Synta Pharmaceuticals Initiates Fourth Trial of STA-9090, a Novel Synthetic Small Molecule Hsp90 Inhibitor

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Second Trial in Hematologic Malignancies

LEXINGTON, Mass., Sep 29, 2009 (BUSINESS WIRE) -- Synta Pharmaceuticals Corp. (NASDAQ: SNTA), a biopharmaceutical company focused on discovering, developing, and commercializing small molecule drugs to treat severe medical conditions, today announced that it has initiated a Phase 1/2 clinical study of its novel heat shock protein 90 (Hsp90) inhibitor, STA-9090 in hematologic malignancies with a once-a-week dosing schedule. In March, Synta initiated the first Phase 1/2 clinical study of STA-9090 in hematologic malignancies with a twice-weekly dosing schedule. This is the fourth clinical study initiated on STA-9090, a synthetic, small molecule Hsp90 inhibitor with a novel chemical structure that is unrelated to the ansamycin class of Hsp90 inhibitors, including 17-AAG. The other ongoing clinical trials are once-a-week and twice-a-week dosing studies in patients with solid tumors.

"Hsp90 inhibition is one of the most exciting areas of research in oncology today because of its unique role in maintaining the function of numerous signaling proteins that are necessary for the survival and proliferation of many types of cancer cells," said Jeffrey E. Lancet, M.D., principal investigator on the trial and Associate Member of the Department of Malignant Hematology at the H. Lee Moffitt Cancer Center & Research Institute. "Based on pre-clinical data as well as early clinical data from on-going trials, we believe STA-9090 is a highly potent inhibitor of Hsp90 with the potential to be best in its class. This clinical trial will allow us to determine the optimal dose for STA-9090, to understand the signaling pathways mediated by Hsp90 inhibition within leukemic cells, and to provide additional insight on its clinical activity in refractory hematologic malignancies."

"We are seeing encouraging signs of clinical activity as we continue dose escalation in our three ongoing trials of STA-9090, including several confirmed single agent responses, as defined by RECIST criteria, and a number of cases of prolonged stable disease," said Vojo Vukovic, M.D., Ph.D., Senior Vice President and Chief Medical Officer, Synta. "The unique properties of STA-9090, and the collected data to date, suggest hematologic malignancies are a particularly promising opportunity for seeing signs of clinical activity. In addition, hematologic malignancies are an attractive development choice for STA-9090 because of the objective clinical markers, the high unmet need, and the opportunity for a rapid path to registration. This new trial will use results from the ongoing dose-escalating studies and preclinical experiments to begin at or near what we believe may be a therapeutically effective dose. Exploring the additional dosing schedule will provide important information on the dosing regimen for potential pivotal trials."

"In addition to this new trial in hematologic malignancies, we expect several investigator-sponsored trials in solid tumors to be initiated in the coming months at leading cancer research institutions," continued Dr. Vukovic. "More information about these trials will be provided as they are initiated. We anticipate presenting results related to our STA-9090 program at upcoming scientific and medical

meetings."

The open-label Phase 1/2 study in patients with hematologic malignancies is designed to identify the recommended dose of STA-9090 for further study in patients with hematologic malignancies, based on a once-weekly intravenous dosing schedule, and to characterize its safety and efficacy profile in this patient population.

About STA-9090

In addition to the study announced today in hematologic malignancies, Synta is currently conducting an additional Phase 1/2 clinical study of STA-9090 with a twice-a-week dosing schedule in hematologic malignancies and two Phase 1 clinical studies of STA-9090 both in solid tumors; one utilizing a weekly dose schedule and the other a twice-weekly dose schedule.

In preclinical studies, STA-9090 has shown the ability to inhibit multiple kinases with comparable potency to, and a broader activity profile than specific kinase inhibitors such as imatinib, erlotinib, and sunitinib. In addition, STA-9090 has shown potency 10 to100 times greater than the ansamycin family of Hsp90 inhibitors such as 17-AAG, as well as activity against a wider range of kinases. In *in vivo* models, STA-9090 has shown strong efficacy in a wide range of cancer types, including cancers resistant to Gleevec, Tarceva and 17-AAG.

About Hsp90

Hsp90 is an emerging therapeutic target of interest for the treatment of cancer. It is responsible for modulating cellular response to stress by maintaining the function of numerous signaling proteins - known as 'client proteins' - that are associated with cancer cell survival and proliferation. Many cancers result from specific mutations in, or aberrant expression of, these client proteins. Examples of cancer-associated client proteins of Hsp90 include c-KIT in gastrointestinal stromal tumors, epidermal growth factor receptor (EGFR) in lung cancer, and BCR-ABL in chronic myelogenous leukemia. In preclinical studies, inhibiting Hsp90 causes the degradation of these proteins and cancer cell death. Inhibiting Hsp90 has also proven effective in killing cancer cells that have developed resistance to targeted therapies such as kinase inhibitors.

About Synta Pharmaceuticals

Synta Pharmaceuticals Corp. is a biopharmaceutical company focused on discovering, developing, and commercializing small molecule drugs to extend and enhance the lives of patients with severe medical conditions, including cancer and chronic inflammatory diseases. Synta has a unique chemical compound library, an integrated discovery engine, and a diverse pipeline of clinical- and preclinical-stage drug candidates with distinct mechanisms of action and novel chemical structures. All Synta drug candidates were invented by Synta scientists using our compound library and discovery capabilities. For more information, please visit www.syntapharma.com.

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progress of our clinical and preclinical programs, reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied by such forward-looking statements, including those described in "Risk Factors" of our Form 10-K for the year ended December 31, 2008 as filed with the Securities and Exchange Commission. Synta undertakes no obligation to publicly update forward-looking statements, whether because of new information, future events or otherwise, except as required by law.

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