Taysha Gene Therapies Announces Expanded Eligibility in REVEAL Phase 1/2 Adult Trial to Include Adolescent Rett Syndrome Patients

Health Canada authorized the Company's protocol amendment that expands eligibility to include patients aged 12 and older with stage four Rett syndrome in the REVEAL Phase 1/2 adult trial in Canada

Protocol amendment broadens TSHA-102 treatment potential to both adolescent and adult patients with Rett syndrome

Dosing of the third patient in the REVEAL Phase 1/2 adult trial (age 12+ protocol) and completion of cohort one (low dose) expected in the fourth quarter of 2023/first quarter of 2024

DALLAS, Nov. 29, 2023 (GLOBE NEWSWIRE) -- Taysha Gene Therapies, Inc. (Nasdaq: TSHA), a clinical-stage gene therapy company focused on developing and commercializing AAV-based gene therapies for the treatment of monogenic diseases of the central nervous system (CNS), today announced that Health Canada has authorized the protocol amendment to the ongoing REVEAL Phase 1/2 adult trial evaluating TSHA-102 that expands eligibility to include patients aged 12 and older with Rett syndrome.

"Following review of the initial clinical data from the first two adult patients treated with TSHA-102 and Chemistry, Manufacturing, and Controls (CMC) data, Health Canada has authorized our protocol amendment to include adolescent patients aged 12 years and older in the ongoing REVEAL Phase 1/2 adult trial," said Sukumar Nagendran, M.D., President, and Head of R&D of Taysha. "Amending our protocol broadens the patient population who can potentially benefit from TSHA-102. We look forward to further advancing the clinical development of TSHA-102 and building on the encouraging data demonstrated in the first two adult patients treated."

Rumana Haque-Ahmed, Senior Vice President, Regulatory Affairs of Taysha, added "Health Canada's clearance of the protocol amendment is an important milestone in our quest to develop a potentially transformative treatment for all patients and families in the Rett syndrome community. We look forward to future discussions with Health Canada and other regulatory authorities as we execute on our development plan to bring TSHA-102 to patients as safely and expeditiously as possible."

TSHA-102 is being evaluated in the REVEAL Phase 1/2 adult trial in Canada, a first-in-human, open-label, randomized, dose-escalation and dose-expansion study evaluating the safety and preliminary efficacy of TSHA-102 in females aged 12 and older with stage four Rett syndrome due to *MECP2* loss-of-function mutation. TSHA-102 is administered as a single lumbar intrathecal injection. Dose escalation will evaluate two dose levels of TSHA-102 sequentially. The maximum tolerated dose (MTD) or maximum administered dose (MAD) established will then be administered during dose expansion. Dosing of the third adult patient and completion of dosing in cohort one (low dose) in the adult trial is anticipated in the fourth quarter of 2023 or the first quarter of 2024.

The United States Food and Drug Administration (FDA) cleared the Investigational New Drug (IND) application for TSHA-102 in pediatric patients with Rett syndrome, and the Company expects to dose the first pediatric patient in the first quarter of 2024.

About TSHA-102
TSHA-102 is a self-complementary intrathecally delivered AAV9 investigational gene transfer therapy in clinical evaluation for Rett syndrome. TSHA-102 utilizes a novel miRNA-Responsive Auto-Regulatory Element (miRARE) technology designed to mediate levels of *MECP2* in the CNS on a cell-by-cell basis without risk of overexpression. TSHA-102 has received Fast Track designation and Orphan Drug and Rare Pediatric Disease designations from the FDA and has been granted Orphan Drug designation from the European Commission.

About Rett Syndrome
Rett syndrome is a rare neurodevelopmental disorder caused by mutations in the X-linked *MECP2* gene, which is a gene that's essential for neuronal and synaptic function in the brain. The disorder is characterized by intellectual disabilities, loss of communication, seizures, slowing and/or regression of development, motor and respiratory impairment, and shortened life expectancy. Rett syndrome primarily occurs in females and is one of the most common genetic causes of severe intellectual disability. Currently, there are no approved disease-modifying therapies that treat the genetic root cause of the disease. Rett syndrome caused by a pathogenic/likely pathogenic *MECP2* mutation is estimated to affect between 15,000 and 20,000 patients in the U.S., EU and UK.

About Taysha Gene Therapies
Taysha Gene Therapies (Nasdaq: TSHA) is on a mission to eradicate monogenic CNS disease. With a singular focus on developing curative medicines, we aim to rapidly translate our treatments from bench to bedside. We have combined our team's proven experience in gene therapy drug development and commercialization with the world-class UT Southwestern Gene Therapy Program. Together, we leverage our fully integrated platform with a goal of dramatically improving patients' lives. More information is available at www.tayshagtx.com.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "anticipates," "believes," "expects," "intends," "projects," "plans," and "future" or similar expressions are intended to identify forward-looking statements. Forward-looking statements include statements concerning the potential benefits and clinical development of TSHA-102, including the timing of dosing patients in clinical trials and availability of data from clinical trials. Forward-looking statements are based on management's current expectations and

are subject to various risks and uncertainties that could cause actual results to differ materially and adversely from those expressed or implied by such forward-looking statements. Accordingly, these forward-looking statements do not constitute guarantees of future performance, and you are cautioned not to place undue reliance on these forward-looking statements. Risks regarding our business are described in detail in our Securities and Exchange Commission ("SEC") filings, including in our Annual Report on Form 10-K for the full-year ended December 31, 2022, and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, both of which are available on the SEC's website at www.sec.gov. Additional information will be made available in other filings that we make from time to time with the SEC. These forward-looking statements speak only as of the date hereof, and we disclaim any obligation to update these statements except as may be required by law.

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