Capricor Therapeutics™

Late Breaking

5-Year Treatment Benefits with Deramiocel

Parent Project Muscular Dystrophy

Forward Looking Statements

Statements in this presentation regarding the efficacy, safety, and intended utilization of Capricor's product candidates; the initiation, conduct, size, timing and results of clinical trials; the pace of enrollment of clinical trials; plans regarding regulatory filings, future research and clinical trials; regulatory developments involving products, including future interactions with regulatory authorities and the ability to obtain regulatory approvals or otherwise bring products to market; manufacturing capabilities; dates for regulatory meetings; the potential that required regulatory inspections may be delayed or not be successful which would delay or prevent product approval, revenue and reimbursement estimates, projected terms of definitive agreements, our financial position, our possible uses of existing cash and investment resources, and statements regarding our litigation with Nippon Shinyaku Co., Ltd. and NS Pharma, Inc., including the nature of the dispute, our expectations regarding any legal proceedings, and our ability to commercialize Deramiocel independent of our existing distribution agreement and any other statements about Capricor's management team's future expectations, beliefs, goals, plans or prospects constitute forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Any statements that are not statements of historical fact (including statements containing the words "believes," "plans," "could," "anticipates," "expects," "estimates," "should," "target," "will," "would" and similar expressions) should also be considered to be forward-looking statements. There are a number of important factors that could cause actual results or events to differ materially from those indicated by such forward-looking statements. More information about these and other risks that may impact Capricor's business is set forth in Capricor's Annual Report on Form 10-K for the year ended December 31, 2025, as filed with the Securities and Exchange Commission on March 17, 2026 and in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2026, as filed with the Securities and Exchange Commission on May 13, 2026. All forward-looking statements in this presentation are based on information available to Capricor as of the date hereof, and Capricor assumes no obligation to update these forward-looking statements. Deramiocel and the StealthX™ vaccine are investigational candidates and have not been approved for commercial use in any indication.

At Capricor, we are committed to advancing transformative treatments and delivering meaningful outcomes for patients in need.

Deramiocel: Cellular Therapy

Comprised of Human Allogeneic Cardiosphere-Derived Cells (CDCs)

CDCs are derived from cells of transplant qualified human hearts; they are not stem cells

>250

Peer-reviewed scientific publications worldwide[1]

[1]Based on PubMed search

>250

Patients administered CDCs across multiple clinical trials

>800

Doses of intravenous Deramiocel administered to patients with DMD

Deramiocel's Multi-Modal Mechanism

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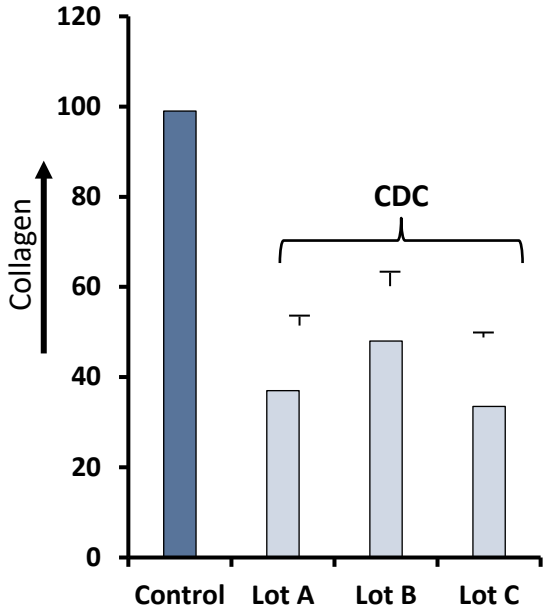
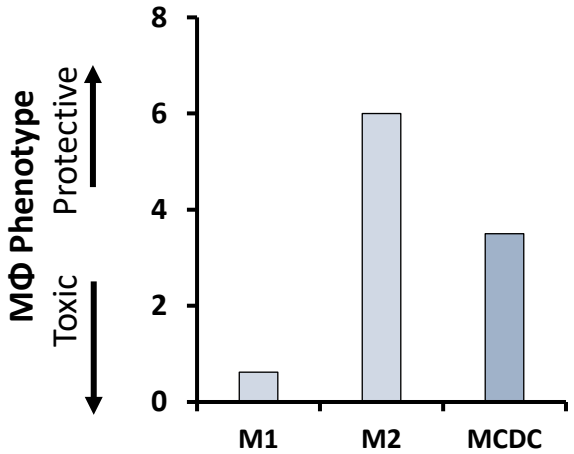
CDCs (Deramiocel)

Exosomes and growth factors

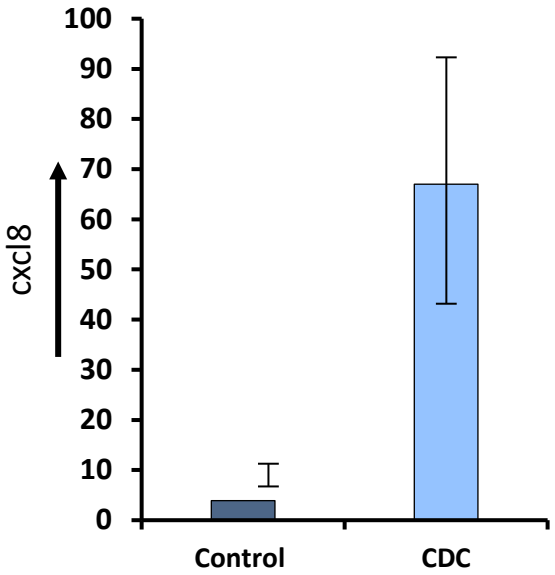
Anti-fibrotic[1]



Immunomodulatory[1]



Anti-inflammatory



PPMD

[1]de Couto et al., 2015

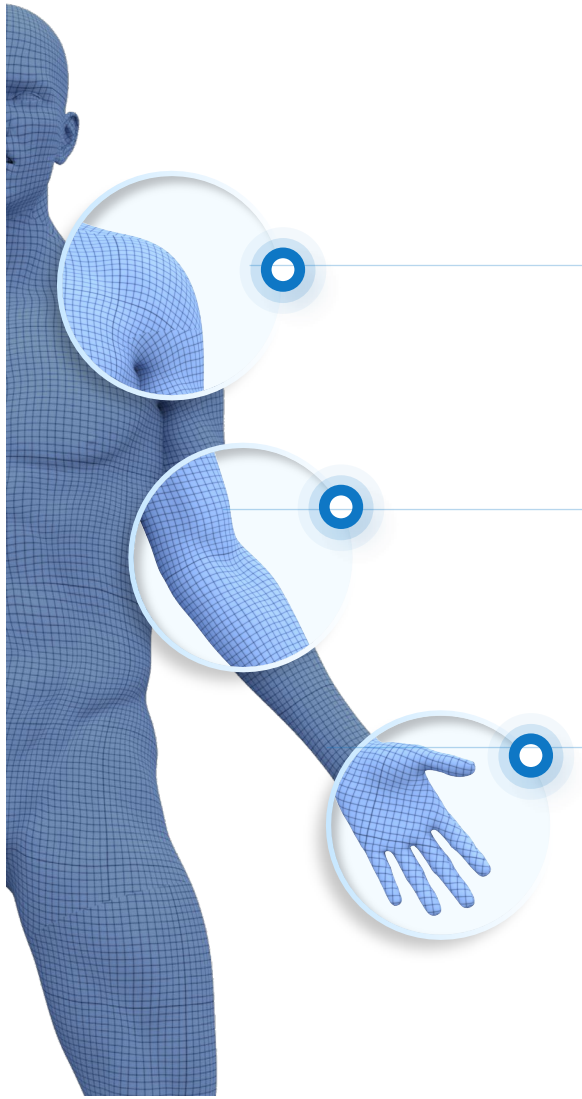
Deramiocel Duchenne Program

PDUFA Target Action Date: August 22, 2026

- **HOPE-3 Phase 3 trial** (n=106; randomized, double-blind, placebo-controlled) met its primary endpoint (PUL v2.0; p=0.03), key cardiac secondary endpoint (LVEF; p=0.04), and all Type I error-controlled secondary endpoints
- **Deramiocel BLA under active FDA review**; labeling discussions expected to commence soon
- If approved, Deramiocel would serve to be mutation agnostic, with the potential to address a broad DMD patient population
- **GMP manufacturing facility operational**; second-floor expansion underway
- **Building commercial capabilities to support a potential U.S. launch**

Performance of Upper Limb (PUL)

Validated Tool to Assess Skeletal Muscle Function



Shoulder Level
4 items

- Lifting upper extremity weights
  - Shoulder height
  - Above shoulder height

Middle Level
9 items

- Hand to mouth w/w/o weights
- Hand to table
- Stack light and heavy cans
- Moving weights on table
- Remove container lid
- Lift light and heavy cans
- Tearing paper

Distal Level
8 items

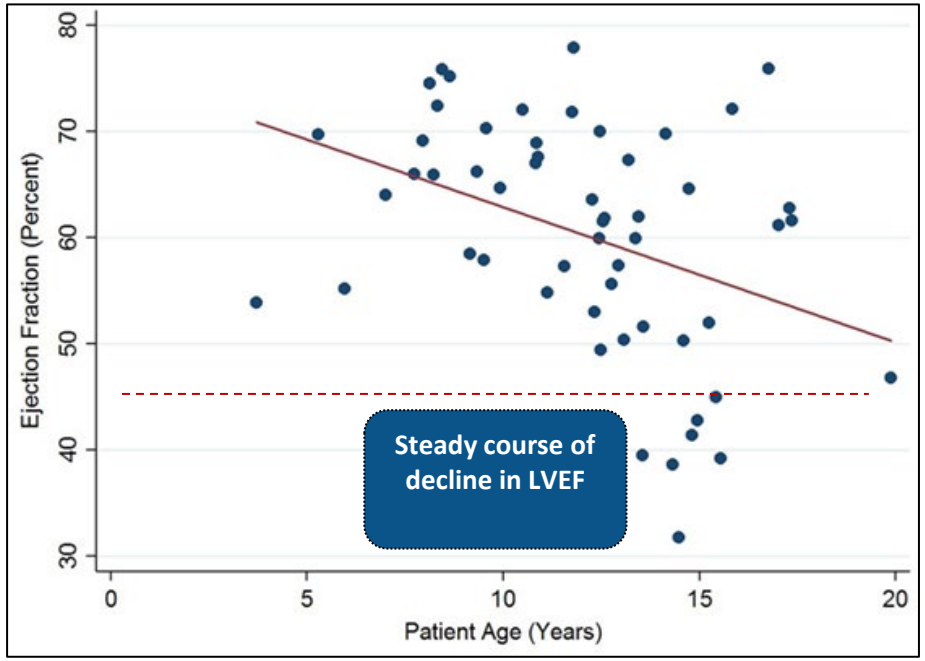
- Tracing a path
- Supination
- 3-point grip
- Push on a light
- Pick up coins
- Finger pinch
- Place fingers on diaphragm
- Thumb (key) grip

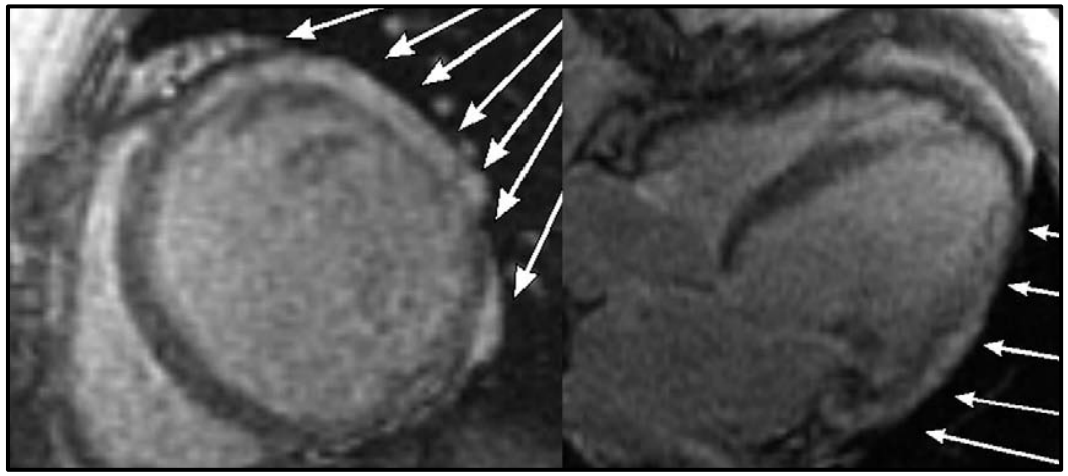
*Mayhew et al, 2019; Pane et al, 2018.

Duchenne Cardiomyopathy

"Cardiopulmonary failure is the leading cause of mortality in DMD in the current era…Unfortunately, standard heart failure therapies are not DMD-specific and have limited efficacy….For maximal efficacy, most therapies should begin early in the disease process…"

Circulation: Heart Failure, (2023) , Soslow J.H., M.D., et al.





Cardiac MRI in DMD patient

Delayed enhancement indicative of myocardial fibrosis

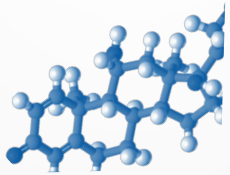
Frontiers | Echocardiographic Image Quality Deteriorates with Age in Children and Young Adults with Duchenne Muscular Dystrophy (frontiersin.org)

Deramiocel has the Potential to Redefine

the Standard of Care for Duchenne

Deramiocel can be used in combination with existing therapeutics

GENE THERAPIES



EXON SKIPPING THERAPIES

Deramiocel

First-in-class potential therapy for Duchenne muscular dystrophy
CARDIAC AND SKELETAL MUSCLE

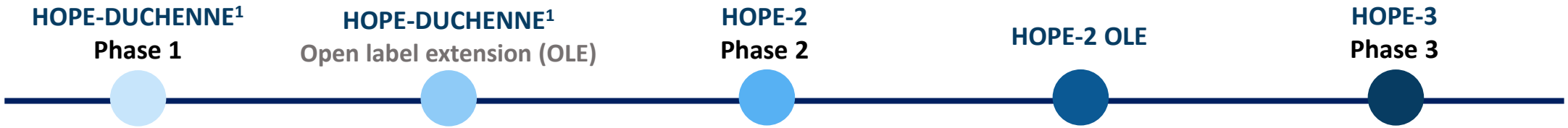
- **Orphan Drug Designation** (FDA and EMA)
- **Regenerative Medicine Advanced Therapy Designation** (FDA)
- **Rare Pediatric Disease Designation** (FDA)
- **Advanced Therapy Medicinal Product Designation** (EMA)

CORTICOSTEROIDS

STANDARD CARDIAC MEDICATIONS

Deramiocel's Clinical Development

A Decade of Development in Duchenne



HOPE-DUCHENNE[1] Phase 1	HOPE-DUCHENNE[1] Open label extension (OLE)	HOPE-2 Phase 2	HOPE-2 OLE	HOPE-3 Phase 3
N = 25 IC infusion	**N = 8 IV infusion**	**N = 20 IV infusion**	**N = 13 IV infusion**	**N = 106 IV infusion**
• Improved skeletal and cardiac and function • Reduced cardiac scarring • Informed dosing and administration	• First study with IV and multiple dosing • Generally safe to increase number of cells and frequency of dosing	• Significant improvements in skeletal muscle function • Significant preservation across multiple cardiac endpoints • Generally well-tolerated	• Confirms HOPE-2 results • Sustained efficacy shown over 4 years • Favorable long-term safety profile • Matched external comparator data	• Positive topline results announced in Dec. 2025 • Primary and key secondary endpoints met • Generally well-tolerated

[1]Study funded with the support from the California Institute for Regenerative Medicine (CIRM)

Patient Disposition: HOPE-2 → **HOPE-2-OLE**

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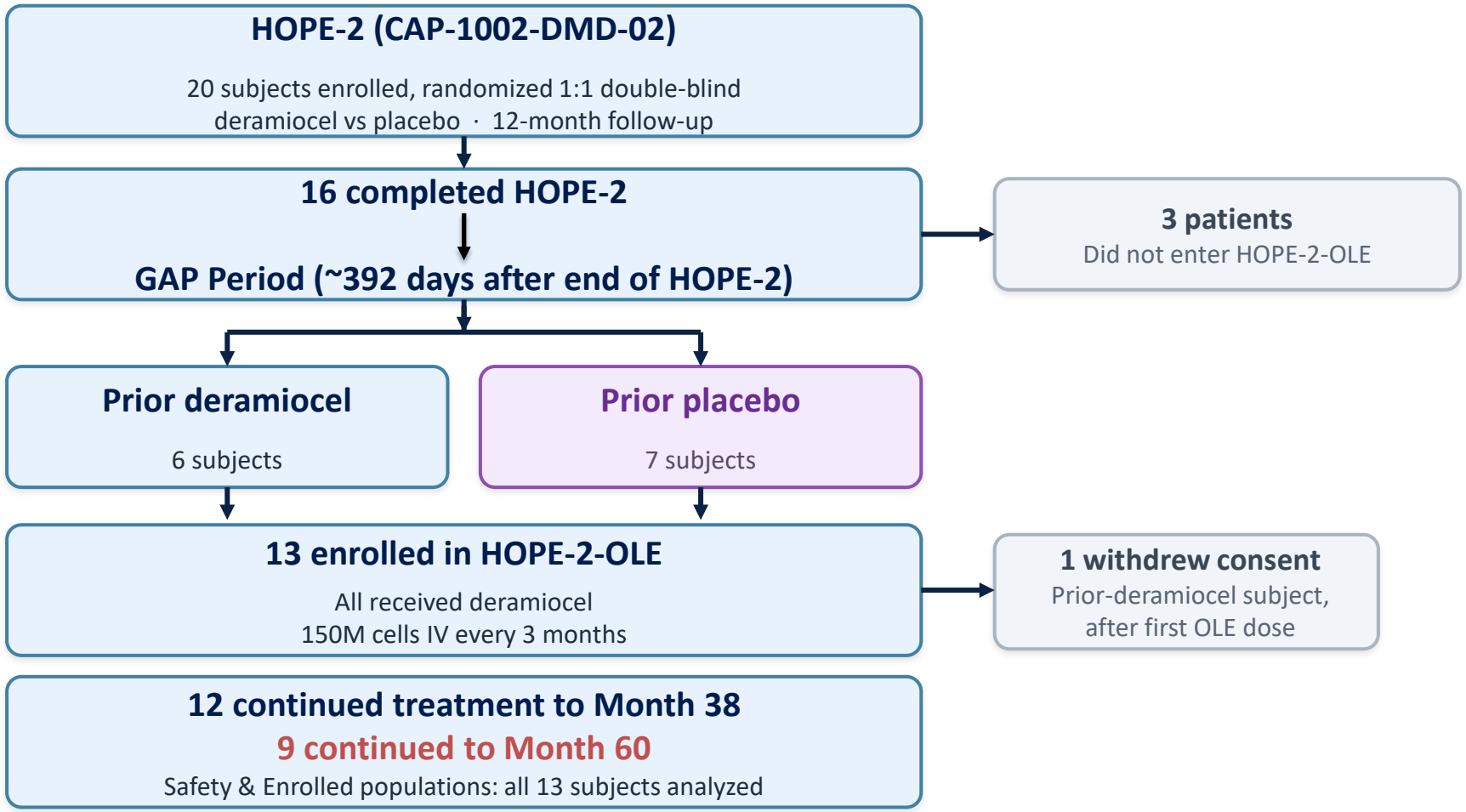
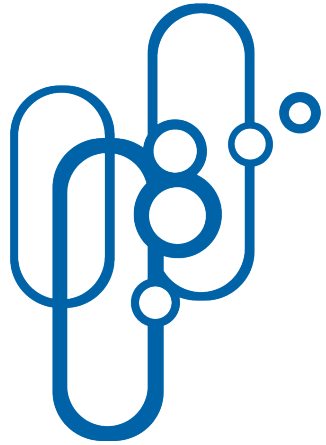
CONSORT flow from the parent HOPE-2 trial through the open-label extension





PPMD

Baseline Demographics & Disease Characteristics

HOPE-2-OLE deramiocel-treated cohort · N = 13 · all non-ambulant males

13
patients · 100% male

16.5 yr
mean age (range 12–23)

84.6%
White · 15.4% Asian

51.6 kg
mean weight (SD 13.8)

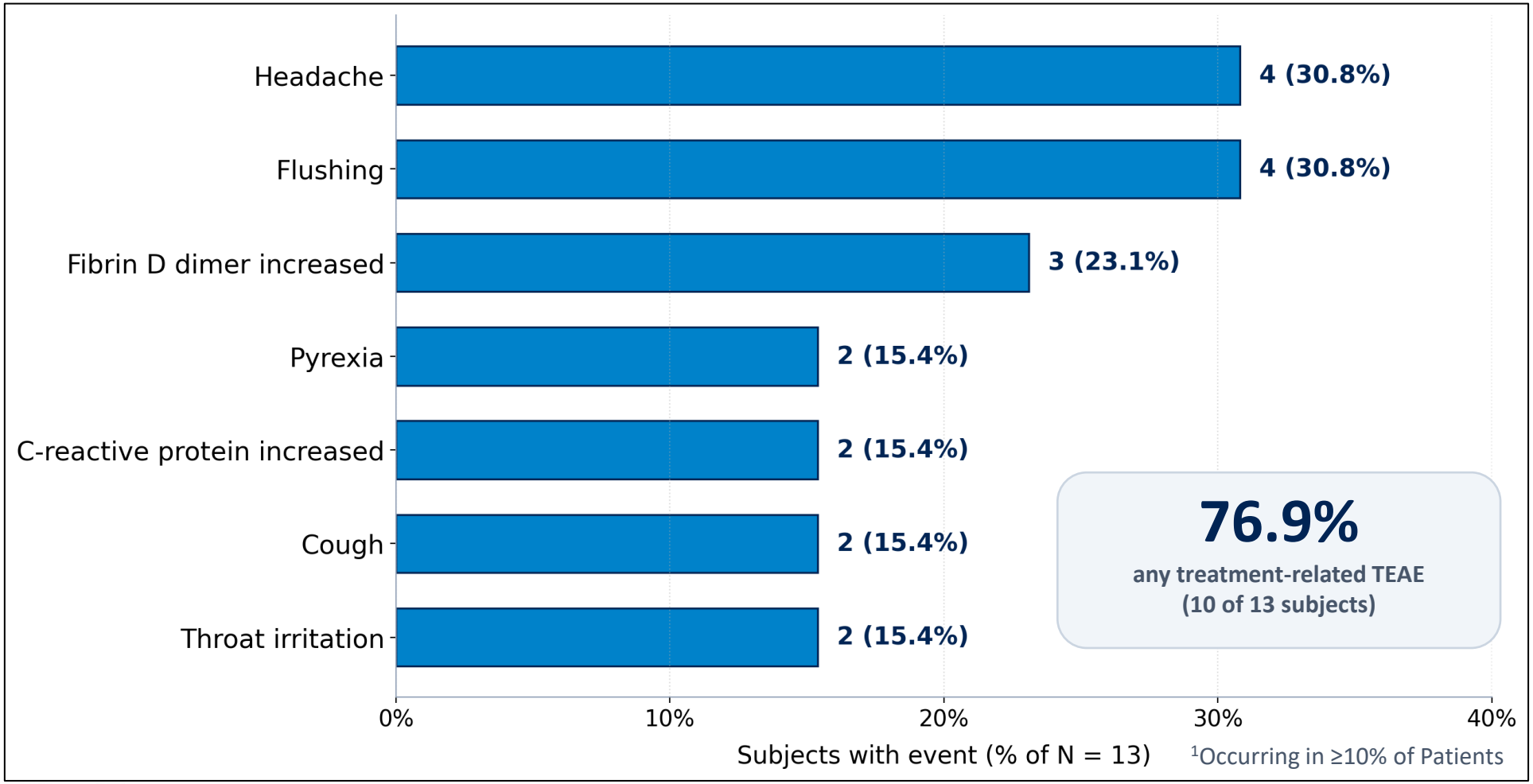
22.8
mean BMI (kg/m²)

20.4
mean baseline PUL 2.0 total (median 19)

51.2
mean baseline LVEF (median 51.5)

Safety: Mild to Moderate Related TEAEs

Deramiocel (N = 13) · Treatment-related TEAEs by preferred term[1]



[1]Occurring in ≥10% of Patients

SAFETY

Mostly mild to moderate infusion-related events; Majority resolves within **24-48** hours without sequalae.

PUL 2.0 Total Score: Observed Mean vs External Comparator

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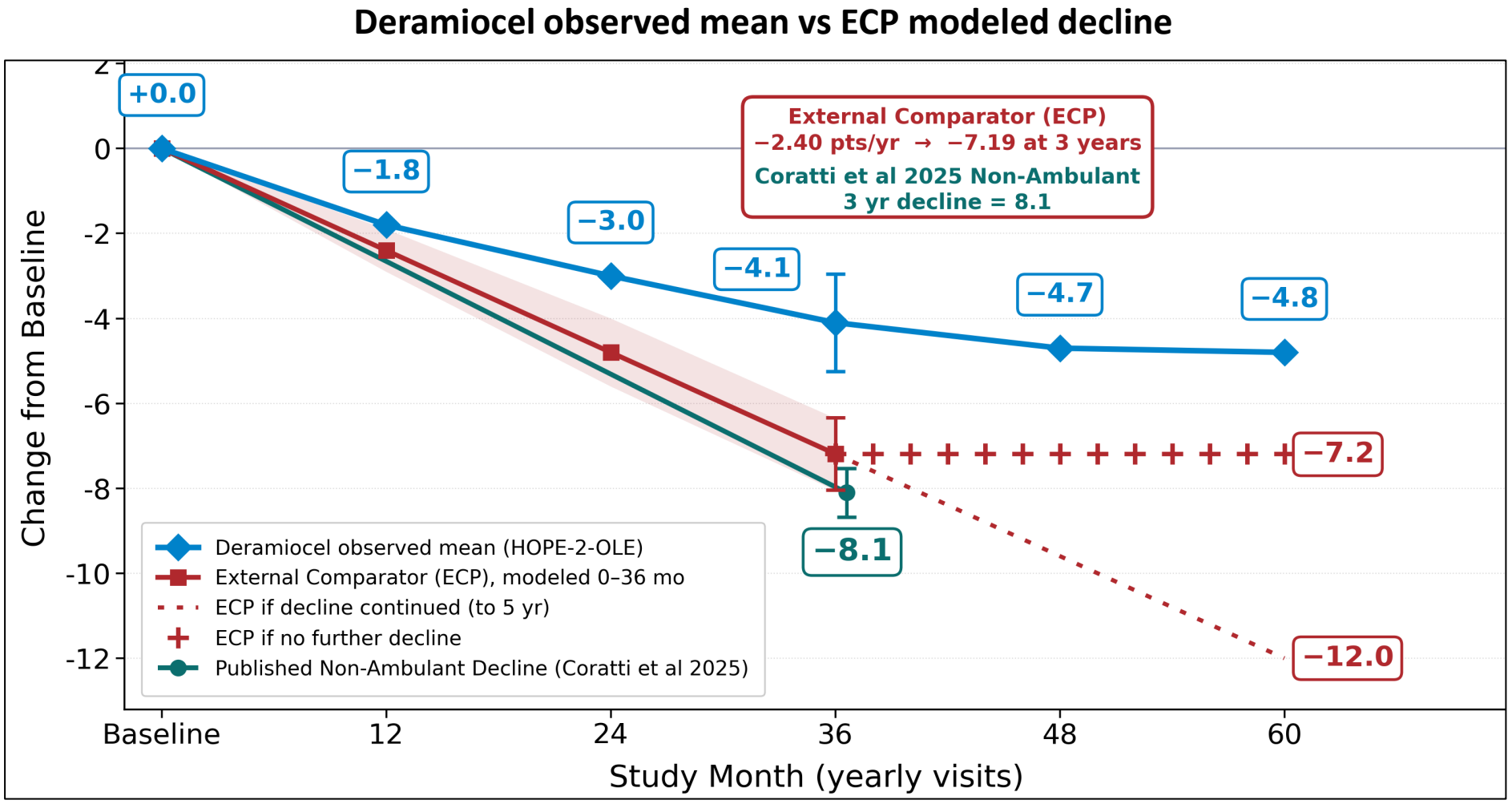


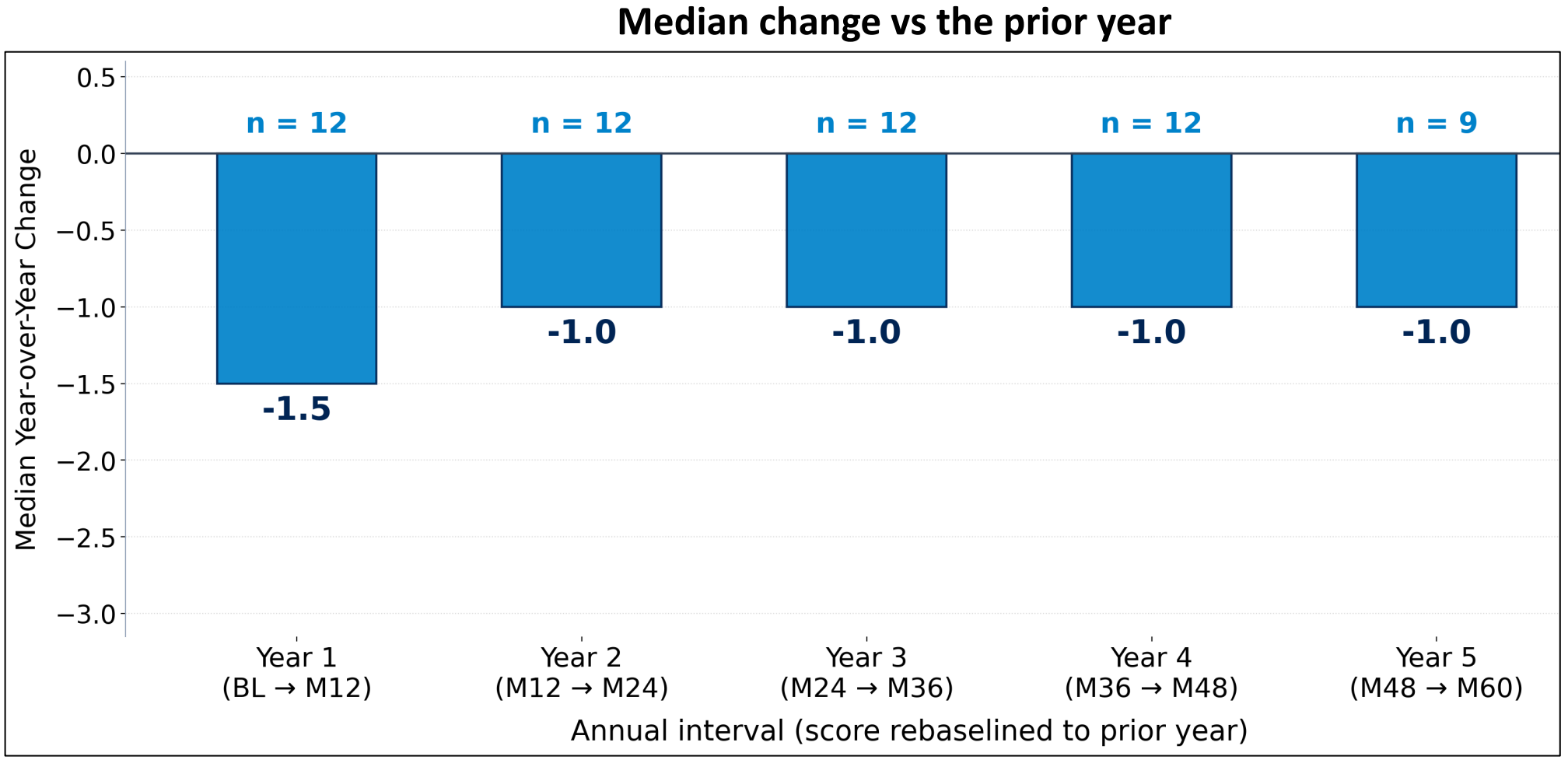
SKELETAL MUSCLE

Meaningful benefit compared to a cohort-matched external comparator.

External Comparator for PUL (ECP): 30 standard-of-care DMD patients from Cincinnati Children's Hospital Medical Center, on long-term steroid therapy with ≥2 years of PUL 2.0, cohort-matched to HOPE-2-OLE on age and baseline PUL 2.0. Modeled linear decline -2.40 pts/yr (SE 0.29) to -7.19 at 3 years; deramiocel modeled −3.46 at 3 years; treatment difference 3.73 (p = 0.019). Dashed guides beyond 3 years illustrative: orange = ECP continued at -2.40/yr (-12.0 at 5 yr); blue = no further decline (-7.2).

PPMD

Year-over-Year Change in PUL 2.0 Total Score

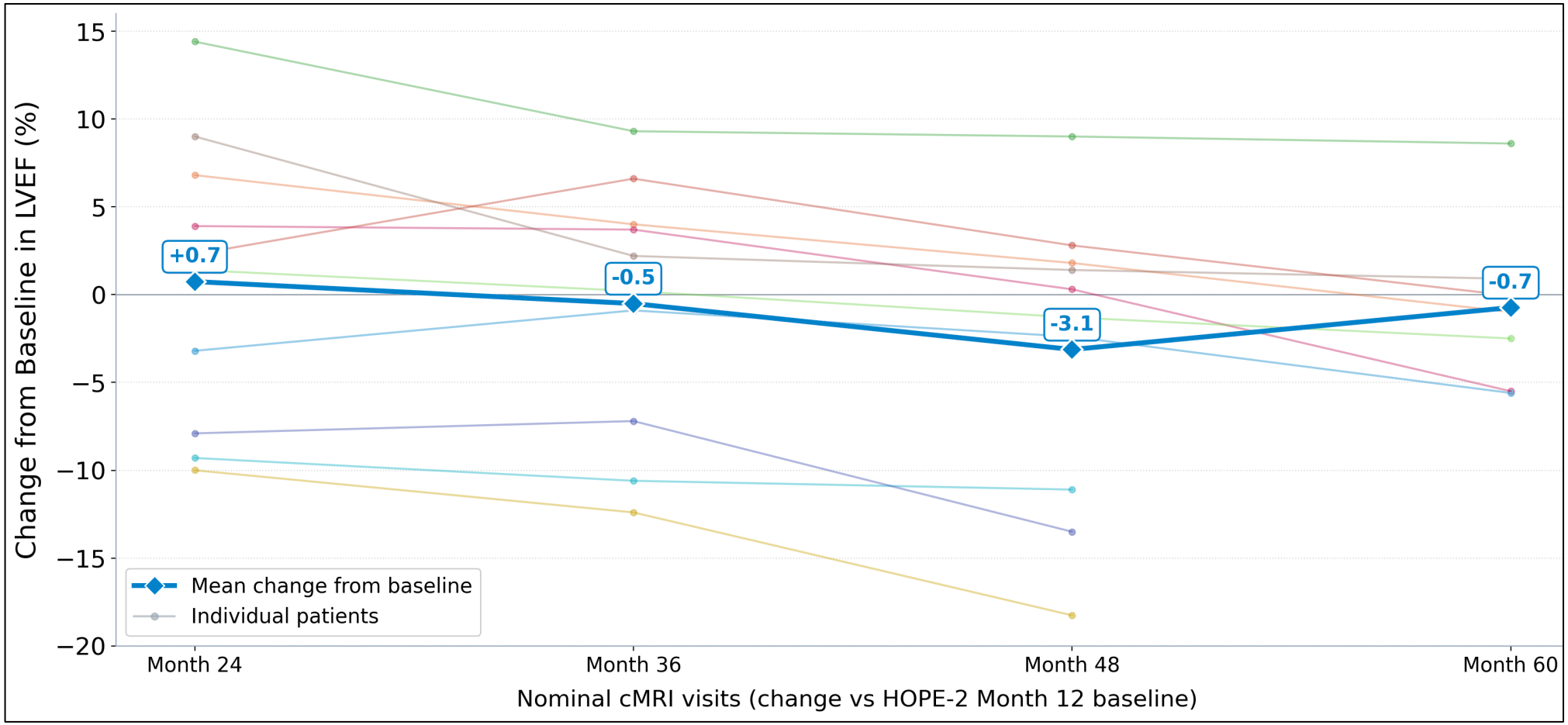


SKELETAL MUSCLE

Sustained benefit after **5 years points** showing the durability of deramiocel.

LVEF Change from Baseline: Mean Trajectory

Baseline = HOPE-2 Month 12 cMRI · Mean labelled at each timepoint · N = 10 (7 at Month 60)

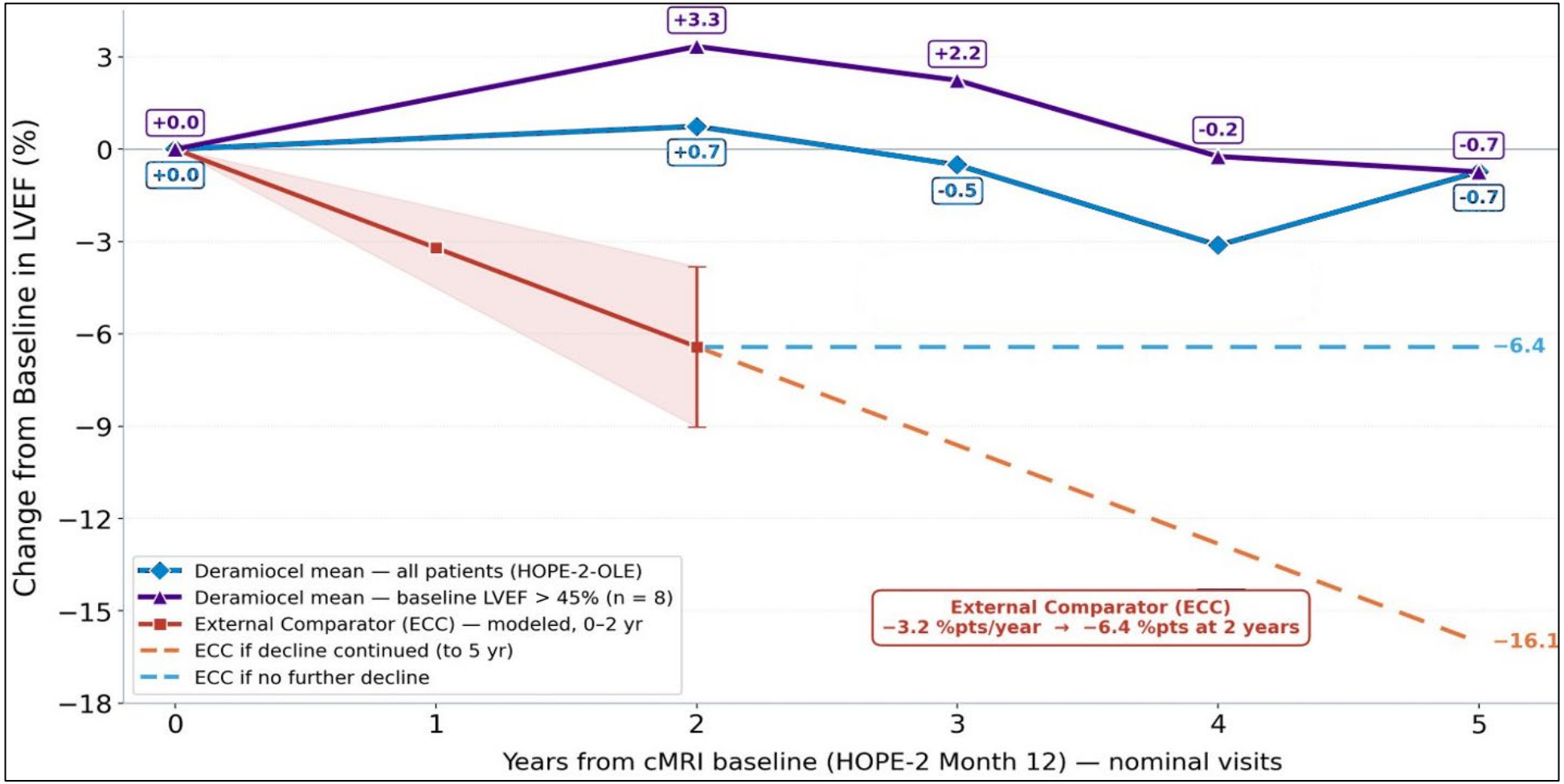


CARDIAC

Mean LVEF essentially **unchanged over 5 years** of treatment.

LVEF: Mean & Median Trajectory vs External Comparator

Observed Mean LVEF - All patients and baseline LVEF > 45% - vs ECC modeled (2 yr) with guides to 5 years



CARDIAC

Deramiocel **preserved** cardiac function, while external comparator declined.

External Comparator-Cardiac (ECC) from the DMD Cardiac Care Consortium (Jonathan Soslow MD at Vanderbilt): propensity-matched control (n = 16) from 56 DMD patients on cardiac medications (ACE inhibitors, ARBs, aldosterone inhibitors, beta blockers), matched on age, baseline LVEF, and their interaction Modeled 2-yr change -6.42 (SE 2.61) or -3.2% per one year for ECC. Dashed guides illustrative: orange = ECC continued at -3.20/yr (-16.1 at 5 yr); blue = no further decline (-6.4).

Conclusions

HOPE-2-OLE · 5-year treatment benefits with deramiocel in Duchenne muscular dystrophy

Skeletal muscle (PUL 2.0)

- PUL 2.0 Total Score declined less than 5 points on average over 5 years
- Mid-Level declined less than 3pts on average over 5 years
- Likely to protect from the loss of performance of activities of daily living

Cardiac (LVEF)

- Observed stabilization in LVEF with long-term treatment
- Early initiation of treatment is beneficial
- Compared to external comparators, treatment with deramiocel suggests overall preservation of LVEF

Safety

- Predominantly mild to moderate related TEAEs
- Cold & Flu-like infusion related reactions
- Events were predominantly transient lasting ~24-48 hours
- Pre-medication mitigated hypersensitivity reactions

Deramiocel - a first-in-class cell therapy with multi-modal, disease-modifying benefit across skeletal and cardiac function in DMD, with a favorable long-term safety & efficacy profile.

Acknowledgements

A Huge Thank You!

To all the patients and families who participated in the HOPE-2-OLE Study

PATIENT ADVOCACY ORGANIZATIONS

- Parent Project Muscular Dystrophy
- Muscular Dystrophy Association
- CureDuchenne

LEAD COLLABORATORS

- **Craig McDonald, M.D.** *UC Davis*
- **Chet Villa, M.D.** *Cincinnati Children's*
- **Jonathan Soslow, M.D.** *Vanderbilt University*
- **Kan Hor, M.D.** *Nationwide Children's*

All the HOPE-2-OLE Investigators and Study Staff