Idera Presents Preclinical Data on Dual Agonist of TLR7 and TLR8, IMO-4200, at American Society for Hematology Meeting

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- Selects IMO-4200 as Lead Candidate for Treatment of Hematological Malignancies

CAMBRIDGE, Mass., Dec 06, 2010 (BUSINESS WIRE) -- Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) today presented data showing that IMO-4200, a dual agonist of Toll-like receptor (TLR) 7 and TLR8, in combination with approved cancer treatments, rituximab or bortezomib, significantly increased antitumor activity in several preclinical lymphoma models. The presentation, entitled "Antitumor Activity of an RNA-Based Agonist of TLR7 and 8 in Preclinical Models of Hematological Malignancies," was made at the 52nd Annual Meeting of the American Society for Hematology in Orlando, Florida by Idera scientists. In conjunction with the data presentation, Idera announced the selection of this compound as its lead TLR7/TLR8 agonist drug candidate for the treatment of hematological malignancies.

"The preclinical data provide a strong rationale to develop a dual agonist of TLR7 and TLR8 for the treatment of lymphomas, leukemias and other myeloproliferative diseases," said Nicola La Monica, Ph.D., Vice President of Biology of Idera Pharmaceuticals. "We expect IMO-4200 to induce a substantial immune response that may increase the efficacy of currently approved drugs such as rituximab or bortezomib, and potentially other targeted agents."

"Based on the encouraging preclinical data, we have selected IMO-4200 as our lead drug candidate for the treatment of hematological malignancies," said Sudhir Agrawal, D.Phil., Chairman and Chief Executive Officer of Idera. "We expect to outline a development strategy and timeline for this program during the first half of 2011."

In the studies presented today, IMO-4200 was evaluated in preclinical cell-based assays and in mouse models of lymphoma in combination with approved cancer therapy agents.

- IMO-4200 in combination with rituximab, an anti-CD20 antibody, resulted in:
  - improved antitumor activity
  - greater antibody dependent cell cytotoxicity, the mechanism by which rituximab exerts its effect
  - increased activation of natural killer cells, indicating an improved immune response
  - increased survival compared to treatment with either agent alone
  - enhanced clearance of circulating tumor cells compared to treatment with either agent alone
- IMO-4200 in combination with bortezomib, a proteasome inhibitor, resulted in:
  - increased survival compared to treatment with either agent alone
  - induction of a pro-apoptotic response and enhanced sensitivity to bortezomib

Authors of the presentation were Daqing Wang, Ph.D., Melissa Precopio, Ph.D., Michael Reardon, Ph.D., Tao Lan, Ph.D., Jimmy X. Tang, Ph.D., Ekambar R. Kandimalla, Ph.D., Nicola La Monica, Ph.D., and Sudhir Agrawal, D. Phil.

About IMO-4200

IMO-4200 is a novel synthetic RNA-based dual agonist of TLR7 and TLR8 identified as a lead drug candidate for the treatment of hematological malignancies. IMO-4200 is designed to stimulate immune responses mediated through TLR7 and TLR8, which are expressed in human dendritic cells, B-cells, monocytes, and macrophages. In preclinical mouse models of cancer, IMO-4200 has shown anticancer activity involving both innate and adaptive immune responses. IMO-4200, when administered in combination with approved cancer therapy drugs, rituximab or bortezomib, showed significantly increased antitumor activity compared to the single-agent effects in several preclinical lymphoma models.

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.

SOURCE: Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals, Inc.
Teri Dahlman, 617-679-5519
tdahlman@iderapharma.com
or
MacDougall Biomedical Communications
Chris Erdman, 781-235-3060
cerdman@macbiocom.com