RGX-202, an investigational gene therapy for the treatment of Duchenne muscular dystrophy: interim clinical data

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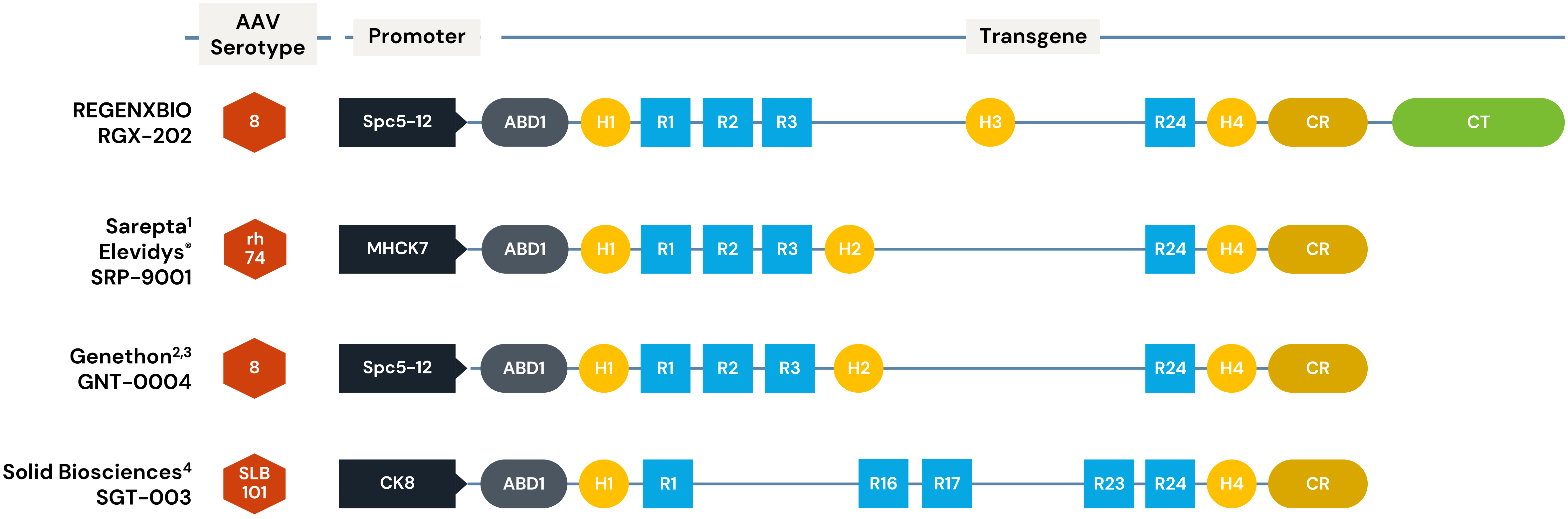
RGX-202 is an investigational product that has not been approved by the FDA. No conclusions regarding safety and efficacy can be made.

RGX-202 is the only microdystrophin gene therapy with the functional elements of the C-Terminal (CT) domain found in naturally occurring dystrophin



1. Harper (2002) Nat Med
2. Mbakam & Tremblay (2023) Expert Rev Neurother
3. Le Guiner (2017) Nat Comm
4. https://investors.solidbio.com/Corporate Presentation, January 2024

Dastgir (2024) Breakthroughs in Muscular Dystrophy, Chicago

Phase I/II Trial Overview

Key Eligibility Criteria

- **Boys aged 1 to <12yo** at screening
- **Genetically confirmed DMD** (mutations in exons 18 and above)
- **No pre-existing antibodies** to the gene therapy (AAV8 capsid)

1 to <4yo	4+ yo
10 meter walk without assistance	100 meter walk without assistance
Stable dose on or off corticosteroids x 12 weeks	Stable dose of corticosteroids x 12 weeks
Weight >10kg	

✔ **Dose Level 1**
Dose Evaluation
$1x10^{14}$ GC/kg
n=3

→

✔ **Dose Level 2**
Dose Evaluation
$2x10^{14}$ GC/kg
n=2

→

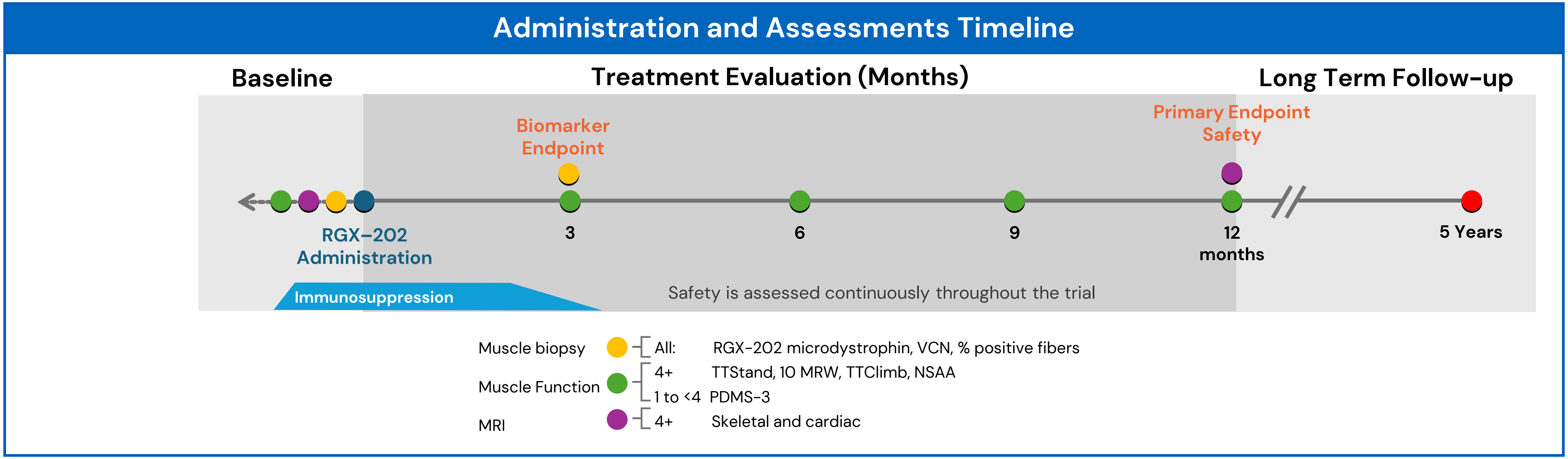
✔ **Dose Level 2**
Expanded Cohort
$2x10^{14}$ GC/kg
n= 5 patients

Dose Level 2
1-3 yr olds
$2x10^{14}$ GC/kg
(up to 5 patients)

✔ Fully enrolled

As of April 8, 2025

Phase I/II Trial Design



TTStand: Time to Stand; 10MWR: 10M Walk Run; TTClimb: Time to Climb
NSAA: North Star Ambulatory Assessment
PDMS-3: Peabody Developmental Motor Scale, Third Edition

Adapted from Dastgir (2024) Breakthroughs in Muscular Dystrophy, Chicago

Key Baseline Demographics

Variable Mean (range)	Dose Level 1 $1x10^{14}$ GC/kg	Dose Level 2 $2x10^{14}$ GC/kg	
Age range at screening (number dosed)	**4–11** (n = 3)	**1–3** (n = 2)	**4–11** (n = 7)
Age at Dosing (yrs)	**7.1** (4.4–10.5)	**3.0** (2.3, 3.7)	**8.7** (5.8–12.1)
Weight (kg)	**24.3** (17.8–28.3)	**11.4** (10.3, 12.5)	**26.2** (17.3 – 35.5)
Time from Dosing (months)	**20.6** (17.5–23.1)	**3.4** (1.5,5.3)	**10.6** (4.9–15.5)
Functional Outcomes			
NSAA	**20.3** (14.0–26.0)	n/a†	**23.9** (13.0–30.0)
Time to Stand (sec)	**4.9** (2.9–6.8)	n/a†	**4.4** (3.7–5.4)
10 Meter Walk Run (sec)	**5.1** (3.9–6.2)	n/a†	**4.9** (4.2–6.0)
Time to Climb (sec)	**3.6** (2.1–5.2)	n/a†	**3.1** (2.1–4.6)

Data cut date February 21, 2025
† Boys 1-3 years old complete the Peabody Developmental Motor Scale, Third Edition (PDMS-3) at baseline; NSAA collected but not applicable

Tesi-Rocha (2025) MDA

Interim Safety

RGX-202 Treatment-Emergent Adverse Events		Dose Level 1 Dose Evaluation ($1x10^{14}$ GC/kg)	Dose Level 2 Younger Boys ($2x10^{14}$ GC/kg)	Dose Level 2 Dose Evaluation / Expansion ($2x10^{14}$ GC/kg)	Total n = 12
Age Range (number dosed)		4-11 (n = 3)	1-3 (n = 2)	4-11 (n = 7)	All Age Ranges
SAE		0	0	0	0
AESI	Central Or Peripheral Neurotoxicity	0	0	0	0
	Drug-Induced Liver Injury	0	0	0	0
	Thrombocytopenia*	0	0	0	0
Myocarditis*		0	0	0	0
Myositis*		0	0	0	0
The most common drug-related AEs reported are: nausea (n=6), vomiting (n=3), and fatigue (n=5), all resolved					

RGX-202 has been well-tolerated in all patients at both dose levels with no SAEs or AESIs

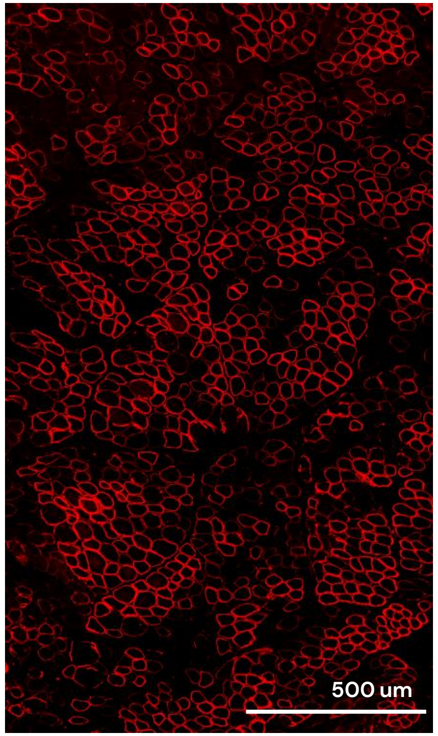
Tesi-Rocha (2025) MDA

Data cut data February 21, 2025
SAE – Serious Adverse Event; AESI – Adverse Events of Special Interest
*based on Common Terminology Criteria for Adverse Events (CTCAE) version 5

Biomarkers Support Consistent Robust Expression, Transduction, and Sarcolemmal Localization of RGX-202 Microdystrophin

Mean at 12 Weeks (min, max)	Dose Level 1 $1x10^{14}$ GC/kg		Dose Level 2 $2x10^{14}$ GC/kg		
Age range at screening (number with data)	**4-7** (2)	**8-11** (1)	**1-3** (1)	**4-7** (2)	**8-11** (5)
RGX-202 Microdystrophin* % (Western Blot)	**60.6** (37.8, 83.4)	**10.4** (n/a)	**122.3** (n/a)	**54.3** (31.5, 77.2)	**39.7** (20.8, 75.7)
VCN copies/nucleus (qPCR)	**9.8** (7.4, 12.1)	**5.4** (n/a)	**20.4** (n/a)	**30.1** (4.9, 55.4)	**17.8** (12.0, 30.7)
Positive Fibers** % (Immunofluorescence)	**79.3*** ** (n/a)	**34.6** (n/a)	**82.1** (n/a)	**50.3** (29.4, 71.1)	**45.7** (21.3, 70.6)

RGX-202 Microdystrophin DL 2, 12 weeks



Data cut date February 21, 2025
* Microdystrophin expression adjusted for muscle content; % normal control
**Positive Fibers defined as change from baseline of RGX-202 microdystrophin & dystrophin positive fibers
*** One sample could not be evaluated

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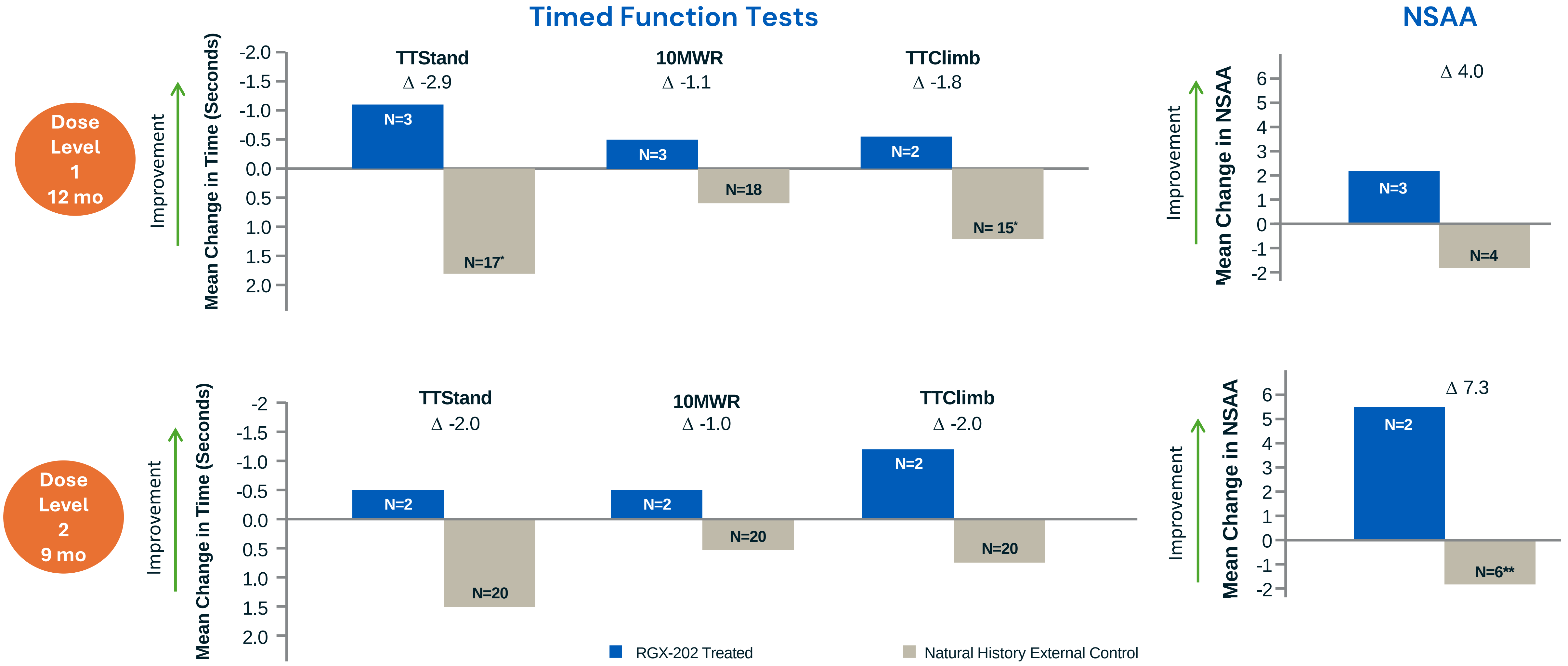
Pivotal & Dose Level 1 Participants Demonstrate Improvement in Function and Exceed External Controls



Adapted from Dastgir (2024) MDA Breakthroughs

Data cut date November 1, 2024
Time to Stand (TTStand); 10M Walk Run (10MWR); Time to Climb (TTClimb)
*One NH EC patient did not have a TTStand and one RGX-202 patient did not have TTClimb so associated NH EC also removed
** For NSAA, one patient did not have matching natural history external controls

AFFINITY DUCHENNE Phase III Trial: Open & Enrolling

Key Eligibility Criteria (n ≈ 30)

- **Boys aged 1+ years** at screening
- **Genetically confirmed DMD** (all mutations except those with deletions or point mutations in exons 8, 9, and/or 10)
- **No pre-existing antibodies** to the gene therapy (AAV8 capsid)

1 to <4yo	4+ yo
10 meter walk without assistance	100 meter walk without assistance
Stable dose on or off corticosteroids x 12 weeks	Stable dose of corticosteroids x 12 weeks
Weight >10kg	NSAA ≥ 16

Pivotal Endpoints

Primary Endpoint: Proportion of patients with ≥ 10% RGX-202 microdystrophin levels

Secondary Endpoints: Timed function tests (including vTTStand) & NSAA 4+ yo; PDMS-3 & SV95C for 1 to <4 yo
Safety

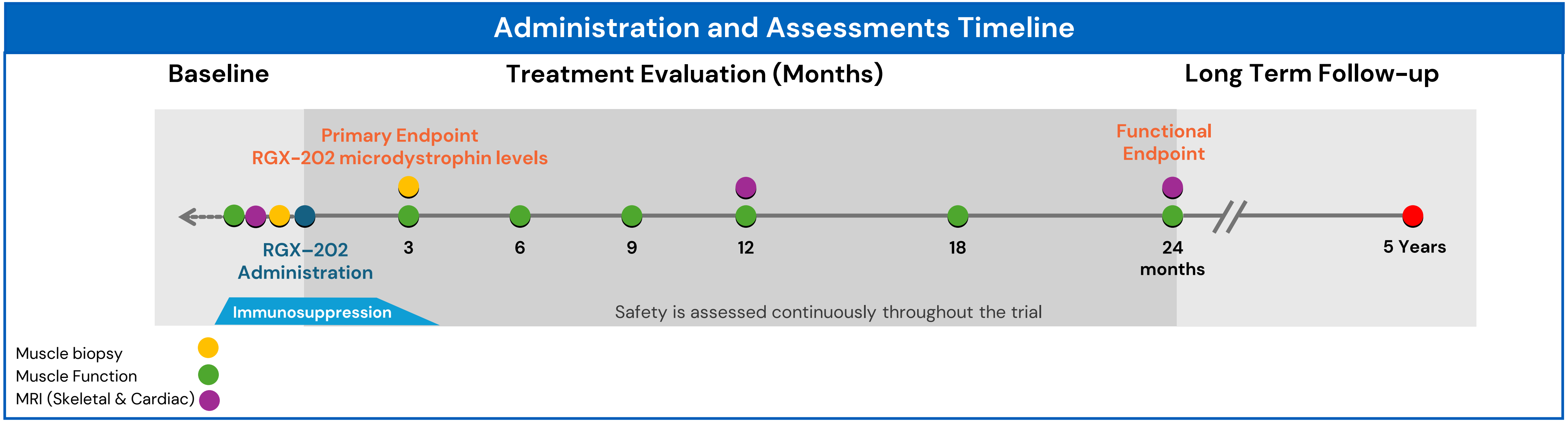
Exploratory Endpoints: SV95C & MRIs for 4+ yo

Access ClinicalTrials.gov: AFFINITY DUCHENNE® for additional information

vTTStand: time to stand velocity
NSAA: North Star Ambulatory Assessment
PDMS-3: Peabody Developmental Motor Scale, Third Edition

AFFINITY DUCHENNE Pivotal Trial Design

A multi-center, open-label pivotal trial



Access ClinicalTrials.gov: AFFINITY DUCHENNE® for additional information

AFFINITY DUCHENNE: Phase I/II Interim Summary

Phase III trial open and enrolling

RGX-202 has been well-tolerated in 12 patients across both dose levels with no SAEs or AESIs[1]

Biomarkers support consistent robust expression, transduction, and sarcolemmal localization of RGX-202 microdystrophin[1]

Participants treated with RGX-202:

- Demonstrated clinically meaningful improvement in functional outcomes at both dose levels
- Exceeded comparisons using NH external controls and MCID*[2]

- Pivotal trial is active and recruiting ambulatory boys aged 1 and above
- REGENXBIO plans to use RGX-202 microdystrophin as a surrogate endpoint likely to predict clinical benefit to support accelerated approval

1. Data cut date February 21, 2025
2. Data cut date November 1, 2024
* MCID (minimal clinically important difference) (Duong, 2021) compared to dose level 1 at 12 mo

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Acknowledgements

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- Carolina Tesi-Rocha, M.D., Stanford School of Medicine
- Aravindhan Veerapandiyan, M.D., Arkansas Children's Hospital

The Study Coordinators (Amber, Elaine, Falgun, Molly, Yan)

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