Isis Pharmaceuticals and Merck Extend Hepatitis C Drug Discovery Collaboration for a Second Time

April 22, 2002

New Agreement Marks Five Years of Collaborative Drug
Discovery Research in Chronic Disease

CARLSBAD, Calif., April 22 /PRNewswire-FirstCall/ -- Isis Pharmaceuticals, Inc. (Nasdaq: ISIS) announced today the second extension of its research collaboration with Merck & Co., Inc. (NYSE: MRK) to discover drug candidates to treat patients infected with the Hepatitis C virus (HCV). The objective of the one-year extension is to continue Isis' discovery efforts to identify additional novel compounds for Merck to potentially develop as new treatments for HCV. In the agreement, Merck will pay Isis research support for an additional year, as well as a research milestone, clinical development milestone payments for compounds that arise from the collaboration and royalties from product sales. The companies began the original three-year drug discovery collaboration in June 1998 and announced the first one-year extension in May 2001. Isis achieved a research milestone in October 2001.

"Isis is proud to continue its long-standing relationship with Merck in this research collaboration," said Stanley T. Crooke, M.D., Ph.D., Isis' Chairman and Chief Executive Officer. "The partnership was established between the two companies with the shared goal of identifying new compounds to treat HCV and we have already made great progress in our efforts."

In the collaboration, scientists from Isis and Merck are designing, synthesizing and evaluating novel molecules, which Merck is screening in its proprietary assays for identifying HCV replication inhibitors. Merck has the right to commercialize drugs resulting from the collaboration. Isis retains the rights to use the technology developed in the collaboration in its antisense program.

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 13 antisense products in its development pipeline, with two in late-stage development and six in Phase II human clinical trials. Affinitac™ (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 more than 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 the collaboration between Isis Pharmaceuticals, Inc. and Merck & Co., Inc. Any statement describing a goal, expectation, intention or belief of the company is a forward-looking statement and should be considered an at-risk statement. Such statements are subject to certain risks and uncertainties, particularly those inherent in the process of 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 Annual Report on Form 10-K, for the period ended December 31, 2001, which is on file with the U.S. Securities and Exchange Commission, copies of which are available from the company.

Vitravene® is a registered trademark of Novartis AG.

GeneTrove™ and Ibis Therapeutics™ are trademarks of Isis Pharmaceuticals, Inc.

Affinitac™ is a trademark of Eli Lilly and Co.

MAKE YOUR OPINION COUNT - Click Here http://tbutton.prnewswire.com/prn/11690X53797756

SOURCE Isis Pharmaceuticals, Inc. Web site: http://www.isispharm.com

CONTACT: Kristina Peterson of Isis Pharmaceuticals, Inc., +1-760-603-2521