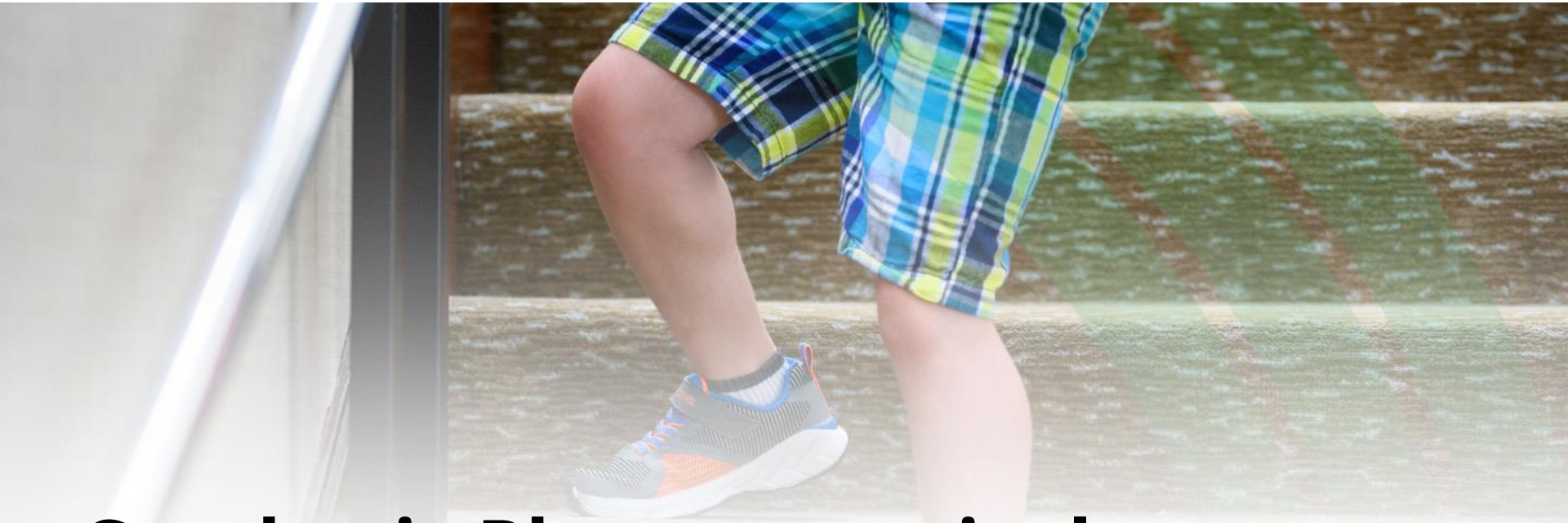


Catabasis Pharmaceuticals Q4 and Full Year 2018

March 14, 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 Annual Report on Form 10-K for the period ended December 31, 2018, 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.

Catabasis: Strong Start in 2019

- **Executing on Phase 3 PolarisDMD trial**
  - Trial progressing well with robust inbound interest
  - Patients are enrolling at sites globally
- **Further strengthened financial position and Board of Directors**
  - $20.5M net proceeds
  - Appointed Gregg Lapointe to Board of Directors
  - Appointed Joanne T. Beck, Ph.D., to Board of Directors
- **MoveDMD results reinforce edasalonexent as a potential foundational therapy for Duchenne**
  - Boys grew age appropriately in both height and weight on edasalonexent
  - Combination therapy: edasalonexent with Exondys 51® was well tolerated with no safety signals

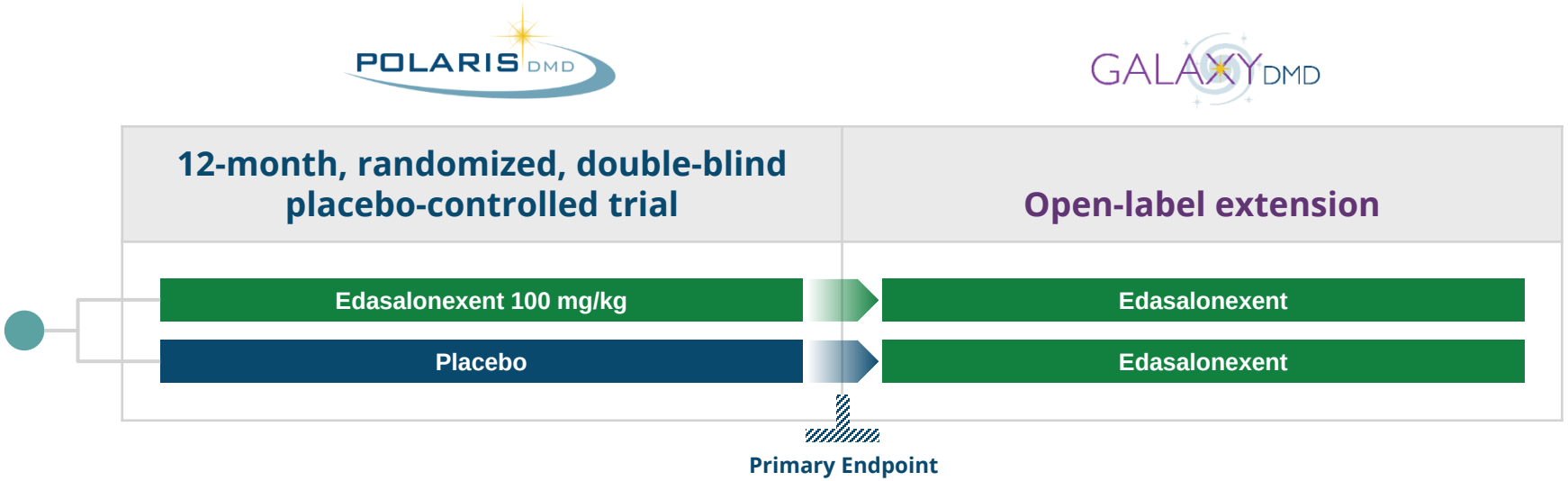
Edasalonexent: Potential to Slow Disease Progression for All Those Affected by Duchenne

- **Our Vision for Edasalonexent**
  - For all patients, regardless of mutation, from time of diagnosis throughout their lifetime
  - Address both the skeletal and cardiac muscle disease
  - Enhance the efficacy of dystrophin targeted therapies
  - Favorably differentiated safety and tolerability profile from current standard of care

Developing a potential NEW foundational therapy in DMD

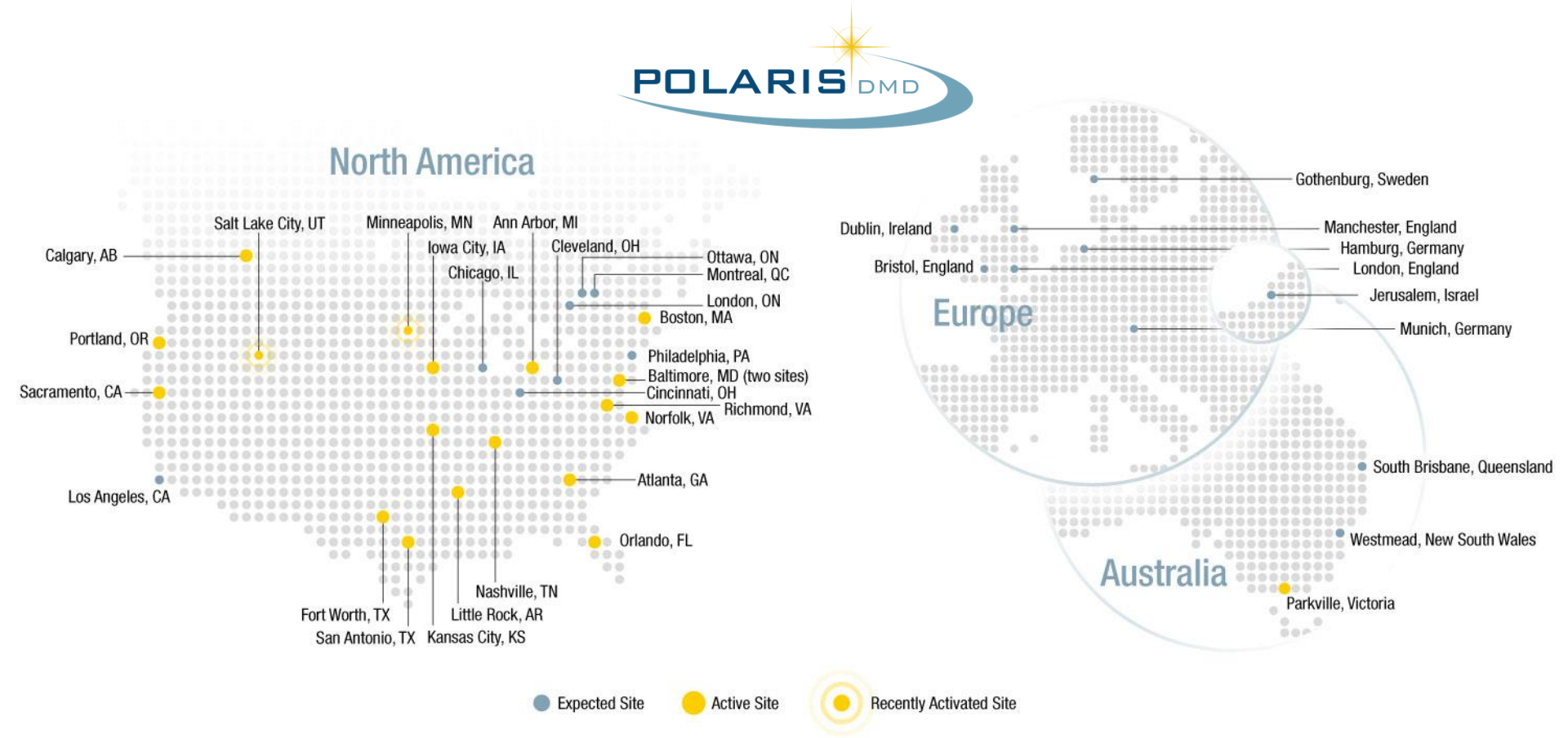
- **Commercial Approach**
  - Catabasis to market with disease-focused specialty sales force

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

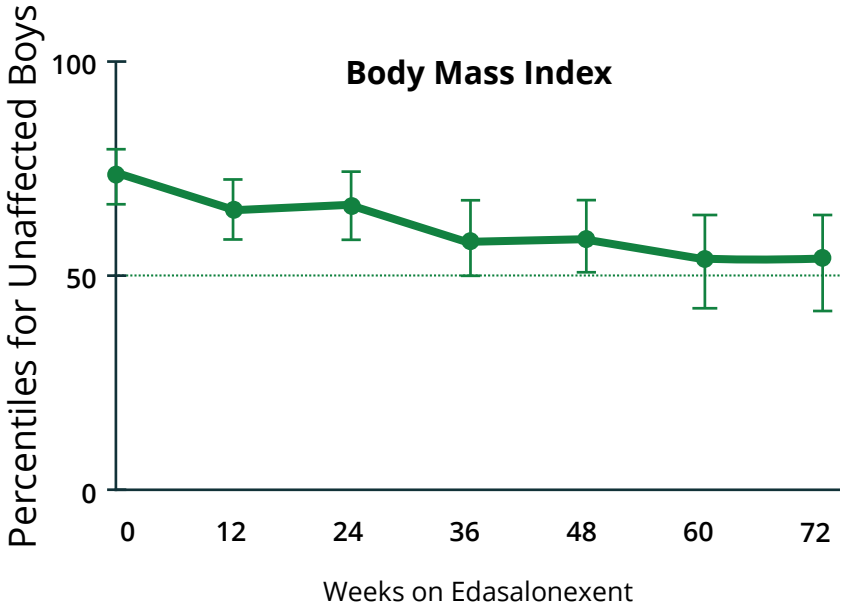
Phase 3 PolarisDMD Clinical Trial Enrolling Globally



Edasalonexent Is Well Tolerated, with No Safety Signals or Steroid-Associated Side Effects

- **No safety signals in 50+ years of patient exposure**
- **Well tolerated, with majority of adverse events mild in nature**
- **Boys on edasalonexent grow similar to unaffected boys**
  - Height increased by an average of 2.1 inches/year, while weight increased by an average of 2.9 pounds/year, both in line with typical height and weight increases of unaffected boys
  - Favorably differentiated from excess weight gain, curtailed growth and substantially increased BMI typically seen with corticosteroid standard of care

Percentiles Compared to CDC Growth Charts



MoveDMD Trial Established Foundation for Combination Therapy for the Treatment of DMD

- **Combination treatment edasalonexent and EXONDYS 51® (exon skipping) was well tolerated with no safety signals**
  - 2 boys received edasalonexent and EXONDYS 51 for an average of 1 year in the MoveDMD open-label extension
- **These results, combined with preclinical data showing edasalonexent increased dystrophin production with appropriate localization, support the potential of edasalonexent to enhance dystrophin-targeted therapies such as EXONDYS 51 and other therapies in development**

Nichols, et al. Neuromuscular Disorders 2017 27: S215

Launching New GalaxyDMD Trial for Boys Receiving Open-Label Edasalonexent

- **GalaxyDMD is planned to enroll boys from MoveDMD open-label extension and provide opportunity for open-label edasalonexent after completing 1-year PolarisDMD trial**
- **Ongoing monitoring with patient visits every 6 months**
  - Assessments of muscle function:
    - North Star Ambulatory Assessment
    - Timed Function Tests
  - Long term safety including growth and bone health
- **GalaxyDMD will provide continued long-term safety and experience in older boys to support registration filings**

catabasis

Catabasis and Edasalonexent: A Compelling Opportunity in DMD

First-in-class Potential New Foundational Therapy in DMD

- Disease-modifying oral therapy with novel mechanism - NF-κB inhibition
- Targeting all DMD patients
- Strong Phase 2 safety and efficacy results
- 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 in Q2 2020
- NDA filing 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
- Combine with other DMD treatments such as gene therapy and other dystrophin-targeted approaches
- Leverage 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 into 4Q 2020