# A Study of SGT-003 Gene Therapy in Duchenne Muscular Dystrophy (SGT-003-101)

## A Phase 1/2, Multicenter, Open-Label Study to Investigate the Safety, Tolerability, and Efficacy of a Single Intravenous Dose of SGT-003 in Males With Duchenne Muscular Dystrophy INSPIRE DUCHENNE

**Hub Summary**

This is a first-in-human (FIH), multicenter, open-label Phase 1/2 study to investigate the safety, tolerability, and efficacy of a single IV dose of SGT-003 in males 0 to < 18 years of age with DMD. A total of 40 participants are planned to receive SGT-003. The study will be conducted globally.

There will be 5 cohorts in this study. Cohort 1 will include participants 4 to < 7 years of age. Cohort 2 will include participants 7 to < 12 years of age. Cohort 3 will include participants 0 to < 4 years of age. Cohort 4 will include participants 12 to < 18 years of age. Cohort 5 will include participants 10 to < 18 years of age. Initiation of participant enrollment in Cohorts 4 and 5 will be subject to the accrual of safety and efficacy data from Cohorts 1-3. All participants will receive SGT-003 and will be enrolled in the study for 5 total years for long-term follow up.

**Study Number:**

**Description by Solid Biosciences Inc.**

This is a first-in-human (FIH), multicenter, open-label Phase 1/2 study to investigate the safety, tolerability, and efficacy of a single IV dose of SGT-003 in males 0 to < 18 years of age with DMD. A total of 40 participants are planned to receive SGT-003. The study will be conducted globally.

There will be 5 cohorts in this study. Cohort 1 will include participants 4 to < 7 years of age. Cohort 2 will include participants 7 to < 12 years of age. Cohort 3 will include participants 0 to < 4 years of age. Cohort 4 will include participants 12 to < 18 years of age. Cohort 5 will include participants 10 to < 18 years of age. Initiation of participant enrollment in Cohorts 4 and 5 will be subject to the accrual of safety and efficacy data from Cohorts 1-3. All participants will receive SGT-003 and will be enrolled in the study for 5 total years for long-term follow up.

In addition to the frequent monitoring that will occur in the first 45 days following dosing, participants will be monitored for safety, tolerability, and efficacy for 5 years post administration of SGT-003. Muscle biopsies will be performed at baseline, Day 90, and Day 360 timepoints to evaluate microdystrophin expression. Functional efficacy assessments will be performed at baseline, Days 90, 180, 360, and 540, and annual visits at Years 2, 3, 4, and 5 postdosing. Based on the visit and the functional status of each participant, these assessments will include evaluations of ambulatory function (North Star Ambulatory Assessment [NSAA], 6-minute walk test [6MWT], 10-meter walk/run, 4-stair climb, time to rise from supine), pulmonary function (% predicted forced vital capacity [FVC], peak expiratory flow [PEF], forced expiratory volume in 1 second [FEV1]), activity monitoring by wearable device (stride velocity 95th centile [SV95C]), development (Bayley Scales of Infant and Toddler Development 4 [Bayley-4]), upper limb function (Performance of Upper Limb [PUL] 2.0), and patient-reported outcomes (Pediatric Outcomes Data Collection Instrument [PODCI]). Individual outcome assessments will be evaluated at each timepoint and change from baseline will be calculated for interpretation of differences over time.

## Primary Outcome Measures

- To investigate the safety and tolerability of a single intravenous dose of SGT-003
- To investigate the efficacy of a single intravenous dose of SGT-003 by assessing microdystrophin expression in muscle biopsies

## Secondary Outcome Measures

- To investigate the efficacy of a single intravenous dose of SGT-003 by assessing microdystrophin expression in muscle biopsies

## Trial Status
Not yet recruiting

**UK Locations**
London - GOSH, Not yet recruiting

**Trial Sponsor**
Solid Biosciences Inc.

**Phase**
Phase 1/Phase 2

**Length Of Participation**
5 years

**Recruitment Target**
40

**Ambulatory**
Ambulant and non-ambulant

**Therapeutic Category**
Gene Therapy

**Age**
0 to 17 years

**Mutation Specific**
Mutation specific therapies

**Muscle Biopsy**
Muscle Biopsy Required

**MRI**
Yes

dmdhub.org

- To investigate the efficacy of a single intravenous dose of SGT-003 by assessing changes in ambulatory function in participants who are ambulatory at baseline
- To investigate the safety and tolerability of a single intravenous dose of SGT-003

## Other Outcome Measures

**Can I take part?**

## Inclusion Criteria

1. Participant age at the time of Screening Part A or Rescreening:

   • Cohort 1: 4 to < 7 years

   • Cohort 2: 7 to < 12 years

   • Cohort 3: 0 to < 4 years

   • Cohort 4: 12 to < 18 years

   • Cohort 5: 10 to < 18 years

2. Participant ambulatory status at the time of Screening Part A or Rescreening, as defined by the ability to complete a 10-meter walk /run test in < 30 seconds:

   • Cohorts 1, 2, and 4: Ambulatory

   • Cohort 3: Either ambulatory or non-ambulatory

   • Cohort 5: Non-ambulatory, but having been previously ambulatory by history

3. Established clinical diagnosis of DMD and documented dystrophin gene mutation predictive of DMD phenotype, confirmed by Sponsor genetic testing. In cases where a genotype may be predictive of residual dystrophin production and/or a clear clinical diagnosis of DMD cannot be made (e.g., due to age), evaluation of dystrophin levels in baseline muscle biopsies may be required to determine eligibility under this criterion.

4. Negative for antibodies against AAV9.

5. Steroid regimen:

   a. Cohorts 1, 2, 4, and 5: A stable daily oral steroid regimen of at least 0.5 mg/kg/day of prednisone or 0.75 mg/kg/day of deflazacort for 12 weeks prior to Screening Part A or Rescreening, allowing for weight-based modifications consistent with clinical practice.

   b. Cohort 3: N/A

6. 10-meter walk/run time:

   • Cohorts 1, 3, and 5: N/A

   • Cohort 2: < 10 seconds

   • Cohort 4: 10 to 15 seconds

7. Time to rise from supine:

   • Cohort 1, 3, 4, and 5: N/A

   • Cohort 2: 3 to < 7 seconds

8. Performance of Upper Limb (PUL) 2.0:

   • Cohorts 1, 2, 3, and 4: N/A

• Cohort 5: Entry item score 3 and total score of  40 Weight

9. Participant has body weight  90 kg.

10. Participant is male.

11. Able to understand and comply with all study procedures as appropriate by age and have a parent(s) or legal guardian(s) (i.e., legally authorized representative [LAR]) who is (are) able to understand and comply with the study procedure requirements. Medical Monitor approval required for entry if the participant is not able to understand and comply with any study procedures due to age. Be willing to provide informed assent and have an LAR(s) who is (are) willing to provide written informed consent for the participant to participate in the study as described in Section 10.3.

12. If participant is of reproductive potential, participant and partner of childbearing potential are willing to use 2 highly effective forms of contraception for 12 months following study drug administration.

## Exclusion Criteria

1. Any prior or ongoing medical condition, medical history, physical finding that in the Investigator's opinion could adversely affect the safety of the participant, make it unlikely that the course of treatment or follow-up would be completed, or could impair the assessment of study results.

2. Abnormal liver function: gamma-glutamyl transferase (GGT) >1.5 × upper limit of normal [ULN] or total bilirubin > ULN) or known liver disease.

3. Abnormal renal function (cystatin C >1.2 × ULN).

4. Clinically significant abnormalities of coagulation including international normalized ratio or activated partial thromboplastin time >1.2 × ULN or platelets

5. Impaired cardiovascular function as follows:

a. Clinical history in the opinion of the principal investigator

b. Ejection fraction (EF) < 50% on ECHO.

c. EF 50% to <55% on ECHO and the presence of late gadolinium enhancement by cardiac MRI that is determined to be clinically significant or includes 3 or more segments

6. Pulmonary function predictive of (or requiring) the use of daytime ventilatory support, or % predicted FVC <60%.

7. Have severe hypersensitivity reactions, including anaphylaxis, to SGT-003 or its components.

8. Treatment with approved or investigational dystrophin modifying drugs such as eteplirsen, golodirsen, casimersen, and viltolarsen within 3 months prior to screening.

9. Current or prior treatment with an approved or investigational gene transfer drug.

10. Exposure to vamorolone, givinostat, or another investigational drug within 3 months prior to screening or 5 half-lives since last administration, whichever is longer.

11. Major surgery within 3 months prior to recruitment or planned orthopedic surgery for any time during this study which would interfere with the ability to perform outcome measures.

12. Established clinical diagnosis of DMD that is associated with any deletion mutation in exons 1 to 11 or exons 42 to 45, inclusive, in the DMD gene as documented by a genetic report and confirmed by Sponsor genetic testing.

13. Sponsor employees and their family members are ineligible to participate in this study.

14. Any active infection.

For contact details and to find out more, please refer to dmdhub.org.

Duchenne UK