Ganetespib Potently Inhibits Multiple Signaling Pathways Active in Breast Cancer

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–Blocks HER2, ER, PR, AKT and MAPK signaling pathways–

–Active in broad range of in vitro, in vivo models–

–Shows synergy with lapatinib, doxorubicin, and PI3K/mTOR inhibition–

LEXINGTON, Mass.--(BUSINESS WIRE)--Dec. 12, 2011-- Synta Pharmaceuticals Corp. (NASDAQ: SNTA) Ganetespib shows potent *in vitro and in vivo* activity against multiple types of breast cancer including HER2-positive, ER/PR positive, triple-negative, and inflammatory breast cancer according to results presented at the San Antonio Breast Cancer Symposium (SABCS). Also reported was an objective response in a patient with metastatic triple-negative breast cancer participating in a ganetespib Phase 1 trial. Additional clinical results for ganetespib in breast cancer were presented on December 7, 2011 at the SABCS showing ganetespib single agent activity in both HER2-positive and triple negative breast cancer.

"These results demonstrating that ganetespib potently inhibits key signaling pathways involved in the growth and proliferation of multiple forms of breast cancer are encouraging, and supportive of the results presented earlier at this meeting showing single-agent, anti-tumor activity in patients with breast cancer who have progressed on or failed to respond to multiple prior therapies," said Vojo Vukovic, M.D., Ph.D., Chief Medical Officer, Synta. "The combined preclinical and clinical results create a strong rationale for advancing ganetespib development in both HER2-positive and triple-negative breast cancer."

Synta plans to initiate a company-sponsored trial for ganetespib in both HER2-positive and triple-negative breast cancer in early 2012. In addition, Memorial Sloan Kettering Cancer Center plans to initiate a Phase 1/2 trial evaluating ganetespib in combination with paclitaxel and trastuzumab in HER2-positive breast cancer, and ganetespib in combination with paclitaxel in triple-negative breast cancer.

In preclinical studies, ganetespib inhibits key signaling pathways in multiple subtypes of breast cancer. In hormone positive breast cancer, ganetespib induces the degradation of estrogen and progesterone receptor as well as Cyclin D1. In HER2 amplified breast cancer, ganetespib displays durable suppression of HER2 and its downstream signaling partners. In triple-negative and inflammatory breast cancers, ganetespib strongly inhibits AKT and MAPK signaling resulting in the upregulation of key apoptotic markers. In addition, ganetespib effectively suppresses STAT3 signaling, which may be particularly relevant in light of recent studies highlighting the frequency of activated STAT3 in triple negative breast cancer (Marotta et al., JCI, 2011).

In preclinical studies of combination treatments, ganetespib was shown to sensitize breast cancer

cells to standard-of-care anticancer agents such as doxorubicin and targeted agents such as Tykerb® (lapatinib), as well as PI3K/mTOR inhibition, a class with emerging promise in breast cancer.

About Ganetespib

Ganetespib is the most advanced of the next-generation, synthetic Hsp90 inhibitors with over 450 patients treated to date; 20 trials completed, ongoing, or initiating; and the Phase 2b/3 GALAXY Trial™ in second-line non-small cell lung cancer (NSCLC) active in the U.S. and Europe.

Ganetespib has shown anti-tumor activity in heavily pretreated patients with lung cancer, breast cancer, and other tumor types and has been well tolerated with no evidence of severe liver or common ocular toxicities seen with other Hsp90 inhibitors. The most common adverse event seen to date has been diarrhea, which has been manageable with standard supportive care.

Interim results from the 240-patient Phase 2b portion of the GALAXY Trial™ are expected in first half of 2012, and final data in the second half of the year. Interim results from trials in ALK+ NSCLC, HER2+ breast cancer, and triple-negative breast cancer are also expected in the second half of 2012.

Information on clinical trials with ganetespib can be found at www.clinicaltrials.gov.

About Hsp90

Hsp90 is a molecular chaperone required for the proper folding and activation of many cancer-promoting proteins, and is recognized as a key facilitator of cancer cell growth and survival. Many of the “client proteins” of Hsp90 – such as ALK, AKT, BCR-ABL, BRAF, KIT, MET, EGFR, FLT3, HER2, PDGFRA, VEGFR are the targets of clinically validated cancer drugs. In preclinical studies, inhibiting Hsp90 causes the degradation of multiple client proteins and leads to cancer cell death.

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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breast cancer 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, 2010 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 Corp.

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