



Idera Pharmaceuticals Presents Preclinical Data on IMO-2125, its Lead Drug Candidate for Chronic Hepatitis C Virus Infection, at Liver Meeting 2009

November 3, 2009 1:02 PM EST

- IMO-2125 Induces Endogenous Interferons and Other Antiviral Proteins -

CAMBRIDGE, Mass.--(BUSINESS WIRE)--Nov. 3, 2009-- Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) today presents preclinical data on the mechanism by which IMO-2125 was shown to induce immune activation through Toll-like Receptor 9 (TLR9). Two presentations are being made today at the 60th Annual Meeting of the American Association for the Study of Liver Diseases being held in Boston, MA.

"Induction of endogenous interferon-alpha and other antiviral proteins by IMO-2125 provides a novel immunotherapy approach to the potential treatment of chronic hepatitis C virus infection," said Sudhir Agrawal, D.Phil., Chief Executive Officer and Chief Scientific Officer. "We currently are evaluating IMO-2125 in two phase 1 clinical trials involving HCV patients non-responsive to standard of care treatment and patients who are treatment-naïve. Data from these clinical trials will guide decisions for further development of IMO-2125."

"One of our presentations today provides insights into the mechanism of immune activation by IMO-2125 as mediated through TLR9 and the associated interferon signaling pathways involving MyD88 and IRF7," said Tim Sullivan, Ph.D., Vice President of Development Programs. "We also are presenting data that show endogenous interferon-alpha induced by IMO-2125 exerts potent anti-HCV activity in replicon assays. This activity is augmented by other cytokines induced by IMO-2125."

Abstract 1593: "IMO-2125, a TLR9 agonist, induces Th-1 type cytokines and interferons with potent anti-HCV activity in human peripheral blood mononuclear cells (PBMCs) and plasmacytoid dendritic cells (pDCs)"

In this study, IMO-2125 induction of cytokines was evaluated in human peripheral blood mononuclear cells (hPBMCs) and plasmacytoid dendritic cells (pDCs). The data show that IMO-2125 induced high levels of endogenous interferon-alpha along with interferon-beta, interferon-lambda, and other proteins including IP-10 and 2'-5'-OAS. These IMO-2125-induced cytokines showed potent antiviral activity in the HCV replicon assay. Antiviral activity was decreased by addition of anti-interferon-alpha antibody, but only partially which suggests that other cytokines and chemokines induced by IMO-2125 also contribute to the antiviral activity.

Abstract 1597: "Gene expression profiles induced by IMO-2125, an agonist of Toll-like receptor 9, in human peripheral blood mononuclear cells"

In this study, the mechanism of immune activation by IMO-2125 in hPBMCs was evaluated by gene expression analysis. Gene expression profiles were obtained using TLR signaling pathway microarray, IFN-alpha/beta response microarray, human innate and adaptive immune response microarray, and human Th1-Th2-Th3 response microarray. The results show that IMO-2125 mediated immune responses through TLR9 and associated interferon signaling pathways involving MyD88 and interferon regulatory factor 7 (IRF7). In addition, many type 1 interferon-response genes, interferon-inducible proteins, antiviral proteins, TLR9 signaling molecules and transcription factors were up-regulated.

The above presentations are being made by Idera scientists today at 8:00 a.m. ET.

About IMO-2125

IMO-2125 is a novel DNA-based TLR9 agonist being evaluated for the treatment of chronic HCV infection. IMO-2125 has been shown to induce endogenous interferon-alpha and other antiviral immune response proteins in preclinical models, including non-human primates. IMO-2125 is being evaluated in a phase 1 clinical trial as monotherapy in patients with chronic HCV infection who have failed to respond to previous standard of care combination therapy of ribavirin and pegylated interferon-alpha. IMO-2125 also is being evaluated in a phase 1 clinical trial in combination with ribavirin in treatment-naïve patients with chronic HCV infection.

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 studies referred to above, 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 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 June 30, 2009, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

Source: Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals, Inc.
Kelly Luethje, 617-679-5519
kluehje@iderapharma.com

or

MacDougall Biomedical Communications
Chris Erdman, 781-235-3060
cerdman@macbiocom.com