Isis Pharmaceuticals' GeneTrove(TM) Division Initiates Target Validation Collaboration With Merck & Co.. Inc.

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New Agreement Builds on Isis and Merck's Existing Drug Development Partnerships

CARLSBAD, Calif., Feb. 21 /PRNewswire-FirstCall/ -- Isis Pharmaceuticals, Inc., (Nasdag: ISIS) announced today that its GeneTrove division has entered into a target validation collaboration with Merck & Co., Inc. (NYSE: MRK) to support Merck's pharmaceutical research and drug discovery efforts. GeneTrove will provide Merck with antisense-based tools to discover the biological role of genes selected by Merck, and validate them as potential drug targets. This is the third collaboration between the two companies. In 2001, Isis licensed its preclinical Type 2 diabetes compound to Merck, and the companies have been engaged in a Hepatitis C drug discovery partnership since 1998.

"GeneTrove is very gratified to work with Merck to support this industry leader's internal drug discovery programs. Isis has worked with Merck successfully for several years and we are pleased to extend that relationship into the functional genomics field," said Richard K. Brown, Ph.D., Isis' Vice President and President of GeneTrove.

Under the agreement, Merck will pay Isis to design antisense inhibitors to specific genes for target validation. Isis will maintain rights to develop antisense drugs to the genes. More specific financial terms of the agreement were not disclosed.

As a division of Isis, GeneTrove provides three major product offerings to the pharmaceutical and biotechnology industry: 1) Custom Target Validation collaborations, 2) the Human Gene Function Database and antisense inhibitor library and 3) intellectual property licensing. The division's offerings are designed to meet critical and timely needs of the pharmaceutical industry, and help partners make strategic drug target selections for drug discovery. In GeneTrove's Custom Target Validation collaborations, the division aids corporate partners in identifying the role of a specific gene (gene functionalization) and whether a specific gene is a good target for drug discovery (target validation).

Isis Pharmaceuticals. Inc. is exploiting its expertise in RNA to discover and develop novel human therapeutic drugs. The company has commercialized its first product, Vitravene® (fomivirsen), to treat CMV-induced retinitis in AIDS patients. In addition, Isis has 12 products in its development pipeline, with two in late-stage development and six in Phase II human clinical trials. LY900003 (ISIS 3521), an inhibitor of PKC-alpha, is in Phase III trials for non-small cell lung cancer, and alicaforsen (ISIS 2302), an ICAM-1 inhibitor, is in Phase III human clinical trials for Crohn's disease. Isis has a broad patent estate, as the owner or exclusive licensee of nearly 900 issued patents worldwide. Isis' GeneTrove division uses antisense to assist pharmaceutical industry partners in validating and prioritizing potential gene targets through customized services. Ibis Therapeutics™ is a division focused on the discovery of small molecule drugs that bind to RNA. Additional information about Isis is available at www.isispharm.com .

This press release contains forward-looking statements concerning Isis Pharmaceuticals' functional genomics division, GeneTrove, its product offerings and intellectual property, and the collaboration between Isis Pharmaceuticals and Merck & Co., Inc. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of conducting gene functionalization and target validation activities, in launching new products and services for or with collaborators, and in discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics and financing such activities. Actual results could differ materially from those projected in this release. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Isis' research and development programs are described in additional detail in the Company's Quarterly Report on Form 10Q, for the period ended September 30, 2001, which is on file with the U.S. Securities and Exchange Commission, copies of which are available from the company.

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