Idera Pharmaceuticals Presents Mechanism of Action Data of IMO-3100 in a Preclinical Model of Arthritis at FOCIS 2011 Annual Meeting

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CAMBRIDGE, Mass., Jun 23, 2011 (BUSINESS WIRE) --

Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) announced today the presentation of IMO-3100 mechanism of action data in a preclinical model of arthritis. In this study, the improvements in disease-related parameters resulting from IMO-3100 treatment were associated with suppression of interleukin 6 (IL-6) and complement C3 and with induction of interleukin 10 (IL-10). The presentation (#T65), entitled "Treatment with IMO-3100, a novel TLR7 and TLR9 dual antagonist, inhibits disease development in a mouse model of collagen antibody-induced arthritis (CAIA)," is being made at the Annual Meeting of the Federation of Clinical Immunology Societies (FOCIS) held June 23-26, 2011 in Washington, D.C. IMO-3100 is an antagonist of Toll-like Receptor (TLR) 7 and TLR9 and is in clinical development for the treatment of autoimmune diseases.

"Treatment with IMO-3100 showed significant reduction in arthritis symptoms compared to placebo in this study," commented Nicola La Monica, Ph.D., Vice President of Biology, Idera Pharmaceuticals. "Furthermore, in agreement with the intended mechanism of action, the therapeutic effect exerted by IMO-3100 was associated with decreased expression of the inflammatory proteins IL-6 and IL-1B, and increased expression of the anti-inflammatory protein IL-10."

"IMO-3100 provides a novel mechanism of action for the treatment of selected autoimmune diseases and has shown encouraging activity in preclinical models of arthritis, lupus, psoriasis and hyperlipidema," said Sudhir Agrawal, D.Phil., Chairman and Chief Executive Officer of Idera. "In Phase 1 studies in healthy subjects, IMO-3100 was well tolerated and suppressed TLR7- and TLR9-mediated induction of cytokines including TNF-a, IFN-a, IP-10 and IL-6, consistent with the intended mechanism of action. We plan to initiate a Phase 2 clinical trial of IMO-3100 in a selected autoimmune indication by the end of this year."

Study Design and Results

IMO-3100 was evaluated in a preclinical model in which arthritis was induced by injection of collagen antibodies into BALB/c mice. Treatment with IMO-3100 led to dose-dependent suppression of disease development as measured by standard arthritis scoring criteria and associated histopathology. IMO-3100 treatment was associated with induction of IL-10, and increased serum levels of IL-10 were correlated with improvement in clinical scores. IMO-3100 suppressed serum levels of complement C3 and tissue deposition of complement C3 and C5a, immune system proteins that play a role in the development of inflammation. Treatment with IMO-3100 was associated with reduced messenger RNA expression of IL-1B and IL-6 compared to placebo treatment.

Authors of the presentation are Nicola La Monica, Ph.D., Fu-Gang Zhu, Ph.D., Michael Reardon, Ph.D., Melissa Precopio, Ph.D., Dong Yu, Ph.D., Ekambar R. Kandimalla, Ph.D., and Sudhir Agrawal, D.Phil.

About IMO-3100

IMO-3100, an antagonist of TLR7 and TLR9, is a lead clinical candidate in development to treat autoimmune and inflammatory diseases. IMO-3100 is designed to block production of multiple cytokines induced through TLR7 and TLR9. In contrast, many current autoimmune disease treatments aim to block the activity of individual cytokines. IMO-3100 has demonstrated potent activity in reducing pathologic and immunologic manifestations in preclinical mouse models of diseases such as lupus, arthritis, psoriasis and hyperlipidemia. Phase 1 clinical trials of IMO-3100, including an escalating single-dose study and a multiple-dose study, have been completed in healthy subjects.

About Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals develops drug candidates to treat chronic hepatitis C virus infection, autoimmune and inflammatory diseases, cancer, and respiratory diseases, and for use as vaccine adjuvants. The company's proprietary drug candidates are designed to modulate specific Toll-like Receptors, which are a family of immune system receptors. Idera's pioneering DNA and RNA chemistry expertise enables us to create drug candidates for internal development and generates opportunities for multiple 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; whether results obtained in preclinical studies and early clinical trials such as the results 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 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 March 31, 2011, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

SOURCE: Idera Pharmaceuticals, Inc.

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