GeneTx and Ultragenyx Announce Presentations at Upcoming 2021 FAST Global Summit & Gala

December 1, 2021

Overall GTX-102 program update on track for the end of 2021

SARASOTA, Fla. and NOVATO, Calif., Dec. 01, 2021 (GLOBE NEWSWIRE) -- GeneTx Biotherapeutics LLC and Ultragenyx Pharmaceutical Inc. (NASDAQ: RARE), companies partnered in the development of GTX-102, today announced multiple presentations at the 2021 FAST Global Summit & Gala, highlighting additional supportive data from the initial five patients treated in the Phase 1/2 study of GTX-102, an investigational treatment for Angelman syndrome. The hybrid event will take place December 2-4 with additional information available at the FAST Global Summit & Gala website.

Details for the presentations are as follows:

- Translational Research in a Large Animal Model of Angelman Syndrome
  - Friday, December 3, 2:10 – 2:35 PM CT
  - Scott Dindot, Ph.D. Associate Professor of Genomics and EDGES Fellow at Texas A&M University and Executive Director of Molecular Genetics at Ultragenyx Pharmaceutical
- Development of Rare Disease Therapies: Overcoming Challenges
  - Saturday, December 4, 9:35 – 9:55 AM CT
  - Emil Kakkis, M.D., Ph.D. CEO of Ultragenyx Pharmaceutical Inc.
- GTX-102 Phase 1/2 Clinical Trial Update, Development of an ASO for Angelman Syndrome
  - Saturday, December 4, 10:25 – 10:45 AM CT
  - Scott Stromatt, M.D. Chief Medical Officer at GeneTx Biotherapeutics
  - Elizabeth Berry-Kravis, M.D., Ph.D. Professor of Pediatrics, Neurological Sciences, and Biochemistry at Rush University Medical Center in Chicago

Initial results from the originally treated five patients in the United States were first presented at the 2020 FAST Global Summit. The new, supportive data for these patients are from two exploratory efficacy endpoints:

- **Vineland-3 Adaptive Behavior Scales**: a semi-structured interview administered by a clinician to the caregiver to assess adaptive behavior including communication, daily living skills, socialization, and motor skills in individuals with intellectual and developmental disabilities. The Vineland-3 is completed at baseline, at last dose, and at one or more later time points during the follow-up period.
- **Electroencephalogram (EEG) Readings**: additional quantitative analysis of EEG findings in four of the five patients to assess delta waves and delta power, which are abnormal in patients with Angelman syndrome at baseline.

The companies recently began enrolling and dosing treatment-naive patients in an amended protocol of the Phase 1/2 study. A status update highlighting additional progress with the amended study will be provided around year-end 2021.

About Angelman Syndrome
Angelman syndrome is a rare, neurogenetic disorder caused by loss-of-function of the maternally inherited allele of the UBE3A gene. The maternal-specific inheritance pattern of Angelman syndrome is due to genomic imprinting of UBE3A in neurons of the central nervous system, a naturally occurring phenomenon in which the maternal UBE3A allele is expressed and the paternal UBE3A is not. Silencing of the paternal UBE3A allele is regulated by the UBE3A antisense transcript (UBE3A-AS), the intended target of GTX-102. In almost all cases of Angelman syndrome, the maternal UBE3A allele is either missing or mutated, resulting in limited to no protein expression. This condition is typically not inherited but instead occurs spontaneously. It is estimated to affect 1 in 12,000 to 1 in 20,000 people globally.

Individuals with Angelman syndrome have developmental delay, balance issues, motor impairment and debilitating seizures. Some individuals with Angelman syndrome are unable to walk and most do not speak. Anxiety and disturbed sleep can be serious challenges in individuals with Angelman syndrome. While individuals with Angelman syndrome have a normal lifespan, they require continuous care and are unable to live independently. Angelman syndrome is not a degenerative disorder, but the loss of the UBE3A protein expression in neurons results in abnormal communications between neurons. Angelman syndrome is often misdiagnosed as autism or cerebral palsy. There are no currently approved therapies for Angelman syndrome; however, several symptoms of this disorder can be reversed in adult animal models of Angelman syndrome suggesting that improvement of symptoms can potentially be achieved at any age.

About GTX-102
GTX-102 is an investigational antisense oligonucleotide delivered via intrathecal administration and designed to target and inhibit expression of UBE3A-AS. Nonclinical studies show that GTX-102 reduces the levels of UBE3A-AS and reactivates expression of the paternal UBE3A allele in neurons of the CNS. Reactivation of paternal UBE3A expression in animal models of Angelman syndrome has been associated with improvements in some of the neurological symptoms associated with the condition. GTX-102 has been granted Orphan Drug Designation, Rare Pediatric Disease Designation, and Fast Track Designation from the U.S. Food and Drug Administration (FDA). In August 2019, GeneTx and Ultragenyx announced a partnership to develop GTX-102, with Ultragenyx receiving an exclusive option to acquire GeneTx.

About GeneTx Biotherapeutics
GeneTx Biotherapeutics LLC is a startup biotechnology company singularly focused on developing and commercializing a safe and effective antisense therapeutic for the treatment of Angelman syndrome. GeneTx was launched by FAST, a patient advocacy organization and the largest non-governmental funder of Angelman syndrome research. GeneTx licensed the rights to antisense technology intellectual property from the Texas A&M University System in December 2017.

About Ultragenyx Pharmaceutical Inc.
Ultragenyx is a biopharmaceutical company committed to bringing novel products to patients for the treatment of serious rare and ultra-rare genetic diseases. The company has built a diverse portfolio of approved therapies and product candidates aimed at addressing diseases with high unmet medical need and clear biology for treatment, for which there are typically no approved therapies treating the underlying disease.

The company is led by a management team experienced in the development and commercialization of rare disease therapeutics. Ultragenyx's strategy is predicated upon time- and cost-efficient drug development, with the goal of delivering safe and effective therapies to patients with the utmost urgency.

For more information on Ultragenyx, please visit the company's website at: www.ultragenyx.com.

Forward-Looking Statements
Except for the historical information contained herein, the matters set forth in this press release, including statements related to Ultragenyx's expectations and projections regarding its future operating results and financial performance, anticipated cost or expense reductions, the timing, progress and plans for its clinical programs and clinical studies, future regulatory interactions, and the components and timing of regulatory submissions are forward-looking statements within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Such forward-looking statements involve substantial risks and uncertainties that could cause our clinical development programs, collaboration with third parties, future results, performance or achievements to differ significantly from those expressed or implied by the forward-looking statements. Such risks and uncertainties include, among others, the ability of the company and GeneTx to successfully develop GTX-102 at lower doses, including the resolution of adverse events that were seen at higher doses, whether lower doses of GTX-102 are sufficiently effective to support the continued development of the program, the effects from the COVID-19 pandemic on the company's clinical activities, business and operating results, risks related to reliance on third party partners to conduct certain activities on the company's behalf, uncertainty and potential delays related to clinical drug development, including potential delays in identifying, recruiting, enrolling and qualifying patients in our clinical studies or longer than anticipated periods between screening and dosing of patients in our clinical studies, smaller than anticipated market opportunities for the company's products and product candidates, manufacturing risks, competition from other therapies or products, and other matters that could affect sufficiency of existing cash, cash equivalents and short-term investments to fund operations, the company's future operating results and financial performance, the timing of clinical trial activities and reporting results from same, and the availability or commercial potential of Ultragenyx's products and drug candidates. Ultragenyx undertakes no obligation to update or revise any forward-looking statements. For a further description of the risks and uncertainties that could cause actual results to differ from those expressed in these forward-looking statements, as well as risks relating to the business of Ultragenyx in general, see Ultragenyx's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 3, 2021, and its subsequent periodic reports filed with the Securities and Exchange Commission.

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