

Xanthus Presents Phase 2 Data Showing Xanafide is Associated with Complete Remissions in Secondary AML

Initial Results of Phase 2 Study Presented at ASCO

CAMBRIDGE, Mass.--June 2, 2007--Xanthus Pharmaceuticals, Inc. today announced the presentation of initial results from the Company's Phase 2 study of Xanafide(R) in patients with secondary acute myeloid leukemia (AML). The presentation was made by Dr. Harry P. Erba, M.D., Ph.D., Associate Professor of Internal Medicine at the University of Michigan Health System, at the 43rd Annual Meeting of the American Society of Clinical Oncology (ASCO). In the Phase 2 trial, treatment with Xanafide and ara-C was associated with a favorable complete remission rate and an acceptable safety profile.

"Patients with secondary AML have a very poor prognosis. Previous multi-center studies of patients with secondary AML identified remission rates of 24-26% following remission induction therapy with the existing conventional therapy. In this multi-center study, treatment with Xanafide was associated with a rate of complete remissions at 44%," said Dr. Erba, who is also an investigator for the trial.

The Phase 2 trial of Xanafide, a topoisomerase II inhibitor, evaluated 88 patients with secondary AML (patients with antecedent myelodysplastic syndrome or prior exposure to leukemogenic therapy). Patients received a daily dose of Xanafide for five days in combination with a standard dose of ara-C as a continuous infusion for seven days. The primary endpoint for this study is the rate of complete remission with or without complete hematopoietic recovery (CR). Trial sites reported that 44% of patients achieved CR. Of note, clinical responses were similar across both elderly and younger patient groups.

"Secondary AML has historically been very difficult to treat, due to its unfavorable cytogenetics and its frequent multi-drug resistance to currently available therapies," said Robert L. Capizzi, M.D., Xanthus' Chief Medical Officer. "No significant new treatments have been developed for these poor-prognosis patients in more than 30 years, so we are hopeful that Xanafide may be able to meet this need and prove to be a viable candidate for treating this type of cancer."

"Based upon the clinical activity of Xanafide and the success of this Phase 2 study, we are moving forward with plans to take Xanafide into a pivotal Phase 3 trial," said Richard T. Dean, Ph.D., Chief Executive Officer of Xanthus. "The continued advancement of this therapeutic candidate demonstrates Xanthus' capabilities in the development of drugs that tackle difficult-to-treat cancers."

The Phase 2 results were discussed in a poster session titled, "Amonafide and ara-C treatment for secondary Acute Myeloid Leukemia (sAML)," on Saturday June 2, 2007 from 8:00am until 12:00pm.

About Xanafide(R) and Secondary AML

Xanafide (amonafide malate) is an ATP-independent topoisomerase 2 inhibitor that the Company is developing for the treatment of secondary acute myeloid leukemia (AML) and related disorders.

Secondary AML patients have had either antecedent myelodysplastic syndrome or prior exposure to leukemogenic therapy and represent a poor prognosis population. While de novo AML has approved treatments, no therapies are approved by FDA specifically for patients with secondary AML. In Phase 1 studies conducted in patients with poor-risk AML, amonafide hydrochloride, exhibited particularly promising clinical activity in patients with secondary AML. Based on these results we began the present program. Xanafide has been granted Orphan Drug designation by the U.S. Food and Drug Administration.

About Xanthus Pharmaceuticals, Inc.

Xanthus Pharmaceuticals, Inc. is developing a portfolio of novel, clinical-stage, small-molecule therapeutic candidates through a management team whose accomplished track record encompasses all aspects of drug development, from discovery through regulatory approval and commercialization. Xanthus is applying its expertise to advance its current pipeline to address significant unmet medical needs in oncology and autoimmune diseases.

Xanthus is headquartered in Cambridge, Massachusetts with an additional facility in Montreal, Quebec. More information is available at www.xanthus.com.

This press release contains forward-looking statements concerning Xanthus 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 Xanthus' actual results to differ materially from those indicated by such forward-looking statements, including risks as to whether results obtained in early clinical studies such as the studies referred to above will be indicative of results obtained in future clinical trials or warrant further clinical trials; whether products based on Xanthus' technology will advance through the clinical trial process and receive approval from the United States Food and Drug Administration or equivalent foreign regulatory agencies; and whether the company will have the cash resources to develop and commercialize its products. Xanthus disclaims any intention or obligation to update any forward-looking statements.

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