Synta Pharmaceuticals Names Michael P. Bailey Senior Vice President and Chief Commercial Officer

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Key appointment in development of commercial capabilities

LEXINGTON, Mass.--(BUSINESS WIRE)--July 14, 2008--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 is appointing Michael P. Bailey Senior Vice President and Chief Commercial Officer. Mr. Bailey will join Synta August 4th, 2008.

"Synta represents a unique opportunity - a pipeline of multiple, internally-generated, blockbuster-potential, high quality programs; a powerful research and development engine; a strong financial position and partnership; and a company on the cusp of a transformational product launch," said Mr. Bailey. "I believe elesclomol has potential to be the first drug of a major new category of anti-cancer treatment. The novel mechanism of action, the safety profile, and the compelling preclinical and clinical results suggest the potential to reshape the treatment of not only melanoma but other cancers that exhibit elevated levels of oxidative stress, including breast, prostate, ovarian, pancreatic and hematological cancers. I am also excited by the potential of Synta's next set of oncology and anti-inflammatory drug candidates, which I believe will generate a great deal of interest over the coming years. I am thrilled to be joining a company with such high quality science, strong record of excellence in execution, and impressive growth potential."

Mr. Bailey has more than 16 years of executive and operational experience in the pharmaceutical and biotech industries, with nearly a decade dedicated to oncology. Since 1999, he has held leadership positions of increasing responsibility at ImClone Systems Incorporated. Most recently he led ImClone's Worldwide Commercial Organization, responsible for commercial aspects for the planning and launch of Erbitux(R) across multiple indications. In addition, Mr. Bailey was a key member of the strategic leadership committees for ImClone and its North American and Worldwide partnerships. Prior to joining ImClone, Mr. Bailey served at Genentech, Inc. where he managed the company's cardiovascular development portfolio. Mr. Bailey started his career in the pharmaceutical industry as one of two MBA graduates selected for Smith-Kline Beecham's Executive Marketing Development Program, where he held a variety of commercial roles, including sales, strategic planning, and product management. Mr. Bailey earned a BS in Psychology and his MBA in International Marketing by graduating with honors from both St. Lawrence University and the University of Notre Dame Graduate School of Business.

"Michael Bailey brings to Synta a terrific combination of knowledge, skills, and experience including first-hand responsibility for a recent blockbuster oncology product launch; the ability to thrive in a fast-paced and growing biotechnology company; and the skills to succeed in a joint development and commercialization alliance," said Safi R. Bahcall, Ph.D., President and CEO. "As we complete

enrollment in our Phase 3 SYMMETRY trial for elesclomol in melanoma, prepare for registration and launch, begin trials in new indications, and advance our next set of programs towards pivotal trials, Michael's expertise and relationships in the industry will be important advantages. I look forward to working with Michael and continuing our progress towards a fully-integrated, commercial organization with marketed products and strong pipeline."

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. Synta has a partnership with GlaxoSmithKline for the joint development and commercialization of its lead investigational drug candidate, elesclomol, which is in a global, pivotal Phase 3 clinical trial for the treatment of metastatic melanoma. For more information, please visit www.syntapharma.com.

About Elesclomol

Elesclomol is a novel, injectable, investigational drug candidate that triggers apoptosis (programmed cell death) in cancer cells. Cancer cells operate at high levels of reactive oxygen species, or oxidative stress. Elesclomol is believed to act by increasing the level of oxidative stress in cancer cells even further, beyond sustainable levels, inducing apoptosis. This mechanism of action, called oxidative stress induction, represents a novel way of selectively targeting and killing cancer cells.

In a double-blind, randomized, controlled Phase 2b clinical trial in 81 patients with stage IV metastatic melanoma, elesclomol in combination with paclitaxel met the primary endpoint, doubling the median time patients survived without their disease progressing, compared to paclitaxel alone ($p = 0.035$). The most common adverse events in the elesclomol plus paclitaxel group included fatigue, alopecia, constipation, nausea, hypoaesthesia, arthralgia, insomnia, diarrhea, and anemia.

A pivotal Phase 3 clinical trial of elesclomol in combination with paclitaxel in patients with stage IV metastatic melanoma (the SYMMETRY(SM) trial) is ongoing; Phase 2 trials in other indications, and in combination with other agents, are planned. Elesclomol has received Fast Track and Orphan Drug designation from the FDA for metastatic melanoma, and the Phase 3 SYMMETRY trial has completed a Special Protocol Assessment process with the FDA. Information about the SYMMETRY trial can be found at www.clinicaltrials.gov.

About Metastatic Melanoma

Melanoma, the most deadly form of skin cancer, arises from melanocytes, the pigment-producing cells of the skin. According to the American Cancer Society, melanoma accounts for approximately five percent of all skin cancers but causes about 75% of all skin cancer-related deaths. An estimated 60,000 people will be diagnosed and nearly 8,200 people will die from melanoma this year in the U.S. alone. If diagnosed and surgically removed while localized in the outermost skin layer, melanoma is potentially curable; however, for patients with metastatic disease the prognosis is poor,

with limited available treatments and an expected survival of only six to nine months. The incidence of melanoma has increased more rapidly than any other cancer during the past ten years. The FDA has not approved a novel, small molecule drug for the treatment of metastatic melanoma in over 30 years.

About Oxidative Stress

Oxidative stress in cells is the presence of elevated levels of reactive oxygen species (ROS) such as oxygen radicals and hydrogen peroxide. ROS can be generated by many processes and stimuli, including ordinary cell metabolism, exposure to heat or radiation, or attack by bacteria or viruses. Because ROS can react chemically with different proteins and other elements of a cell, altering their normal function, prolonged exposure to elevated levels of ROS can cause serious damage to a cell. To protect against this damage, cells have natural defense mechanisms - anti-oxidant abilities - to clear excessive levels of ROS and to repair the disruption they cause. These mechanisms include specialized agents that clear ROS, known as anti-oxidants, as well as specialized repair proteins, known as stress or chaperone proteins.

Normal, non-cancer cells typically function at a low, steady-state level of oxidative stress. Their strong anti-oxidant capacity guards against prolonged, excessive levels of ROS. Cancer cells, however, typically operate at a much higher level of oxidative stress than normal cells, and have a greatly diminished anti-oxidant capacity. This diminished capacity to clear ROS leaves them vulnerable to further increases in oxidative stress. In particular, when ROS levels exceed a natural breaking point, continued survival of the cell becomes unsustainable. At levels of ROS above this breaking point, a switch inside the mitochondria is triggered that causes the cell to initiate programmed cell death, also known as apoptosis.

In a series of in vitro and in vivo experiments, elesclomol has been shown to rapidly cause an increase in oxidative stress inside cancer cells. This increase in ROS is observed through measuring levels of individual reactive oxygen species, such as hydrogen peroxide, directly; or through measuring the increased expression of genes that are induced by the presence of high levels of ROS, including stress proteins such as heat shock protein 70 (Hsp70).

A number of commonly used anti-cancer agents trigger cancer cell death through the mitochondrial apoptosis pathway. Because ROS elevation also triggers cell death through the mitochondrial pathway, it is believed that in addition to inducing apoptosis directly, treatment with elesclomol can also sensitize cancer cells to these anti-cancer agents.

In preclinical models, elesclomol has shown potent killing of a broad range of cancer cell types, as well as an ability to enhance the efficacy of certain widely used anti-cancer agents with minimal additional toxicity. More information can be found at www.syntapharma.com.

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", "projects", or similar expressions intended to identify forward-looking statements. Such statements, including statements relating to the timing and progress of our clinical and preclinical programs and financial guidance for 2008, 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, 2007 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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