Dyne Therapeutics Announces New Long-Term Clinical Data from Phase 1/2 DELIVER Trial of DYNE-251 in Duchenne Muscular Dystrophy Demonstrating Unprecedented and Sustained Functional Improvement Through 18 Months

March 16, 2025

- Continued favorable safety profile for DYNE-251 -

- DELIVER Registrational Expansion Cohort is fully enrolled; data from this cohort planned for late 2025 -

- Potential for Biologics License Application submission for U.S. accelerated approval in early 2026 -

WALTHAM, Mass., March 16, 2025 (GLOBE NEWSWIRE) -- Dyne Therapeutics, Inc. (Nasdaq: DYN), a clinical-stage company focused on advancing life-transforming therapeutics for people living with genetically driven neuromuscular diseases, today announced new long-term clinical data from its ongoing Phase 1/2 DELIVER trial of DYNE-251 demonstrating unprecedented and sustained functional improvement at the selected registrational dose of 20 mg/kg Q4W (approximate PMO dose). The DELIVER trial is evaluating DYNE-251 in individuals with Duchenne muscular dystrophy (DMD) who are amenable to exon 51 skipping, and updated results from the trial are being presented this week at the 2025 Muscular Dystrophy Association (MDA) Clinical & Scientific Conference.

“With Dyne-251, we have the opportunity to deliver a durable and redosable therapy demonstrating clinically meaningful and sustained functional improvement in DMD. The consistency of these new data across multiple endpoints and timepoints underscores the potential of DYNE-251 to meaningfully address the significant unmet need in Duchenne despite available therapies,” said John Cox, president and chief executive officer of Dyne. “We are rapidly advancing DYNE-251 toward a readout later this year with the potential to submit for U.S. accelerated approval in early 2026 based on a well-established regulatory pathway leveraging dystrophin expression as a surrogate endpoint. If approved, we believe there is an opportunity for rapid adoption by physicians and currently treated patients, as well as those naïve to therapy.”

“I am very encouraged by these new, long-term data for DYNE-251 in the exon 51 skip amenable population and the promise of sustained functional improvement which has continued to elude the DMD community,” said Pat Furlong, founder and president of Parent Project Muscular Dystrophy. “The investment and innovation in DMD are delivering, and this is a prime example of how the accelerated approval pathway may swiftly enable a new generation of therapies that address unmet and urgent medical needs.”

"The amount of expression of near-full length dystrophin induced by DYNE-251 has not been previously seen with exon 51 skipping agents and is associated with evidence for clinical efficacy,” said Kevin Flanigan M.D., Director, Center for Gene Therapy, Abigail Wexner Research Institute at Nationwide Children’s Hospital. “I look forward to the opportunity to present new functional data and updated safety data at the 2025 MDA Clinical & Scientific Conference.”

This updated assessment of the DELIVER trial evaluating DYNE-251 includes new functional data out to 12 months from 6 patients enrolled in the 20 mg/kg Q4W cohort, and 18-month functional data from 6 patients in the 10 mg/kg Q4W cohort (these participants began transitioning to the 20 mg/kg Q4W regimen after month 6). In addition, updated safety data as of February 7, 2025, continue to demonstrate a favorable safety profile for DYNE-251.

Key findings from the DELIVER Phase 1/2 trial presentation include:

- **Function:** Meaningful and sustained improvements from baseline in multiple functional endpoints were observed in both the 20 mg/kg (selected registrational dose) and 10 mg/kg[1] DYNE-251 Q4W cohorts, through 12 and 18 months, respectively. Functional assessments included Stride Velocity 95th Centile (SV95C), North Star Ambulatory Assessment (NSAA), 10-Meter Walk/Run Time (10-MWR), and Time to Rise from Floor.
    - Starting at the 6-month timepoint, the SV95C change from baseline observed in both the 10 mg/kg and 20 mg/kg cohorts of DELIVER exceeded the published proposed minimal clinically important difference (MCID).
    - SV95C is a digital objective outcome measure of ambulatory performance in patients’ normal daily environment and is accepted as a primary endpoint for DMD clinical trials in Europe.
- **Dystrophin expression:** As previously reported, DYNE-251 demonstrated unprecedented near-full length dystrophin expression as measured by Western blot for patients with DMD who are amenable to exon 51 skipping. At the 6-month time point, patients treated with 20 mg/kg of DYNE-251 Q4W had a mean absolute dystrophin expression of 8.72% of normal (adjusted for muscle content). Dyne has confirmed that the U.S. Food and Drug Administration precedent for using dystrophin as a surrogate biomarker for accelerated approval remains available.
- **Safety and tolerability:** DYNE-251 has demonstrated a favorable safety profile based on 54 participants enrolled in the DELIVER trial. Since the prior update provided as of November 21, 2024, the safety profile remains unchanged, and no new treatment-related serious adverse events have been observed.[2]
    - 970 doses of study drug have been administered to date over a period of 77.1 patient-years of follow-up with some patients followed for up to ~2.5 years.

- 546 doses of study drug at the 20 mg/kg dose level have been administered to date.[3]

Key Milestones for the DELIVER Trial

- Dyne continues to pursue expedited approval pathways globally for DYNE-251 in patients with DMD who are amenable to exon 51 skipping.
- Dyne has fully enrolled the Registrational Expansion Cohort of 32 patients as part of the DELIVER trial. Data from this cohort are planned for late 2025.
- Dyne anticipates a potential Biologics License Application (BLA) submission for U.S. accelerated approval in early 2026.

Dyne Presentations at the 2025 MDA Clinical & Scientific Conference
The new assessment of the DELIVER trial is being presented in an oral presentation “Safety and Efficacy from the Ongoing Phase 1/2 DELIVER Trial of DYNE-251 in Males with *DMD* Mutations Amenable to Exon 51 Skipping” on Wednesday, March 19, at 8:30-8:45 a.m. CT by Kevin Flanigan, M.D., Director, Center for Gene Therapy, Abigail Wexner Research Institute of Nationwide Children’s Hospital in Columbus, Ohio and Principal Investigator for the DELIVER Trial.

A poster with the same title will be available starting at 6:00 p.m. CT Sunday, March 16, 2025, through Tuesday, March 18, 2025, in the conference exhibit hall.

Both the oral presentation and poster are now available in the Scientific Publications & Presentations section of Dyne’s website, along with several other posters and presentations including an encore presentation of the most recent positive results for DYNE-101 from the Phase 1/2 ACHIEVE trial in myotonic dystrophy type 1 (DM1).

About the DELIVER Trial

DELIVER is a randomized, placebo-controlled, double-blind, Phase 1/2 clinical trial evaluating the safety, tolerability and efficacy of DYNE-251 in patients with Duchenne muscular dystrophy (DMD) who are amenable to exon 51 skipping. The multiple ascending dose (MAD) portion of the study resulted in the selection of a registrational dose and regimen of 20 mg/kg every four weeks. A registrational expansion cohort to support potential regulatory submissions for expediated approvals, including accelerated approval in the U.S., is fully enrolled. The primary endpoint for this cohort is the change from baseline in dystrophin protein levels as measured by Western blot. For more information on the DELIVER trial, visit clinicaltrials.gov (NCT05524883) and euclinicaltrials.eu (2023-510351-31-00).

About DYNE-251

DYNE-251 is an investigational therapeutic being evaluated in the Phase 1/2 global DELIVER clinical trial for people living with DMD who are amenable to exon 51 skipping. DYNE-251 consists of a phosphorodiamidate morpholino oligomer (PMO) conjugated to a fragment antibody (Fab) that binds to the transferrin receptor 1 (TfR1) which is highly expressed on muscle. It is designed to enable targeted muscle tissue delivery and promote exon skipping in the nucleus, allowing muscle cells to create internally shortened, near full-length dystrophin protein, with the goal of stopping or reversing disease progression. DYNE-251 has been granted fast track, orphan drug and rare pediatric disease designations by the U.S. Food and Drug Administration for the treatment of DMD mutations amenable to exon 51 skipping.

In addition to DYNE-251, Dyne is building a global DMD franchise and has preclinical programs targeting other exons, including 53, 45 and 44.

About Duchenne Muscular Dystrophy (DMD)

DMD is a rare disease caused by mutations in the gene that encodes for dystrophin, a protein critical for the normal function of muscle cells. These mutations, the majority of which are deletions, result in the lack of dystrophin protein and progressive loss of muscle function. DMD occurs primarily in males and affects an estimated 12,000 to 15,000 individuals in the U.S. and 25,000 in Europe. Loss of strength and function typically first appears in pre-school age boys and worsens as they age. As the disease progresses, the severity of damage to skeletal and cardiac muscle often results in patients experiencing total loss of ambulation by their early teenage years and includes worsening cardiac and respiratory symptoms and loss of upper body function by the later teens. There is no cure for DMD, and currently approved therapies provide limited benefit.

About Dyne Therapeutics

Dyne Therapeutics is discovering and advancing innovative life-transforming therapeutics for people living with genetically driven neuromuscular diseases. Leveraging the modularity of its FORCE™ platform, Dyne is developing targeted therapeutics that deliver to muscle and the central nervous system (CNS). Dyne has a broad pipeline for neuromuscular diseases, including clinical programs for myotonic dystrophy type 1 (DM1) and Duchenne muscular dystrophy (DMD) and preclinical programs for facioscapulohumeral muscular dystrophy (FSHD) and Pompe disease. For more information, please visit https://www.dyne-tx.com/, and follow us on X, LinkedIn and Facebook.

Forward-Looking Statements

This press release contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements of historical facts, contained in this press release, including statements regarding Dyne’s strategy, future operations, prospects and plans, objectives of management, the potential of DYNE-251, the anticipated timelines for reporting additional data from the DELIVER clinical trial, including the registrational cohort, the availability of accelerated approval pathways for DYNE-251 and expectations regarding the timing of submitting applications for U.S. accelerated approval, constitute forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “objective,” “ongoing,” “plan,” “predict,” “project,” “potential,” “should,” or “would,” or the negative of these terms, or other comparable terminology are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Dyne may not actually achieve the plans, intentions or expectations disclosed in these forward-looking statements, and you should not place undue reliance on these forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in these forward-looking statements as a result of various important

factors, including: uncertainties inherent in the identification and development of product candidates, including the initiation and completion of preclinical studies and clinical trials; uncertainties as to the availability and timing of results from preclinical studies and clinical trials; the timing of and Dyne's ability to enroll patients in clinical trials; whether results from preclinical studies and data from clinical trials will be predictive of the final results of the clinical trials or other trials; whether data from clinical trials will support submission for regulatory approvals; uncertainties as to the FDA's and other regulatory authorities' interpretation of the data from Dyne's clinical trials and acceptance of Dyne's clinical programs and as to the regulatory approval process for Dyne's product candidates; whether Dyne's cash resources will be sufficient to fund its foreseeable and unforeseeable operating expenses and capital expenditure requirements; as well as the risks and uncertainties identified in Dyne's filings with the Securities and Exchange Commission (SEC), including the Company's most recent Form 10-K and in subsequent filings Dyne may make with the SEC. In addition, the forward-looking statements included in this press release represent Dyne's views as of the date of this press release. Dyne anticipates that subsequent events and developments will cause its views to change. However, while Dyne may elect to update these forward-looking statements at some point in the future, it specifically disclaims any obligation to do so. These forward-looking statements should not be relied upon as representing Dyne's views as of any date subsequent to the date of this press release.

1. During the OLE period, all participants in 10 mg/kg cohort were dose escalated to 20 mg/kg Q4W regimen.
2. DYNE-251 safety data as of February 7, 2025.
3. As of February 21, 2025.

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