Idera Pharmaceuticals Presents Preclinical Data on Mechanism of Action of TLR Antagonist Candidate in Model of Hyperlipidemia at American Heart Association Meeting

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CAMBRIDGE, Mass., Nov 17, 2010 (BUSINESS WIRE) -- Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) announced today that it is presenting preclinical data from a study evaluating the mechanism of action of one of its Toll-like receptor (TLR) 7 and TLR9 antagonist candidates in a model of hyperlipidemia. The presentation, entitled "Novel TLR7 and TLR9 Dual Antagonist Lowers Cholesterol in Hyperlipidemic Mice Through IL-10-Mediated Activation of LXR and Increased Fecal Neutral Sterol Loss" (abstract #7068), is being made in the "Inflammation and Adhesion" session at the American Heart Association Scientific Sessions 2010 Meeting in Chicago, IL.

In the study presented today, a TLR7 and TLR9 antagonist candidate was evaluated in a mouse model of hyperlipidemia. Mice on a high-fat diet treated with the antagonist candidate resulted in dose-dependent reduction of cardiovascular disease markers including serum total cholesterol (TC), LDL-cholesterol, leptin and liver triglyceride levels. Gene expression analysis of selected genes in the liver and large intestine demonstrated increased levels of IL-10, Liver X Receptor (LXR), and ABC transporter G1. In addition, treatment with the antagonist candidate increased fecal cholesterol excretion. These data provide evidence that the lowering of TC and other cardiovascular risk factors by treatment with the TLR antagonist candidate in the study resulted from the induction of anti-inflammatory cytokines and genes involved in cholesterol transport and from increased fecal cholesterol excretion.

"There is growing evidence from published research that hyperlipidemia has many characteristics of a chronic inflammatory disease," said Tim Sullivan, Ph.D., Vice President of Development Programs and Alliance Management of Idera Pharmaceuticals. "The TLR7 and TLR9 antagonist candidate evaluated in the study acted by inhibiting inflammatory responses, and the data presented today provide further support for potential therapeutic applications of the antagonist in hyperlipidemia."

Authors of the presentation are Fu-Gang Zhu, Ph.D., Weiwen Jiang, Ph.D., Michael Reardon, Ph.D., Dong Yu, Ph.D., Ekambar Kandimalla, Ph.D., Nicola La Monica, Ph.D. and Sudhir Agrawal, D. Phil, all of Idera Pharmaceuticals, and collaborators Paolo Uva, Ph.D. and Wieslawa Mentzen, Ph.D. of CRS4 Bioinformatics Laboratory, Parco Scientifico e Tecnologico POLARIS in Pula, Italy.

Idera has identified IMO-3100 as its lead TLR7 and TLR9 antagonist drug candidate. Phase 1 clinical trials of IMO-3100, including an escalating single-dose study and a multiple-dose study, have been conducted in healthy subjects. Clinical data from the escalating single-dose study of IMO-3100 were presented at a scientific meeting in October 2010. The Company intends to analyze the data from the multiple-dose study by the end of 2010 and present the data at a scientific meeting in the first half of 2011.

About Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals is developing drug candidates that act by modulating immune responses through specific Toll-like Receptors (TLRs). TLRs, a family of immune system receptors and the immune system's first line of defense, recognize pathogens and initiate an immune response. Idera's DNA and RNA chemistry expertise has generated a pipeline of compounds designed to interact with specific TLRs for a broad range of diseases. Through its internal pipeline and collaborative alliances, Idera has established a portfolio of TLR-targeted therapeutic candidates for infectious diseases, autoimmune and inflammatory diseases, cancer, and respiratory diseases, and for use as vaccine adjuvants. 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; whether results obtained in preclinical studies such as the studies 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 collaborations 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, 2010, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

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