Aerovate Therapeutics Presents Novel Phase 2b/Phase 3 IMPAHCT Trial Design at CHEST Annual Meeting 2022

October 18, 2022

Adaptive and efficient trial design may allow for expedited development timeline while maintaining scientific rigor

WALTHAM, Mass., Oct. 18, 2022 (GLOBE NEWSWIRE) -- Aerovate Therapeutics, Inc. (Nasdaq: AVTE) today presents the design of IMPAHCT (Inhaled iMatinib for Pulmonary Arterial Hypertension Clinical Trial; AV-101-002), a Phase 2b/Phase 3 trial investigating the safety and efficacy of AV-101 in adults with pulmonary arterial hypertension (PAH), at the American College of Chest Physicians Annual Meeting (CHEST 2022) in Nashville, TN. AV-101 is a dry powder inhaled formulation of the antiproliferative drug imatinib, designed to deliver high concentrations of imatinib throughout the airways and straight to diseased blood vessels in the lungs while limiting systemic exposure. Investigational AV-101 has been formulated for self-administration in which patients will perform two inhalations twice daily with a discreet, pocket-sized device designed for easy use.

The IMPAHCT trial, which was initiated in December 2021, is a multi-national trial consisting of three parts:

- Part one (Phase 2b): Part one, which is the Phase 2b portion of the trial, will assess the safety, tolerability, and efficacy of three twice-daily doses (10, 35, or 70 mg) of AV-101 against placebo and establish an optimal dose for Phase 3. The primary endpoint for this part is change in pulmonary vascular resistance (PVR) after 24 weeks compared to placebo.
- Part two (Phase 3): Part two begins immediately following enrollment of the last participant in the Phase 2b part of the trial and signifies the start of enrollment in the Phase 3 trial. Part two uses the same dosing as in the Phase 2b part of the trial with participants randomized across three AV-101 doses and placebo. Enrollment in part two will continue until the optimal AV-101 dose is selected based on results from the Phase 2b analysis.
- Part three (Phase 3): This part of the trial will start once an optimal dose of AV-101 has been selected based on the Phase 2b results. All patients enrolling during this part of Phase 3 will be randomized to either the optimal dose of AV-101 or placebo. The primary endpoint for Phase 3 is change in six-minute walk distance (6MWD) at 24 weeks for the optimal dose of AV-101 compared to placebo.

In addition to PVR and 6MWD, multiple additional endpoints will be evaluated including changes in WHO Functional Class, REVEAL Lite 2.0 risk score, NT-proBNP, and quality of life along with assessments of clinical worsening, clinical improvement, safety and tolerability, and pharmacokinetics. Patients may only participate in either the Phase 2b or Phase 3 part of the trial which includes a screening period (up to 30 days), treatment period (24 weeks), and a 30-day safety follow-up. Eligible patients will be able to stay on current PAH background therapies while in IMPAHCT. Participants who successfully complete the IMPAHCT trial are eligible to continue AV-101 treatment in the long-term extension study, IMPAHCT-FUL (AV-101-003).

“This operationally seamless approach to the Phase 2b/Phase 3 clinical trial design for AV-101, with continued enrollment and collection of multiple endpoints, underscores Aerovate’s commitment to making new treatment options available to patients with PAH as soon as possible without compromising safety and scientific rigor,” said Dr. Hunter Gillies, M.B.Ch.B., Chief Medical Officer at Aerovate and poster presenter.

“The novel adaptive approach to trial design as seen with IMPAHCT is designed to allow for a more efficient drug development timeline while maintaining the required investigative parameters to inform sound scientific outcomes,” said Dr. Nick Hill, Chief of the Division of Pulmonary, Critical Care and Sleep at Tufts Medical Center and Professor of Medicine at Tufts University School of Medicine. “The PAH community looks forward to further use of adaptive trial designs such as this, which may ultimately prove to be transformative in the efficient development of new PAH medicines.”

It is estimated that the adaptive design of IMPAHCT has the potential to save at least 6 to 12 months compared to separate Phase 2 and Phase 3 trials, allowing for a more efficient and expedited development path.

A copy of the conference presentation will be available in the “Presentations > Events” section of Aerovate’s website at ir.aerovatetx.com.

Session: PAH Abstract Posters – Convention Center Exhibit Hall BC
Poster: Inhaled Imatinib for Pulmonary Arterial Hypertension Clinical Trial: Design of the IMPAHCT Phase 2b/3 Study Design
Poster number: 2078
Presenting author: Hunter Gillies, M.B.Ch.B
Date: October 18, 2022
Time: 1:30-2:30 pm CT

About AV-101
AV-101 is an investigational, proprietary dry powder inhaled formulation of the antiproliferative drug imatinib. Developed specifically for pulmonary arterial hypertension (PAH), AV-101 is designed for delivery by an easy-to-use dry powder inhaler, directly into the lungs to maximize potential clinical benefit and limit systemic adverse effects. Phase 1 results presented at the 2022 American Thoracic Society (ATS) annual meeting showed that AV-101 delivered by dry powder inhalation was generally well tolerated by healthy adult volunteers with no serious adverse events reported. Aerovate is enrolling patients in the IMPAHCT Phase 2b/Phase 3 clinical trial to evaluate the safety and efficacy of different doses of AV-101 in adults with PAH.

About PAH
PAH is a rare, progressive disease characterized by abnormal cellular proliferation of the pulmonary vasculature that affects approximately 70,000 people in the United States and Europe. The disease process involves remodeling, constriction and occlusion of the small pulmonary arteries resulting in elevated blood pressure in the pulmonary circulation. PAH can cause strain on the heart, leading to limitation of physical activity, heart failure and reduced life expectancy. Existing vasodilator drugs fail to treat the underlying cellular proliferation causing the disease.

About the IMPAHCT Trial
IMPAHCT (Inhaled iMatinib Pulmonary Arterial Hypertension Clinical Trial) is a multi-national, placebo-controlled Phase 2b/Phase 3 trial in adults with PAH that will continuously enroll patients as the study progresses from Phase 2b to Phase 3. The Phase 2b part of the trial will evaluate three doses of AV-101 over 24 weeks, compared to placebo, to identify an optimal dose based on the primary endpoint, change in pulmonary vascular resistance (PVR), and safety, tolerability, and other clinical measures. The Phase 3 portion of the trial will compare patients taking the optimal dose of AV-101, selected from the Phase 2b data, to placebo. The primary endpoint of the Phase 3 portion of the trial will be change in six-minute walk distance (6MWD) over 24 weeks versus placebo. More information about this trial is available at https://clinicaltrials.gov/ct2/show/NCT05036135.

About Aerovate Therapeutics, Inc.
Aerovate is a clinical-stage biopharmaceutical company focused on developing drugs that meaningfully improve the lives of patients with rare cardiopulmonary disease. Aerovate's initial focus is on advancing AV-101, its proprietary dry powder inhaled formulation of the drug imatinib for the treatment of patients with PAH. Learn more at aerovatetx.com and follow the company on Twitter and LinkedIn.

Available Information
Aerovate announces material information to the public about the Company, its products and services, and other matters through a variety of means, including filings with the U.S. Securities and Exchange Commission (SEC), press releases, public conference calls, webcasts, the investor relations section of the Company website at ir.aerovatetx.com, and the Company's Twitter account @AerovateTx in order to achieve broad, non-exclusionary distribution of information to the public and for complying with its disclosure obligations under Regulation FD.

Cautionary Note Regarding Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements can be identified by words such as "anticipate," "believe," "continue," "could," "estimate," "expect," "future," "goal," "intend," "look forward to," "may," "plan," "potential," "predict," "project," "potential," "seek," "strategy," "should," "target," "will," "would" and similar expressions regarding future periods. These forward-looking statements include, but are not limited to, statements regarding the therapeutic potential and clinical benefits of AV-101; our expectations regarding patient enrollment for our Phase 2b/Phase 3 trial; the anticipated efficiency of our Phase 2b/Phase 3 trial design; our business plans and objectives for AV-101, including expectations regarding timing and success of our Phase 2b/Phase 3 clinical trial; and the PAH community's anticipated enthusiasm for our Phase 2b/Phase 3 trial and design.

Any forward-looking statements in this press release are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this press release, including, without limitation, those risks and uncertainties related to the therapeutic potential of AV-101; the timing associated with the identification and activation of clinical sites, patient enrollment, initiation, delivery of drug supply and continuation of our Phase 2b/Phase 3 trial of AV-101 in PAH patients; the impact of the COVID-19 pandemic on our business, clinical trials, operations and goals; positive results from a clinical study may not necessarily be predictive of the results of future or ongoing clinical studies; regulatory developments in the United States and foreign countries; as well as those risks and uncertainties set forth more fully under the caption "Risk Factors" in our most recent Annual Report on Form 10-K filed with the SEC and subsequent filings with the SEC. We caution you not to place undue reliance on any forward-looking statements, which speak only as of the date they are made. We disclaim any obligation to publicly update or revise any such statements to reflect any change in expectations or in events, conditions or circumstances on which any such statements may be based, or that may affect the likelihood that actual results will differ from those set forth in the forward-looking statements. Any forward-looking statements contained in this press release represent our views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date.

Media Contact
info@aerovatetx.com

Investor Contact
ir@aerovatetx.com