



## **Idera Pharmaceuticals Presents Preclinical Data at ACR/ARHP 2009 Annual Meeting on IMO-3100, a Toll-Like Receptor Antagonist, in Combination with Enbrel(R) in Arthritis Model**

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CAMBRIDGE, Mass.--(BUSINESS WIRE)--Oct. 19, 2009-- Idera Pharmaceuticals, Inc. (Nasdaq: IDRA) today announced the presentation of preclinical data from studies of IMO-3100 in combination with Enbrel (etanercept) in a mouse model of arthritis. IMO-3100, an antagonist of Toll-like Receptor (TLR) 7 and TLR9, is a lead drug candidate that Idera is developing for potential applications in autoimmune diseases. Enbrel is an inhibitor of TNF-alpha currently used for the treatment of rheumatoid arthritis. The presentation is being made at the 2009 Annual Scientific Meeting of the American College of Rheumatology and Association of Rheumatology Health Professionals (ACR/ARHP) being held in Philadelphia, PA, October 17-21.

"The data presented today indicate that the combination of IMO-3100 and Enbrel was more effective at ameliorating arthritis symptoms in a commonly used mouse model than was either agent alone," said Tim Sullivan, Ph.D., Vice President of Development Programs. "These results suggest that combining IMO-3100 with Enbrel holds potential as a combination therapy in rheumatoid arthritis."

"In addition to the data presented today, we also have observed potent activity of IMO-3100 in other preclinical models of autoimmune diseases including lupus and psoriasis. As a TLR antagonist, IMO-3100 provides a novel mechanism of action relative to other therapeutic approaches to autoimmune diseases, and we intend to submit an Investigational New Drug application to FDA by the end of the year," said Sudhir Agrawal, D.Phil., Chief Executive Officer and Chief Scientific Officer. "Our first objective in clinical evaluation of IMO-3100 will be to establish safety and to demonstrate the mechanism of action."

Presentation Number 659 entitled "Studies of Combination of IMO-3100, An Antagonist of TLR7 and TLR9, and Etanercept, a TNF-alpha Inhibitor, in a Mouse Model of Collagen-Induced Arthritis (CIA)" is being presented by Idera scientists today at 9:00 a.m. ET. Data from these studies showed that mice treated with IMO-3100 or Enbrel had lower arthritic scores and less immunological and histological manifestation of arthritis compared to untreated mice. Moreover, mice treated with a combination of IMO-3100 and Enbrel had lower arthritic scores, less inflammation, and less bone pathology as compared to mice treated with either agent alone. The data also showed that the activity of a low Enbrel dosage was markedly enhanced when combined with IMO-3100 in this mouse model.

### **About IMO-3100**

IMO-3100 is a DNA-based compound created through extensive structure-activity relationship studies to function as an antagonist of Toll-like Receptor (TLR) 7 and TLR9. IMO-3100 has been shown in preclinical assays to suppress immune responses mediated through TLR7 and TLR9, including induction of interferon-alpha, TNF-alpha, IP-10, IL-6, and activation of B cells. Studies from independent researchers have suggested that immune complexes involved in certain autoimmune diseases trigger inflammatory immune responses mediated through TLR7 and TLR9. Use of a TLR antagonist to block responses to such immune complexes may provide a novel mechanism of action for potential treatment of autoimmune diseases. IMO-3100 has shown potent activity in mouse models of autoimmune diseases including lupus, rheumatoid arthritis, multiple sclerosis, psoriasis, and colitis. The Company continues to evaluate IMO-3100 and other TLR antagonists in additional preclinical models of autoimmune and inflammatory diseases.

IMO-3100 is a lead drug candidate currently in preclinical development. Idera anticipates submitting an Investigational New Drug application for IMO-3100 by the end of 2009.

### **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 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.

Enbrel is a registered trademark of Amgen and Wyeth Pharmaceuticals.

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