



## **Idera Pharmaceuticals Announces Data Presentation of Proprietary Toll-Like Receptor 3 Agonist Compounds and Their Use as Vaccine Adjuvants**

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CAMBRIDGE, Mass., Oct 29, 2010 (BUSINESS WIRE) -- Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) today announced a presentation describing the chemistry and immunological activity of its proprietary Toll-Like Receptor (TLR) 3 agonist compounds and the use of these compounds as vaccine adjuvants in a preclinical model. The presentation entitled "Novel synthetic double-stranded oligoribonucleotides act as agonists of Toll-like receptor 3, induce immune responses, and show potent adjuvant activity with HBsAg in mice" is being made today at the Immunological Mechanisms of Vaccination Keystone Meeting in Seattle, Washington.

"We have created novel proprietary agonists of TLR3 using our chemistry-based approach to identify TLR-targeted compounds," commented Sudhir Agrawal, D.Phil., Chairman and Chief Executive Officer of Idera Pharmaceuticals. "The immune response produced by these TLR3 agonists provides rationale for developing our TLR3-targeted compounds as vaccine adjuvants and we plan to expand preclinical evaluation of these compounds."

The data presented describe novel TLR3 agonists that are synthetic double-stranded RNA structures of defined length and composition. These agonists induce Th1-specific immune responses through TLR3 in cell-based assays. Subcutaneous administration of the TLR3 agonists in mice resulted in increased serum levels of certain cytokines and chemokines. In addition, mice vaccinated with hepatitis B surface antigen (HBsAg) and one of the TLR3 agonists showed dose-dependent increases in IgG1, IgG2a, and total IgG in the serum and increased IFN- production in their spleen recalled response compared with mice vaccinated with HBsAg alone. Induction of these antibodies and IFN- generally indicates a protective immune response to the antigen administered. Authors of the presentation are Victoria J. Philbin, Ph.D., Tao Lan, Ph.D., Daqing Wang, Ph.D., Weiwen Jiang, Ph.D., Lakshmi Bhagat, Ph.D., Nicola La Monica, Ph.D., Ekambar R. Kandimalla Ph.D., and Sudhir Agrawal, D. Phil., all of Idera Pharmaceuticals. Idera has pending patent applications claiming this class of compounds.

### **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.

### **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 June 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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