Aclaris Therapeutics Supports Investigator-Initiated Clinical Trial of ATI-450 for Cytokine Release Syndrome in Hospitalized Patients with COVID-19

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- **FDA Allows IND to Study ATI-450 in Hospitalized Patients with COVID-19**
- **Aclaris Supports Investigator-Initiated Clinical Trial Sponsored by the University of Kansas Medical Center**
- **ATI-450 Inhibits Multiple Key Inflammatory Cytokines**

WAYNE, Pa., June 17, 2020 (GLOBE NEWSWIRE) -- Aclaris Therapeutics, Inc. (NASDAQ: ACRS), a clinical-stage biopharmaceutical company developing a pipeline of novel drug candidates for immuno-inflammatory diseases, today announced that the FDA has allowed an investigational new drug application to evaluate ATI-450, its oral investigational MK2 inhibitor compound, in hospitalized patients with COVID-19. Aclaris is supporting an investigator-initiated trial of ATI-450 for cytokine release syndrome (CRS) in 36 hospitalized patients with COVID-19, and will provide funding and clinical drug supply to the University of Kansas Medical Center (KUMC), the sponsor of the trial. The trial will be led by co-investigators Gregory Gan, M.D., Ph.D. and Deepika Polineni, M.D., M.P.H. The trial is a Phase 2a, randomized, double-blind, placebo-controlled trial to investigate the safety and efficacy of ATI-450, when used in addition to standard of care therapy. The primary endpoint is the proportion of subjects who are free from respiratory failure by day 14.

“CRS leads to the release of multiple inflammatory cytokines such as IL1β, IL6 and TNFα**,** which precedes acute respiratory distress syndrome, and is associated with significant morbidity and mortality in patients with COVID-19. ATI-450, a novel oral compound, has demonstrated that it targets the expression of inflammatory cytokines in a Phase 1 clinical trial in healthy volunteers. Therefore, we believe that ATI-450 may be an innovative approach to managing this disease,” said Dr. Gan. As further noted by Dr. Polineni, “By mitigating CRS, important clinical outcomes such as oxygenation in patients with COVID-19 would be improved which could result in the reduced need for ventilation in patients in the intensive care setting.”

ATI-450 has been observed to regulate pro-inflammatory cytokines associated with CRS. Pharmacodynamic analysis from the first-in-human study using an *ex vivo* lipopolysaccharide (LPS) stimulation model demonstrated dose-dependent reduction of TNFα, IL1β, IL6 and IL8. Further analysis using this LPS model showed marked inhibition of additional cytokines linked to CRS, including GM-CSF, IL2, IFNγ and MIP1α. Furthermore, anti-inflammatory activity for ATI-450 was observed in a rat model of airway neutrophilia induced by inhaled LPS. In addition, anti-viral[1,2,3] and anti-fibrotic[4,5] activity has been observed following blockade of the MK2 pathway in preclinical studies.

“Many of the investigational drugs that are being evaluated to treat CRS target a single cytokine,” said Dr. David Gordon, Chief Medical Officer of Aclaris. “We believe inhibiting multiple cytokines has the potential to achieve clinical benefits in patients with CRS, and this study will explore if ATI-450 is an effective approach in these patients. Thanks to KUMC, who are sponsoring this trial, we are able to evaluate ATI-450 as a potential treatment for COVID-19 at this critical time without impacting our ongoing clinical development programs. If successful, we hope to further explore the role that ATI-450 may have in helping patients with COVID-19 and addressing the healthcare challenges of the pandemic.”

Company to Host Conference Call

Management will conduct a conference call at 8:30 AM ET today to discuss this trial and related matters. The conference call will be webcast live over the Internet and can be accessed through the Events page under the Investors section of Aclaris’ website, www.aclaristx.com. A replay of the webcast will be archived on the Aclaris website for 30 days following the call.

To participate on the live call, please dial (844) 776-7782 (domestic) or (661) 378-9535 (international), and reference conference ID 1366937 prior to the start of the call.

About COVID-19

Coronavirus disease 2019 (COVID-19) is a new pandemic disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). Some patients require hospitalization, mostly due to pneumonia, and can progress quickly to severe acute lung injury and acute respiratory distress syndrome (ARDS), which is associated with high mortality.[6,7] A viral-induced cytokine storm or “hyperimmune response” is hypothesized to be a major pathogenic mechanism of ARDS.[8,9,10]

About ATI-450

ATI-450 is an investigational oral mitogen-activated protein kinase-activated protein kinase 2 (MK2) inhibitor in Phase 2 clinical development. This mechanism leads to the inhibition of multiple cytokines, chemokines, matrix metalloproteases and other inflammatory signals. Key inflammatory cytokines driven by this mechanism include tumor necrosis factor α (TNFα) and interleukin-1α, -1β, -6 and -8 (IL1α, IL1β, IL6 and IL8). Aclaris is developing ATI-450 as a potential treatment for rheumatoid arthritis and other immuno-inflammatory diseases.

About Aclaris Therapeutics, Inc.

Aclaris Therapeutics, Inc. is a clinical-stage biopharmaceutical company developing a pipeline of novel drug candidates to address the needs of patients with immuno-inflammatory diseases who lack satisfactory treatment options. The company has a multi-stage portfolio of drug candidates powered by a robust R&D engine exploring protein kinase regulation. For additional information, please visit www.aclaristx.com and follow Aclaris on LinkedIn or Twitter @aclaristx.

Cautionary Note Regarding Forward-Looking Statements

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. These statements may be identified by words such as “believe,” “expect,” “intend,” “may,” “plan,” “potential,” “will,” and similar expressions, and are based on Aclaris’ current beliefs and expectations. These forward-looking statements include expectations regarding ATI-450 as a potential treatment for patients with COVID-19 and the clinical development of ATI-450. These statements involve risks and uncertainties that could cause actual results to differ materially from those reflected in such statements. Risks and uncertainties that may cause actual results to differ materially include uncertainties inherent in the conduct of clinical trials, Aclaris’ reliance on third parties over which it may not always have full control, Aclaris’ ability to enter into strategic partnerships on commercially reasonable terms, the uncertainty regarding the COVID-19 pandemic and other risks and uncertainties that are described in the Risk Factors section of Aclaris’ Annual Report on Form 10-K for the year ended December 31, 2019, Aclaris’ Quarterly Report on Form 10-Q for the quarter ended March 31, 2020, and other filings Aclaris makes with the U.S. Securities and Exchange Commission from time to time. These documents are available under the “SEC filings” page of the Investors section of Aclaris’ website at http://www.aclaristx.com. Any forward-looking statements speak only as of the date of this press release and are based on information available to Aclaris as of the date of this release, and Aclaris assumes no obligation to, and does not intend to, update any forward-looking statements, whether as a result of new information, future events or otherwise.

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