



## **Idera Pharmaceuticals Announces Presentations of Preclinical Data on Modulation of Toll-like Receptors 3, 7, and 9 through Antisense**

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CAMBRIDGE, Mass.--(BUSINESS WIRE)--Jun. 15, 2009-- Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) today announced that Idera scientists presented data from preclinical studies on modulation of Toll-Like Receptors (TLRs) 3, 7, and 9 through antisense in three presentations at the Federation of Clinical Immunology Societies (FOCIS) 2009 Annual Meeting held in San Francisco, CA, June 11-14.

"We have combined our pioneering work in antisense technology and second-generation antisense chemistry with the insights we have gained from our recent work in creating nucleic acid-based agonists and antagonists of TLRs, to create TLR antisense candidates that can inhibit expression of specific TLRs," said Sudhir Agrawal, D. Phil., President, Chief Executive Officer and Chief Scientific Officer. "In the preclinical studies presented at FOCIS, our TLR antisense candidates down regulated expression of the targeted TLR and the subsequent immune responses through an antisense mechanism of action. As a result, we believe that our TLR antisense candidates have potential therapeutic applications in autoimmune and inflammatory diseases."

The following presentations were made by Idera scientists during the session "Immunoregulation" on Saturday, June 13, 2009:

- Abstract S.105 "Modulation of Toll-like receptors 7 and 9 expression with antisense for potential applications in autoimmune and inflammatory diseases"
- Abstract S.106 "Studies of Toll-like receptors 7 and 9 antisense in a preclinical model of colitis"
- Abstract S.108 "Modulation of Toll-like receptor 3 expression with antisense"

"Currently our pipeline includes three TLR9 agonists in clinical evaluation, a TLR7/TLR9 antagonist in IND-enabling preclinical development, and on-going research with agonists of TLR7 and TLR8. As our work on agonists and antagonists continues, we expect that the use of antisense mechanism of action will allow us to create additional compounds to target TLRs that have been implicated in autoimmune, inflammatory, and cardiovascular diseases," said Tim Sullivan, Ph.D., Vice President, Development Programs. "While the data presented at FOCIS 2009 are on TLRs 3, 7, and 9, we also have identified antisense compounds for TLRs 2, 4, 5, 6, and 8 and the adaptor protein MyD88."

### **Idera and Antisense Technology**

Paul Zamecnik, M.D., founder of Idera, first reported data on antisense in a publication in 1978. Along with Sudhir Agrawal, D. Phil., founding scientist of Idera, Dr. Zamecnik's research team published reports on first-generation antisense chemistry in 1988. Based on insights gained in preclinical and early clinical experience, including observations of immune activation with first-generation antisense, Idera scientists introduced second-generation antisense chemistry. Idera's second-generation antisense chemistry includes oligonucleotides containing 2'- substitutions such as 2'-O-substituted (US6,346,614), 2'-O-methyl (US5,652,355; US6,143,881) 2'-O-alkyl, 2'-O-allyl, 2'-O-amino, 2'-O-aryl, 2'-O-halo (US6,683,167), 2'-O-alkoxyalkyl, and 2'-methoxyethyl (US6,645,943). Idera scientists also first published on effective oral delivery of second-generation antisense (US5,591,721; US6,608,035; US6,936,593). Idera holds over 200 patents and patent applications for antisense chemistry, delivery, and specific gene targets. Prior to its current and continuing focus on the discovery and development of TLR agonists and antagonists, Idera's research programs were primarily centered on antisense technologies. Since its inception, the Company has generated over \$55 million in upfront and milestone payments and sales of equity from licensing and partnering of its antisense technology.

### **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](http://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 Company's collaborations with Novartis, Merck & Co., and Merck KGaA 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, 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.

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