

For Immediate Release

Contact: Sara Lizzo
Berry & Company
212-253-8881

CELATOR PHARMACEUTICALS RECEIVES ORPHAN DRUG DESIGNATION FOR ANTICANCER AGENT CPX-351

CPX-351 awarded orphan designation for the treatment of Acute Myeloid Leukemia

Princeton, NJ (September 4, 2008) – Celator Pharmaceuticals today announced that the U.S. Food & Drug Administration (FDA) has granted orphan drug designation to CPX-351 (Cytarabine:Daunorubicin) Liposome Injection for the treatment of Acute Myeloid Leukemia (AML).

Celator is currently preparing to conduct two randomized Phase 2 studies with CPX-351. The first Phase 2 study, in newly diagnosed, elderly patients with AML, is expected to start enrolling patients before the end of 2008. The second study, in AML patients who have relapsed following initial treatment, is projected to start enrolling patients in the first quarter of 2009.

Interim Phase 1 data with CPX-351, where complete remissions were obtained in patients with advanced leukemia, were reported in December 2007. The company submitted additional CPX-351 preclinical and clinical data to this year's American Society of Hematology (ASH) meeting in December and will report Phase 1 results at that time.

CPX-351 is a liposomal formulation of cytarabine and daunorubicin delivered in a 5:1 molar ratio shown to be strongly synergistic in preclinical studies. CPX-351 was developed using Celator's proprietary CombiPlex[®] technology platform.

Orphan drug status is granted to treatments for diseases that affect fewer than 200,000 people in the United States and provides the benefits of market exclusivity for seven years, tax credits, and a waiver of FDA user fees.

"The decision by FDA to grant CPX-351 orphan drug designation reinforces the importance of developing novel products for the treatment of rare diseases and represents another milestone for the company," said Scott Jackson, chief executive officer of Celator Pharmaceuticals. "We are committed to developing products that will benefit patients and look forward to initiating enrollment in our CPX-351 Phase 2 program."

About Acute Myeloid Leukemia (AML)

The National Cancer Institute defines AML as a quickly progressing disease in which too many immature white blood cells (not lymphocytes) are found in the blood and bone marrow. In 2008, the American Cancer Society's Cancer Facts and Figures estimates that there will be 13,290 new cases of AML and 8,820 deaths caused by AML.

About Celator

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 drug ratio technology platform, represents a revolutionary new approach to the development of combination therapies based on identifying a fixed, synergistic

ratio of the drugs pre-clinically, incorporating that ratio in a drug delivery vehicle and maintaining the ratio in patients. The company pipeline includes: CPX-1 (a liposomal formulation of irinotecan:floxuridine), currently in a Phase 2 trial in patients with colorectal cancer; CPX-351 (a liposomal formulation of cytarabine:daunorubicin), currently in a Phase 1 trial in patients with advanced leukemia; CPX 571 (a liposomal formulation of irinotecan:cisplatin), a preclinical stage compound; and multiple research programs. Based on the applications of CombiPlex, Celator is positioned to advance a broad pipeline of combination therapies involving both previously approved and novel drug agents. For more information, please visit the company's website at www.celatorpharma.com.