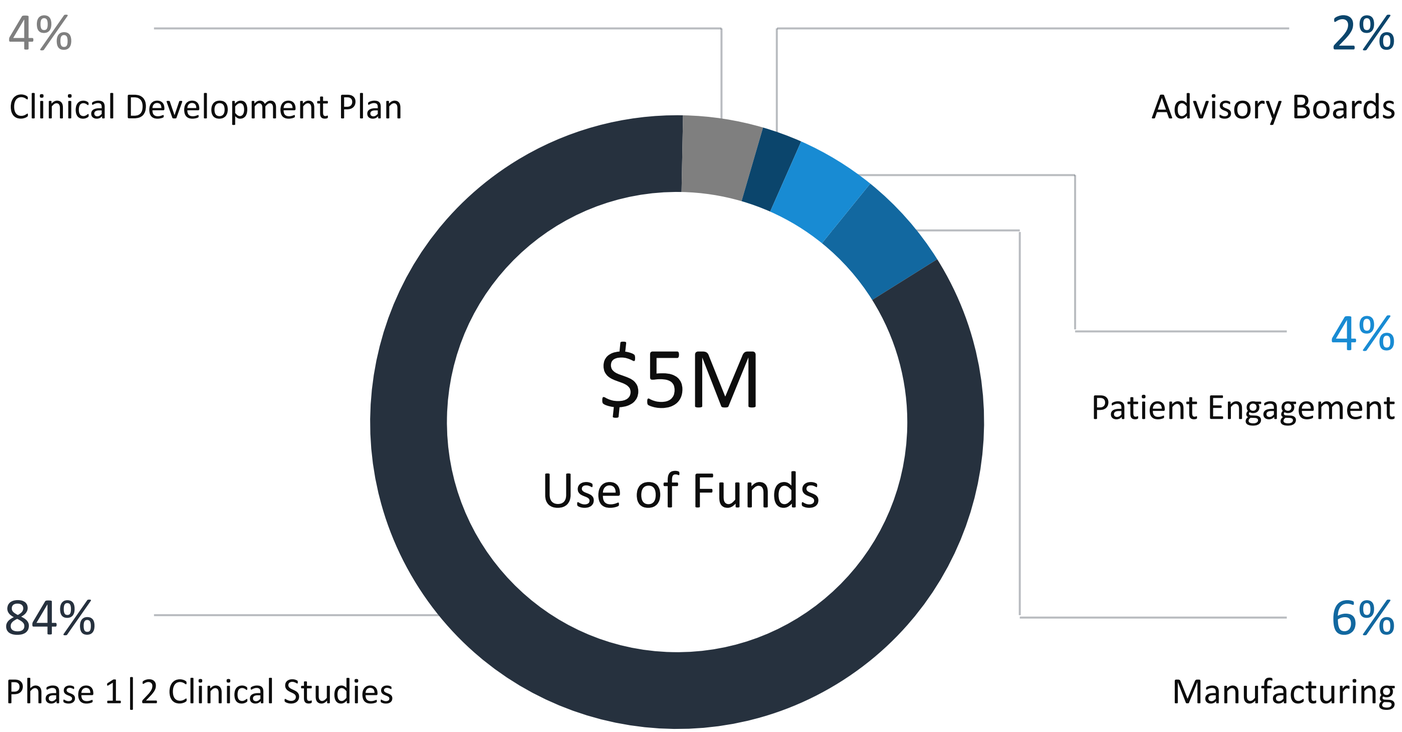
Seed of $5M Advances to First-in-Human Studies

$5M Seed Raise

$1M Soft Circled

Reg CF

StartEngine/ Sarcomatrix



Series A: $67M Advances to NDA Filing

$67M Series A Raise

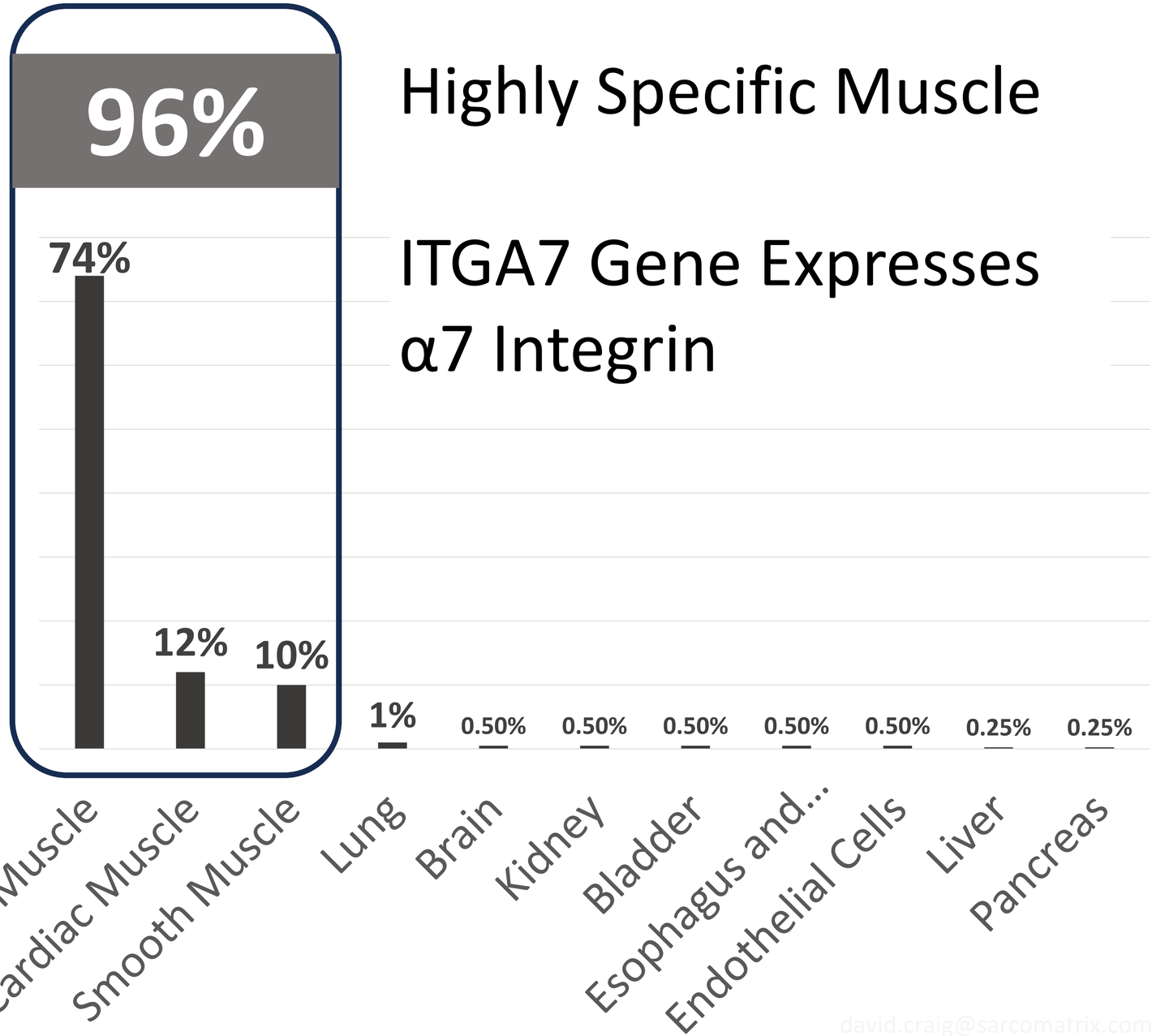
$1M Soft Circled

Battle Born Venture Fund Matchng

Stage	Time (Months)	Cost (Millions)
Pre-Clinical Studies	18 to 24	$5
Phase I Trials	12 to 18	$5
Phase II Trials	18 to 24	$15
Phase III Trials	24 to 36	$30
Regulatory Approval	6 to 12	$2
SG&A	Ongoing	$5M

Skeletal + Cardiac

Vasculature in tissues and organs



Highly Specific Muscle

ITGA7 Gene Expresses α7 Integrin

david.craig@sarcomatrix.com