Conatus Pharmaceuticals Announces Upcoming Oral Presentation at EASL Annual Meeting

April 9, 2018

Pan-caspase Inhibitor IDN-7314 Reduces Inflammation and Liver Injury in Mouse Model of PSC

SAN DIEGO, April 09, 2018 (GLOBE NEWSWIRE) -- Conatus Pharmaceuticals Inc. (NASDAQ:CNAT), a biotechnology company focused on the development of novel medicines to treat liver disease, today announced an upcoming oral presentation reporting reductions in bacteria-driven inflammation and related liver injury with the company's pan-caspase inhibitor IDN-7314 in a mouse model of primary sclerosing cholangitis (PSC). The presentation is scheduled at 4:45 p.m. CEST on Thursday, April 12, at The International Liver Congress™ 2018, the Annual Meeting of the European Association for the Study of the Liver (EASL) in Paris, France, April 11-15, 2018.

Presentation #PS-004, "The gut-liver axis is essential for disease progression in the Mdr2$^{?/?}$ mouse model of primary sclerosing cholangitis," will be delivered by lead author Lijun Liao, Researcher in the Department of Internal Medicine III, University Hospital RWTH Aachen, Aachen, Germany and at Renji Hospital, Shanghai Jiao Tong University, Department of Pain Management, in Shanghai, China. Conatus co-sponsored the research, which was conducted by a collaboration of academic researchers in Germany, China, Spain and Sweden.

The researchers noted that PSC, a disease affecting bile ducts in the liver which can lead to cirrhosis and liver failure, is strongly associated with inflammatory bowel disease, and that the gut-liver connection plays a critical role in PSC onset and progression. They investigated gut-liver interactions and inflammasome activation in the Mdr2$^{?/?}$ mouse model resembling PSC. Their results showed that inflammation in the Mdr2$^{?/?}$ mouse model showed characteristic increases in apoptotic cell death, progressive bile duct proliferation and periportal fibrosis development. The bile acid composition was abnormal and reflective of changes in intestinal bacteria.

Conatus' pan-caspase inhibitor IDN-7314 was administered as a treatment to block caspase activation, resulting in reduced inflammasome activation and demonstrated beneficial effects on liver injury, periportal inflammation, serum bile acid profile as well as imbalance in the intestinal bacteria. The researchers confirmed the importance of the gut-liver connection in the Mdr2$^{?/?}$ mouse model of PSC, and concluded that blockage of bile ducts triggers an intestinal bacteria imbalance and migration of bacteria and related toxins to the portal vein of the liver, followed by increased inflammation and liver injury. They further concluded that this cascade of events can be blocked by pan-caspase inhibition.

"The confirmation of the links between liver and gut implications in PSC suggest that treatments addressing the underlying mechanisms may provide benefits in both organ systems," said Al Spada, Ph.D., Executive Vice President of Research and Development and Chief Scientific Officer of Conatus, and a co-author on the publication. "We believe the demonstrated impact of IDN-7314 on these underlying mechanisms encourages further evaluation of caspase inhibition as a treatment for PSC."

IDN-7314 is an orally active pan-caspase protease inhibitor designed to reduce the activity of enzymes that mediate inflammation and cell death (or apoptosis), which has demonstrated reduction of relevant biomarkers in two preclinical models of PSC. The Mdr2$^{-/-}$ mouse model is considered the current benchmark nonclinical model of PSC. IDN-7314 also reduced biochemical markers in a new acute preclinical model of PSC. These results suggest the involvement of caspases in the progression of PSC. IDN-7314 was granted Orphan Drug Designation for the treatment of PSC by the U.S. Food and Drug Administration (FDA) in June 2017 and by the European Medicines Agency (EMA) in October 2017. Conatus is evaluating the potential of IDN-7314 as a treatment for PSC.

About Conatus Pharmaceuticals
Conatus is a biotechnology company focused on the development of novel medicines to treat liver disease. In collaboration with Novartis, Conatus is developing its lead compound, emricasan, for the treatment of patients with chronic liver disease. Emricasan is a first-in-class, orally active pan-caspase inhibitor designed to reduce the activity of enzymes that mediate inflammation and apoptosis. Conatus believes that by reducing the activity of these enzymes, caspase inhibitors have the potential to interrupt the progression of a variety of diseases. For additional information, please visit www.conatuspharma.com.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended. All statements other than statements of historical facts contained in this press release are forward-looking statements, including statements regarding: the potential for IDN-7314 as a treatment for PSC; and caspase inhibitors' potential to interrupt the progression of a variety of diseases. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. These forward-looking statements speak only as of the date of this press release and are subject to a number of risks, uncertainties and assumptions, including: the risk that the preclinical results may not be predictive of future clinical results; Conatus' ability to utilize the FDA and EMA orphan designations; and those risks described in the company's prior press releases and in the periodic reports it files with the Securities and Exchange Commission. The events and circumstances reflected in the company's forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, the company does not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

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