

Therapeutics

# Design of REACH: Phase 3 Randomized, Double-Blind, Placebo-Controlled, 48-Week Study of the Efficacy and Safety of Losmapimod in FSHD

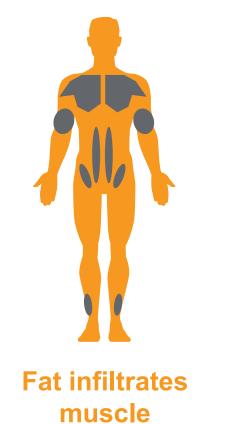


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### Introduction

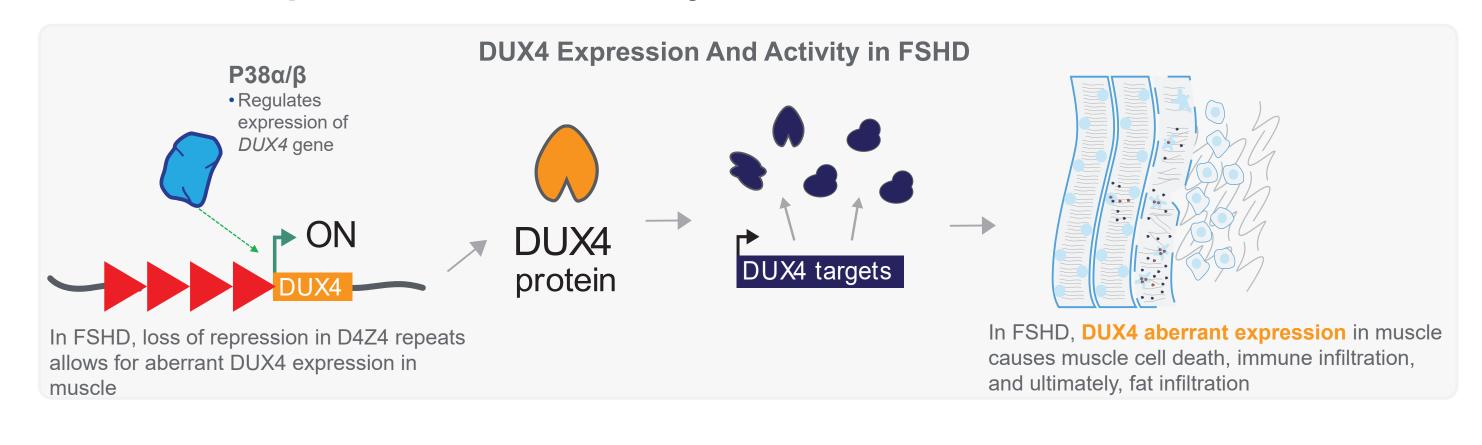
- FSHD is a relentlessly progressive disease leading to significant disability that impacts quality of life
- FSHD initially affects facial and scapular muscles, eventually progressing to the arms, trunk and legs
- Muscle pathology leads to accumulation of disability
- Progression ultimately leads to significant impairment of upper extremity function and mobility, and many patients are unable to work or live independently



Currently, there are no treatment options for people living with FSHD that prevent and/or slow muscle wasting and weakness

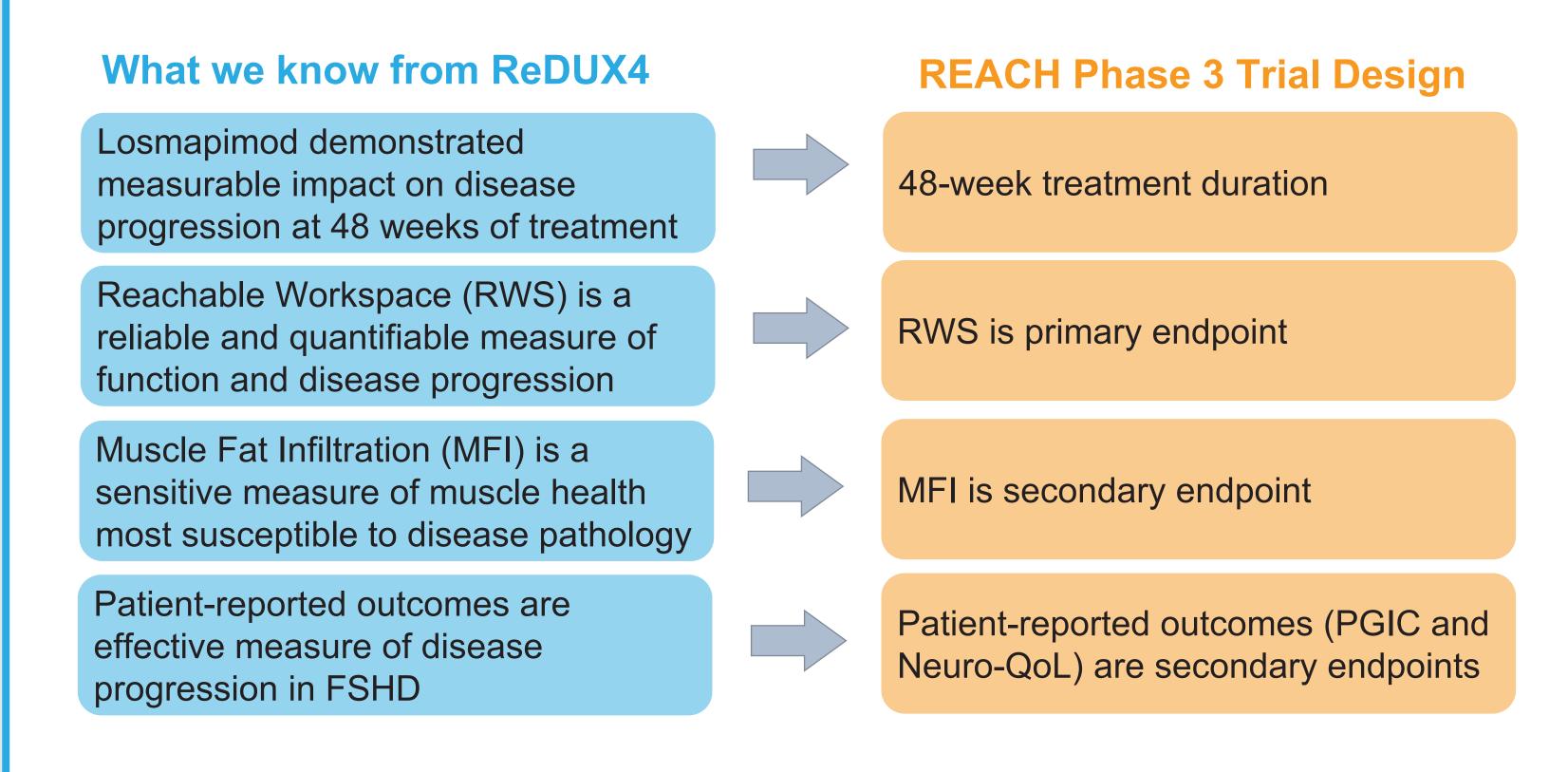
### Rationale

A treatment that reduces or prevents aberrant DUX4 activity in skeletal muscles may stop or prevent functional impairment and accumulation of disability and decrease/arrest replacement of muscle by fat.



- Losmapimod is an investigational small molecule inhibitor of p38α/β Mitogen Activated Protein Kinase (MAPK).
- Clinical studies in over 3,600 subjects across a diversity of diseases evidenced acceptable safety and tolerability for up to one year of treatment at relevant doses.
- Nonclinical studies have shown that losmapimod (a small molecule p38 α/β MAPK inhibitor) reduces the aberrant expression of DUX4, the underlying cause of FSHD.
- Two Phase 2 clinical studies, ReDUX4 (FIS-002-2019) and the open-label study (OLS, FIS-001-2019) demonstrated evidence of benefit of losmapimod on muscle structure and function, as well as FSHD-relevant clinical endpoints recognized by patients and favorable safety and tolerability.

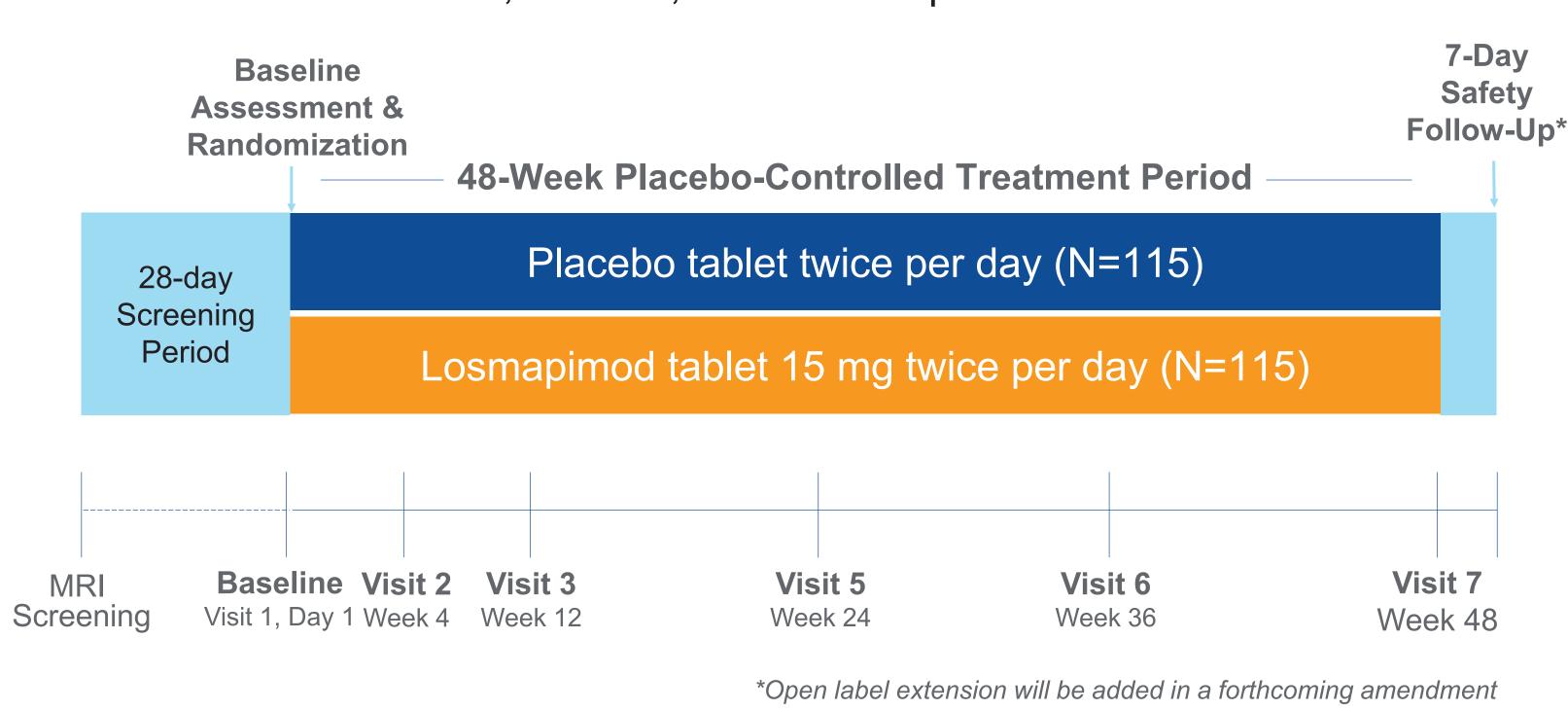
# **REACH Leverages Learnings from Prior Losmapimod Trials in FSHD**



### **Study Design**

### **Study Population:**

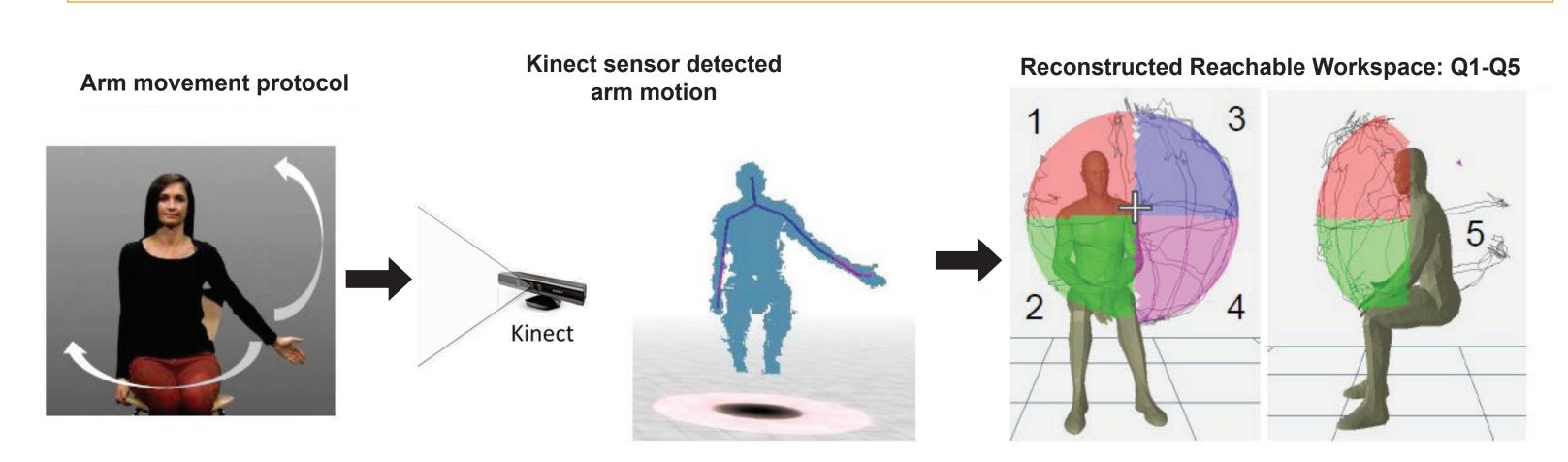
- ~230 participants aged 18-65 with FSHD1 and FSHD2
- Population characteristics similar to those in Phase 2 ReDUX4, including disease severity
- Clinical sites in the US, Canada, UK and Europe



## Study Objectives

### **Primary Objective**

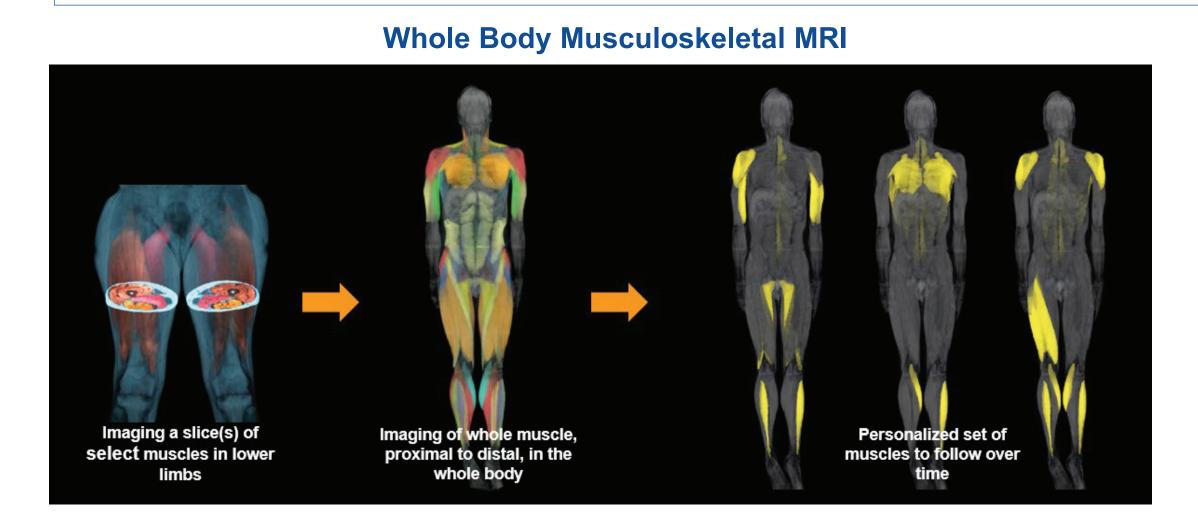
To evaluate the efficacy of losmapimod for the treatment of FSHD on disease progression assessed by Reachable Workspace (RWS) quantification of Relative Surface Area (RSA) Q1-Q5 with 500 g wrist weight in the dominant arm



- Reachable Workspace (RWS) is a centrally read evaluation of individual global upper extremity function, including shoulder and proximal arm, which tracks 3D upper limb trajectory using the Microsoft Kinect device
- Divided into 5 regions; shoulder as origin (each quintant = 0.25, total scale 0-1.25)

# **Secondary Objectives**

- 1. To evaluate the change in Neuro-QoL Upper Extremity (UE) relative to placebo
- 2. To evaluate Patient Global Impression of Change (PGIC) relative to placebo
- 3. To evaluate efficacy of losmapimod to slow accumulation of fat in muscle by muscle fat infiltration (MFI) with whole body musculoskeletal MRI relative to placebo
- 4. To assess safety and tolerability of losmapimod in patients with FSHD



Patients' Global Impression of Change (PGIC)

"Since the start of the study, my overall status is..."

7: Very much worse

7: Very much worse
6: Much worse
5: Minimally worse

4: No Change
3: Minimally improved
2: Much improved

1: Very much improved

# **Exploratory Objectives Include**

- Additional Patient Reported Outcomes (PROs)
- Healthcare utilization questionnaires
- Muscle Strength through handheld dynamometry

# **Key Inclusion / Exclusion Criteria**

### **Inclusion Criteria**

- Age 18-65 years
- Genetically confirmed diagnosis of FSHD1 or FSHD2
- Ricci score 2-4 (range 0-5). Patients who are wheelchair-dependent or dependent on walker or wheelchair for activities are not permitted to enroll in the study
- Screening total RSA (Q1-Q4) without weight in the dominant arm assessed by RWS ≥0.2 and ≤0.7
- Agree to use protocol approved methods of contraception for the duration of the study

### **Exclusion Criteria**

- Medical conditions that can confound results of the study
- Contraindication to MRI
- Acute or chronic liver or renal impairment
- If using drugs or supplements that affect muscle function, must be on stable dose and remain on that dose for the duration of the study

