Applied Therapeutics Announces Initiation of Phase 1/2 Study of AT-007 in Galactosemia

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NEW YORK, June 24, 2019 (GLOBE NEWSWIRE) -- Applied Therapeutics Inc. (Nasdaq:APLT), a clinical-stage biopharmaceutical company developing a pipeline of novel drug candidates against validated molecular targets in indications of high unmet medical need, today announced the initiation of a Phase 1/2 study of AT-007 in Galactosemia. The study, termed ACTION-Galactosemia, will investigate safety and pharmacokinetics (PK) of AT-007, a central nervous system (CNS) penetrant Aldose Reductase inhibitor in healthy volunteers, and will then explore safety, PK and biomarker effects in adult subjects with Galactosemia.

The multicenter study will primarily enroll patients with Classic Galactosemia, the most common form of Galactosemia in the US, but will also seek to enroll a single cohort of GALK deficient (GALKD) patients, which is more common in Europe.

"Dietary restriction alone does not prevent long term complications of disease because the body makes galactose endogenously," said Riccardo Perfetti, MD, PhD, Chief Medical Officer of Applied Therapeutics. "Galactosemia patients are in desperate need of treatment options, and we are committed to advancing AT-007 through clinical development as quickly as possible due to the urgent unmet medical need."

Applied Therapeutics plans to leverage recent FDA guidance permitting biomarker-based development in low prevalence, slowly progressing rare metabolic diseases, such as Galactosemia.

Aldose Reductase (AR) is responsible for formation of a toxic metabolite of galactose, called galactitol, which has been shown to be responsible for many of the long-term complications in Galactosemia. Patients will be treated initially with a single dose of AT-007, followed by 27 days of consecutive dosing. The study endpoints will be safety, tolerability, PK and biomarker-based analyses. The trial will determine the ability of AT-007 to suppress toxic accumulation of galactitol in patients and will explore feasibility of measuring galactitol levels in the brain via MRI.

"The initiation of the first therapeutic clinical trial in Galactosemia marks an important milestone for the Galactosemia community," said Kellie Wilcox, President of the Galactosemia Foundation. "Decades of work by the Galactosemia community have culminated in this day - advocacy for newborn screening, academic research, and participation in natural history studies by families. We look forward to working closely with Applied Therapeutics and the Galactosemia community in the next phase of this journey."

About Galactosemia
Galactosemia is a rare metabolic disease that affects how the body processes a simple sugar called galactose, and for which there is no known cure or approved treatment available. Galactose is found in foods, but the human body also naturally produces galactose on its own, so dietary restriction can't prevent complications of disease. It is estimated that the U.S. Galactosemia population is approximately 2,800 patients, based on newborn screening data identifying 2,500 infants through 2014, and the estimated birth rate of 80 patients per year. High levels of galactose circulating in the blood and tissues of Galactosemia patients enables Aldose Reductase to convert galactose to a toxic metabolite, called galactitol, which causes long-term complications ranging from CNS dysfunction to cataracts.

About AT-007
AT-007 is a central nervous system (CNS) penetrant Aldose Reductase inhibitor (ARI) in Phase 1/2 development for treatment of Galactosemia. AT-007 has been studied in in an animal model of Galactosemia, which demonstrated that AT-007 reduces toxic galactitol levels and prevents disease complications. Applied Therapeutics is planning a biomarker based development program in patients with Galactosemia, based on the recently released draft industry guidance on drug development for low prevalence, slowly progressing rare metabolic diseases. The company received Orphan Designation for AT-007 for Galactosemia in May 2019.

About Applied Therapeutics
Applied Therapeutics is a clinical-stage biopharmaceutical company developing a pipeline of novel drug candidates against validated molecular targets in indications of high unmet medical need. The company's lead drug candidate, AT-001, is a novel aldose reductase inhibitor (ARI) that is being developed for the treatment of Diabetic Cardiomyopathy, or DbCM, a fatal fibrosis of the heart. The company plans to initiate a Phase 2/3 pivotal study in DbCM in 2019. Applied Therapeutics is also developing AT-007, a central nervous system penetrant ARI, for the treatment of Galactosemia, a rare pediatric metabolic disease, and initiated a Phase 1/2 clinical trial in June 2019. The preclinical pipeline also includes AT-003, an ARI designed to cross through the back of the eye when dosed orally, for the treatment of diabetic retinopathy, expected to advance into a Phase 1 study in 2020.

Forward-looking Statements
This press release contains "forward-looking statements" that involve substantial risks and uncertainties for purposes of the safe harbor provided by the Private Securities Litigation Reform Act of 1995. Any statements, other than statements of historical fact, included in this press release regarding strategy, future operations, prospects, plans and objectives of management, including words such as "may," "will," "expect," "anticipate," "plan," "intend," and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are forward-looking statements. These include, without limitation, statements regarding (i) the design, timing, scope and results of our clinical trials, (ii) anticipated timing of disclosure of results of our clinical trials, (iii) the potential benefits of the formulated product candidate, (iv) the likelihood data will support future development and (iv) the likelihood of obtaining regulatory approval of our product candidates. Forward-looking statements in this release involve substantial risks and uncertainties that could cause actual results to differ materially from those expressed or implied by the forward-looking statements, and we, therefore cannot assure you that our plans, intentions, expectations or strategies will be attained or achieved. Such risks and uncertainties include, without limitation, the uncertainties inherent in the initiation, execution and completion of clinical trials, in the timing of availability of trial data, in the results of the clinical trials, in the actions of regulatory agencies, in the commercialization and acceptance of new therapies. Other factors that may cause actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in

our filings with the U.S. Securities and Exchange Commission, including the section titled “Risk Factors” contained therein. Except as otherwise required by law, we disclaim any intention or obligation to update or revise any forward-looking statements, which speak only as of the date they were made, whether as a result of new information, future events or circumstances or otherwise.

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Galactosemia Patients/ Families:
If you are a patient or family member interested in receiving information regarding participation in the Phase 1/2 clinical trial, please email: galactosemia@appliedtherapeutics.com.

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