Synta Announces Initiation of I-SPY 2 TRIAL of Ganetespib in Breast Cancer

October 29, 2014

LEXINGTON, Mass.--(BUSINESS WIRE)--Oct. 29, 2014-- Synta Pharmaceuticals Corp. (NASDAQ:SNTA) today announced the initiation of the I-SPY 2 TRIAL (**I**nvestigation of **S**erial Studies to **P**redict **Y**our **T**herapeutic **R**esponse with **I**maging **A**nd mo**L**ecular Analysis **2**) arm evaluating ganetespib, the Company's Hsp90 inhibitor, as a neoadjuvant therapy for patients with breast cancer. I-SPY 2 is a standing Phase 2 randomized, controlled, multicenter trial for women with newly diagnosed, locally advanced breast cancer (Stage 2 or higher) that is designed to test whether adding investigational drugs to standard chemotherapy is better than standard chemotherapy alone in the neoadjuvant setting. I-SPY 2 is conducted by a consortium that brings together the Food and Drug Administration (FDA), National Cancer Institute (NCI), pharmaceutical companies, leading academic medical centers, and patient advocacy groups under its umbrella. The trial is sponsored by QuantumLeap Healthcare Collaborative, a 501(c)(3) non-profit organization dedicated to accelerating healthcare solutions, and shares a unique partnership with the Foundation for the National Institutes of Health Biomarkers Consortium.

The I-SPY 2 TRIAL employs a unique adaptive trial design to match experimental therapies with patients. Genetic or biological markers ("biomarkers") from individual patients' tumors are used to screen promising new treatments, identifying which treatments are most effective in specific patient subgroups. Regimens that have a high Bayesian predictive probability of showing superiority in a 300 patient phase 3 confirmatory trial in at least one of 10 predefined signatures may "graduate" from I-SPY 2. A regimen can graduate early and at any time after having 60 patients assigned to it, and exits the trial after a maximum of 120 patients. This high efficacy bar and rapid turnaround time allows the trial to identify the right drug for the right patient in the most expeditious fashion.

Ganetespib will initially be available to patients with HER2 negative disease, with the intent to expand its eligibility to all breast cancer subtypes, including HER2 positive after safety testing with trastuzumab is completed.

"The I-SPY 2 trial offers us the opportunity to leverage the encouraging data we observed in earlier studies to further advance the development of ganetespib in breast cancer in a well-regarded consortium-sponsored trial," said Anne Whitaker, Chief Executive Officer of Synta. "We are very pleased that ganetespib was selected for this innovative study, which is redefining how promising investigational compounds are rapidly evaluated as potential new treatments for breast cancer. We continue to support this and several other randomized investigator-led studies of ganetespib in both solid and hematologic malignancies."

About Ganetespib

Ganetespib, an investigational drug candidate, is a selective inhibitor of heat shock protein 90 (Hsp90), a molecular chaperone which controls the folding and activation of a number of client proteins that drive tumor development and progression. Many solid and hematologic tumors are dependent on Hsp90 client proteins including proteins involved in "oncogene addiction" (ALK, HER2, mutant BRAF and EGFR, androgen receptor, estrogen receptor, and JAK2); proteins involved in resistance to chemotherapy and radiation therapy (ATR, BCL2, BRCA1/2, CDK1/4, CHK1, survivin, and WEE1); proteins involved in angiogenesis (HIF-1alpha, VEGFR, PDFGR, and VEGF); and proteins involved in metastasis (MET, RAF, AKT, MMPs, HIF-1alpha, and IGF-1R). In preclinical models, inhibition of Hsp90 by ganetespib results in the inactivation, destabilization, and eventual degradation of these cancer-promoting proteins. Ganetespib is being evaluated in trials in lung cancer, breast cancer, and other tumor types. The most common adverse event seen to date has been transient, mild or moderate diarrhea, which has been manageable with standard supportive care. Information on these trials can be found at www.clinicaltrials.gov. Ganetespib has received Fast Track designation from FDA for second-line treatment of non-small cell lung adenocarcinoma in combination with docetaxel.

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 its compound library and discovery capabilities. For more information, please visit www.syntapharma.com.

About QuantumLeap Healthcare Collaborative

QuantumLeap Healthcare Collaborative, a non-profit foundation, was established in 2005 as a collaboration between medical researchers at University of California at San Francisco, and Silicon Valley entrepreneurs. QuantumLeap's mission is to accelerate transfer of high-impact research in clinical processes and systems technology into widespread adoption so that patients and physicians can benefit from the research as soon as practicable. QuantumLeap provides operational, financial and regulatory oversight to I-SPY 2 and is also the sponsor of its companion phase 3 confirmatory trial, I-SPY 3. For more information, visit: http://www.quantumleaphealth.org.

Safe Harbor Statement

This media release may contain forward-looking statements about Synta Pharmaceuticals Corp. Such forward-looking statements can be identified by the use of forward-looking terminology such as "will", "would", "should", "expects", "anticipates", "intends", "plans", "believes", "may", "estimates", "predicts", "continues", "projects", or similar expressions intended to identify forward-looking statements. Such statements, including statements relating to the I-SPY 2 treatment plan for ganetespib and the potential of ganetespib to treat breast cancer and other indications, reflect Synta's 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, 2013 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.

Source: Synta Pharmaceuticals

Investors:
Synta Pharmaceuticals Corp.
Daniel Cole, 781-541-7250
dcole@syntapharma.com
or
Argot Partners
Andrea Rabney, 212-600-1494
andrea@argotpartners.com
or
Media:
Argot Partners
Eliza Schleifstein, 917-763-8106
eliza@argotpartners.com