

CELATOR® PHARMACEUTICALS ANNOUNCES POSITIVE DATA FROM PHASE 2 STUDY OF CPX-351 IN ACUTE MYELOID LEUKEMIA

Princeton, NJ (May 3, 2010) – Celator Pharmaceuticals, Inc. today announced positive results from its Phase 2 study of CPX-351 (Cytarabine:Daunorubicin) Liposome Injection versus conventional cytarabine and daunorubicin (the “7+3” regimen) in patients, 60-75 years of age, with untreated acute myeloid leukemia (AML). The primary endpoint of the study, the rate of patients achieving a complete remission with CPX-351 compared to “7+3,” achieved statistical significance. In addition, there was a reduction in the 30-day and 60-day mortality with CPX-351 versus the “7+3” regimen.

The multicenter, randomized, open-label trial enrolled a total of 126 patients between November 2008 and October 2009. Patient follow-up is ongoing. Results from this study will be submitted to a major medical conference in 2010.

"The control arm, cytarabine plus daunorubicin, has been the standard of care for treating patients with AML for more than 30 years," said Arthur Louie, MD, chief medical officer at Celator Pharmaceuticals, Inc. "To demonstrate an improvement in complete remission rate coupled with an improvement in early death rate is very encouraging. We expect to have additional information on the secondary endpoints later this year."

The primary endpoint of the study was a comparison of complete remission rates - which includes complete remissions (CR) and complete remissions with an incomplete recovery, to a specified level, of neutrophils and/or platelets (CRi). Both CR and CRi result in patients becoming leukemia-free. The secondary endpoints of the study include duration of complete remission, event-free survival, 12-month survival, and the rate of patients going on to receive stem cell transplantation. The full safety analysis will include 30-, 60-, and 90-day mortality rates.

"We are very excited that CPX-351 may offer patients a new, more effective treatment option," said Scott Jackson, chief executive officer at Celator Pharmaceuticals, Inc. "These data suggest that our approach with CPX-351 significantly improves clinical benefit compared to conventional administration of cytarabine and daunorubicin. We will meet with the FDA later this year to discuss our results and plans for a Phase 3 study of CPX-351 in AML."

About CPX-351

CPX-351 (Cytarabine:Daunorubicin) Liposome Injection represents a new approach to developing combinations of drugs in which drug molar ratios with synergistic anti-tumor activity are encapsulated in a drug delivery vehicle in order to maintain the desired ratio following administration. CPX-351 has been granted orphan drug status by the U.S. Food & Drug Administration (FDA) for the treatment of AML. Celator is currently conducting a second randomized phase 2 study of CPX-351 versus intensive salvage therapy in patients up to 65 years of age with AML in first relapse. Enrollment is expected to be completed in 2010. This study is supported by The Leukemia & Lymphoma Society.

About Celator Pharmaceuticals, Inc.

Celator Pharmaceuticals, Inc., with locations in Princeton, NJ, and Vancouver, BC, is a privately held pharmaceutical company developing new and more effective therapies to treat cancer.

CombiPlex[®], the company's proprietary drug ratio technology platform, represents a novel approach that identifies molar ratios of drugs that will deliver a synergistic benefit, and locks the desired ratio in a nano-scale drug delivery vehicle that maintains the ratio in patients with the goal of improving clinical outcomes. The company pipeline includes two phase 2 products; CPX-351 (a liposomal formulation of cytarabine:daunorubicin) for the treatment of acute myeloid leukemia and CPX-1 (a liposomal formulation of irinotecan:floxuridine) for the treatment of colorectal cancer; a preclinical stage compound, CPX-571 (a liposomal formulation of irinotecan:cisplatin); and multiple research programs, including the hydrophobic docetaxel prodrug nanoparticle (HDPN) formulation being studied by the National Cancer Institute's Nanotechnology Characterization Laboratory. Based on the applications of CombiPlex and the proprietary nanoparticle prodrug delivery platform, Celator is positioned to advance a broad pipeline of cancer therapies involving both previously approved and novel drug agents. For more information, please visit the company's website at www.celatorpharma.com. Information on ongoing trials is available at www.clinicaltrials.gov.

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