Idera Pharmaceuticals Announces Publication of Study Evaluating Synthetic Toll-like Receptor 9 Agonists

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CAMBRIDGE, Mass.--(BUSINESS WIRE)--Nov. 9, 2007--Idera Pharmaceuticals, Inc. (AMEX: IDP) today announced the publication of data from a preclinical study evaluating oligonucleotide-based compounds containing novel synthetic immune stimulatory motifs that act as agonists of Toll-like Receptor (TLR) 9. These results offer insight into specific chemical modifications of TLR9 agonists and their ability to stimulate immune responses. The paper entitled "Agonists of Toll-like Receptor 9 Containing Synethetic Dinucleotide Motifs" is published in the Journal of Medicinal Chemistry (online November 8, 2007).

"Our structure-activity relationship studies continue to provide insights on synthetic motifs that are useful in designing TLR9 agonists," said Sudhir Agrawal, D. Phil., Chief Executive Officer and Chief Scientific Officer. "The insight on these synthetic motifs allows us to design many TLR9 agonists for our internal use and for our partnered programs."

Oligonucleotides containing unmethylated CpG motifs activate TLR9. In this preclinical study, to further understand the role of the dinucleotide motif in TLR9 recognition, the Company analyzed oligonucleotides containing two 5' ends in which 10 synthetic analogs of cytosine and 11 synthetic analogs of guanine were substituted into the CpG motif. With these modifications, the compounds showed various degrees of immune stimulatory activity in HEK293 cells expressing TLR9, in mouse spleen and human cell-based assays and in vivo in mice. These data provide insight into which specific chemical modifications at C and/or G of the CpG motif are recognized by TLR9 and have the ability to stimulate immune responses. The Company has taken these findings into consideration in designing additional agonists of TLR9. The authors of the paper are Dong Yu, Mallikarjuna Putta, Lakshmi Bhagat, Yukui Li, FuGang Zhu, Daqing Wang, Jimmy Tang, Ekambar Kandimalla, and Sudhir Agrawal of Idera.

About Idera Pharmaceuticals, Inc.

Idera Pharmaceuticals is a drug discovery and development company that is developing drug candidates to treat cancer and infectious, respiratory, and autoimmune diseases, and for use as vaccine adjuvants. Idera's proprietary drug candidates are designed to modulate specific TLRs, which are a family of immune system receptors. Idera's pioneering DNA chemistry expertise enables it to identify drug candidates for internal development and creates opportunities for multiple collaborative alliances. Idera's most advanced clinical candidate, IMO-2055, is an agonist of TLR9 and is currently in a Phase 2 trial in oncology and in a Phase 1/2 chemotherapy combination trial in oncology. Idera's second TLR9 agonist, IMO-2125, is currently in a Phase 1 trial for the treatment of hepatitis C virus infection. Idera is collaborating with Novartis International Pharmaceutical, Ltd. for the discovery, development, and commercialization of TLR9 agonists for the treatment of asthma and allergy indications. Idera is also collaborating with Merck & Co., Inc. for the use of Idera's TLR7, 8 and 9 agonists in combination with Merck's therapeutic and prophylactic vaccines in the areas of oncology, infectious diseases, and Alzheimer's disease. For more information, visit www.iderapharma.com.

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 early clinical studies or in preclinical studies such as the studies referred to above will be indicative of results obtained in future clinical trials or warrant additional 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 Novartis and Merck will be successful; whether Idera's cash resources will be sufficient to fund product development and clinical trials; and such other important factors as are set forth under the caption "Risk Factors" in Idera's Quarterly Report on Form 10-Q filed on August 1, 2007, which important factors are incorporated herein by reference. Idera disclaims any intention or obligation to update any forward-looking statements.

CONTACT:
Idera Pharmaceuticals, Inc.
Kelly Luethje, 617-679-5519
kluethje@iderapharma.com
or
MacDougall Biomedical Communications
Chris Erdman, 508-647-0209
cerdman@macbiocom.com

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