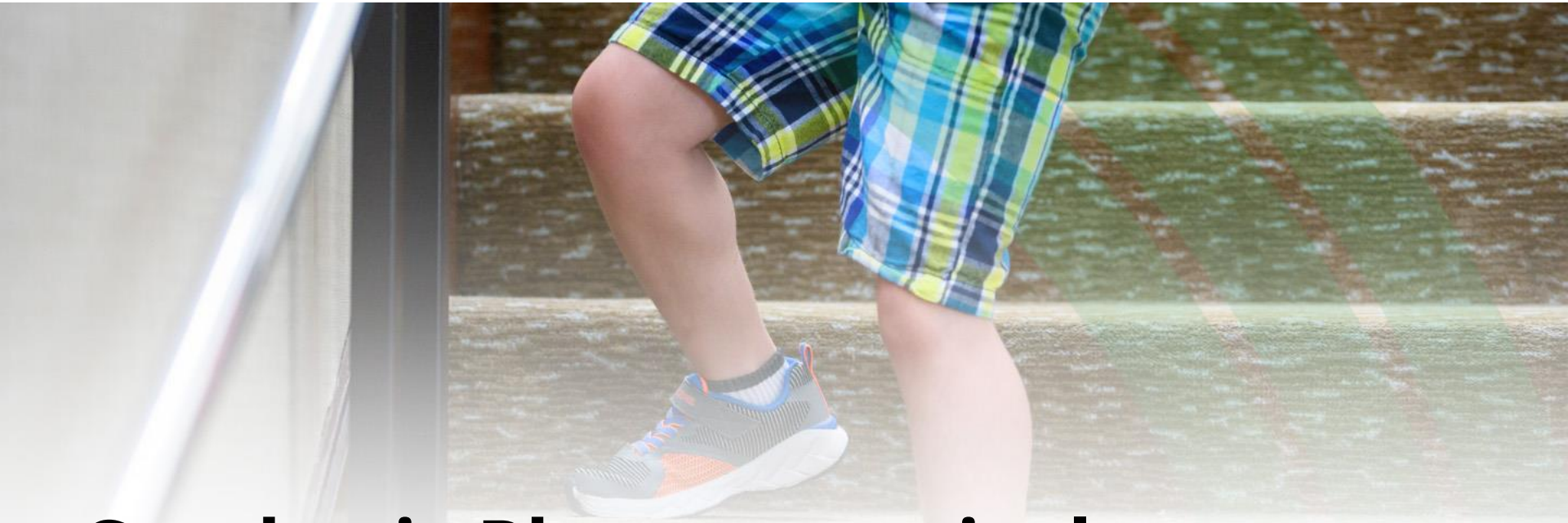


Catabasis Pharmaceuticals Q2 2019

August 8, 2019

Forward Looking Statements

This presentation contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995, including statements regarding our expectations and beliefs about our business, future financial and operating performance, clinical trial plans, product development plans and prospects, including statements about future clinical trial plans including, among other things, statements about our single global Phase 3 trial in Duchenne muscular dystrophy, or DMD, to evaluate the efficacy and safety of edasalonexent for registration purposes, our plans to continue to evaluate data from the open-label extension of our MoveDMD® clinical trial of edasalonexent for the treatment of DMD, our plans to combine edasalonexent treatment with other DMD treatments such as gene therapy and other dystrophin-targeted approaches, and our plans to transition to a commercial-stage organization. The words "believe", "anticipate", "plans," "expect", "could", "should", "will", "would", "may", "intend" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

The forward-looking statements contained in this presentation and in remarks made during this presentation and the following Q&A session are subject to important risks and uncertainties that may cause actual events or results to differ materially from our current expectations and beliefs, including: uncertainties inherent in the initiation and completion of preclinical studies and clinical trials and clinical development of our product candidates; availability and timing of results from preclinical studies and clinical trials; whether interim results from a clinical trial will be predictive of the final results of the trial or the results of future trials; expectations for regulatory approvals to conduct trials or to market products, including our expected target product profile for edasalonexent in DMD; availability of funding sufficient for our foreseeable and unforeseeable operating expenses and capital expenditure requirements; other matters that could affect the availability or commercial potential of our product candidates; and general economic and market conditions and other factors discussed in the "Risk Factors" section of our Quarterly Report on Form 10-Q for the period ended June 30, 2019, which is on file with the Securities and Exchange Commission, and in other filings that we may make with the Securities and Exchange Commission in the future. In addition, the forward-looking statements included in this presentation represent our views as of the date of this presentation. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we specifically disclaim any obligation to do so. These forward-looking statements should not be relied upon as representing our views as of any date subsequent to the date of this presentation.

Edasalonexent: Potential to Slow Disease Progression for All Those Affected by Duchenne

Our Vision for Edasalonexent

- Foundational therapy for all patients, regardless of mutation, from time of diagnosis throughout their lifetime
- Address skeletal and cardiac muscle disease and bone health
- Developing as monotherapy and potential to be combined with dystrophin-targeted therapies
- Favorably differentiated safety and tolerability profile from current treatments

Developing a potential foundational therapy in DMD

Commercial Approach

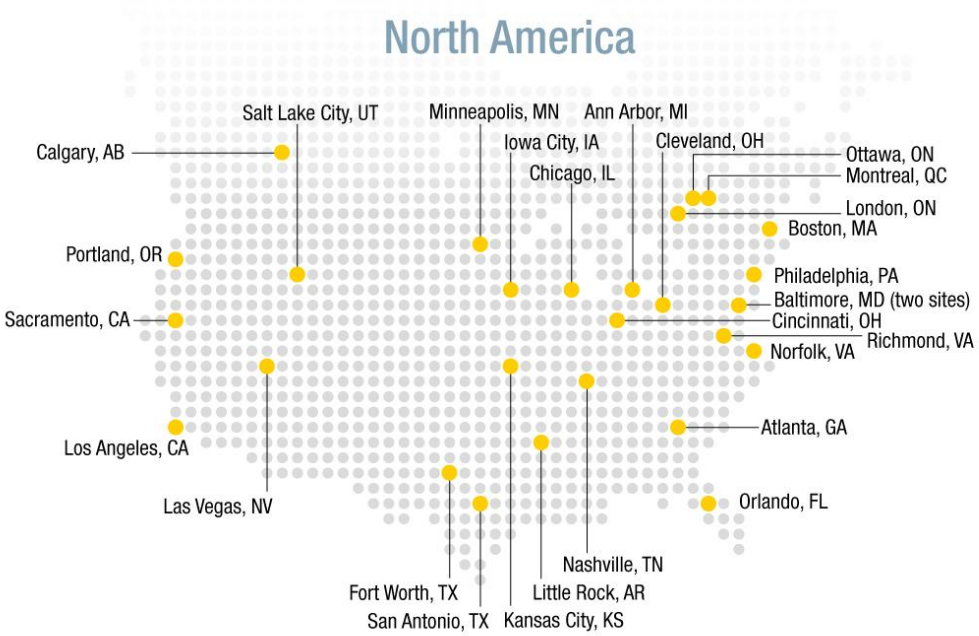
- Catabasis to market with disease-focused specialty sales force

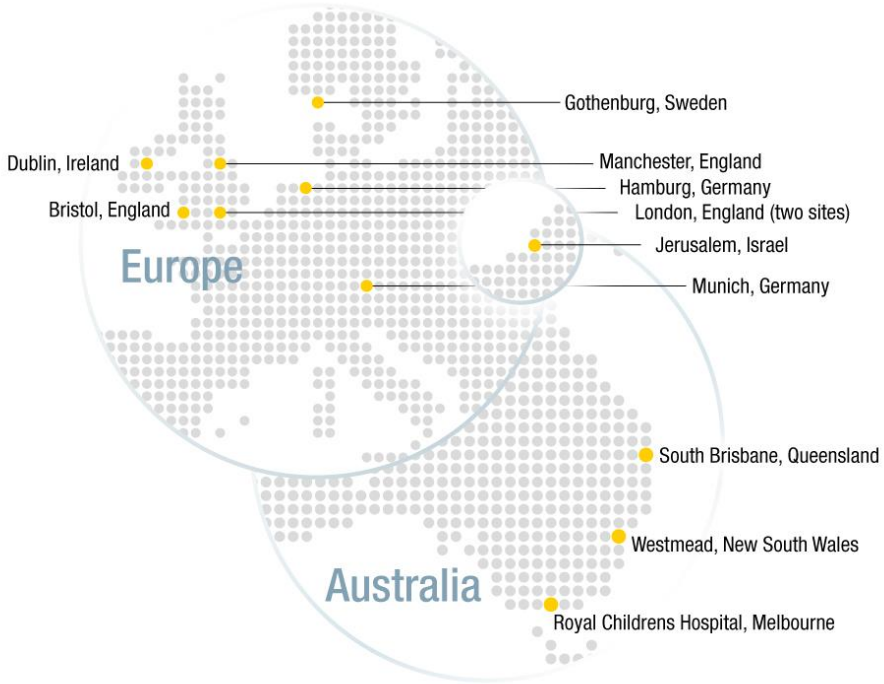
Edasalonexent is an investigational agent not currently approved in any territory

Catabasis and Edasalonexent Program Progress

- **Edasalonexent Phase 3 PolarisDMD trial in DMD enrolling rapidly**
  - All 40 clinical trial sites across 8 countries have opened for enrollment
- **Open-label extension GalaxyDMD trial underway**
  - Boys enrolled from the MoveDMD open-label extension and their eligible siblings
- **Preclinical data demonstrated preserved bone health with edasalonexent while negative effects were seen with corticosteroids**
  - Preserving bone health is important as many patients with DMD experience fractures before age 11
- **Establishing the foundation for Catabasis' next stage**
  - Clinical progress with PolarisDMD and GalaxyDMD
  - Strengthened Board of Directors with appointment of Hugh M. Cole
  - Commercialization development planning underway

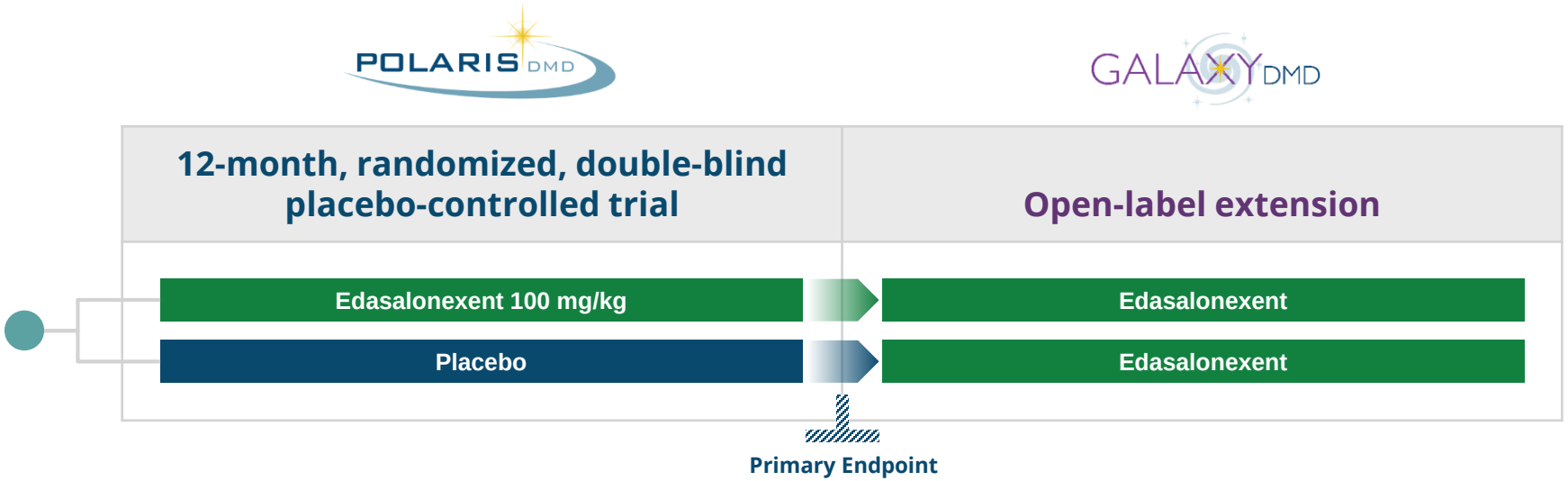
Phase 3 PolarisDMD All Clinical Trial Sites Active





PolarisDMD: Fully Launched!

Global Phase 3 PolarisDMD Trial Designed for Registration



- **Key Phase 3 trial components previously evaluated in MoveDMD trial**
- **Enrollment:** ~125 boys, 2:1 randomization
- **Eligibility:** all mutations, age 4 to 7 (up to 8th birthday), off steroids for ≥6 months
- **Endpoints: consistent with FDA guidance**
  - Primary: Change in North Star Ambulatory Assessment
  - Key secondary: Age-appropriate timed function tests
  - Additional assessments include growth, cardiac and bone measures

The Patient Experience Upon Starting the Phase 3 PolarisDMD Trial

GALAXY DMD

POLARIS DMD

Baseline | **3** months | **6** months | **9** months | **12** months

6 months

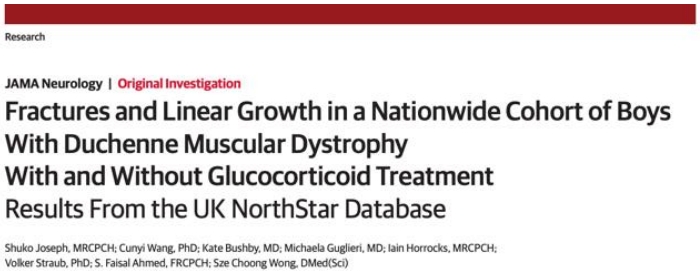
Randomized
within 28 days
if passed screening

Screening

Transition
to open-label extension
Everyone, including eligible siblings, receives edasalonexent

Bone Health in DMD: Recent Study Reported Decreased Growth and Increased Fracture Risk, Magnified by Corticosteroid Use

2019 Publication:

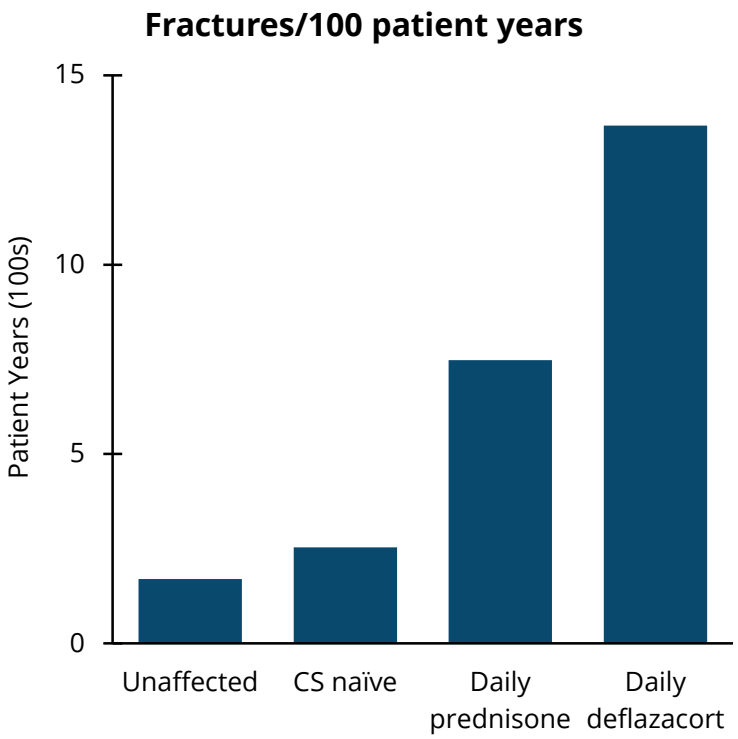


Research

JAMA Neurology | Original Investigation

Fractures and Linear Growth in a Nationwide Cohort of Boys With Duchenne Muscular Dystrophy With and Without Glucocorticoid Treatment
Results From the UK NorthStar Database

Shuko Joseph, MRCPCH; Cunyi Wang, PhD; Kate Bushby, MD; Michaela Guglieri, MD; Iain Horrocks, MRCPCH; Volker Straub, PhD; S. Faisal Ahmed, FRCPCH; Sze Choong Wong, DMed(Sci)

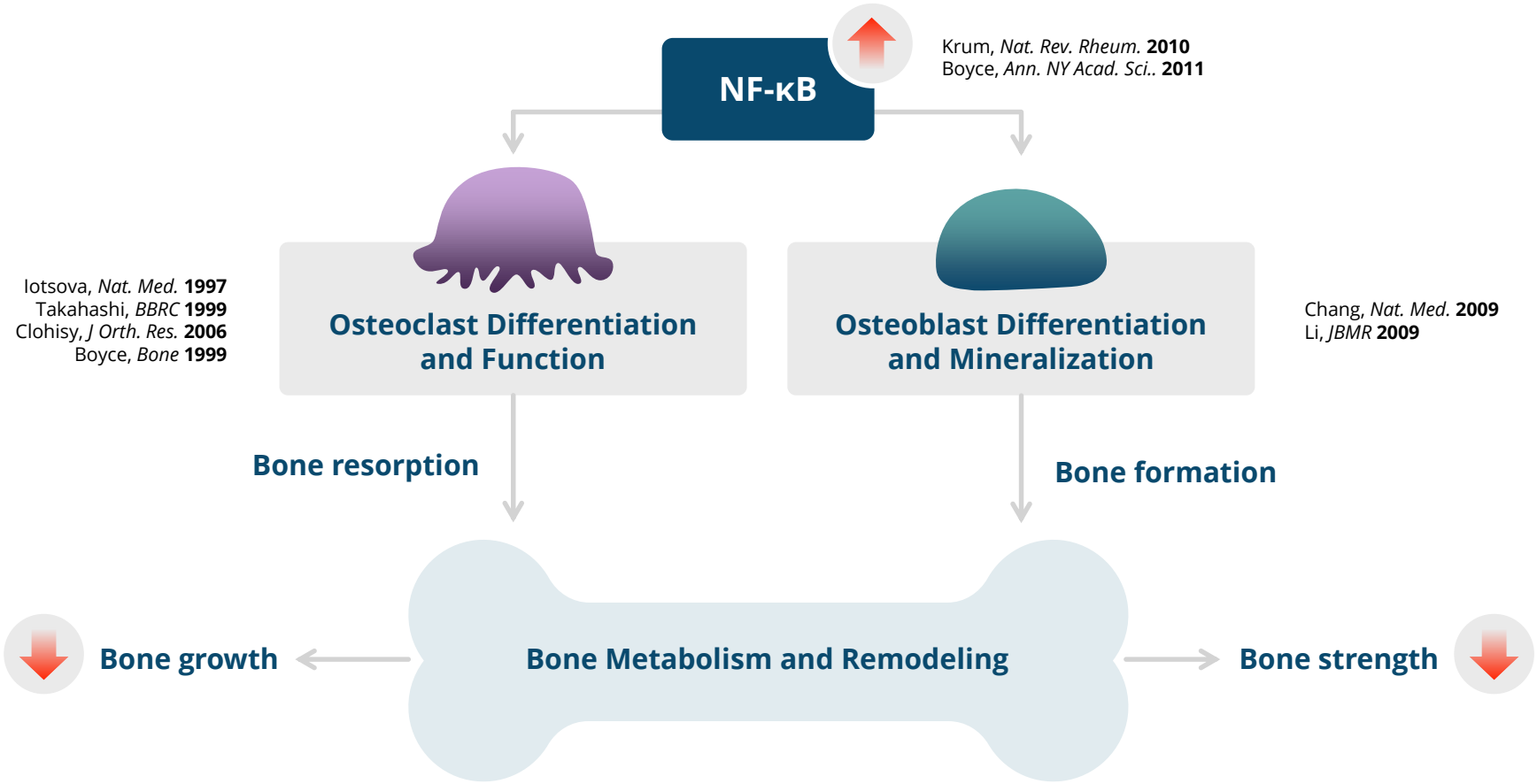


Data in Table 2 reported in Joseph et al., JAMA Neurology 2019. Data reflects vertebral and non-vertebral fractures.

- Boys affected by DMD are normal length at birth, but progressively diverge in stature compared to peers as they age
- In DMD, osteoporosis-induced fractures contribute to morbidity and are more frequent with corticosteroid use
- Joseph et al study of fracture burden and growth impairment in a large cohort of boys with DMD in the UK reported:
  - Boys with DMD are shorter on corticosteroids (CS)
  - Fracture risk is higher for boys with DMD and this risk is increased by CS use
    - Probability of first fracture was 50% by age 11 years

Joseph et al., JAMA Neurology, 2019
Ward et al., Neuromuscular Disorders, 2017
Kim et al,., Neuromuscular Disorders, 2017

Activated NF-κB Leads to Decreased Bone Growth and Bone Strength

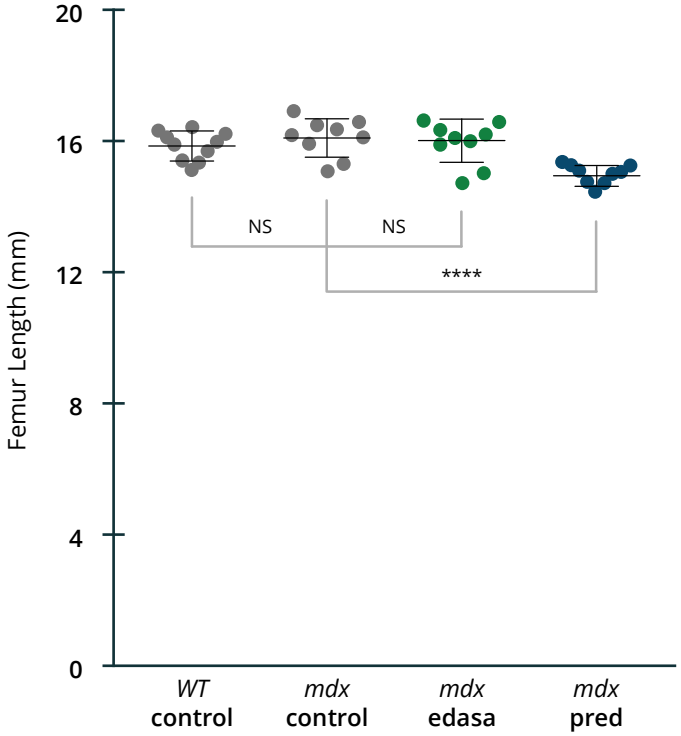


Inhibition of NF-κB by edasalonexent has the potential to preserve bone health in DMD patients

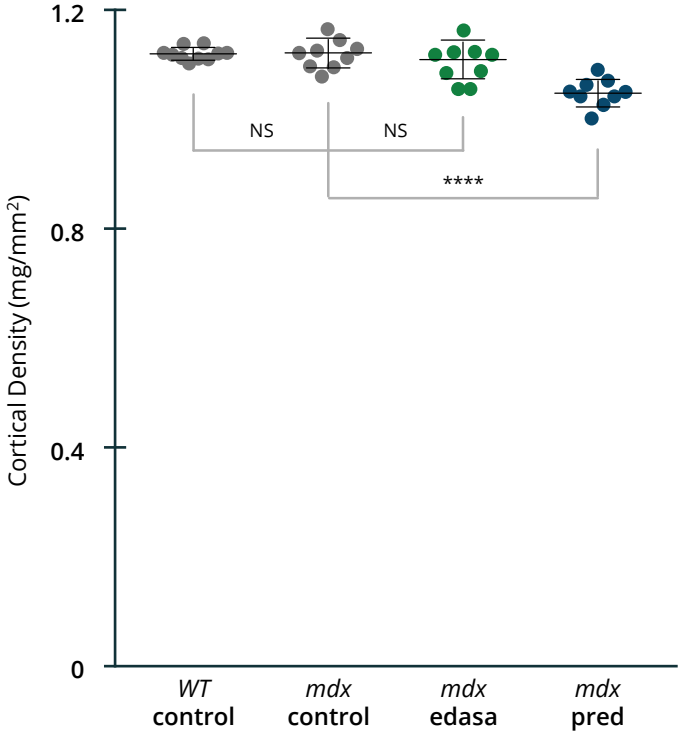
Edasalonexent Preserved Bone Health in *mdx* Mice

	Bone growth (Assessed by femur length)	Bone strength (Assessed by cortical density)
Prednisone	Reduced bone growth	Increased bone loss
Edasalonexent	Preserved bone growth	Preserved bone density

Femur Length



Cortical Density



6-month treatment

catabasis

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Catabasis and Edasalonexent: A Compelling Opportunity in DMD

Potential New Foundational Therapy in DMD	▸ Potential disease-modifying oral NF-κB inhibitor targeting all DMD patients ▸ Slowed disease progression compared with off-treatment control period with favorable safety profile in MoveDMD trial ▸ Fast Track, Rare Pediatric, and Orphan Drug designations from FDA ▸ Orphan Medicinal Product designation from European Commission ▸ Pivotal Phase 3 trial underway, top-line data expected in H2 2020 ▸ NDA filing expected in early 2021
Significant Commercial Opportunity	▸ Differentiated product profile in crowded field ▸ High unmet medical need in clear target market ▸ 15,000 patients in the United States; 19,000 in Europe
Pipeline Expansion in DMD and Beyond	▸ Additional trials in non-ambulatory patients ▸ Potential ability to combine with other DMD treatments such as gene therapy and other dystrophin-targeted approaches ▸ Leveraging of potential heart benefits and ability to increase dystrophin to improve function in Becker muscular dystrophy
Strong Foundation and Leadership	▸ Accomplished industry, financial and clinical leaders ▸ Strong IP position and wholly owned assets ▸ Cash runway through 2020