Neurogene Announces NGN-401 Gene Therapy for Rett Syndrome Selected by FDA for START Pilot Program

June 3, 2024

NGN-401 is one of only three CBER programs chosen by FDA

NGN-401 was selected based on potential for clinical benefits and clinical development program readiness

START Program provides sponsors enhanced communications with FDA to accelerate development of rare disease therapies

NEW YORK--(BUSINESS WIRE)--Jun. 3, 2024-- Neurogene Inc. (NASDAQ: NGNE), a clinical-stage company founded to bring life-changing genetic medicines to patients and families affected by rare neurological diseases, today announced that its NGN-401 gene therapy for Rett syndrome has been selected to participate in the U.S. Food and Drug Administration (FDA) Support for Clinical Trials Advancing Rare Disease Therapeutics (START) Pilot Program. As part of the START Program, Neurogene will have opportunities for enhanced communications with the FDA, with the aim to further accelerate the pace of NGN-401's development. These opportunities are designed to provide frequent advice and regular ad-hoc conversations to address product-specific development issues, including, but not limited to, clinical study design, choice of control group and fine-tuning the choice of patient population.

"We are honored that NGN-401 gene therapy for Rett syndrome has been chosen as one of only three CBER programs for FDA's START Pilot Program and are grateful that the FDA has committed to investing significant Agency resources to accelerate development of NGN-401," said Rachel McMinn, Ph.D., Founder and Chief Executive Officer of Neurogene. "We are pleased our application demonstrated the potential clinical benefits of NGN-401, one of the factors evaluated by the FDA in making its selection. We look forward to participating in this landmark effort with the FDA as we seek to rapidly advance NGN-401 toward a potential registrational study for the patients and families who live with this devastating disease."

Two dose levels of NGN-401 are being evaluated in a Phase 1/2 clinical trial. The trial is assessing safety, tolerability, and preliminary efficacy of a one-time intracerebroventricular (ICV) administration of NGN-401 in female pediatric patients with Rett syndrome. Neurogene recently presented favorable safety data from the first three patients dosed with NGN-401, and the Company remains on track to report interim efficacy data from the trial in the fourth quarter of 2024.

The milestone-driven START Program was launched to help further accelerate development of novel drug and biological product candidates intended to address rare diseases through more frequent communication and rapid interactions with the FDA. START Program applications required clinical, CMC (chemistry, manufacturing and controls), and non-clinical development plans as well as an update on the current status of development. The FDA reported that it would be considering multiple factors in selecting participants, including potential clinical benefits of the product candidate, the alignment of clinical development and CMC plans, and the ability to move the program forward toward a marketing application. Selected sponsors are expected to receive more frequent advice from FDA staff with the goal of facilitating program development and an expectation of generating high quality and reliable data to support a potential future marketing application.

About NGN-401

NGN-401 is an investigational AAV9 gene therapy being developed as a one-time treatment for Rett syndrome. It is the first clinical candidate to deliver the full-length human *MECP2* gene under the control of Neurogene's EXACT technology. The EXACT technology utilized in NGN-401 is an important advancement in gene therapy for Rett syndrome, specifically because the disorder requires a treatment approach that enables targeted levels of *MECP2* transgene expression without causing overexpression-related toxic effects associated with conventional gene therapy.

NGN-401 was one of three Center for Biologics Evaluation and Research (CBER) programs selected by the U.S. Food and Drug Administration (FDA) for its START Pilot Program. NGN-401 previously received orphan drug designation, Fast Track designation and rare pediatric designation from the FDA. Neurogene was previously granted an INTERACT meeting with the FDA regarding the EXACT technology. NGN-401 also received orphan designation and advanced therapy medicinal product designation from the European Medicines Agency (EMA) and the Innovative Licensing and Application Pathway (ILAP) designation from the United Kingdom (UK) Medicines and Healthcare products Regulatory Agency (MHRA).

About Neurogene

The mission of Neurogene is to treat devastating neurological diseases to improve the lives of patients and families impacted by

these rare diseases. Neurogene is developing novel approaches and treatments to address the limitations of conventional gene therapy in central nervous system disorders. This includes selecting a delivery approach to maximize distribution to target tissues and designing products to maximize potency and purity for an optimized efficacy and safety profile. The Company's novel and proprietary EXACT transgene regulation platform technology allows for the delivery of therapeutic levels while limiting transgene toxicity associated with conventional gene therapy. Neurogene has constructed a state-of-the-art gene therapy manufacturing facility in Houston, Texas. CGMP production of NGN-401 was conducted in this facility and is expected to support pivotal clinical development activities. For more information, visit www.neurogene.com.

Cautionary Note Regarding Forward-Looking Statements

Statements in this press release which are not historical in nature are intended to be, and hereby are identified as, forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may discuss goals, intentions and expectations as to future plans, trends, events, results of operations or financial condition, or otherwise, based on current expectations and beliefs of the management of Neurogene, as well as assumptions made by, and information currently available to, management of Neurogene, including, but not limited to, statements regarding: the safety and tolerability profile of NGN-401; trial designs, clinical development plans and timing of the presentation of clinical trial data for NGN-401 and its advancement into a registrational study, and the anticipated benefits of participation in the FDA's START Program. Forward-looking statements are subject to risks, uncertainties and assumptions that are difficult to predict with regard to timing, extent, likelihood, and degree of occurrence, which could cause actual results to differ materially from anticipated results and many of which are outside of Neurogene's control. Such risks, uncertainties and assumptions include, among other things: risks related to the timing and success of enrolling patients in our Phase 1/2 clinical trial of NGN-401 for the treatment of Rett syndrome; the expected timing and results of dosing of patients in our NGN-401 clinical; the risk that we may not be able to report our data on the predicted timeline; risks related to our ability to obtain regulatory approval for, and ultimately commercialize, our product candidates, including NGN-401; and other risks and uncertainties identified under the heading "Risk Factors" included in our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the Securities and Exchange Commission ("SEC") on March 18, 2024, or our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, and other filings that the Company has made and may make with the SEC in the future. Nothing in this communication should be regarded as a representation by any person that the forward-looking statements set forth herein will be achieved or that the contemplated results of any such forward-looking statements will be achieved. Forward-looking statements in this communication speak only as of the day they are made and are qualified in their entirety by reference to the cautionary statements herein. Except as required by applicable law, Neurogene undertakes no obligation to revise or update any forward-looking statement, or to make any other forward-looking statements, whether as a result of new information, future events or otherwise.

This communication contains hyperlinks to information that is not deemed to be incorporated by reference into this communication.

View source version on businesswire.com: https://www.businesswire.com/news/home/20240603610436/en/

Company Contact:
Cara Mayfield
Vice President, Corporate Affairs
cara.mayfield@neurogene.com

Investor Contact:
Melissa Forst
Argot Partners
Neurogene@argotpartners.com

Source: Neurogene Inc.