AGTC to Present Preclinical Research Supporting Gene Therapy Platform in Frontotemporal Dementia at the 25th Annual Meeting of the American Society of Gene & Cell Therapy

May 2, 2022

GAINESVILLE, Fla. and CAMBRIDGE, Mass., May 02, 2022 (GLOBE NEWSWIRE) -- Applied Genetic Technologies Corporation (Nasdaq: AGTC), a clinical stage biotechnology company focused on the development of adeno-associated virus (AAV)-based gene therapies for the treatment of rare and debilitating diseases with an initial focus on inherited retinal diseases, today announced preclinical data presented at the 25th Annual Meeting of the American Society of Gene and Cell Therapy (ASGCT) that expands the potential utility of its gene therapy platform to address neurogenerative diseases, such as frontotemporal dementia, and to demonstrate robust gene expression using hybrid dual AAV vectors. The research will be featured in poster presentations at the in-person meeting taking place May 16-19, 2022 in Washington, D.C.

“We are excited by the progress we’ve seen to date with our gene therapies in ophthalmic diseases and are continuing to assess the potential of our differentiated platform to treat a range of rare and debilitating diseases – including neurodegenerative diseases like dementia,” said Dr. Susan Schneider, Chief Medical Officer of AGTC. “We believe the preclinical findings in frontotemporal dementia are particularly encouraging and look forward to continuing our research to support a potential future Investigational New Drug Application filing.”

AGTC presentations at ASGCT 2022:

AVrh10-Based Gene Therapy for the Treatment of Frontotemporal Dementia Caused by GRN Mutations (Abstract #198)
Presenter: Dr. Khalid Arhzaouy, R&D Manager, AAV Gene Therapy, AGTC
Session Date/Time: May 16, 2022; 5:30 p.m. – 6:30 p.m. ET
Session Title: Gene Targeting and Gene Correction I
Poster #M-79
Location: Hall D

- In up to 10% of patients with frontotemporal dementia (FTD) the disease is caused by an inherited loss-of-function mutation in the granulin (GRN) gene, and marked by >50% reduction in progranulin, a highly conserved secreted protein primarily expressed in the central nervous system (CNS).
- In this study, progranulin is expressed in the CNS through an AAV vector encoding a human *GRN* gene packaged in AAVrh10 capsid and delivered directly to cerebrospinal fluid via intracisternal magna (ICM) injection.
- Administration of AAVrh10-GRN in non-human primates resulted in a dose-dependent and sustained expression of human progranulin in cerebrospinal fluid and achieved levels above the physiological level in normal humans, without any vector-associated adverse effects.
- Results support the feasibility of augmenting progranulin expression via AAV-GRN gene therapy as a potential treatment for FDT caused by *GRN* mutations.

Gene Therapy for Stargardt Disease Using Hybrid Dual AAV Vectors to Express ABCA4 (Abstract #306)
Presenter: Sharon Norton-Smith, Researcher, AGTC
Poster Session Date/Time: Monday, May 16, 2022; 5:30 p.m. – 6:30 p.m. ET
Session Title: Ophthalmic and Auditory Diseases
Poster # M-187
Location: Hall D

- Stargardt disease, the most common autosomal recessive form of early onset macular dystrophy, is caused by mutations in the ABCA4 gene that codes for ATP-binding cassette transporter A4, expressed in the outer segments of photoreceptor cells in the retina.
- This study investigated a hybrid dual AAV strategy for *in vivo* expression of ABCA4 to potentially address known packaging issues resulting from the large size of the ABCA4 gene.
- The hybrid dual AAV vectors were able to express full length ABCA4 protein both *in vitro* in HEK293 cells and *in vivo* in photoreceptor cells when delivered by subretinal injection in both wild type C57BL6 mice and in the ABCA4 knock-out (K/O) mouse model.
- Treatment of the ABCA4 K/O mice with the hybrid dual AAV system led to reduced toxic bisretinoids and subretinal injection of the hybrid dual AAV vectors in non-human primates was safe and resulted in expression of full-length ABCA4 protein in the retina.

About AGTC
AGTC is a clinical-stage biotechnology company developing genetic therapies for people with rare and debilitating ophthalmic, otologic and central nervous system (CNS) diseases. AGTC is a leader in designing and constructing all critical gene therapy elements and bringing them together to develop customized therapies with the potential to address unmet patient needs. AGTC’s most advanced clinical programs leverage its best-in-class technology platform to potentially improve vision for patients with inherited retinal diseases. AGTC has active clinical trials in X-linked retinitis pigmentosa (XLRP) and achromatopsia (ACHM CNGB3). Its preclinical programs build on the company’s industry leading AAV manufacturing

technology and scientific expertise. AGTC is advancing multiple important pipeline candidates to address substantial unmet clinical needs in optogenetics, otology and CNS disorders, and has entered strategic collaborations with companies including Bionic Sight, an innovator in the emerging field of optogenetics, and retinal coding and Otonomy, Inc., a biopharmaceutical company dedicated to the development of innovative therapeutics for neurotology. For more information, please visit https://agtc.com/.

Forward-Looking Statements
This release contains forward-looking statements that reflect AGTC's plans, estimates, assumptions and beliefs, including statements about the potential of the company's gene therapy platform, the ongoing preclinical development in frontotemporal dementia , the potential clinical development in frontotemporal dementia, and whether such work will support future regulatory filings. Forward-looking statements include all statements that are not historical facts and can be identified by terms such as "anticipates," "believes," "could," "seeks," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would" or similar expressions and the negatives of those terms. Actual results could differ materially from those discussed in the forward-looking statements, due to a number of important factors. Risks and uncertainties that may cause actual results to differ materially include, among others: gene therapy is still novel with only a few approved treatments so far; AGTC cannot predict when or if it will obtain regulatory approval to commercialize a product candidate or receive reasonable reimbursement; uncertainty inherent in clinical trials and the regulatory review process; risks and uncertainties associated with drug development and commercialization; risks and uncertainties related to funding sources for our development programs; the direct and indirect impacts of the ongoing COVID-19 pandemic on the Company's business, results of operations, and financial condition; factors that could cause actual results to differ materially from those described in the forward-looking statements are set forth under the heading "Risk Factors" in the company's most recent annual report on Form 10-K, as it may be supplemented by subsequent periodic reports filed with the SEC. Given these uncertainties, you should not place undue reliance on these forward-looking statements. Also, forward-looking statements represent management's plans, estimates, assumptions and beliefs only as of the date of this release. Except as required by law, we assume no obligation to update these forward-looking statements publicly or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

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