Synta Pharmaceuticals Reports Second-Quarter 2010 Financial Results and Clinical Update

August 9, 2010

- STA-9090 Phase 2 trials in hepatic and small cell lung cancer initiated -

- First STA-9090 combination trial initiated -

- Additional evidence supportive of predictive role for LDH in elesclomol activity shown -

LEXINGTON, Mass., Aug 09, 2010 (BUSINESS WIRE) -- Synta Pharmaceuticals Corp. (NASDAQ: SNTA), a biopharmaceutical company focused on discovering, developing, and commercializing small molecule drugs to treat severe medical conditions, today reported financial results for the quarter ended June 30, 2010.

Financial Results

The Company reported a net loss of $9.1 million or $0.22 per basic and dil uted share for the second quarter in 2010, compared to a net loss of $8.5 million, or $0.25 per basic and diluted share for the same period in 2009. Total collaboration revenue was $3.4 million for the second quarter in 2010 compared to total collaboration revenue of $4.7 million for the same period in 2009. Research and development expenses were $9.7 million for the second quarter in 2010 compared to $10.1 million for the same period in 2009. General and administrative expenses were $2.7 million for the second quarter in 2010 compared to $3.0 million for the same period in 2009. As of June 30, 2010, the Company had $48.7 million in cash, cash equivalents and marketable securities compared to $44.2 million as of December 31, 2009.

More detailed financial information and analysis may be found in the Company's Quarterly Report on Form 10-Q, which was filed with the Securities and Exchange Commission on August 9, 2010.

Operational Highlights

STA-9090 Update

"We have made strong progress with STA-9090, our potent, second-generation, small-molecule Hsp90 inhibitor," said Safi R. Bahcall, Ph.D., President and Chief Executive Officer, Synta Pharmaceuticals. "Over 200 patients have been treated across our eight ongoing trials and three recently initiated trials. STA-9090 has been well-tolerated, without the serious liver toxicities seen with first-generation Hsp90 inhibitors or the commonly occurring ocular toxicities seen with certain second-generation compounds. At these dose levels, we have seen encouraging signs of single-agent activity, including confirmed responses and tumor shrinkage with durable disease control."

"The differentiated safety and activity profile, and broad potential application of Hsp90 inhibition, have generated a high level of interest in our program," said Dr. Bahcall. "Investigator-sponsored trials have recently been initiated in hepatocellular carcinoma (HCC) and small cell lung cancer

(SCLC). In addition, in July we initiated a Phase 1 trial of STA-9090 in combination with docetaxel in tumors where docetaxel is commonly used, including breast cancer, prostate cancer, and lung cancer. The new and ongoing trials form a thorough clinical development program that will provide a strong indication of the activity profile of STA-9090, as results from these trials are presented over the coming year."

STA-9090 is currently being studied in 11 clinical trials with an additional four or more trials expected to be announced in the coming months. The ongoing studies include four Phase 1 trials, three in solid tumors (once- and twice-weekly dosing and docetaxel combination) and one in hematologic cancers (once-weekly); a Phase 1/2 trial in acute myeloid leukemia (AML) and other hematologic cancers; and six Phase 2 trials in a range of solid tumor malignancies.

Elesclomol Update

Dr. Bahcall also announced that two clinical trials of elesclomol, a first-in-class, investigational drug candidate that triggers apoptosis (programmed cell death) in cancer cells, are expected to be initiated, one in Q4 2010 and one by the first half of 2011.

"Recent progress by Synta and our collaborators have led to further understanding of elesclomol's unique mechanism of action - targeting mitochondrial energy production - and its dependence on tumor oxygen conditions, including the importance of serum level of lactate dehydrogenase (LDH) as a predictive marker for activity," said Dr. Bahcall.

Anti-cancer activity of elesclomol in patients with low to normal level of LDH has been observed in three blinded, randomized trials: a Phase 3 melanoma trial, a Phase 2b lung cancer trial, and a Phase 2b melanoma trial. Preclinical data have shown that elesclomol kills cancer cells under normal oxygen (normoxic) conditions, in which energy production occurs primarily through the mitochondria. Under low oxygen (hypoxic) conditions, which are associated with elevated levels of LDH, elesclomol loses anti-cancer activity.

"The consistency of the preclinical and clinical findings with elesclomol; the pattern observed across three blinded, randomized, controlled trials; and additional recent evidence that LDH may play an important predictive role for drugs acting through metabolic pathways, as seen with Avastin and Torisel, are encouraging evidence that elesclomol can provide clinical benefit in patients with low to normal levels of LDH, and that future clinical trials in these patient populations are warranted," said Dr. Bahcall.

"We previously announced we expect to initiate a trial in acute myeloid leukemia by the end of 2010," said Dr. Bahcall. "We are now in discussions with a number of investigators and cooperative groups, based on the recent data, regarding additional elesclomol trials. We expect to initiate at least one additional trial in a solid tumor cancer by the first half of 2011."

Additional development for elesclomol is expected to be supported or sponsored by third parties, including cooperative groups or individual investigators.

About Elesclomol and LDH

Elesclomol kills cancer cells in which the mitochondrial electron transport chain (ETC) is the dominant source of energy production. This occurs under normal oxygen (normoxic) conditions. When cells are under low oxygen (hypoxic) conditions, energy production shifts to glycolysis,

producing energy from the conversion of glucose into other byproducts. Under these conditions, elesclomol loses anti-cancer activity.

Glycolysis under hypoxic conditions is reflected in an increase in the levels of the enzyme lactate deyhdrogenase (LDH). This suggests that LDH may be a predictive biomarker for elesclomol activity. Evidence that elesclomol anti-cancer activity correlates with oxygen conditions and level of LDH includes:

- elesclomol shows potent activity, with IC50<10 nM in over 150 different cancer lines, against cells grown under normal oxygen conditions, but little to no activity against cells grown under hypoxic conditions;
- elesclomol shows little to no activity against cells treated with $CoCl_2$, a chemical mimetic of hypoxia;
- treating hypoxic cells with the LDH inhibitor oxamate, which induces a shift from glycolysis back to mitochondria-driven oxidative phosphorylation, restores elesclomol anti-cancer activity; and
- within the same cancer type, elesclomol is less active in cell lines with high levels of HIF1a (hypoxia inducible factor 1 alpha) and LDH, markers of hypoxic conditions; and more active in cells with low levels of HIF1a and LDH.

These preclinical findings on correlation of anti-cancer activity with level of LDH are consistent with results observed in clinical trials, in which elesclomol has shown clinical benefit only in those patients with low to normal baseline levels of LDH.

Guidance

Based on our current operating levels, we continue to estimate our cash resources together with expected research and development reimbursements and milestone payments in connection with certain preclinical and clinical achievements under our collaborative license agreement with Roche, will be sufficient to fund the Company's operations into 2012.

Synta continues to target at least one partnership for one or more of its unpartnered assets in 2010.

Conference Call

Management will conduct a conference call at 4:30 p.m. (ET) today to review the Company's second-quarter 2010 financial results. The conference call will be webcast live over the Internet and can be accessed by logging on to the "Investors" section of the Synta Pharmaceuticals website, http://www.syntapharma.com, prior to the event.

The call can also be accessed by dialing (877) 407-8035 or (201) 689-8035 prior to the start of the call. For those unable to join the live conference call, a replay will be available from 9:00 p.m. (ET) on August 9 through midnight (ET) on August 16. To access the replay, dial (877) 660-6853 or (201) 612-7415 and refer to both account number 286 and conference ID 354185. The webcast also will be archived on the Company's website.

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 11 clinical trials: six Phase 2 trials in solid tumor cancers - non-small cell lung cancer, gastrointestinal stromal tumors, colon cancer, gastric cancer, hepatic cancer and small cell lung cancer; two trials in hematologic cancers; and three Phase 1 solid tumor trials including a trial in combination with docetaxel. Trials in colon cancer, gastric cancer, hepatic cancer and small cell lung cancer are investigator-sponsored. Information on clinical trials with STA-9090 can be found at http://www.clinicaltrials.gov.

About Hsp90

Hsp90 is a chaperone protein required for the proper folding and activation of other cellular proteins, particularly kinases. Many of these "client proteins" of Hsp90 - such as AKT, BCR-ABL, BRAF, KIT, MET, EGFR, FLT3, HER2, PDGFRA, VEGFR - have been shown to be critical to cancer cell growth, proliferation, and survival and 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. Because mutated kinases which no longer respond to treatment with kinase inhibitors remain dependent on Hsp90 for their activity, inhibiting Hsp90 offers the potential for treating cancers that have become resistant to targeted therapies such as kinase inhibitors.

About Hepatocellular Carcinoma (HCC)

The American Cancer Society estimates there will be 24,120 new cases and 18,910 deaths from hepatocellular carcinoma (HCC) in the United States alone in 2010. The five-year relative survival rate for patients diagnosed with localized disease is 21%, 6% for patients diagnosed with regional disease and 2% for patients whose disease has spread to distant organs and tissues. (Source and further information: American Cancer Society, http://www.cancer.org.)

About Small Cell Lung Cancer (SCLC)

Lung cancer is the leading cause of cancer-related mortality in the United States. The American Cancer Society estimates there will be 222,520 new cases and 157,300 deaths from lung cancer in the United States alone in 2010, with 10-15% being of the small cell type. The five-year relative survival rate for small cell lung cancer varies from 31% for patients diagnosed with Stage I (early stage) disease to 2% for patients diagnosed with Stage IV, or the most advanced form of the disease. (Source and further information: American Cancer Society, http://www.cancer.org.)

About Elesclomol

Elesclomol is a first-in-class, investigational drug candidate that triggers programmed cell death (apoptosis) in cancer cells through a novel mechanism: targeting mitochondrial energy production.

Upon infusion, elesclomol binds copper in plasma, which causes a change in conformation that

enables its uptake through membranes and into cells. Copper binds to elesclomol in an oxidative state called Cu(II). Once inside mitochondria, an interaction with the electron transport chain (ETC) results in an electron moving from the ETC to elesclomol, and the copper being reduced from Cu(II) to Cu(I). This process, which repeats in a chain reaction of redox reactions, increasing oxidative stress, and growing ETC disruption, ultimately overwhelms mitochondrial protective responses and triggers the mitochondrial apoptosis pathway.

This electrochemical means of targeting mitochondrial energy production represents a novel anti-cancer approach, entirely distinct from chemotherapy or kinase inhibition, with promising application across multiple cancer types.

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 http://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, developments and progress of our clinical and preclinical programs (including the timing of results of our ongoing trials and initiation of additional trials for STA-9090 and the timing of initiation of trials for elesclomol), the potential for a partnership in 2010 and the sufficiency of our cash reserves, 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, 2009 as filed with the Securities and Exchange Commission, as well as any updates to those risk factors from time to time in our Quarterly Reports on Form 10-Q and Current Reports on Form 8-K. Synta undertakes no obligation to publicly update forward-looking statements, whether because of new information, future events or otherwise, except as required by law.

Synta Pharmaceuticals Corp.

Condensed Consolidated Statements of Operations

(in thousands, except share and per share amounts)

(unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2010	2009	2010	2009
Collaboration revenues:				
License and milestone revenue	$1,143	$3,314	$2,286	$7,387
Cost sharing reimbursements, net	2,217	1,336	5,097	1,773
Total collaboration revenues	3,360	4,650	7,383	9,160
Operating expenses:				
Research and development	9,688	10,098	19,883	32,736
General and administrative	2,716	3,005	5,802	7,076
Restructuring	--	--	--	1,236
Total operating expenses	12,404	13,103	25,685	41,048
Loss from operations	(9,044)	(8,453)	(18,302)	(31,888)
Other (expense) income:				
Other (expense) income, net	(30)	(42)	(80)	(106)
Net loss	$(9,074)	$(8,495)	$(18,382)	$(31,994)
Basic and diluted net loss per common share	$(0.22)	$(0.25)	$(0.46)	$(0.94)
Basic and diluted weighted average number of common shares outstanding	40,342,671	33,877,075	39,899,593	33,874,559

Synta Pharmaceuticals Corp.

Condensed Consolidated Balance Sheets Data

(in thousands)

(unaudited)

	June 30, 2010	December 31, 2009
Assets		
Cash, cash equivalents and marketable securities	$ 48,658	$ 44,155
Other current assets	721	419
Property and equipment, net	3,020	3,978
Other non-current assets	151	358
Total assets	$ 52,550	$ 48,910
Liabilities and Equity		
Current liabilities	$ 12,267	$ 16,469
Long-term liabilities	4,764	7,530
Stockholders' equity	35,519	24,911
Total liabilities and Stockholders' equity	$ 52,550	$ 48,910

SOURCE: Synta Pharmaceuticals Corp.

Synta Pharmaceuticals Corp.
Rob Kloppenburg, 781-541-7125