SGT-001 Microdystrophin Gene Therapy for Duchenne Muscular Dystrophy

Patrick Gonzalez, PhD
Associate Director, R&D, Solid Biosciences

Disclosures

1; Commercial Interest i.e. Company X; Solid Biosciences.

1; What was received? i.e. Honorarium; Employee.

Forward-Looking Statements

This presentation includes “forward-looking statements” within the meaning of the Private Securities Litigation Reform Act of 1995, which involve a number of risks and uncertainties. These forward-looking statements include all matters that are not historical facts and, without limiting the foregoing, can be identified by the use of forward-looking terminology, including the terms “believe,” “estimate,” “project,” “anticipate,” “expect,” “seek,” “predict,” “continue,” “possible,” “intend,” “may,” “might,” “will,” “could,” would” or “should” or, in each case, their negative, or other variations or comparable terminology. They appear in a number of places throughout this presentation and include statements regarding our intentions, beliefs or current expectations concerning, among other things, our product candidates, research and development and clinical trial plans, manufacturing plans, commercialization objectives, prospects, strategies, the industry in which we operate and potential collaborations. We derive many of our forward-looking statements from our operating budgets and forecasts, which are based upon many detailed assumptions. While we believe that our assumptions are reasonable, we caution that it is very difficult to predict the impact of known factors, and, of course, it is impossible for us to anticipate all factors that could affect our actual results. For a discussion of potential risks and uncertainties, and other important factors, any of which could cause our actual results to differ from those contained in the forward-looking statements, see the “Risk Factors” section, as well as discussions of potential risks, uncertainties and other important factors, in our most recent filings with the Securities and Exchange Commission. All forward-looking statements included in this presentation represent our views as of the date hereof and should not be relied upon as representing our views as of any date subsequent to the date on the cover page of this presentation. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we specifically disclaim any obligation to do so.

No representation or warranty is made as to the accuracy or completeness of the information or analysis in this presentation.

Duchenne Is a Devastating Muscle-Wasting Disease

1:3500-5000 Newborn Males Affected

Skeletal and Cardiac Muscle Manifestations

100% FATAL

Progressive & Irreversible

No Meaningful Treatment Options

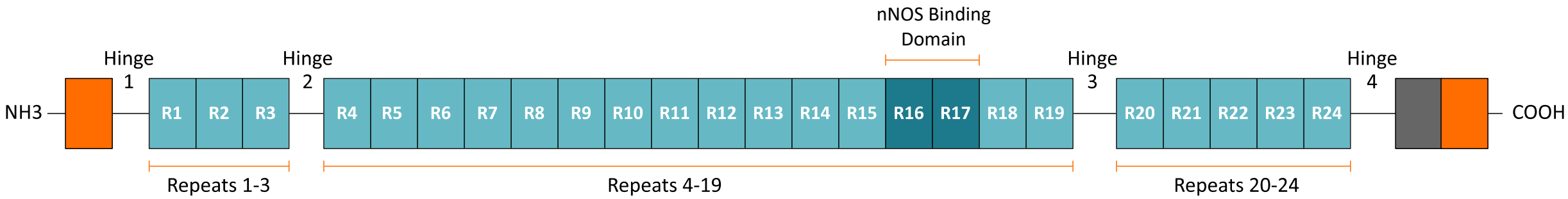
Caused by Mutations in the Dystrophin Gene

SGT-001 Assembled to Impact all Relevant Tissues

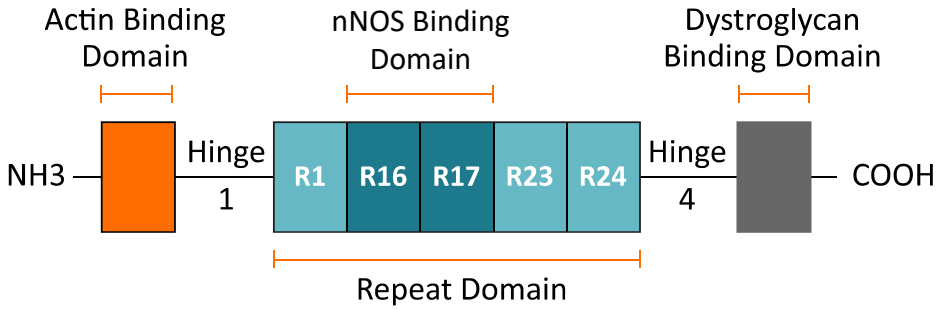
 **Capsid**	Skeletal and cardiac muscle tropism	**AAV9**
 **Promoter**	Skeletal and cardiac muscle expression	**CK8**
 **Transgene**	Retains critical elements of dystrophin	**µDys5**

SGT-001 Microdystrophin Selected For Enhanced Efficacy

Full Length Dystrophin Protein (427 kDa)

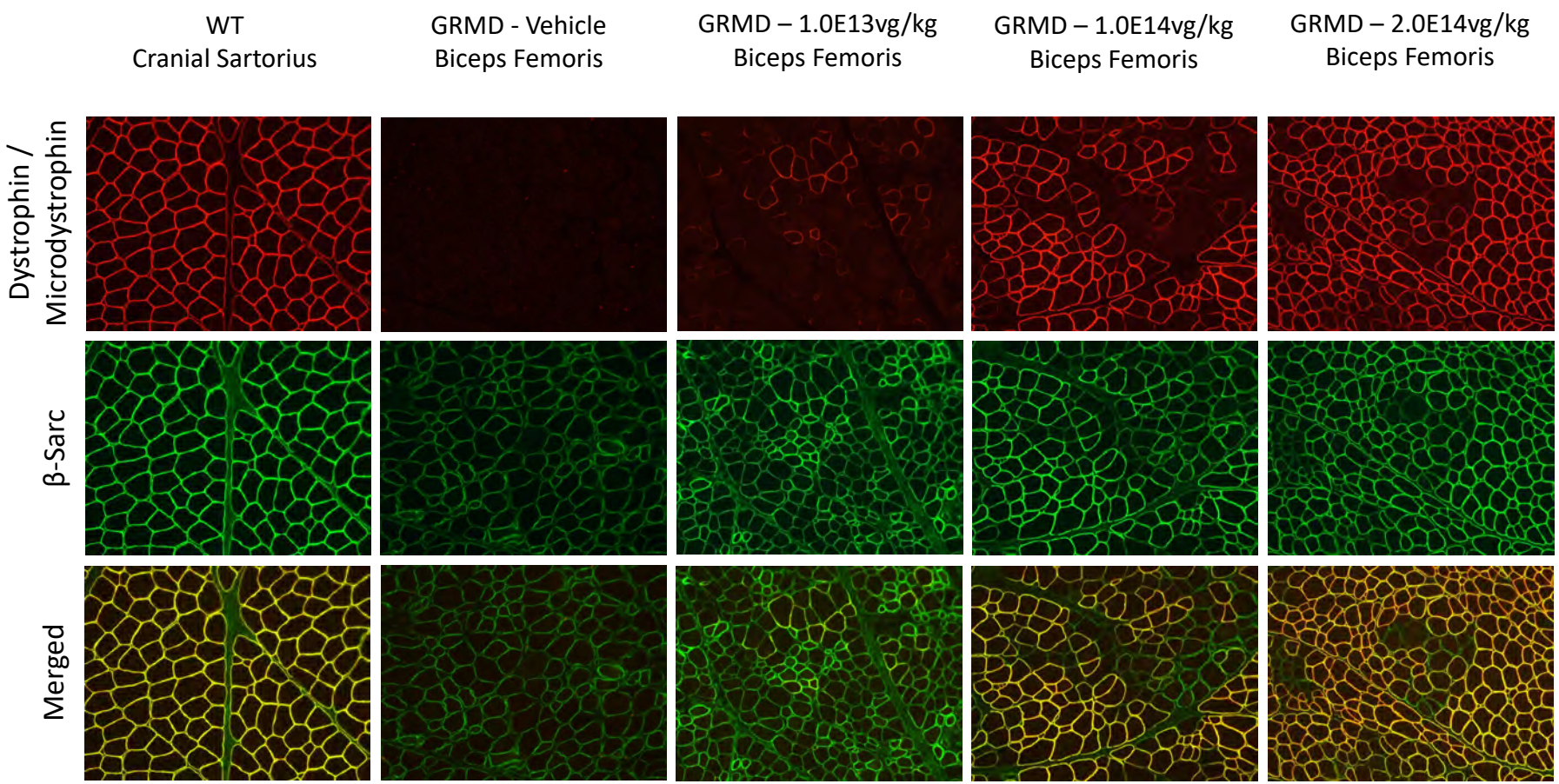


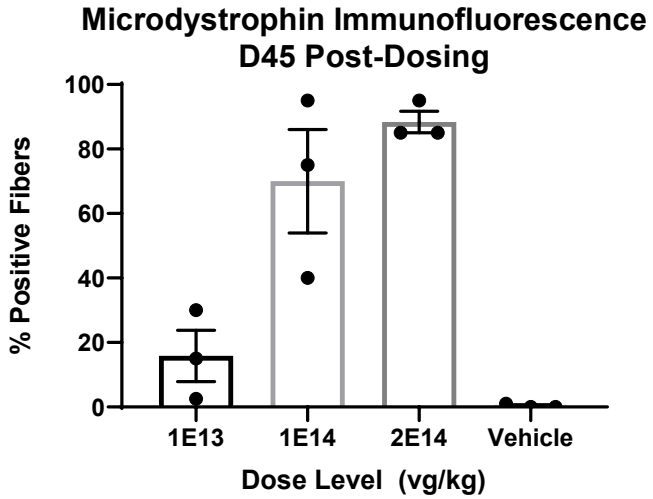
SGT-001 Microdystrophin Protein (147 kDa)



- Shortened sequence able to be packaged in AAV
- 5 key spectrin-like repeats of central rod domain
- **Uniquely contains the nNOS binding domain**
- SGT-001 selection based on more than 30 years of research; confirmed through internal comparative analysis

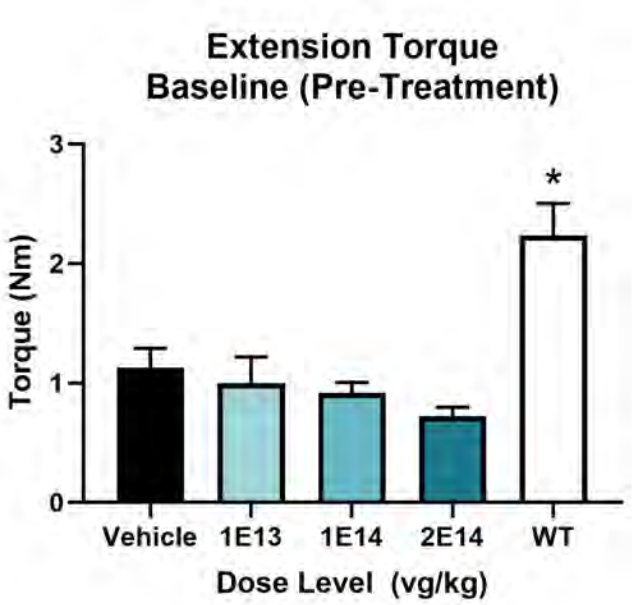
Pre-Clinical Biopsies Show Microdystrophin Expression, DGC Stabilization, and Improved Dystrophic Pathology in GRMD Dogs

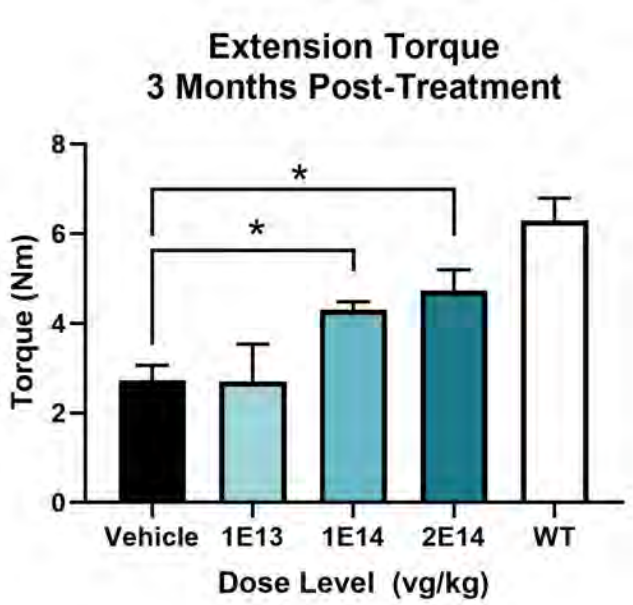


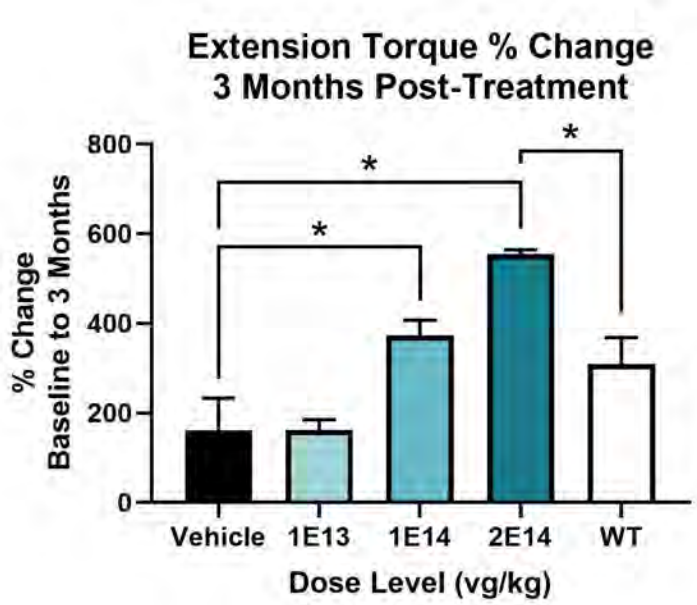


GRMD: Golden Retriever Muscular Dystrophy

Pre-Clinical Microdystrophin Expression Leads to Dose-Dependent Functional Improvements in GRMD Dogs







** p < 0.05*

GRMD: Golden Retriever Muscular Dystrophy

SGT-001 Clinical Program

IGNITE DMD

SGT-001 Phase I/II Clinical Study

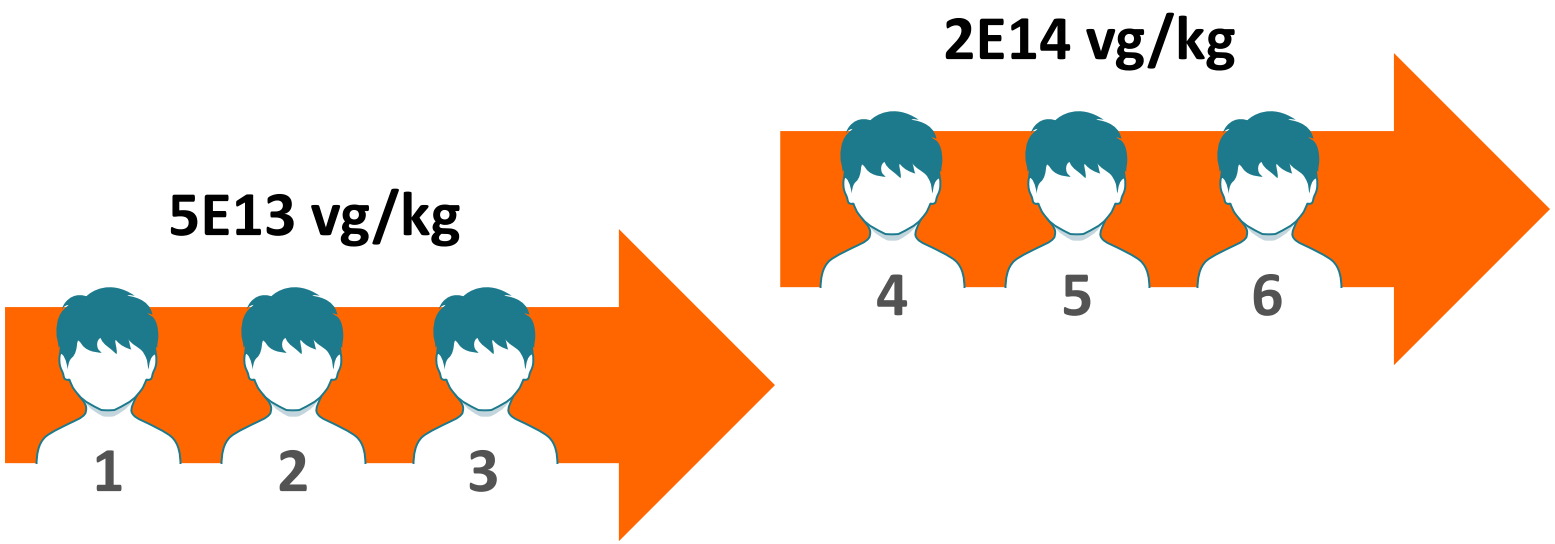
IGNITEDMD

Primary Endpoints:

- Safety
- SGT-001 microdystrophin expression at 12 months

Secondary Endpoints:

- Muscle function and strength
- Cardiac and respiratory function
- Muscle mass area and composition (MRI)

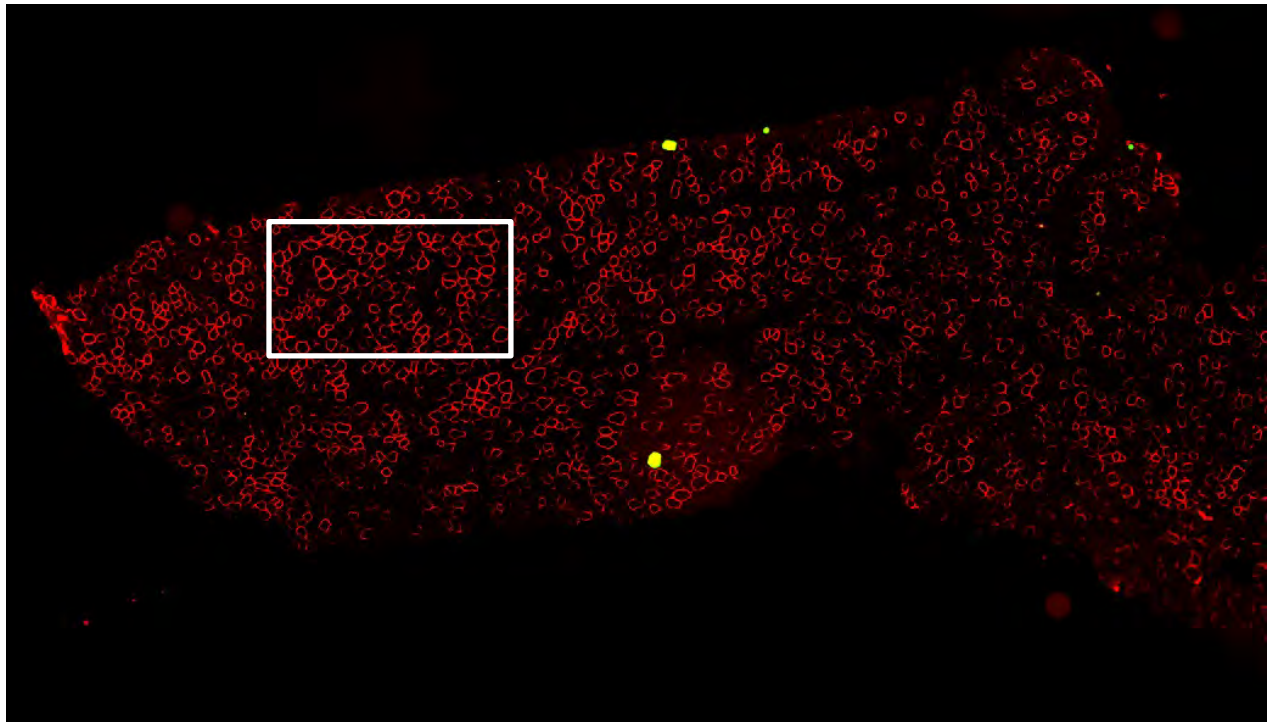


Current Status:

- Clinical hold
- Continuing study-related activities with all enrolled subjects

SGT-001 Administration to DMD Patients Results in Dose-Dependent, Muscle-Wide Microdystrophin Expression

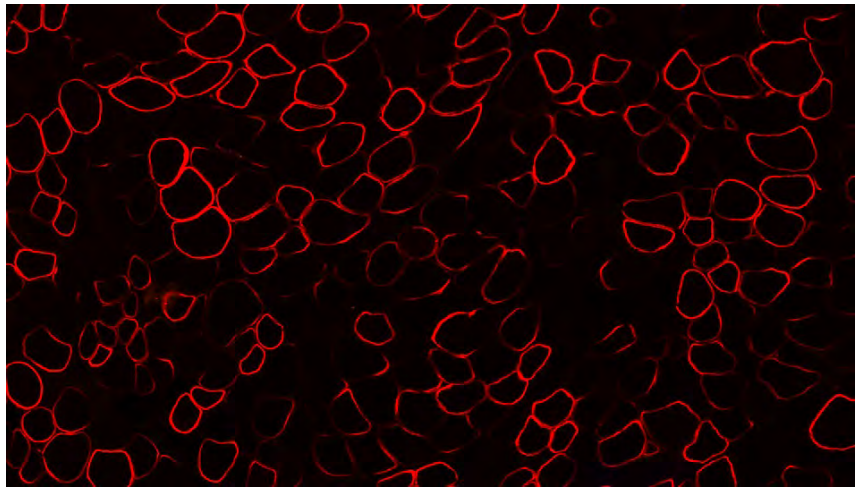
Low magnification image shows widespread microdystrophin positive fibers

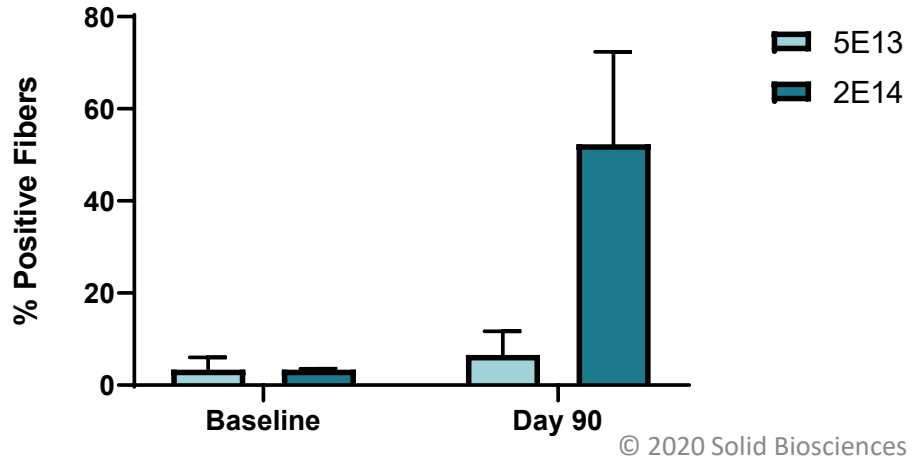


RED	Microdystrophin
GREEN	Revertant Fibers

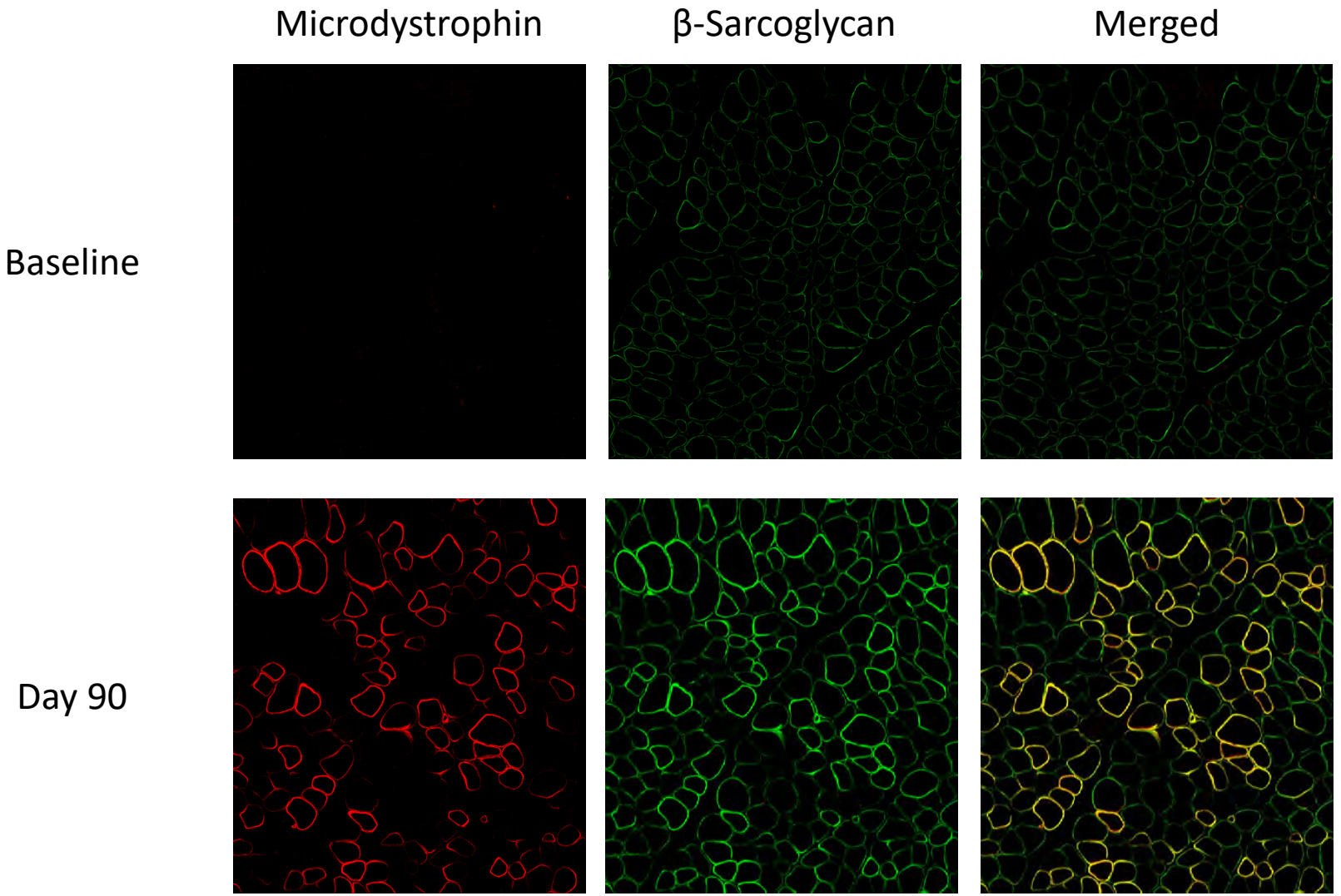
Representative Image – 2E14 vg/kg

High magnification image confirms microdystrophin membrane localization

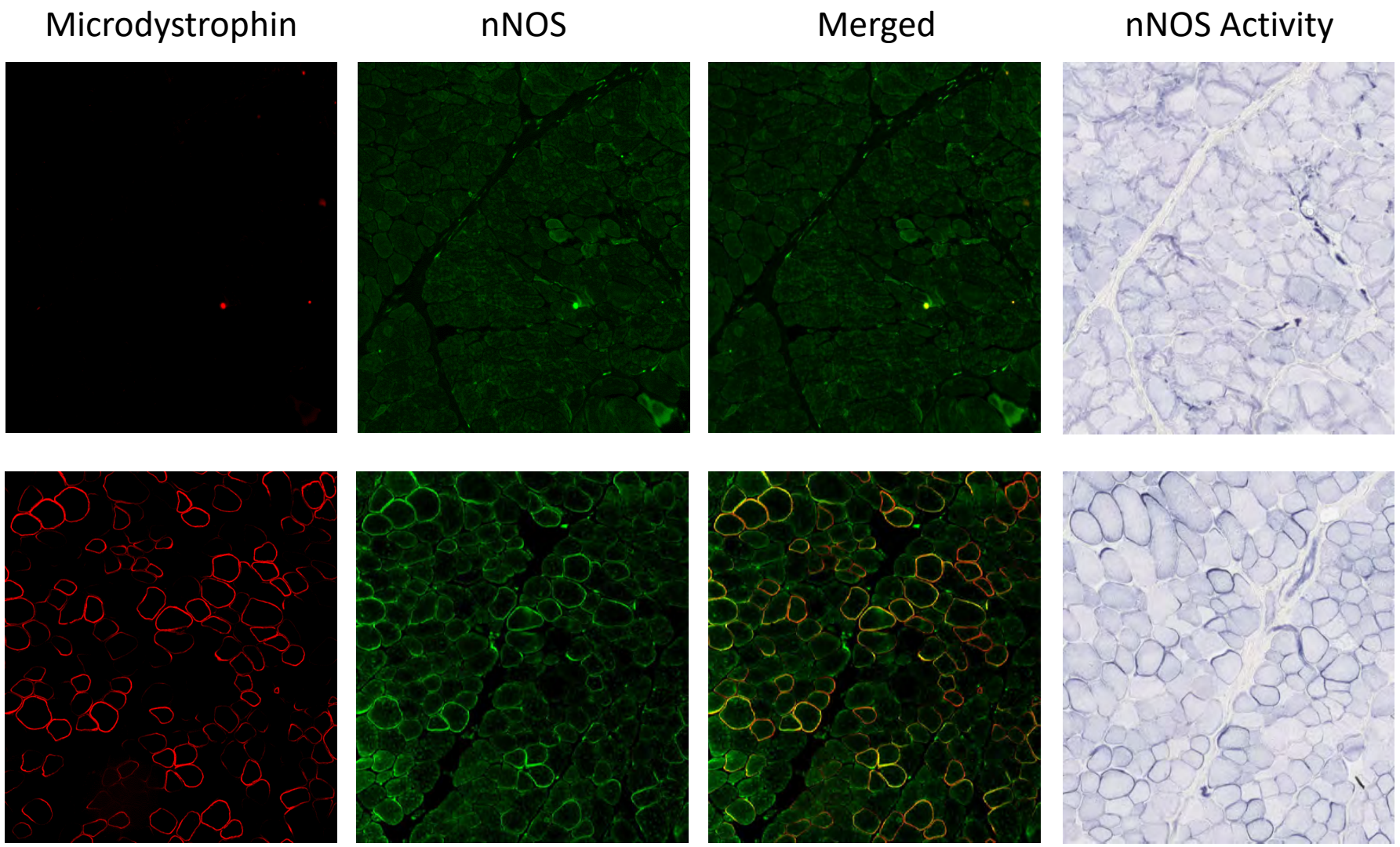




Microdystrophin Expression in DMD Patients Results in Dystrophin Glycoprotein Complex Restoration



Microdystrophin Expression in DMD Patients Further Results in Restored Enzymatically Active nNOS at the Sarcolemma



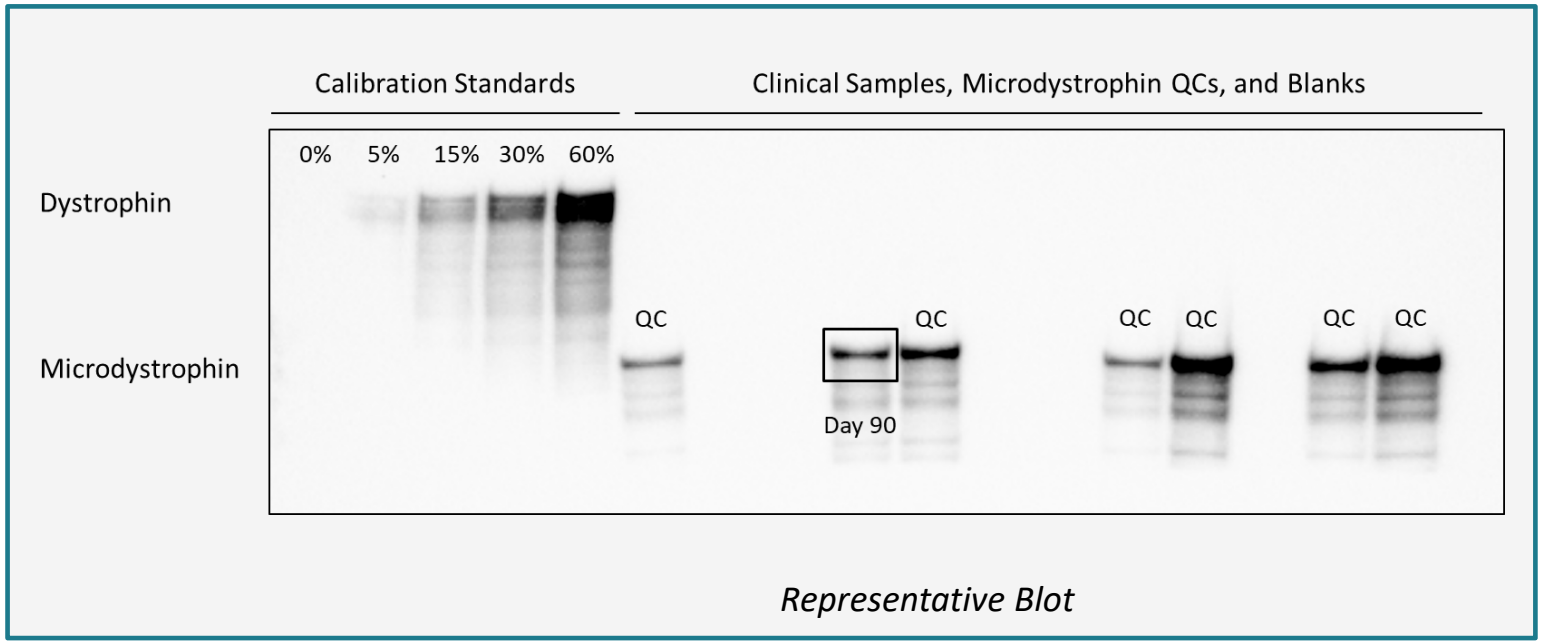
Western Blot Quantification of Microdystrophin Protein Levels

Qualified western blot method

- 5%-60% of normal dystrophin quantifiable range
  - Pooled dystrophin positive and dystrophin negative human muscle protein extracts
- Microdystrophin QCs
  - Replicate samples at three levels (low, mid, high QCs)

IGNITE DMD Interim (Day 90) Biopsy Results: 2E14 vg/kg cohort

- One sample near the 5% LLOQ
- 8% of normal dystrophin
- 17.5% of normal dystrophin



Representative Blot

SGT-001 Clinical Biomarker Results Support Continued Development

Data from three-month biopsies shown from three patients dosed in the 2E14 vg/kg IGNITE DMD cohort

- Interim results following SGT-001 administration show dose-dependent, muscle-wide microdystrophin expression with proper localization of the protein to the muscle membrane in DMD patients
- SGT-001 microdystrophin protein re-establishes the dystrophin glycoprotein complex and enzymatically active nNOS at the sarcolemma in DMD patients
- Based on pre-clinical evidence, SGT-001 microdystrophin expression has the potential to provide enhanced muscle protection from ischemic injury through NO-mediated vasodilation

Expression of SGT-001 microdystrophin and resultant molecular function provide evidence that SGT-001 has the potential to provide meaningful therapeutic benefit for patients with DMD

Thank you!

Acknowledgments

- **Solid Biosciences**
  - Carl Morris
  - Joel Schneider
  - Kristy Brown
  - Diane Golebiowski
  - Courtney Shanks
  - Deb Sawyer
  - Annie Claeys
  - Susan Redican
  - Jeff Lawrence
  - Cathryn Clary

- **University of Washington**
  - Jeff Chamberlain
  - Julie Crudele

- **University of Missouri**
  - Dongsheng Duan
  - Chady Hakim

- **Texas A&M**
  - Joe Kornegay
  - Sharla Birch

- **University of Florida**
  - Barry Byrne
  - Nathalie Clement
  - Thomas Conlon
  - Kirsten Coleman

- **Medical College of Wisconsin**
  - Mike Lawlor
  - Hui Meng
  - Maggie Beatka
  - Brittany Fickau
  - Mariah Prom

