Larimar Therapeutics Announces Positive Initial Data from Ongoing Long-term Open Label Extension Study & Progress Across Nomlabofusp Program for Friedreich's Ataxia

December 16, 2024

- *Daily subcutaneous injections of 25 mg nomlabofusp in 14 participants were generally well tolerated for up to 260 days in the ongoing open label extension (OLE) study*
- *Tissue frataxin (FXN) levels showed mean change from baseline of 1.32 pg/µg in buccal cells and 9.28 pg/µg in skin cells at Day 90*
- *Tissue FXN levels increased and were maintained over time, with mean levels increasing from 15% of healthy volunteers (HV) at baseline to 30% in buccal cells and from 16% to 72% in skin cells at Day 90*
- *Early trends towards improvement in clinical outcomes were observed at Day 90, supporting the potential that nomlabofusp administration may result in a clinical benefit across a broad spectrum of patients with Friedreich's ataxia (FA)*
- *Pharmacokinetic (PK) data suggest that nomlabofusp levels in plasma appeared to reach steady state by Day 30 with no further accumulation following long-term daily administration*
- *Dose escalation to 50 mg daily in the OLE has initiated in 6 participants to date*
- *Screening of adolescents with FA is ongoing for the pediatric PK run-in study with dosing expected early 2025; adolescents who complete study participation will transition into OLE study after assessment of safety and PK data*
- *Initiation of global confirmatory/registration study planned mid-2025*
- *Biologics License Application (BLA) submission targeted for 2H 2025 to support potential accelerated approval*
- *Strong balance sheet with $203.7 million of cash and investments as of September 30, 2024, with projected runway into the second quarter of 2026*
- *Company management to host webcast and conference call today at 8:00 a.m. ET*

BALA CYNWYD, Pa., Dec. 16, 2024 (GLOBE NEWSWIRE) -- Larimar Therapeutics, Inc. (Larimar) (Nasdaq: LRMR), a clinical-stage biotechnology company focused on developing treatments for complex rare diseases, today announced positive initial data from the ongoing long-term OLE study evaluating daily subcutaneous injections of 25 mg of nomlabofusp self-administered or administered by a caregiver in participants with FA. The Company also provided a nomlabofusp development program update.

"We are pleased with the advancement of our OLE study that includes 14 patients dosed for up to 260 days. Importantly, 25 mg of nomlabofusp administered daily increased and maintained tissue FXN levels over time, with mean levels increasing from 15% of healthy volunteers at baseline to 30% in buccal cells and from 16% to 72% in skin cells at Day 90," said Carole Ben-Maimon, MD, President, and Chief Executive Officer of Larimar. "Importantly, we are highly encouraged by the early trends towards improvement observed in clinical outcomes that could support the potential for nomlabofusp administration to result in a clinical benefit across a broad spectrum of patients with FA. To date we have reported data showing increases in FXN in three independent clinical studies, trends towards normalization in gene expression and lipid profiles, and we are now showing early trends in clinical outcomes. Thus, the totality of data continues to support the therapeutic potential of nomlabofusp. We are excited to be increasing the dose to 50 mg nomlabofusp daily for currently enrolled study participants as well as starting newly enrolled participants on 50 mg daily with data for the 50 mg dose expected mid-2025."

Dr. Ben-Maimon continued, "The long-term safety, PK, and FXN data we are collecting in the OLE will be used to support a potential accelerated approval using FXN as a novel surrogate endpoint. Additionally, we are expanding clinical evaluation into adolescents with our recent initiation of our pediatric PK run-in study and expect initial data with the next update in mid-2025. Our global confirmatory and registrational study remains on track to initiate in mid-2025. Our interactions with the FDA continue to be productive and we are focused on our goal of submitting a BLA in the second half of 2025."

Dr. Rusty Clayton, Chief Medical Officer of Larimar added, "In the OLE study, long-term dosing of nomlabofusp was generally well tolerated. While serious adverse events occurred in two study participants during the OLE study, these events resolved and both participants returned to their usual state of health within 24 hours. The information regarding these events was reviewed by our Data Monitoring Committee and submitted to FDA and the study is continuing as planned. We have initiated dosing with the 50 mg dose in six study participants and will be increasing the dose to 50 mg in all current OLE study participants and will initiate all newly enrolling participants at the 50 mg dose. We expect long-term 50 mg data, as well as initial data from adolescents completing our recently initiated pediatric PK run-in study in mid- 2025."

"Friedreich's ataxia is caused by frataxin deficiency, and disease progression is more rapid in patients with lower frataxin levels," said Dr. Susan Perlman, Professor of Neurology and Director of the Ataxia Center, David Geffen School of Medicine at UCLA, who is one of the principal investigators in the OLE study. "Increases in frataxin levels in patients with FA may lead to the slowing of progression."

The OLE study is evaluating the safety and tolerability, PK, and FXN levels in buccal and skin cells, along with exploratory pharmacodynamic (PD) markers (lipid profiles and gene expression data) and clinical outcomes following long-term subcutaneous administration of nomlabofusp. The

participants who completed treatment in Phase 1 studies and the Phase 2 dose exploration study evaluating nomlabofusp are potentially eligible to screen for the OLE study.

At the time of data cut off for the OLE study, 14 adults with FA were included with up to 260 days (mean 99 days) of long-term daily treatment of 25 mg of nomlabofusp. Among these patients, more than 50% were non-ambulatory.

Key Safety Findings for Long-term 25 mg Daily Nomlabofusp

- Generally well tolerated with two participants that had serious adverse events that resolved within 24 hours and withdrew from the study
- Most common adverse events were injection site reactions, with most being mild, brief in duration, and self-limited

Key FXN Data for Long-term 25 mg Daily Nomlabofusp

- Tissue FXN levels showed mean change from baseline of 1.32 pg/µg in buccal cells and 9.28 pg/µg in skin cells at Day 90
- 25 mg of nomlabofusp increased and maintained tissue FXN levels over time, increasing from a mean level of 15% of HV at baseline to 30% in buccal cells and from 16% to 72% in skin cells at Day 90
- Tissue FXN levels appear to reach steady-state levels by Day 30 in buccal cells

	Buccal FXN Levels (pg/µg)			**Skin FXN Levels (pg/µg)**		
	N	Median	Mean	N	Median	Mean
Baseline	11	1.13	1.19	8	2.41	2.60
Day 30	11	2.08	3.62	8	5.34	7.45
Change from Baseline	**11**	**0.58**	**2.43**	**8**	**2.42**	**4.85**
Day 60	9	2.46	2.41			
Change from Baseline	**9**	**0.53**	**1.13**			
Day 90	6	1.89	2.48	5	7.65	11.73
Change from Baseline	**6**	**1.01**	**1.32**	**5**	**4.89**	**9.28**

Skin samples not collected at Day 60 per study protocol
Only participants with quantifiable levels at each measurement point are included in the tables

Early Trends Towards Improvement Observed Across a Number of Clinical Outcomes for Long-term 25 mg Daily Nomlabofusp

- Decreased values indicating early trends towards improvement were observed in modified Friedreich Ataxia Rating Scale (mFARS), FARS-Activities of Daily Living (ADL), Modified Fatigue Impact Scale, and 9 Hole Peg Test at Day 90 relative to baseline
- Supports potential that nomlabofusp administration may result in a clinical benefit across a broad spectrum of patients with FA

Key Pharmacokinetic Data for Long-term 25 mg Daily Nomlabofusp

- Rapid absorption after subcutaneous administration
- Exposure appeared to reach steady state in plasma by Day 30 with no further accumulation
- Pharmacokinetic profile consistent with Phase 1 and Phase 2 studies

Additional Updates on Nomlabofusp Development Program

- Dose increased to 50 mg in OLE study in 6 study participants with plan to increase dose in all other study participants
- Screening adolescents for pediatric PK run-in study with dosing to initiate early next year at weight-based dose equivalent of 50 mg adult dose; plan to transition adolescents who complete study participation into OLE after analysis of PK and safety data
- Evaluating global clinical sites for planned registration/confirmatory study
- Advancing discussions with FDA on data package required to support accelerated approval, including supplementary nonclinical pharmacology investigations, and FXN, supportive PD, and safety and clinical outcomes data from the OLE study

Key Upcoming Catalysts

- **Q1 2025:** Dose adolescents in pediatric PK run-in study (ages 12-17 years old)
- **1H 2025:** Enroll children (ages 2-11 years old) in pediatric PK run-in study
- **Mid 2025:** Initiate global confirmatory/registration study
- **Mid 2025:** Initial data from 50 mg dose in long-term OLE study
- **2H 2025:** BLA submission; intend to pursue accelerated approval

Conference Call and Webcast
Larimar will host a conference call and webcast today, December 16, 2024, at 8:00 a.m. ET. To access the webcast, please visit this link to the event. To participate by phone, please dial 1-877-407-9716 (domestic) or 1-201-493-6779 (international) and refer to conference ID 13750507 or click on this link and request a return call. Following the live event, an archived webcast will be available on the "Events & Presentations" page of the Larimar website.

About Larimar Therapeutics
Larimar Therapeutics, Inc. (Nasdaq: LRMR), is a clinical-stage biotechnology company focused on developing treatments for complex rare diseases. Larimar's lead compound, nomlabofusp, is being developed as a potential treatment for Friedreich's ataxia. Larimar also plans to use its intracellular delivery platform to design other fusion proteins to target additional rare diseases characterized by deficiencies in intracellular bioactive compounds. For more information, please visit: https://larimartx.com.

Forward-Looking Statements
This press release contains forward-looking statements that are based on Larimar's management's beliefs and assumptions and on information currently available to management. All statements contained in this release other than statements of historical fact are forward-looking statements, including but not limited to statements regarding Larimar's ability to develop and commercialize nomlabofusp and other planned product candidates, Larimar's planned research and development efforts, including the timing of its nomlabofusp clinical trials and nonclinical investigations, interactions and filings with the FDA, expectations regarding potential for accelerated approval or accelerated access and time to market and overall development plan, and other matters regarding Larimar's business strategies, ability to raise capital, use of capital, results of operations and financial position, and plans and objectives for future operations.

In some cases, you can identify forward-looking statements by the words "may," "will," "could," "would," "should," "expect," "intend," "plan," "anticipate," "believe," "estimate," "predict," "project," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although not all forward-looking statements contain these words. These statements involve risks, uncertainties and other factors that may cause actual results, performance, or achievements to be materially different from the information expressed or implied by these forward-looking statements. These risks, uncertainties and other factors include, among others, the success, cost and timing of Larimar's product development activities, nonclinical studies and clinical trials, including nomlabofusp clinical milestones and continued interactions with the FDA; that preliminary clinical trial results may differ from final clinical trial results, that earlier non-clinical and clinical data and testing of nomlabofusp may not be predictive of the results or success of later nonclinical or clinical trials, and assessments; that the FDA may not ultimately agree with Larimar's nomlabofusp development strategy; the potential impact of public health crises on Larimar's future clinical trials, manufacturing, regulatory, nonclinical study timelines and operations, and general economic conditions; Larimar's ability and the ability of third-party manufacturers Larimar engages, to optimize and scale nomlabofusp's manufacturing process; Larimar's ability to obtain regulatory approvals for nomlabofusp and future product candidates; Larimar's ability to develop sales and marketing capabilities, whether alone or with potential future collaborators, and to successfully commercialize any approved product candidates; Larimar's ability to raise the necessary capital to conduct its product development activities; and other risks described in the filings made by Larimar with the Securities and Exchange Commission (SEC), including but not limited to Larimar's periodic reports, including the annual report on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K, filed with or furnished to the SEC and available at www.sec.gov. These forward-looking statements are based on a combination of facts and factors currently known by Larimar and its projections of the future, about which it cannot be certain. As a result, the forward-looking statements may not prove to be accurate. The forward-looking statements in this press release represent Larimar's management's views only as of the date hereof. Larimar undertakes no obligation to update any forward-looking statements for any reason, except as required by law.

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