Idera Pharmaceuticals Presents Data on Anti-Atherogenic Effects of Toll-like Receptor Antagonist in Preclinical Model of Atherosclerosis at American Heart Association Conference

April 9, 2010 12:31 AM EDT

CAMBRIDGE, Mass., Apr 08, 2010 (BUSINESS WIRE) --Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) today presented data from a preclinical study evaluating the mechanism of action of a Toll-like Receptor (TLR) antagonist in a preclinical model of atherosclerosis. The presentation entitled "A novel antagonist of TLR7 and TLR9 exerts anti atherogenic effects in ApoE-/- mouse model of atherosclerosis" (abstract P259) was made by Idera scientists at the American Heart Association conference "Arteriosclerosis, Thrombosis and Vascular Biology 2010 Scientific Sessions" being held April 8-10 in San Francisco, CA.

"We evaluated our TLR antagonist candidates in preclinical models of atherosclerosis to elucidate the mechanism by which they reduce key risk factors associated with atherosclerosis. The data presented today show that treatment with a TLR antagonist resulted in increased serum concentrations of IL-10 and that there was an inverse correlation between reduction of total cholesterol and increased serum IL-10," said Tim Sullivan, Ph.D., Vice President of Development Programs and Alliance Management.

In the study presented today, a dual TLR7 and TLR9 antagonist candidate was evaluated in a high-fat diet mouse model of atherosclerosis. ApoE$^{-/-}$ mice fed a high-fat diet showed increased body weight gain and higher serum levels of total cholesterol, low density lipoprotein cholesterol, free fatty acids, bilirubin and leptin as compared to mice fed a normal diet. Treatment of mice fed a high-fat diet with a dual antagonist of TLR7 and TLR9 resulted in control of body weight gain. Mice given the TLR antagonist also showed reductions in total cholesterol, low-density lipoprotein cholesterol, hepatic and kidney steatosis, and plaque formation. TLR antagonist treated mice showed increased serum concentrations of adipokine and IL-10, and there was an inverse correlation between total cholesterol and IL-10.

Interleukin-10 (IL-10) is an anti-inflammatory cytokine that regulates many aspects of immune system activity and has been shown to have anti-atherogenic properties in preclinical models.

Idera is conducting a Phase 1 clinical trial of IMO-3100, a lead antagonist of TLR7 and TLR9 intended for application in autoimmune and inflammatory diseases.

About Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals develops drug candidates to treat infectious diseases, autoimmune and inflammatory diseases, cancer, and respiratory diseases, and for use as vaccine adjuvants. Our proprietary drug candidates are designed to modulate specific Toll-like Receptors (TLRs), which are a family of immune system receptors that direct immune system responses. Our pioneering DNA and RNA chemistry expertise enables us to create drug candidates for our internal development programs and our partnered programs, and generates opportunities for additional collaborative alliances. For more information, visit www.iderapharma.com.

Idera Forward Looking Statements

This press release contains forward-looking statements concerning Idera Pharmaceuticals, Inc. that involve a number of risks and uncertainties. For this purpose, any statements contained herein that are not statements of historical fact may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," "estimates," "intends," "should," "could," "will," "may," and similar expressions are intended to identify forward-looking statements. There are a number of important factors that could cause Idera's actual results to differ materially from those indicated by such forward-looking statements, including whether results obtained in preclinical studies and early clinical trials such as the preclinical study referred to in this release will be indicative of results obtained in future clinical trials; whether products based on Idera's technology will advance into or through the clinical trial process on a timely basis or at all and receive approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; whether, if the Company's products receive approval, they will be successfully distributed and marketed; whether the Company's cash resources will be sufficient to fund its operations; and such other important factors as are set forth under the caption "Risk Factors" in Idera's Annual Report on Form 10-K for the year ended December 31, 2009, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

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