Highlights:

Interim Results from FORTITUDE™, a Randomized Phase 1/2 Trial Evaluating AOC 1020 in Adults with FSHD

FSHD360 – Mississauga, ON

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Data initially presented at FSHD IRC June 14, 2024

Forward-Looking Statements

- "Forward-looking statements" are like educated guesses based on what we know now, but they're not sure things.
- This presentation includes predictions about future events or results, which are not guaranteed.
- These predictions are based on current expectations and could change due to many factors.
- We will not be providing an update on today’s presentation, even if new information becomes available later.
- The statements in this presentation are not promises, and what actually happens might be different, because lots of unexpected changes can come up.
- Even though we've made these statements thoughtfully, things may not go as planned, and our actual results could vary for reasons beyond our control.
- Our future performance is hard to predict and may not meet our or others' estimates.
- Don't rely too heavily on these statements; actual results could be different.

Diverse and Expanding AOC Pipeline

PROGRAM / INDICATION	TARGET	LEAD OPTIMIZATION	IND ENABLING	PHASE 1/2	PHASE 3
***Del-desiran™* (AOC 1001)** Myotonic Dystrophy Type 1 (DM1)	DMPK			MARINA® MARINAOLE™	HARBOR™
***Del-zota* (AOC 1044)** Duchenne Muscular Dystrophy (DMD)	Exon 44			explore44™	
***Del-brax* (AOC 1020)** Facioscapulohumeral Muscular Dystrophy (FSHD)	DUX4			FORTITUDE™	
Additional DMD Programs	Exon 45 & Undisclosed				
Rare Skeletal Muscle Program	Undisclosed				
Rare Precision Cardiology Program	Undisclosed				

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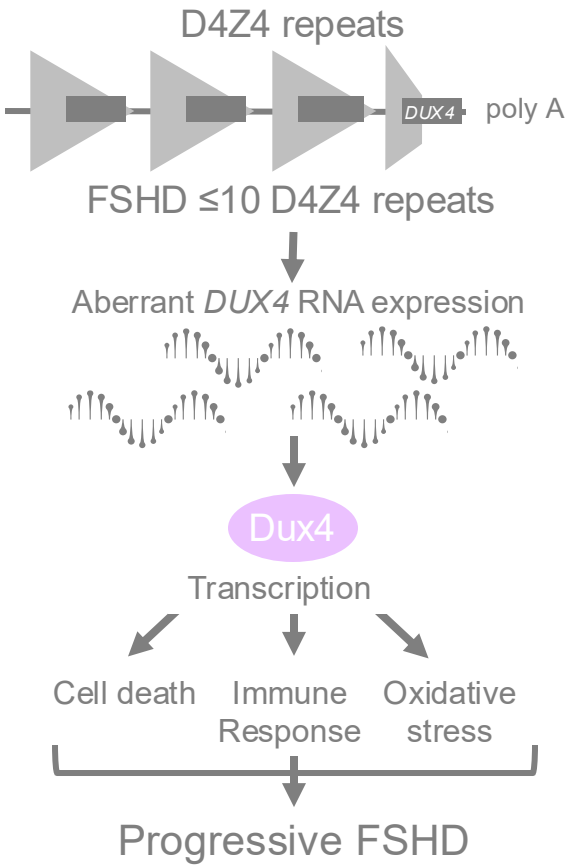
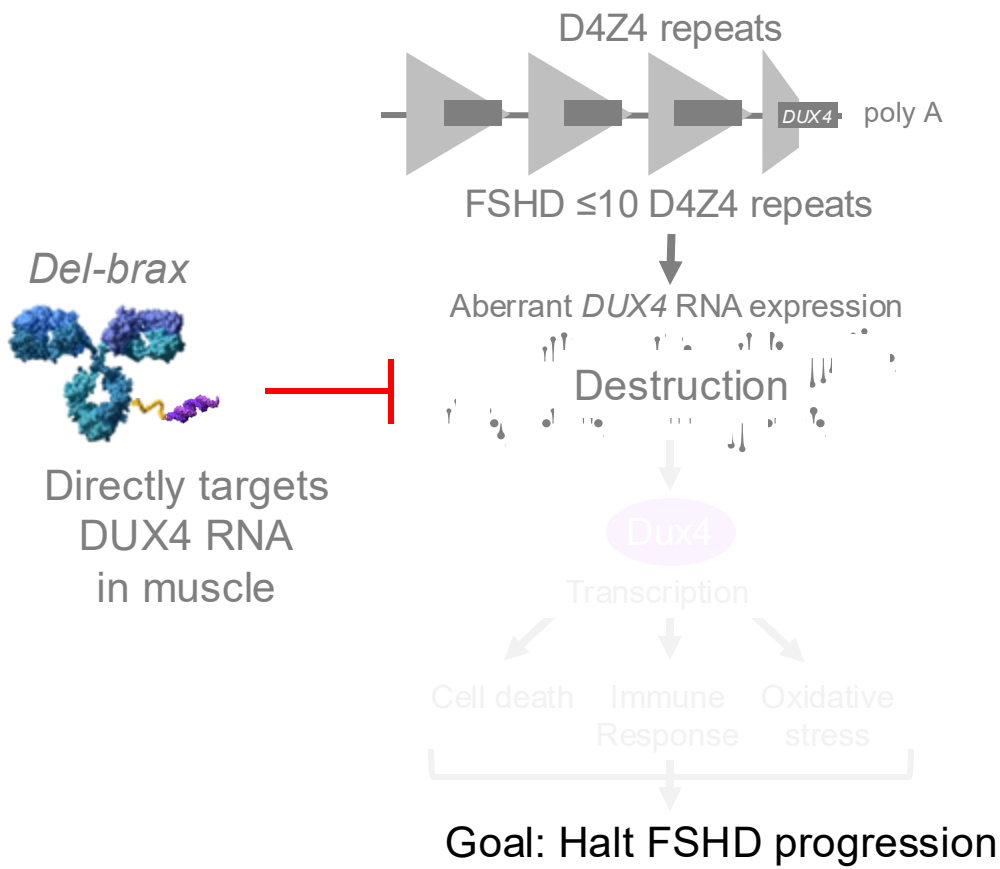
Del-brax: Targets DUX4, the Root Cause of FSHD

Target aberrant expression of DUX4 mRNA for destruction

FSHD disease pathology[1,2]



Del-brax Therapeutic Hypothesis[3,4]



Goal: Halt FSHD progression

1 Lemmers RJLF, et al. Science 329:1650–1653 (2010)
2 Snider L, et al. PLoS Genet. 2010;6(10):e1001181;

Phase 1/2 FORTITUDE™ Trial

Initial data from 2 mg/kg cohort at 4 months

Key Information

- Randomized, double blinded, placebo controlled
- Age 18-65
- 12-month multiple dose treatment/follow-up period
- Biopsies at baseline and Month 4

Cohort

- Cohort A*: First dose at 1 mg/kg; all subsequent doses at 2 mg/kg

Primary & Secondary Objectives

- Safety and tolerability of ascending doses of *del-brax* in participants with FSHD
- Pharmacokinetics

Key Exploratory Objectives

- Pharmacodynamics
  - Biomarkers
- Measures of clinical activity
  - Muscle strength
  - Muscle function
  - Muscle composition (MRI)
- Patient and Clinician reported outcomes

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*Cohort B data (4 mg/kg) not available

Baseline Demographics

	Cohort A Placebo N=4 % or mean (SD)	*Del-brax* 2 mg/kg* N=8 % or mean (SD)
Sex, % Male	75	62.5
Age, years	53.5 (10.15)	51.6 (11.62)
Genetic Diagnosis, % FSHD 1	100	100
FSHD Clinical Score	9.3 (1.71)	9.3 (2.31)
D4Z4 Repeat Number	5.0 (2.45)	5.8 (2.60)
Age at First Symptom Onset (y)	25.3 (13.5)	28.6 (17.75)
Reachable Workspace RSA with weight (Q1+Q3) Reachable Workspace RSA without weight (Q1+Q3)**	0.118 (0.0661) 0.156 (0.0810)	0.088 (0.0598) 0.138 (0.0750)
Quantitative Muscle Testing - Percent Predicted Normal	33.97 (16.42)	30.14 (11.58)

*Participants receive a first dose of 1mg/kg and then receive the 2mg/kg dose for the remainder of the study
**Participants in FORTITUDE had >50% reduction in reachable workspace in Q1 & Q3 at baseline compared to normal controls (normal controls RWS (Q1+Q3) without weight: ~0.39, Han et al, 2015 Muscle Nerve)
Reachable Workspace (RWS) Relative Surface Area (RSA) (Q1+Q3) with or without weight was calculated using the average of both arms

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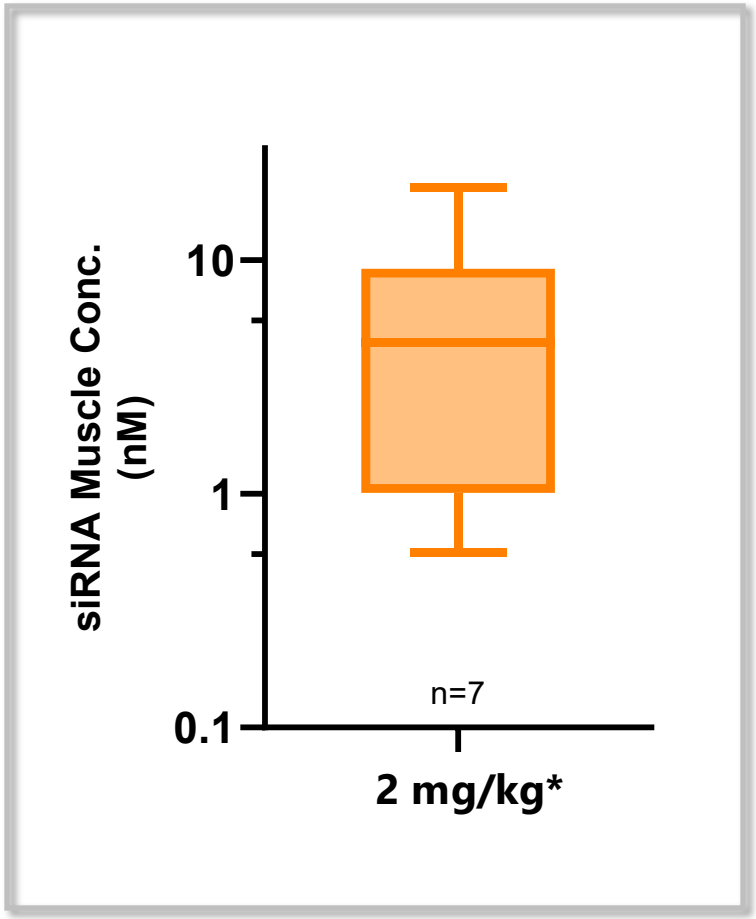
Del-brax: Safety and Tolerability

Subjects with ≥ 1 AE n (%)	Placebo N=13	2 mg/kg* N=8	4 mg/kg N=18
Any AE	11 (84.6%)	8 (100%)	17 (94.4%)
Related to study drug	3 (23.1%)	4 (50%)	9 (50%)
Severe AE	0	0	0
Serious AE (SAE)	0	0	0
AE leading to study discontinuation	0	0	0
AE leading to death	0	0	0

As of May 2021, data from FORTITUDE

*Participants receive a first dose of 1mg/kg and then receive the 2mg/kg dose for the remainder of the study

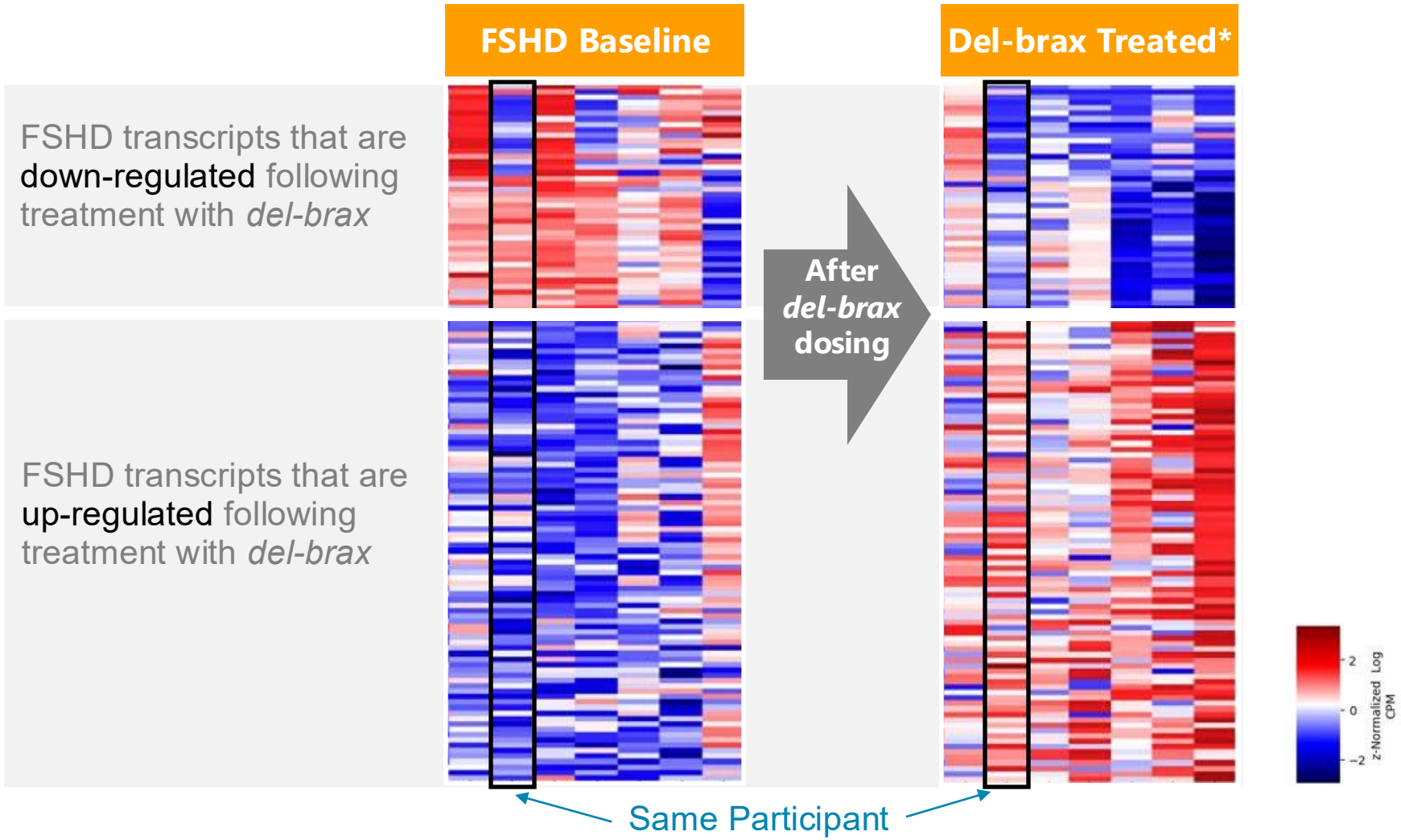
Del-brax Delivery of siRNA to Muscle



Muscle biopsies were collected in leg muscles (vastus lateralis, vastus medialis, tibialis anterior, gastrocnemius medialis or gastrocnemius lateralis) with fat fraction 15-40%, 4 weeks after 3rd dose.
*Participants receive a first dose of 1 mg/kg and then receive the 2 mg/kg dose for the remainder of the study,
One participant in the *del-brax* treated group missed post-dose biopsy n=7.

FSHD Transcripts Observed Before and After Del-Brax

Broad biological effects following *del-brax* treatment

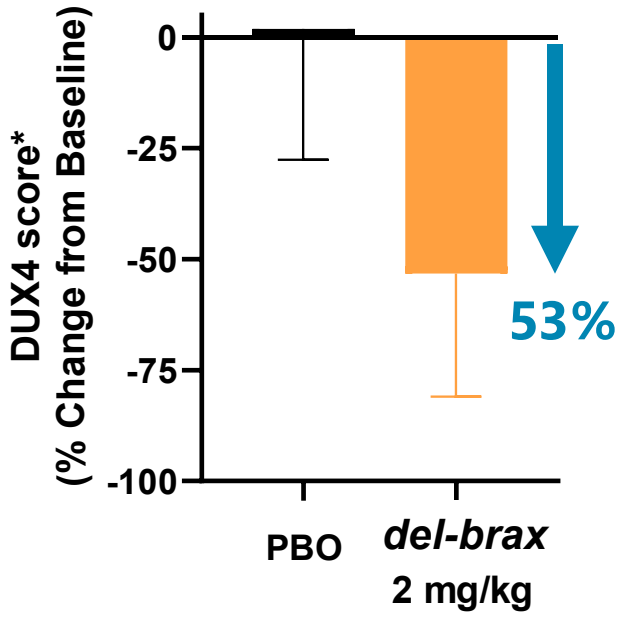


Each column is a participant's disease signature at baseline compared to 1 month post 3rd dose

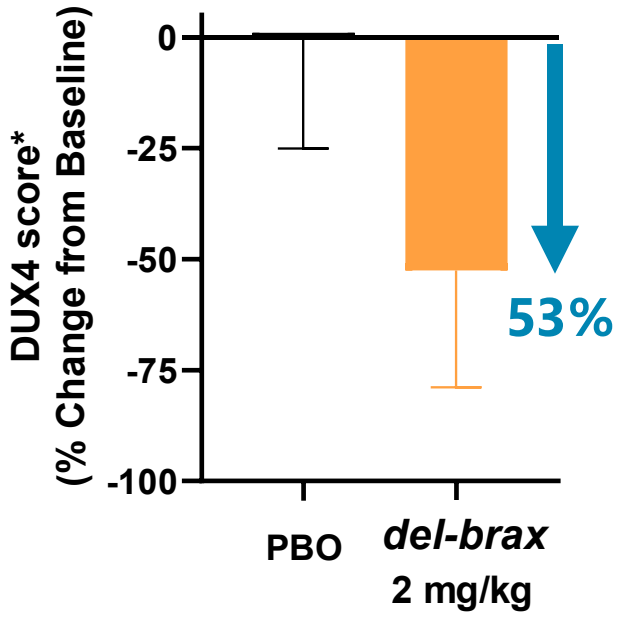
Differential gene expression (excluding DUX4 regulated genes) in muscle utilizing RNASeq.
*N=7 del-brax 2 mg/kg; D1, D43, D92 Participants receive a first dose of 1mg/kg and then receive the 2mg/kg dose for the remainder of the study. One participant missed post-dose biopsy.

>50% Reductions in DUX4-Regulated Genes Were Observed

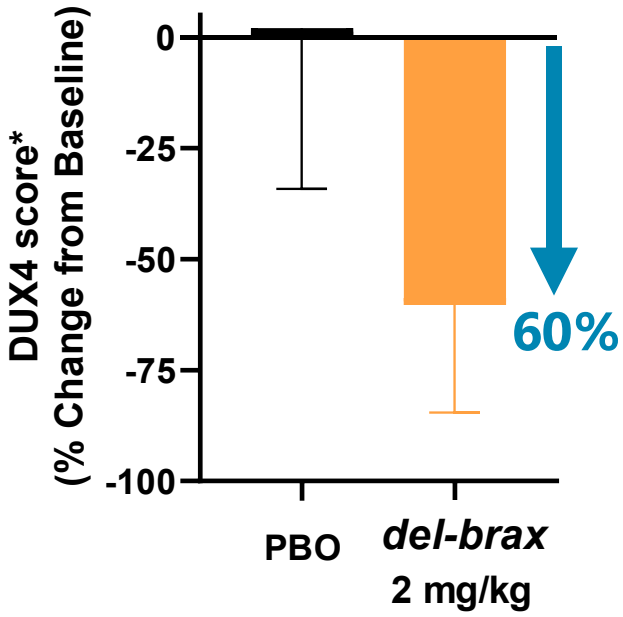
Avidity Panel[1]



ReDux4 Panel[2]



41-Gene Panel[3]



[1]Avidity 4-Gene panel (LEUTX, TRIM43, MBD3L2, KHDC1L)
[2]ReDux 6-Gene panel (CCNA1, ZSCAN4, MBD3L2, KHDC1L, SLC34A2, PRAMEF6); Tawil R. et al, *Lancet Neurol.* 2024;23(5): 477-486.
[3]Van den Heuvel A. et al., *Sci Rep.* 2022;12(1)1426.
*DUX4 score in MRI informed muscle biopsy were determined utilizing qPCR (Avidity panel) or RNASeq (ReDux and 41-Gene). DUX4 score calculated as cumulative expression of each gene and data presented as change at 4M treatment relative to cohort normalized baseline. Mean +/- SEM, N=7 *del-brax*, N=4 PBO. One participant in treated group did not receive post-treatment biopsy.

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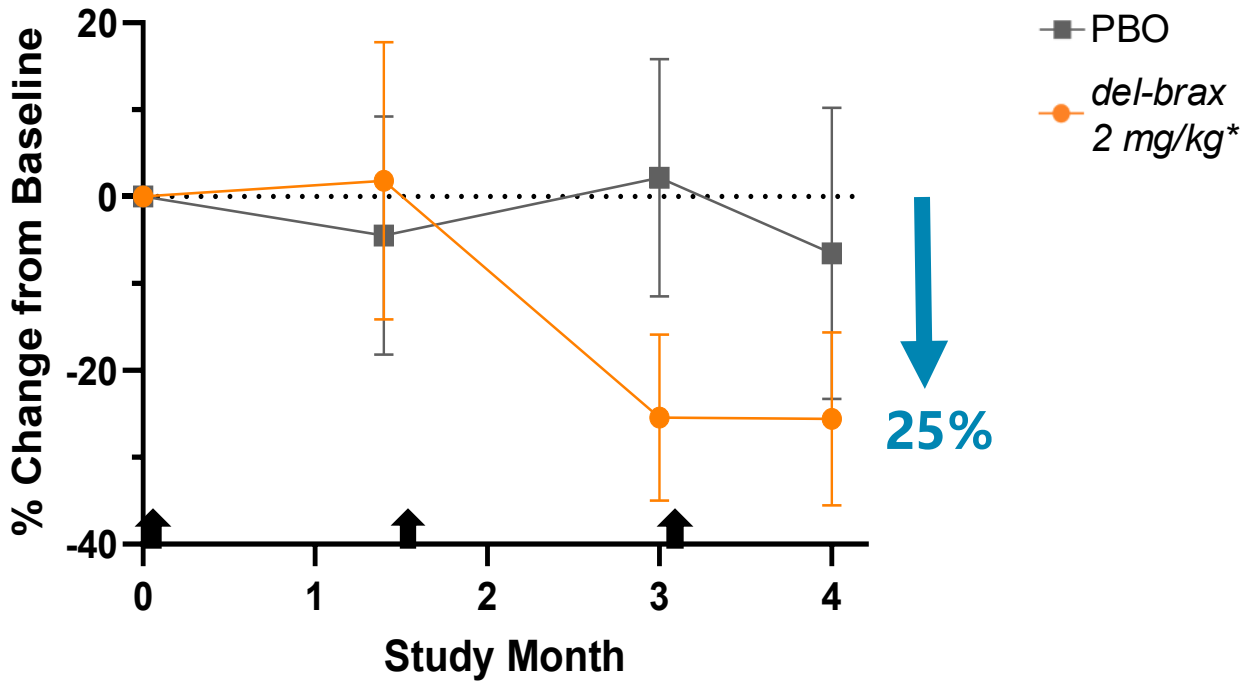
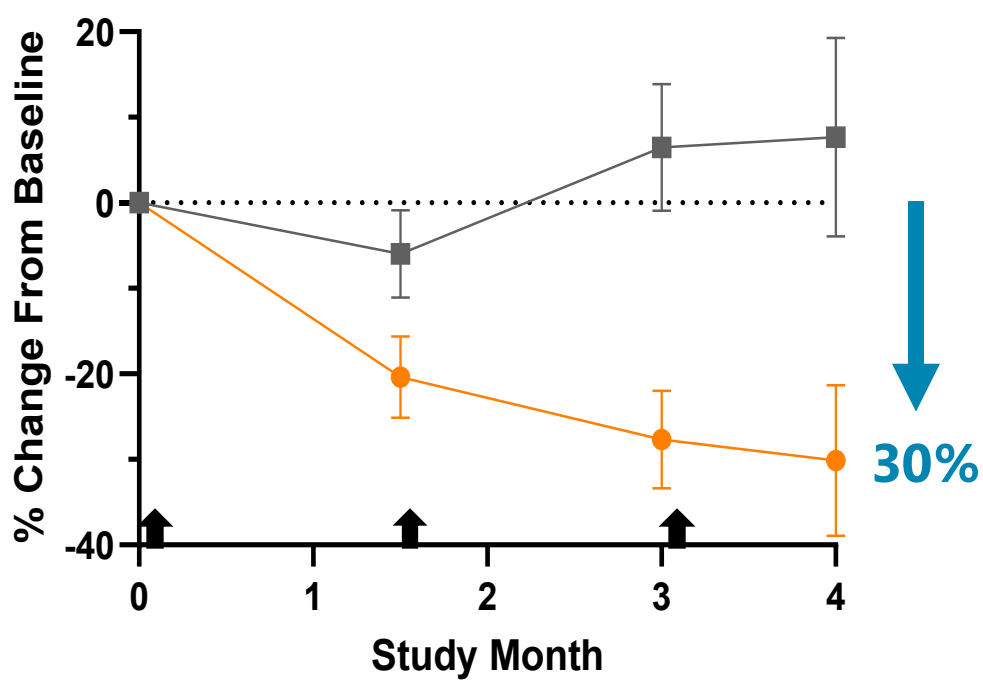
A Decrease in Both Novel and Creatine Kinase Circulating Biomarkers Were Observed

Novel DUX4-regulated biomarker



Creatine kinase biomarker

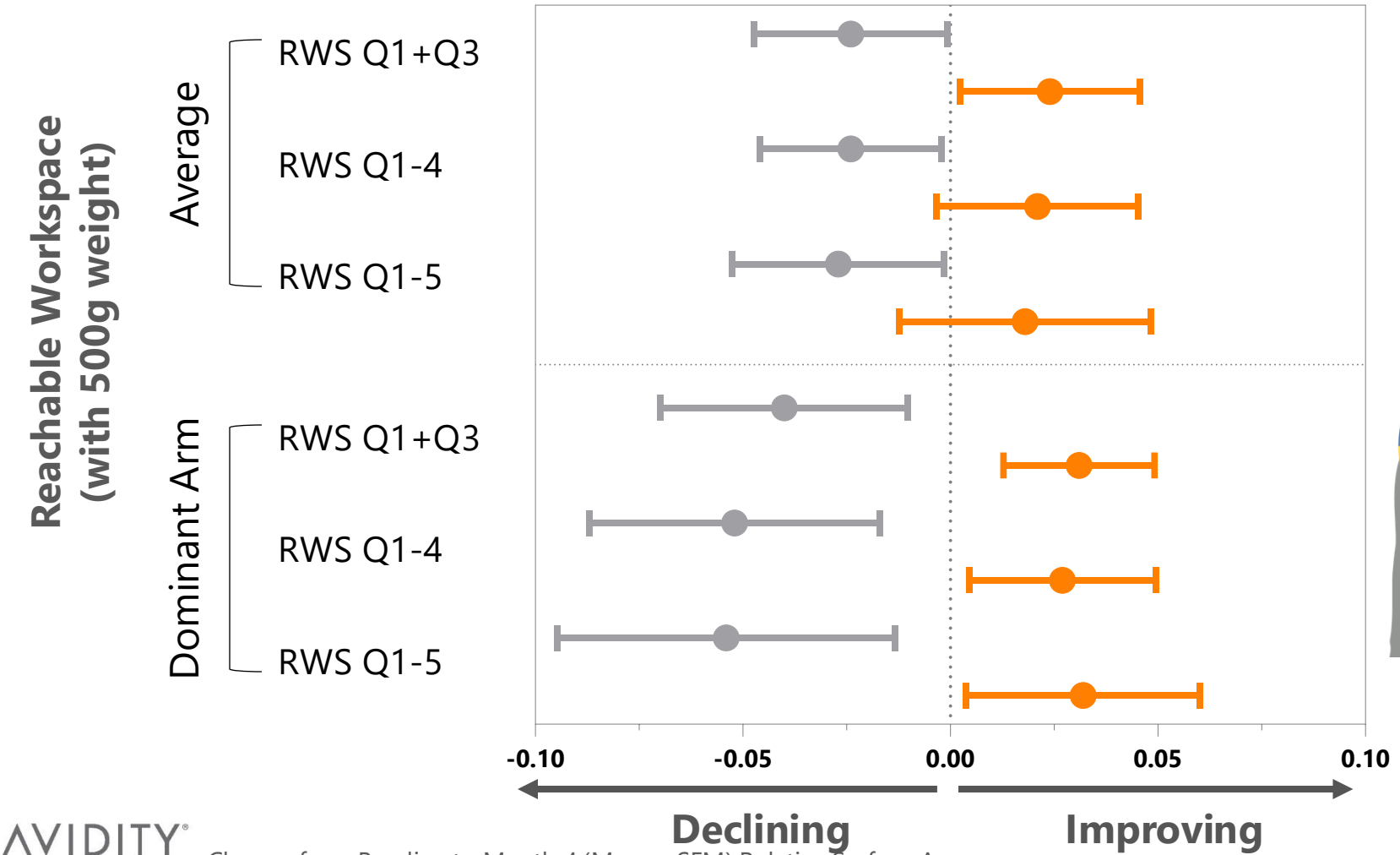


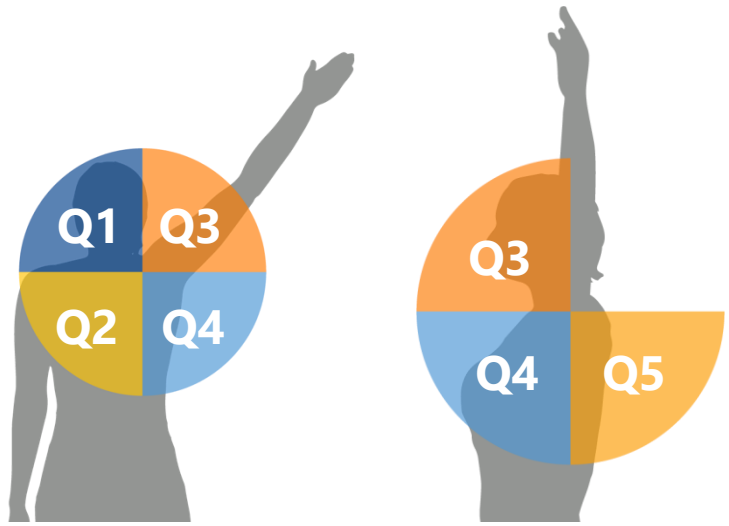
Timecourse of circulating biomarker at baseline and several timepoints post dose
*del-brax dose shown by black arrows 1mg/kg D1, 2 mg/kg D43 and D92. Placebo n=4 and del-brax treated n=8; Mean +/- SEM.

Exploratory measures of efficacy

Reachable Workspace Measurements Compared to Placebo

Exploratory endpoints are not powered to show statistical significance

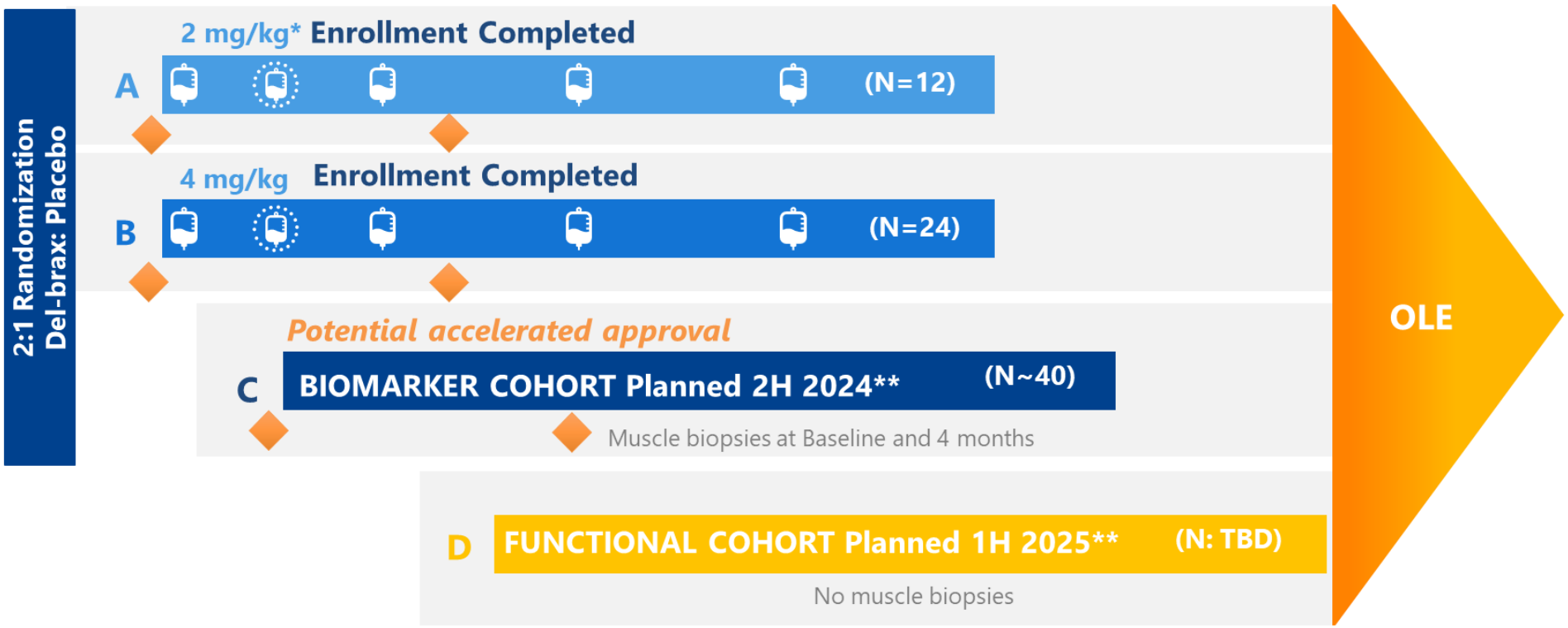




Change from Baseline to Month 4 (Mean ±SEM) Relative Surface Area.
Average n=8 & dominant arm n=7 in the *del-brax* group
*Participants receive a first dose of 1 mg/kg and then receive the 2 mg/kg dose for the remainder of the study.

Accelerating *Del-brax* Registrational Plan

Partnering with FSHD Society to share more information on FORTITUDE as it becomes available



* Participants receive a first dose of 1mg/kg and then receive the 2mg/kg dose for the remainder of the study
**Dose and schedule to be determined in Q3 2024

How To Get Involved

- Visit clinicaltrials.gov for additional information on the FORTITUDE study
  - Study ID: NCT05747924
- Visit the FORTITUDE Trial Website:
  - https://fortitude-study.com
- Visit our website:
  - www.aviditybiosciences.com
- Stay connected through FSHD Society
- Continue to consult with your doctor for questions about treatment options