Idera Pharmaceuticals Presents Preclinical Hyperlipidemia Data on a Toll-like Receptor Antagonist at Keystone Symposium

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CAMBRIDGE, Mass., Feb 14, 2010 (BUSINESS WIRE) -- Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) presented data on the evaluation of a Toll-like receptor (TLR) antagonist in a preclinical hyperlipidemia model today at the Keystone Symposia conference "Advances in Molecular Mechanisms of Atherosclerosis" being held in Banff, Alberta, Canada. Idera's proprietary TLR antagonists have dual activity for both TLR7 and TLR9, and present a potentially innovative approach for the treatment of certain autoimmune diseases. The presentation, entitled "Control of atherogenic lipids by a novel antagonist of TLR7 and 9 in mouse models of hyperlipidemic disease" (abstract #208), was made by Idera scientists. In the studies presented, a dual antagonist of TLR7 and TLR9 was evaluated in mice fed a high-fat diet to induce hyperlipidemia. Treatment with the antagonist resulted in reduced serum total cholesterol, LDL-cholesterol, leptin, hepatic and kidney steatosis, and body weight gain compared to control mice on high-fat diet.

"We are developing our TLR antagonists for potential treatment of autoimmune diseases and have shown potent activity in preclinical models of lupus, rheumatoid arthritis and psoriasis," said Tim Sullivan, Ph.D., Vice President of Development Programs. "There is evidence that patients with these autoimmune diseases have increased incidence of hyperlipidemia and other cardiovascular risk factors. The preclinical results suggest our TLR antagonists may address both hyperlipidemia and the underlying autoimmune disease in these patients."

In the studies presented today, a TLR antagonist candidate was evaluated in a high-fat diet mouse model of hyperlipidemia. Mice fed a high-fat diet had elevated total serum cholesterol (T-C) and low-density lipoprotein cholesterol (LDL-C), elevated serum leptin, increased hepatic and renal steatosis, and increased body weight gain relative to mice fed a normal diet. Treatment with an antagonist of TLR7 and TLR9 showed dose-dependent reduction of the high-fat diet effects on T-C, LDL-C, leptin, steatosis, and body weight gain compared to control mice fed a high-fat diet. Treatment of mice fed a high-fat diet with the TLR antagonist had no effect on serum levels of high-density lipoprotein cholesterol (HDL-C). The studies were conducted with a strain of mice that were deficient in apolipoprotein E ($ApoE^{-/-}$) and also with a strain of mice with normal lipid metabolism (C57BL/6).

Idera recently announced initiation of a Phase 1 clinical trial of IMO-3100, a lead TLR7/9 antagonist for intended 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 such as the preclinical studies referred to in this release will be indicative of results obtained in 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 collaborations with Merck KGaA and an affiliate of Merck & Co., Inc. will be successful; whether the patents and patent applications owned or licensed by the Company will protect the Company's technology and prevent others from infringing it; whether Idera's cash resources will be sufficient to fund the Company's operations; and such other important factors as are set forth under the caption "Risk Factors" in Idera's Quarterly Report on Form 10-Q for the three months ended September 30, 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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