Synta Presents Encouraging Results for STA-9090 in Hematologic Cancers at ASH

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Single-Agent Activity and Favorable Safety Profile Observed in Both Once- and Twice-Weekly Dosing Schedules

LEXINGTON, MA, Dec 07, 2010 (MARKETWIRE via COMTEX) -- Synta Pharmaceuticals Corp. (NASDAQ: SNTA), today presented clinical results for two early stage trials of STA-9090 in hematologic tumors which showed that STA-9090 is well tolerated at up to 200 mg/m2 in a once-weekly dosing schedule and up to 90 mg/m2 in a twice-weekly dosing schedule. In addition, preclinical results were presented suggesting that STA-9090 is active both in vitro and in vivo in treating hematologic malignances. The results were presented at the 2010 Annual Meeting of the American Society of Hematology (ASH). STA-9090 is a potent, second generation, small molecule Hsp90 inhibitor being studied in over a dozen clinical trials, in a range of solid tumor and hematologic cancers.

"The results from the once-weekly, single-agent Phase 1/2 trial in AML and other hematologic malignancies demonstrate that STA-9090 is well-tolerated at doses of up to 200 mg/m2. Furthermore, there were early signs of clinical activity reported, including instances of long term disease control in a highly refractory patient population," said Jeffrey Lancet, M.D., Principal Investigator, H. Lee Moffitt Cancer Center in Tampa, Florida. "The clinical results presented today show that 61% of the 28 patients treated had stable disease, 21% had progressive disease and 18% of patients did not have response assessments. Three patients with refractory AML achieved a reduction of the bone marrow blast count by as much as 50% after 2 cycles of treatment. The most common adverse events were diarrhea and fatigue, both of which were manageable and reversible. Importantly, there was no incidence of ocular toxicity that has been associated with other second generation Hsp90 inhibitors. Based on the results presented today, we are continuing to dose-escalate and, in conjunction with Synta, will determine the optimal path forward once we have completed the Phase 1 segment of the trial."

Results from a Phase 1, twice-weekly single-agent trial in hematologic malignancies were also presented at ASH.

"In this twice-weekly dosing study of STA-9090, in which 24 patients were enrolled, 9 out of 15 evaluable patients achieved a response of stable disease, while 2 patients experienced a hematologic improvement and 4 patients experienced progressive disease," said Swaminathan Padmanabhan, M.D., the Principal Investigator of this trial and Director of Hematological Malignancies with the Cancer Therapy & Research Center (CTRC) at The University of Texas Health Science Center at San Antonio and Director of Hematological Malignancies for the CTRC Institute for Drug Development. "STA-9090 was well-tolerated and demonstrated a favorable pharmacokinetic profile, signs of pharmacodynamic activity as demonstrated by increases in Hsp70

concentrations following dosing with STA-9090. These early signals of clinical activity are encouraging and suggest continued evaluation of this regimen."

"The results from the once-weekly and twice-weekly hematologic trials of STA-9090 provide additional data supporting both the favorable safety profile and the promising single-agent activity of this potent Hsp90 inhibitor," said Vojo Vukovic, M.D., Ph.D., Senior Vice President and Chief Medical Officer, Synta Pharmaceuticals. "Over 300 patients have been enrolled to date across fifteen ongoing trials in solid tumors and hematologic cancers. We have been encouraged by the clear demonstration of single-agent clinical activity, and the consistent and manageable safety profile. The results today provide additional evidence that STA-9090 is the leading second-generation Hsp90 inhibitor in the clinic, and warrants further development in larger, randomized trials."

Synta also presented preclinical data showing that STA-9090 potently killed a wide range of hematologic cell tumor lines including B-cell lymphoma, AML and ALCL models. Treatment of STA-9090 induced complete responses in a B-cell lymphoma xenograft (SU-DHL-4 DLBCL) and an AML xenograft (MV4-11).

STA-9090 in Phase 1/2 once-weekly dosing AML trial -- early activity and favorable safety profile

Poster Presentation: December 6, 6-8PM, AML-Therapy Excluding Transplantation: Poster III First author: Jeffrey Lancet, M.D., H. Lee Moffitt Cancer Center, Tampa Florida Title: A Phase 1/2 study of the Potent Hsp90 inhibitor STA-9090 administered once weekly in patients with hematologic malignancies. Permanent Abstract Number: 3294

Enrollment continues with STA-9090 well-tolerated at doses of 120-200 mg/m2. 23 of 28 patients were evaluable for response as of September 10, 2010. The most common adverse events were diarrhea and fatigue, both of which were generally moderate and reversible. Signs of clinical activity have included reductions in bone marrow blast count and hematologic control in several patients. Enrollment is continuing at 200 mg/m2.

STA-9090 in Phase 1 twice-weekly dosing hematologic trial -- early signs of clinical activity and favorable safety profile

Poster Presentation: December 5, 6-8 PM, Molecular Pharmacology Drug Resistance: Poster II First author: Swaminathan Padmanabahn, M.D., University of Texas Health Science Center at San Antonio Title: A Phase 1 study of the Potent Hsp90 inhibitor STA-9090 administered twice weekly in patients with hematologic malignancies. Permanent Abstract Number: 2898

Enrollment continues with STA-9090 well-tolerated at doses of 14-90 mg/m2. 15 of 24 patients were evaluable for response as of September 10, 2010. The most common adverse events were diarrhea and fatigue, both of which were generally moderate and reversible. Signs of clinical activity have included 2 cases of hematologic improvement and 9 cases of stable disease.

STA-9090 demonstrates potent potent in vivo and in vitro activity in hematologic cancers

Poster Presentation: December 5, 6-8 PM, Molecular Pharmacology Drug Resistance: Poster II First author: Weiwen Ying, Synta Pharmaceuticals, Lexington, MA. Title: Preclinical Evaluation of the Potent 2nd Generation Small-Molecule Hsp90 Inhibitor STA-9090 in Hematological Cell Lines. Permanent Abstract Number: 2899

Preclinical results demonstrate that STA-9090 potently kills hematologic cell lines including those that lack known oncogenic client proteins of Hsp90. STA-9090 is highly potent in the SU-DHL-1 ALCL cell line which is driven by the oncogenic NPM-ALK fusion protein. Dosing frequency has great impact on tumor growth inhibition. Complete responses were seen in both MV4-11 AML and SU-DHL-4 B-cell lymphoma xenograft models.

About STA-9090

STA-9090 is a potent, second-generation, small-molecule Hsp90 inhibitor, with a chemical structure unrelated to the first-generation, ansamycin family of Hsp90 inhibitors (e.g., 17-AAG or IPI-504). In preclinical studies, STA-9090 has shown potency up to 100 times greater than the first-generation Hsp90 inhibitors as well as activity against a wider range of kinases. In in vitro and in vivo models, STA-9090 has shown potent activity against a wide range of cancer types, including lung, prostate, colon, breast, gastric, pancreatic, gastrointestinal stromal tumors (GIST), melanoma, AML, chronic myeloid leukemia, Burkitt's lymphoma, diffuse large B-cell lymphoma, and multiple myeloma -- as well as potent activity against cancers resistant to imatinib (Gleevec(R)), sunitinib (Sutent(R)), erlotinib (Tarceva(R)), and dasatinib (Sprycel(R)).

STA-9090 is currently being evaluated in clinical trials in non-small cell lung cancer, gastrointestinal stromal tumors, colon cancer, prostate cancer, breast cancer, gastric cancer, hepatic cancer, small cell lung cancer, ocular melanoma, pancreatic cancer, and certain types of leukemias. Information on clinical trials with STA-9090 can be found at www.clinicaltrials.gov.

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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Contacts:

Synta Pharmaceuticals Corp.
Rob Kloppenburg
(781) 541-7125

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