Aquestive Therapeutics Reports Positive Results from Latest Clinical Studies Evaluating Pharmacokinetic and Pharmacodynamic Performance of Anaphylm ™ (epinephrine) Sublingual Film and Provides Findings from Recent Auto-Injector Clinical Study

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- *Time to maximum blood concentration (median Tmax) for Anaphylm was 10 minutes with a range of 5 to 20 minutes*
- *Early drug exposure at 10 minutes (partial area under the curve, or $pAUC_{0\text{-}10min}$) for Anaphylm was similar to Auvi-Q® (epinephrine injection) auto-injector 0.3mg and over 4 times higher than epinephrine 0.3mg manual injection, while lower than both EpiPen® (epinephrine) auto-injector 0.3mg and the generic equivalent product*
- *Pharmacodynamic effects were observed as early as 2 minutes for both Anaphylm and the auto-injectors*
- *Target range for comparing Anaphylm to approved epinephrine formulations was successfully identified for upcoming pivotal study*
- *Company continues to expect to submit the protocol for the pivotal study to the FDA in third quarter 2023*

WARREN, N.J., May 31, 2023 (GLOBE NEWSWIRE) -- Aquestive Therapeutics, Inc. (NASDAQ: AQST) (the "Company" or "Aquestive"), a pharmaceutical company advancing medicines to solve patients' problems with current standards of care and provide transformative products to improve their lives, today released topline clinical data from recent pilot studies that were completed following the End-of-Phase 2 meeting with the FDA. The studies included examining (1) differences in pharmacokinetic (PK) results based on changes to administration instructions, (2) additional repeat dose data on Anaphylm, and (3) the differences between approved auto-injectors.

"These data continue to show rapid absorption of epinephrine during the critical first ten minutes following administration of Anaphylm. As our scientific advisors and the FDA have previously stated, anaphylaxis is a serious condition that must be treated quickly. Simply put, every minute matters during a severe allergic reaction," said Daniel Barber, Chief Executive Officer of Aquestive. "We are pleased to share the latest clinical results from our recent pilot studies confirming the rapidity of epinephrine delivery as we continue the progression of our Anaphylm development program. We expect to submit the protocol for our pivotal PK trial to the FDA during the third quarter 2023 for the Agency's review and comments."

David Golden, M.D., allergist-immunologist and Associate Professor of Medicine at Johns Hopkins University, stated, "The latest clinical data for Anaphylm demonstrate that the sublingual film continues to deliver the pharmacokinetic and pharmacodynamic effects needed for the most effective treatment of anaphylaxis and to prevent the progression of anaphylactic reactions. We know that early and high levels of epinephrine are critical in the treatment of this life-threatening condition."

Single Administration Pilot PK Study
The Company recently completed a single dose PK study of Anaphylm 12mg in healthy subjects with revised administration instructions. Anaphylm was applied to the sublingual mucosa and held in place until dissolved with no prescribed salivary hold time. The study resulted in a geometric mean maximum epinephrine concentration (Cmax) of 400pg/mL and a median Tmax of 10 minutes, with a Tmax range of 5 minutes to 20 minutes. This is the fastest median Tmax result to date for the Anaphylm development program. These results demonstrate meaningful improvements from previous administration instructions as the Company continues to optimize film administration.

Importantly, Anaphylm's epinephrine levels were significantly higher than epinephrine levels from the epinephrine 0.3mg manual injection from previous study data, at all timepoints within the first 10 minutes following dosing. Based on interactions with the FDA, the Company continues to believe that similarity to approved auto-injectors during the first 10 minutes following administration is preferred. All but one of the subjects receiving Anaphylm exceeded epinephrine concentrations of 100pg/mL by 15 minutes following dosing.

In the same study, multiple pharmacodynamic markers were monitored including systolic blood pressure. A median increase of 22mmHg in systolic blood pressure was observed at 2 minutes following dosing, with a significant change from baseline maintained for 1 hour following dosing. There were no significant adverse events reported during the study and Anaphylm continues to be safe and well-tolerated by subjects.

Pilot Crossover PK Study Comparing Different Auto-injectors and Epinephrine 0.3mg Manual Injection, Including a Repeat Dose of Anaphylm
Given that manual epinephrine injections are rarely used outside of a clinical office setting, the Company conducted a pilot PK study to compare three different auto-injectors to the 0.3mg manual injection (Belcher Pharmaceuticals). These auto-injectors were Auvi-Q (epinephrine) 0.3mg auto-injector, EpiPen (epinephrine) 0.3mg auto-injector, and the generic equivalent to EpiPen (Teva Pharmaceutical USA). These data will also be used to help identify the appropriate auto-injector(s) and PK values for comparing

Anaphylm's performance in the upcoming pivotal study.

The geometric mean Cmax levels for EpiPen, generic epinephrine auto-injector, and Auvi-Q were 628, 573, and 646pg/mL, respectively, while the median Tmax times were 10, 15, and 30 minutes, respectively. As a comparison in the same study, the geometric mean Cmax level for epinephrine 0.3mg manual injection was 344pg/mL with a median Tmax of 50 minutes.

In another arm of this study, the Company also completed a repeat dose study with subjects given a second dose 25 minutes after the initial dose. Importantly, minimal administration instructions were utilized potentially simulating non-compliance to Anaphylm's expected administration instructions. Consistent with the Company's previous repeat dose study, Anaphylm produced a median Tmax of 8 minutes when re-administered after 25 minutes. Cmax and overall exposure were comparable to the auto-injectors demonstrating that a second dose of Anaphylm can be used effectively at a later time period, as needed. There were no significant adverse events reported during any arms of this study.

A presentation containing additional information about this topline data is available on the Events and Presentations page within the Investor page of the Aquestive website.

About Anaphylaxis
Anaphylaxis is a serious systemic hypersensitivity reaction that is rapid in onset and potentially fatal. As many as 49 million people in the United States are at chronic risk for anaphylaxis. Lifetime prevalence is at least 5%, or more than 16 million people in the United States. Direct costs of anaphylaxis have been estimated at $1.2 billion per year, with direct expenditures of $294 million for epinephrine, and indirect costs of $609 million. The frequency of hospital admissions for anaphylaxis has increased 500–700% in the last 10–15 years. Of patients who previously experienced anaphylaxis, 52% had never received an epinephrine auto-injector prescription, and 60% did not have an auto-injector currently available. The most common causes of anaphylaxis are foods (such as peanuts), venom from insect stings, and medications. Epinephrine injection is the current standard of treatment intended to reverse the severe manifestation of anaphylaxis, which may include skin rash, throat swelling, respiratory difficulty, gastrointestinal distress, and loss of consciousness.

About Anaphylm™
Anaphylm (AQST-109) is a polymer matrix-based epinephrine prodrug candidate product administered as a sublingual film that is applied under the tongue for the rapid delivery of epinephrine. The product is similar in size to a postage stamp, weighs less than an ounce, and begins to dissolve on contact. No water or swallowing is required for administration. The packaging for Anaphylm is thinner and smaller than an average credit card, can be carried in a pocket, and is designed to withstand weather excursions such as exposure to rain and/or sunlight.

About Aquestive Therapeutics
Aquestive Therapeutics, Inc. (NASDAQ: AQST) is a pharmaceutical company advancing medicines to solve patients' problems with current standards of care and provide transformative products to improve their lives. We are developing orally administered products to deliver complex molecules, providing novel alternatives to invasive and inconvenient standard of care therapies. Aquestive has five commercialized products marketed by our licensees in the U.S. and around the world. The Company also collaborates with pharmaceutical companies to bring new molecules to market using proprietary, best-in-class technologies, like PharmFilm®, and has proven drug development and commercialization capabilities. Aquestive is advancing a proprietary product pipeline focused on treating diseases of the central nervous system and for the treatment of severe allergic reactions, including anaphylaxis. For more information, visit Aquestive.com and follow us on LinkedIn.

Forward-Looking Statements
Certain statements in this press release include "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "believe," "anticipate," "plan," "expect," "estimate," "intend," "may," "will," or the negative of those terms, and similar expressions, are intended to identify forward-looking statements. These forward-looking statements include, but are not limited to, statements regarding the advancement and related timing of our product candidate Anaphylm™ (epinephrine) Sublingual Film through clinical development and approval by the FDA; the potential benefits Anaphylm could bring to patients, and other statements that are not historical facts. These forward-looking statements are subject to the uncertain impact of the COVID-19 global pandemic on the Company's business including with respect to its clinical trials including site initiation, enrollment and timing and adequacy of clinical trials; on regulatory submissions and regulatory reviews and approval of Anaphylm; pharmaceutical ingredient and other raw materials supply chain, manufacture, and distribution; and ongoing availability of an appropriate labor force and skilled professionals.

These forward-looking statements are based on the Company's current expectations and beliefs and are subject to a number of risks and uncertainties that could cause actual results to differ materially from those described in the forward-looking statements. Such risks and uncertainties include, but are not limited to, risks associated with the Company's development work, including any delays or changes to the timing, cost and success of its product development activities and clinical trials for Anaphylm; risk of the Company's failure to generate sufficient data in its PK/PD comparability submission for FDA approval of Anaphylm; risk of the Company's failure to address the concerns identified in the FDA End-of-Phase 2 meeting for Anaphylm, including the risk that the FDA may require additional clinical studies for FDA approval of Anaphylm; risk of delays in or the failure to receive FDA approval of Anaphylm and there can be no assurance that we will be successful in obtaining FDA approval of Anaphylm; risk of insufficient capital and cash resources, including insufficient access to available debt and equity financing and revenues from operations, to satisfy all of the Company's short-term and longer term liquidity and cash requirements and other cash needs, at the times and in the amounts needed, including to fund future clinical development activities for Anaphylm; risk of the rate and degree of market acceptance of our product candidate Anaphylm; risk of the success of any competing products; uncertainties related to general

economic, political, business, industry, regulatory, financial and market conditions and other unusual items; and other risks and uncertainties affecting the Company described in the “Risk Factors” section and in other sections included in its Annual Report on Form 10-K, in its Quarterly Reports on Form 10-Q, and in its Current Reports on Form 8-K filed with the Securities and Exchange Commission.

In addition, topline and interim data from clinical trials may not be indicative of final results, and the results of early clinical trials may not be indicative of the results of later clinical trials. Moreover, nonclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in nonclinical and clinical trials have nonetheless failed to obtain marketing approval of their products. There is a risk that additional nonclinical and/or clinical safety studies will be required by the FDA or that subsequent studies will not match results seen in prior studies. As a result, topline data should be viewed with caution until the final data are available. Given those uncertainties, you should not place undue reliance on these forward-looking statements, which speak only as of the date made. All subsequent forward-looking statements attributable to the Company or any person acting on its behalf are expressly qualified in their entirety by this cautionary statement. The Company assumes no obligation to update forward-looking statements or outlook or guidance after the date of this Current Report on Form 8-K, whether as a result of new information, future events or otherwise, except as may be required by applicable law. Readers should not rely upon this information as current or accurate after its publication date.

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