



Synta Presents Results at AACR Supporting Correlative Markers for Elesclomol Activity

April 20, 2010

- *Link demonstrated between elesclomol anti-cancer activity and levels of HIF-1a and LDH -*
- *Additional results presented demonstrating activity of elesclomol in cisplatin-resistant lung cancer models -*

LEXINGTON, Mass., Apr 20, 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 announced preclinical results presented at the American Association for Cancer Research (AACR) 101st Annual Meeting that support correlative markers for elesclomol anti-cancer activity. In addition, results were presented by Synta collaborators showing that elesclomol demonstrates activity in cisplatin-resistant lung cancer models.

"The results presented today are encouraging and support the continued clinical development of elesclomol," said Vojo Vukovic, M.D., Ph.D., Senior Vice President and Chief Medical Officer, Synta. "Our improved understanding of the activity of elesclomol will allow us to concentrate our clinical efforts on those patients who are most likely to benefit from treatment."

Elesclomol acts by binding copper in plasma and inducing inside the cell an electrochemical reaction (a redox reaction) that elevates oxidative stress, disrupts mitochondrial activity, and triggers apoptosis. Under normoxic conditions (normal cellular oxygen levels), which are associated with low or normal levels of HIF-1a (hypoxia inducible factor 1 alpha) and LDH (lactate dehydrogenase), elesclomol effectively kills cancer cells. However, under hypoxic conditions (low oxygen levels), associated with elevated levels of HIF-1a and LDH, elesclomol shows reduced anti-cancer activity. These results are consistent with findings from the SYMMETRY Phase 3 trial of elesclomol in metastatic melanoma. In that trial, improvement in progression free survival (PFS), the primary endpoint of the trial, was demonstrated in the 68% of patients with low to normal levels of LDH, but no improvement was seen in patients with elevated levels of LDH.

"These results confirm our earlier findings on how elesclomol kills cancer cells and extends those findings to highlight the conditions under which elesclomol is most likely to be active," said Dr. Vukovic. "The results also confirm that elesclomol is a truly unique anti-cancer agent with a novel anti-cancer approach: disrupting cancer cell energy production and metabolism. This mechanism is entirely distinct from conventional chemotherapy or from agents targeting cell signaling, such as kinase inhibitors. Importantly, this mechanism may be complementary and allow, in combination, a more comprehensive attack against tumors than any one of these approaches in isolation. We believe it is important to fully explore such differentiated approaches to treating cancer, and look forward to working with our collaborators to advance this program in the clinic."

Additional results presented today by Synta collaborators at the V.A. Medical Research Center in

Miami, the Sylvester Cancer Center in Miami, and the M.D. Anderson Cancer Center in Houston demonstrated that elesclomol is highly effective in lung cancer cells that are resistant to cisplatin, a widely-used chemotherapy. Cisplatin-resistant cells have been observed to have particularly high levels of reactive oxygen species (ROS). Administration of elesclomol increases levels of ROS further, beyond sustainable levels, triggering apoptosis (programmed cell death). Elesclomol was observed to induce apoptosis in the resistant lung cancer cells at significantly higher rates than in normal cells and non-resistant cancer cells.

Anticancer activity of elesclomol correlates with LDH levels

Poster Presentation: April 20, 2:00 p.m. ET

Title: [Anticancer activity of elesclomol correlates with low LDH levels and active mitochondrial respiration.](#)

Permanent Abstract Number: 4545

Targeting ROS to kill cisplatin-resistant cells

Poster Presentation: April 20, 2:00 p.m. ET

Title: [Targeting ROS to kill cisplatin-resistant cells.](#)

Permanent Abstract Number: 4525

About Elesclomol

Elesclomol induces programmed cell death (apoptosis) in cancer cells by disrupting cancer cell energy production and metabolism. In laboratory studies, elesclomol has been observed to increase the level of reactive oxygen species in cancer cells beyond sustainable levels, triggering the mitochondrial apoptosis pathway. This mechanism of action represents a novel way of selectively targeting and killing cancer cells.

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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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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