

CELATOR® PHARMACEUTICALS PRESENTS NEW DATA ON TWO NANO-SCALE DELIVERY PLATFORMS AT THE AMERICAN ASSOCIATION FOR CANCER RESEARCH

Princeton, NJ (April 22, 2010) – Celator Pharmaceuticals today announced data from animal studies demonstrating the superior bone marrow uptake of CPX-351 (Cytarabine:Daunorubicin) Liposome Injection, its lead clinical-stage program, as well as the enhanced circulation kinetics and efficacy of its preclinical hydrophobic docetaxel prodrug nanoparticle (HDPN) formulation were presented at the 101st Annual Meeting of the American Association for Cancer Research in Washington, DC (Abstracts 3698 and 5534).

“This research continues to expand our understanding of the activity and potential clinical benefits of improved cancer therapeutics based on our proprietary technologies; the CombiPlex® platform and the nanoparticle prodrug delivery platform,” said Scott Jackson, chief executive officer of Celator Pharmaceuticals. “The work done with CPX-351 helps explain the encouraging anti-leukemic activity we are seeing in Phase 2 clinical studies and the results seen with HDPN contributed to this product being selected for study by the NCI’s Nanotechnology Characterization Laboratory.”

In the first presentation, researchers reported on the circulation characteristics and anti-tumor activity of HDPN in mice bearing HT-29 human colorectal tumor xenografts. Two nanoparticle preparations of the docetaxel pro-drug demonstrated significantly greater plasma half-lives than docetaxel formulated in polysorbate 80, the detergent drug solubilizer used in the marketed product Taxotere®. Furthermore, when administered at either their respective maximum tolerated doses or at equimolar doses to free docetaxel, the two HDPN preparations produced greater antitumor activity, as measured by tumor growth delay, than the free docetaxel. These results confirmed that the proprietary HDPN approach – encapsulating hydrophobic docetaxel prodrugs in block co-polymer nanoparticles – produces prolonged circulation kinetics and enhanced therapeutic activity. HDPN is currently undergoing comprehensive pre-clinical evaluation at the National Cancer Institute’s (NCI) Nanotechnology Characterization Laboratory to support an eventual investigational new drug (IND) filing with the U.S. Food and Drug Administration.

The second presentation described results of a biodistribution comparison of CPX-351 to empty liposomes in a human leukemia xenograft model. The plasma clearance of both CPX-351 and the empty liposomes was similar in both leukemic and non-leukemic mice and both formulations had similar organ distribution profiles. However, accumulation of CPX-351 in bone marrow was 20 to 50 percent higher than that of the empty liposomes in cancer-free mice and 75 percent higher in leukemic mice after the first injection. CPX-351 accumulation increased an additional 20 percent with subsequent injections. The researchers concluded that the presence of encapsulated cytarabine:daunorubicin in CPX-351 markedly augmented marrow uptake and/or retention of the liposomes, a benefit that along with the prolonged circulation made possible by liposomal encapsulation itself, helps increase the exposure of tumor cells to the two active drugs at the synergistic ratio.

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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List of abstracts:

AACR Abstract #3698: Sharon A. Johnstone, Steven M. Ansell, Troy O. Harasym, Sherwin Xie, Lawrence D. Mayer, Paul Tardi. Development of a hydrophobic docetaxel prodrug nanoparticle with enhanced plasma circulation lifetime and improved efficacy. Poster presented Tuesday, April 20, 2010.

AACR Abstract #5534: Sharon A. Johnstone, Sherwin Xie, Troy Harasym, Lawrence Mayer, Paul G. Tardi. Liposome accumulation within leukemia engrafted bone marrow is significantly enhanced when the formulation contains cytarabine plus daunorubicin. Poster presented Wednesday, April 21, 2010.

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Media Contact:

Mike Beyer

(773) 463-4211

beyer@sambrown.com