Constellation Pharmaceuticals Initiates Clinical Development of CPI-0610, a Novel BET Protein Bromodomain Inhibitor, in Patients with Lymphoma

First Constellation Pipeline Program to Enter the Clinic
Developed in Partnership with The Leukemia & Lymphoma Society

CAMBRIDGE, Mass. –September 10, 2013 – Constellation Pharmaceuticals, Inc., a leading biopharmaceutical company in the field of epigenetics, today announced that it has initiated a Phase 1 clinical trial of CPI-0610, a novel BET protein bromodomain inhibitor, in patients with previously treated and progressive lymphomas. This first-in-human trial is currently open at Sarah Cannon Research Institute in Nashville, Tennessee and at the John Theurer Cancer Center in Hackensack, New Jersey. Additional study sites in the United States will join the trial over the next several months. Studies of CPI-0610 are also planned in patients with multiple myeloma and in patients with acute leukemia or myelodysplastic syndrome.

Small molecule inhibition of the bromodomain and extra-terminal, or BET family of chromatin adaptors produces selective effects on gene expression and leads to the death of cancer cells across a broad range of hematologic malignancies and in subsets of solid tumors, making it a promising new therapeutic approach in oncology. Constellation recently published preclinical data in the Proceedings of the National Academy of Science demonstrating that the transcription of MYC, a master regulator of cellular function that plays a role in many cancers, can be suppressed using small molecule inhibitors of BET protein bromodomains. In 2011 the regulation of MYC through BET inhibition was recognized by Nature Medicine as a Notable Achievement in Cancer Biology and by Science Signaling as the Biology Breakthrough of the Year.

“We are excited to now have a compound with the attributes needed to explore the therapeutic potential of BET protein bromodomain inhibition in patients with lymphoma and other malignancies,” said Robert Sims, Ph.D., the lead biologist for Constellation’s programs in bromodomain-containing proteins. “The preclinical work elucidating the unique role of these proteins in transcriptional regulation has opened up an entirely novel strategy for the treatment of
cancer. We can now suppress the expression of MYC and a number of other oncogenes formerly considered undruggable. Our preclinical data and those of other investigators suggest that BET protein bromodomain inhibition could have broad activity in hematologic malignancies as well as activity in solid tumors. CPI-0610 has the potency, selectivity and favorable predicted human pharmacokinetics needed to determine whether this strategy will bear fruit in the clinic.”

The clinical development of CPI-0610 in lymphoma, myeloma, and acute leukemia is being supported by The Leukemia & Lymphoma Society® (LLS), which last year established a collaboration with Constellation in the area of BET protein bromodomain inhibition. The LLS’s support of CPI-0610’s development is part of its Therapy Acceleration Program (TAP). TAP is LLS’s bold initiative designed to advance therapies with high prospects of providing near-term benefit to patients suffering from hematologic malignancies. By partnering directly with biotechnology companies, LLS is taking a results-oriented approach to more quickly identify potential breakthrough therapies and advance them along the FDA drug approval pathway.

“The Leukemia & Lymphoma Society has led the way in supporting research to better understand the therapeutic potential of epigenetic drug targets for hematologic malignancies,” said Richard Winneker, Ph.D., senior vice president for research at LLS. “We are very pleased to be partnering with Constellation on the clinical development of its leading BET protein bromodomain inhibitor program so that we can more quickly determine how this new class of drugs can have the greatest impact for patients with these diseases.”

About Lymphoma
Lymphoma is a type of blood cancer that develops in the lymphatic system, typically in lymph nodes, the spleen and bone marrow. It occurs when a lymphocyte – a type of white blood cell that helps protect against disease and infection – undergoes a malignant change and multiplies. The lymphoma cells eventually become so numerous that they cause enlargement of lymph nodes, of the spleen, and interfere with ability of the bone marrow to produce normal blood cells. About 54 percent of the hematologic malignancies (“blood cancers”) that occur each year are various types of lymphoma1. Some lymphomas, like Hodgkin lymphoma, are now frequently cured with standard treatments, and for many lymphomas effective but non-curative treatments are available. Unfortunately, many lymphomas still eventually progress in spite of standard treatment, and hence a need for new therapies remains.

About The Leukemia & Lymphoma Society
The Leukemia & Lymphoma Society® (LLS) is the world’s largest voluntary health agency dedicated to blood cancer. The LLS mission is to cure leukemia, lymphoma, Hodgkin’s disease and myeloma, and improve the quality of life of patients and their families. LLS funds lifesaving blood cancer research around the world and provides free information and support services, and is the voice for all blood cancer patients seeking access to quality, affordable, coordinated care.

Founded in 1949 and headquartered in White Plains, NY, LLS has chapters throughout the United States and Canada. To learn more, visit www.lls.org. Patients should contact the Information Resource Center at (800) 955-4572, Monday through Friday, 9 a.m. to 6 p.m. ET.

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1 The Leukemia & Lymphoma Society
About Constellation Pharmaceuticals
Constellation Pharmaceuticals leverages insights from the rapidly expanding field of epigenetics to discover and develop small molecule therapeutics for the treatment of cancer, inflammatory/imunologic disorders and other diseases. The company’s innovative product discovery engine targets both enzymes that modify the dynamic structure of chromatin (writers and erasers) and other proteins that interact with chromatin (readers) to control gene expression. Restoration of normal gene expression through chromatin modulation by highly selective and specific inhibitors promises to be a powerful approach to the development of important new medicines against a broad range of diseases. Constellation’s efforts in epigenetics are supported in part through a research collaboration with Genentech. For more information, please visit the company’s website at www.constellationpharma.com.