



Isis Announces That OGX-011 Has Shown Overall Survival Advantage in Prostate Cancer Compared to Standard Therapy in a Randomized Phase 2 Study

December 3, 2008

CARLSBAD, Calif., Dec. 3 /PRNewswire-FirstCall/ -- Isis Pharmaceuticals, Inc. (Nasdaq: ISIS) announced today that OncoGenex Pharmaceuticals, Inc. provided positive survival results from a randomized Phase 2 clinical trial of OGX-011 in combination with docetaxel and prednisone ("the OGX-011 arm") compared to docetaxel and prednisone alone ("the control arm") for first-line treatment of metastatic castrate resistant prostate cancer. The current 10.6 month median overall survival advantage observed in the OGX-011 arm represents an increase over the median survival observed in the control arm. OGX-011 was jointly discovered by Isis and the initial development was conducted by Isis and OncoGenex. OGX-011 is now being developed by OncoGenex.

"The progress our partners are making with antisense drugs discovered using Isis' antisense technology demonstrates the value of our technology to create drugs that are first-in-class and may provide new treatment options in a broad range of diseases, including cancer," said Stanley Crooke, Chairman and Chief Executive Officer of Isis. "We are encouraged by the latest results from OGX-011 and look forward to OncoGenex announcing the full results of the study next year."

According to OncoGenex' announcement, the Phase 2 randomized study in 82 patients with metastatic or locally recurring prostate cancer refractory to hormone therapy showed a median survival of 27.5 months for the patients in the OGX-011 arm and 16.9 months for patients in the control arm. Results currently indicate that patients in the OGX-011 arm have a death rate approximately 40% lower than patients in the control arm. The current results were based on study data with a median follow-up of approximately 30 months for both arms. OncoGenex indicates that additional survival updates will be needed before mature median survival for the OGX-011 arm can be reported. Based on the current results, OncoGenex has calculated that the final median survival for patients in the OGX-011 arm cannot be lower than 22.7 months. The trial was conducted and data were analyzed by the National Cancer Institute of Canada, Clinical Trials Group and was supported by a grant from the NCI-Canada with funding from the Canadian Cancer Society. For further details on the study, please see OncoGenex' release that was issued today, December 3, 2008.

ABOUT OGX-011

OGX-011 is designed to inhibit the production of clusterin, a protein that is associated with treatment resistance and is currently being evaluated in Phase 2 clinical studies in prostate, lung and breast cancer. It has received Fast Track designation from the U.S. Food & Drug Administration (FDA) in combination with docetaxel for progressive metastatic prostate cancer. Recently, the FDA confirmed the appropriateness of durable pain palliation as a primary endpoint for product marketing approval for OGX-011 as a treatment for hormone refractory prostate cancer. Earlier this year at ASCO, OncoGenex reported OGX-011 Phase 2 data showing better than expected survival results in combination with chemotherapy, reduction in levels of clusterin, durable reductions in pain, and a decline in PSA, a protein that is often elevated in patients with prostate cancer.

OGX-011 was jointly discovered by Isis and OncoGenex and until July 2, 2008 was co-developed by Isis and OncoGenex. OncoGenex is now responsible for all development costs and activities of OGX-011. Isis will receive royalties for OGX-011 ranging from 5.5% to 7% of net sales. In addition, OncoGenex will pay Isis 30% of the upfront fees and milestone payments OncoGenex receives if OncoGenex licenses OGX-011 prior to initiation of registration trials, 25% if OGX-011 is licensed before 20% of patients have been enrolled in a registration trial, 20% if OGX-011 is licensed prior to marketing approval and 15% thereafter. In addition, Isis currently owns approximately 2% of the outstanding common stock of OncoGenex.

ABOUT ISIS PHARMACEUTICALS, INC.

Isis is exploiting its expertise in RNA to discover and develop novel drugs for its product pipeline and for its partners. The Company has successfully commercialized the world's first antisense drug and has 19 drugs in development. Isis' drug development programs are focused on treating cardiovascular and metabolic diseases. Isis' partners are developing antisense drugs invented by Isis to treat a wide variety of diseases. Isis Biosciences, Inc., Isis' majority-owned subsidiary, is developing and commercializing the Isis T5000(TM) Biosensor System, a revolutionary system to identify infectious organisms. Isis is a joint owner of Regulix Therapeutics LLC, a joint venture focused on the discovery, development and commercialization of microRNA therapeutics. As an innovator in RNA-based drug discovery and development, Isis is the owner or exclusive licensee of over 1,500 issued patents worldwide. Additional information about Isis is available at www.isispharm.com.

This press release includes forward-looking statements regarding Isis' business, its drug discovery and development pipeline, and

the therapeutic potential of OGX-011 for the treatment of cancer. Any statement describing Isis' goals, expectations, financial or other projections, intentions or beliefs is a forward-looking statement and should be considered an at-risk statement, including those statements that are described as Isis' goals. 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 in the endeavor of building a business around such products. Isis' forward-looking statements also involve assumptions that, if they never materialize or prove correct, could cause its results to differ materially from those expressed or implied by such forward-looking statements. Although Isis' forward-looking statements reflect the good faith judgment of its management, these statements are based only on facts and factors currently known by Isis. As a result, you are cautioned not to rely on these forward-looking statements. These and other risks concerning Isis' programs are described in additional detail in Isis' annual report on Form 10-K for the year ended December 31, 2007, and its most recent quarterly report on Form 10-Q, which are on file with the SEC. Copies of these and other documents are available from the Company.

In this press release, unless the context requires otherwise, "Isis," "Company," "we," "our," and "us" refers to Isis Pharmaceuticals and its subsidiaries and joint venture.

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SOURCE Isis Pharmaceuticals, Inc.

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CO: Isis Pharmaceuticals, Inc.; OncoGenex Pharmaceuticals, Inc.

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