Synta Pharmaceuticals to Focus 2006 Development on its Oral IL-12 / IL-23 Inhibitor for Crohn's Disease and Rheumatoid Arthritis

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Company Highlights Research and Development Priorities for 2006

Lexington, MA- December 23, 2005 -- Synta Pharmaceuticals, a biopharmaceutical company discovering, developing, and commercializing small-molecule drugs to treat severe medical conditions, announced today that it will focus its clinical efforts in 2006 on the company's oral IL-12/ IL-23 inhibitor, STA-5326, currently in phase 2b development for Crohn's disease and phase 2a development for rheumatoid arthritis. Further development of two of the company's oncology compounds will be determined by the results of ongoing clinical trials that will be completed during the first half of 2006 -- a phase 2 study of STA-4783, the company's heat shock protein 70 (Hsp70) inducer, in malignant melanoma and two ongoing phase 1 studies of STA-5312, a novel microtubule inhibitor for cancer.

Preclinical efforts at Synta in 2006 will concentrate on advancing the development of the company's novel heat shock protein 90 (Hsp90) inhibitor program for oncology and its Calcium Release Activated Calcium (CRAC) ion channel program for inflammatory and autoimmune disorders.

"Our business model at Synta is to build on the strengths of our small-molecule drug discovery engine and advance multiple, first-in-class clinical, preclinical, and discovery stage programs," said Safi Bahcall, Ph.D., Synta President and CEO. "We currently have six drug programs, each of which has multiple pathways to clinical and commercial success. Given the breadth and commercial potential of our product pipeline, portfolio prioritization is critical. Our prioritization process helps ensure that we focus our resources towards those opportunities likely to generate the greatest patient benefit and shareholder return. "

"Synta has been fortunate to discover first-in-class compounds with broad potential therapeutic application," said Matthew Sherman, M.D., Chief Medical Officer. "For these types of programs, it is especially important to design a thorough series of exploratory clinical trials to identify the most promising opportunities as early and efficiently as possible. We have completed a set of such trials this year and have prioritized 2006 development accordingly, deciding not to pursue programs in psoriasis and lung cancer, while reallocating resources to programs in Crohn's disease and rheumatoid arthritis."

The following summarizes development plan decisions reached for each Synta program:

STA-5326

STA-5326 is the first and only oral, small-molecule, selective inhibitor of the interleukin (IL)-12 cytokine family, which includes IL-12 and IL-23. These cytokines play a central role in chronic inflammatory diseases. In May 2005, the company completed a phase 2a open-label study of

STA-5326 in active Crohn's disease which indicated that treatment with daily doses of 35 mg and above demonstrated clinically meaningful disease response and remission rates. STA-5326 also showed an acceptable safety profile with the most common adverse events being dizziness, nausea, headache, and fatigue, all of which were generally mild and transient. Based upon these results, the company initiated a phase 2b, placebo-controlled study designated as SCORE (Study in Crohn's disease of the Oral IL-12/IL-23 inhibitor, STA-5326, for the induction of REsponse and remission) in September 2005. A companion study is being conducted concurrently to evaluate biological markers of activity in Crohn's disease. Synta has also initiated a phase 2a clinical biomarker study in rheumatoid arthritis. The trial will assess changes within the synovial tissue from patients after treatment with STA-5326, focusing on macrophage counts, which have been shown to correlate with anti-arthritic activity. All of these trials will be completed in the second half of 2006.

Based on the results of a concurrently conducted phase 2a biomarker study and a phase 2b, placebo-controlled clinical study of STA-5326 in chronic plaque psoriasis, the company will not pursue further development in this indication at this time. At the highest dose tested in the biomarker study, signs of biological activity were reported, including a significant reduction in levels of pro-inflammatory Th1 cytokines active in psoriasis, such as IL-23, and increased levels of Th2 and anti-inflammatory cytokines, such as IL-10 and GM-CSF. While clinical activity was evident in both studies, a statistically significant improvement in skin clearing relative to placebo, the primary endpoint of the phase 2b study, was not achieved. These data were presented at the 4th Psoriasis Gene to Clinic International Congress held in London on December 1-3, 2005.

"We are enthusiastic about the potential for STA-5326 in Crohn's disease and rheumatoid arthritis," said Dr. Sherman. "Crohn's disease represents a major unmet medical need, with over a million patients worldwide. A compound with the encouraging safety and efficacy profile we have seen to date, and the convenience of an oral medication that can be taken once a day, as opposed to an injectable, represents a tremendous potential advance for patients."

STA-4783

STA-4783 induces the expression of heat shock protein 70 (Hsp70) on the surface of tumor cells, which flags the cells for destruction and elimination by the immune system. Preclinical studies indicate that STA-4783 acts synergistically with taxane therapy, the most commonly used class of chemotherapeutics. Results from a randomized, phase 2 study comparing a control group of patients receiving paclitaxel and carboplatin to patients who received STA-4783 in addition to those therapies in first-line non-small cell lung cancer were presented in Philadelphia at the American Association for Cancer Research (AACR), National Cancer Institute (NCI), and European Organization for Research and Treatment of Cancer (EORTC) International Conference in November 2005. No clinically meaningful differences were reported between groups for the primary study endpoint of progression-free survival. Preliminary results from a phase 2 study of STA-4783 in combination with paclitaxel in soft tissue sarcoma also presented at the AACR-NCI-EORTC tripartite meeting revealed a clinical non-progression rate consistent with historical rates for active sarcoma agents; relatively few patients, however, achieved signs of tumor response. Adverse events reported in both studies have been consistent with those reported from treatment with paclitaxel and carboplatin, or paclitaxel alone. Further development plans will be determined following the completion of a phase 2 study of STA-4783 plus paclitaxel versus paclitaxel alone in patients with metastatic malignant melanoma expected in the second quarter of 2006.

STA-5312

STA-5312 inhibits microtubule function, critical to cancer cell proliferation, through a unique binding site. Ongoing phase 1 studies of STA-5312 in hematological and solid tumor malignancies are expected to be completed in the first half of 2006. The study findings will guide future clinical investment decisions for the compound.

Hsp90 Inhibitor Program

Hsp90, a chaperone protein required for the activity of several proteins that regulate tumor growth, is considered one of the most promising new targets in oncology. Synta has identified novel, synthetic, small-molecule compounds that appear more potent and less toxic than compounds currently in development based on geldanamycin, a naturally derived Hsp90 inhibitor. Moreover, the Synta compounds appear to inhibit certain critical oncoproteins not impacted by geldanamycin, offering the potential of targeted therapy for additional tumor types. STA-9090, a small-molecule, intravenous inhibitor of Hsp90, will progress through pre-clinical development in 2006 with the goal of filing an investigational new drug (IND) application by the end of next year. Oral inhibitors of the target are also currently under development.

CRAC Ion Channel Inhibitor Program

CRAC ion channels are critical to the activation of T cells and mast cells, which are primary mediators of immune disorders. The channels provide the primary route for calcium entry, which drives cell proliferation and secretion of inflammatory mediators such as IL-2. Therapies that inhibit these channels represent a novel approach to modulation of the immune system with potential utility in multiple immune disorders, including transplant rejection, inflammatory bowel disease, psoriasis, allergy, and asthma. Synta has discovered a family of novel, small-molecule, orally administered CRAC channel inhibitors that are both selective and highly potent; encouraging signs of activity have been observed in several models of immune diseases. Synta anticipates initiating preclinical development of a lead compound in 2006.

Vascular and Microtubule Targeting Agent (VAMTA)

Synta is developing a novel small-molecule agent for cancer, STA-9584, which potently inhibits microtubule function critical to tumor cell proliferation and also potently disrupts the vasculature supplying blood and nutrients to the tumor. Tumor shrinkage and elimination have been seen in multiple human xenograft models in animals. As a result of the Synta prioritization process, preclinical development of STA-9584 will be postponed in 2006 while the company focuses on the preclinical development of its Hsp90 inhibitor and CRAC ion channel inhibitor programs.

About Synta

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 chronic inflammatory disease and cancer. Synta currently has three drug candidates in human clinical trials, as well as a diverse pipeline of internally developed discovery programs. For more information, please see http://www.syntapharma.com/.