Cyclacel Pharmaceuticals presents insights into the mechanisms of its cell cycle inhibitor drugs

-- Preclinical data on Cyclacel's cell cycle inhibitors presented at American Association for Cancer Research annual meeting --

BERKELEY HEIGHTS, NJ – April 16, 2008 – Cyclacel Pharmaceuticals, Inc. (NASDAQ: CYCC, NASDAQ: CYCCP) and independent investigators presented eight posters at the annual meeting of the American Association for Cancer Research (AACR) with preclinical data demonstrating the ability of Cyclacel's cell cycle inhibitors to induce cancer cell death, or apoptosis, by inhibiting key enzymes. Five of these preclinical studies evaluated Cyclacel's CYC116 cell cycle inhibitor. The studies provide additional evidence that CYC116 inhibits Aurora kinases and Vascular Endothelial Growth Factor Receptor-2 tyrosine kinase or VEGFR-2 kinase. Aurora kinases are target proteins that are essential for mitosis or the process by which a cell divides. VEGFR-2 kinase is a validated target promoting angiogenesis or new vessel formation in the vicinity of cancer cells.

"The preclinical data presented at AACR support our understanding that CYC116 has both anti-mitotic and anti-angiogenic activity and help direct our development plan for this drug candidate," said Gregory Reyes, M.D., Ph.D., Senior Vice President Research for Cyclacel Pharmaceuticals. "The ability of CYC116 to target both Aurora and VEGFR2 kinases suggests that it may have potential utility in a range of solid tumors and also hematologic malignancies."

CYC116 is a novel, ATP-competitive, pyrimidine drug that is taken by mouth as a capsule. The drug is a selective agent that potently inhibits the enzymes Aurora kinases and VEGFR-2 kinase at comparable levels with a range of 19 to 69 nanomolar. Median potency of CYC116 in cancer cells is approximately 300 nanomolar. CYC116 has demonstrated a broad spectrum of potent cytotoxic activity against human tumor cell types. Non-clinical efficacy of CYC116 has been demonstrated by the oral route using mouse leukemia models, in which increased survival was observed, and human solid tumor xenograft models, in which reductions in tumor growth were observed. Cancer cell types that appear to be particularly sensitive to CYC116 are leukemia, non-small cell lung cancer and pancreatic cancer.

CYC116 works by affecting the cell cycle progression of cancer cells before they enter mitosis or divide to create daughter cancer cells. The mechanism of action of CYC116 affects cancer cells in several ways. CYC116-treated cells display delayed entry into mitosis; defective polymerization of tubulins, or proteins that make up microtubules which are the target of the taxane drugs; changes in the function of the centrosome, or the cell's microtubule organizing center; and formation of the mitotic spindle, or the highway along which chromosomes and cellular materials are transported from the mother cell to the daughter cells. After cancer cells are treated with CYC116, their spindle checkpoint is inactivated resulting in inhibition of cytokinesis or the process by which a mother cell divides. These defects result in the generation of polyploidy or cells with more than two chromosome sets, multinucleated cells or cells with multiple cores and apoptosis or cancer cell death.

In a mouse model of leukemia CYC116-treatment induced decreases in tumor cell volume and infiltration of leukemic cells in the bone marrow and resulted in an increase in life span. No significant effects on body weight or normal bone marrow cells were observed at effective doses of CYC116. Tumor neovascularization, or creation of new blood vessels around a tumor, was significantly reduced in a dose dependent manner. The data confirm that CYC116 acts as a dual mitotic and angiogenesis inhibitor, a combination of anti-cancer mechanisms which could have therapeutic benefit in the clinic.

CYC116 is currently being studied in a Phase 1 trial in patients with solid tumors at Roswell Park Cancer Institute in Buffalo, New York, and South Texas Accelerated Research Therapeutics (START) in San Antonio. The study is designed to identify the maximum tolerated dose of CYC116 and evaluate its pharmacokinetic, pharmacodynamic and anti-tumor effects.

Details of the poster presentations referring to specific Cyclacel programs are as follows:

Sapacitabine

"Impact of DNA repair proteins on cell survival in response to damage induced by the DNA self-strand-breaking nucleoside analogue CNDAC"*
Date/Time: Sunday, Apr 13, 2008, 8:00 AM - 12:00 PM
Abstract Number: 638

Seliciclib

"Optimal cancer chronotherapeutics schedules of seliciclib revealed by a systems biology approach"*
Date/Time: Sunday, Apr 13, 2008, 1:00 PM - 5:00 PM
Abstract Number: 801

"Potential therapeutic role of seliciclib in combination with ionizing radiation for human nasopharyngeal carcinoma"
Date/Time: Wednesday, April 16, 2008, 8:00 AM – 12:00 PM PST
Abstract Number: 5511

CYC116

"The basis of cell sensitivity to Aurora A/B inhibitors"
Date/Time: Sunday, April 13, 2008, 8:00 AM – 12:00 PM PST
Abstract Number: 651

"Systems biology analysis of a novel Aurora kinase inhibitor: CYC116"
Date/Time: Monday, April 14, 2008, 8:00 AM – 12:00 PM PST
Abstract Number: 1645

"Combination studies with the oral Aurora kinase inhibitor CYC116 and chemotherapeutic agents"
Date/Time: Tuesday, April 15, 2008, 8:00 AM – 12:00 PM PST
Abstract Number: 4015

"In vivo mode of action of CYC116, a novel small molecule inhibitor of Aurora kinases and VEGFR2"
Date/Time: Wednesday, April 16, 2008, 8:00 AM – 12:00 PM PST
Abstract Number: 5645

"Anti-tumor activity of CYC116, a novel small molecule inhibitor of Aurora kinases and VEGFR2"
Date/Time: Wednesday, April 16, 2008, 8:00 AM – 12:00 PM PST
Abstract Number: 5644

The abstracts are currently available online at www.aacr.org.

**Note: asterisks denote research conducted by independent investigators.*

About Cyclacel Pharmaceuticals, Inc.

Cyclacel is a biopharmaceutical company dedicated to the discovery, development and commercialization of novel, mechanism-targeted drugs to treat human cancers and other serious disorders. Three Cyclacel drugs are in clinical development. Sapacitabine (CYC682), an orally-available cell cycle modulating nucleoside analog, is in Phase 2 studies for the treatment of acute myeloid leukemia in the elderly and cutaneous T-cell lymphoma (CTCL). Seliciclib (CYC202), an orally-available CDK (cyclin dependent kinase) inhibitor, is in Phase 2 for the treatment of lung cancer and nasopharyngeal cancer. CYC116, an orally-available, Aurora kinase and VEGFR2 inhibitor, is in Phase 1 in patients with solid tumors. Several additional programs are at an earlier stage. Cyclacel's ALIGN Pharmaceuticals subsidiary markets directly in the U.S. Xclair™ Cream for radiation dermatitis, Numoisyn™ Liquid and Numoisyn™ Lozenges for xerostomia. Cyclacel's strategy is to build a diversified biopharmaceutical business focused in oncology, hematology and other therapeutic areas based on a portfolio of commercial products and a development pipeline of novel drug candidates.

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Risk Factors

This news release contains certain forward-looking statements that involve risks and uncertainties that could cause actual results to be materially different from historical results or from any future results expressed or implied by such forward-looking statements. Such forward-looking statements include statements regarding, among other things, the efficacy, safety, and intended utilization of Cyclacel's product candidates, the conduct and results of future clinical trials, plans regarding regulatory filings, future research and clinical trials and plans regarding partnering activities. Factors that may cause actual results to differ materially include the risk that product candidates that appeared promising in early research and clinical trials do not demonstrate safety and/or efficacy in larger-scale or later clinical trials, the risk that Cyclacel will not obtain approval to market its products, the risks associated with reliance on outside financing to meet capital requirements, and the risks associated with reliance on collaborative partners for further clinical trials, development and commercialization of product candidates. You are

urged to consider statements that include the words "may," "will," "would," "could," "should," "believes," "estimates," "projects," "potential," "expects," "plans," "anticipates," "intends," "continues," "forecast," "designed," "goal," or the negative of those words or other comparable words to be uncertain and forward-looking. These factors and others are more fully discussed under "Risk Factors" in the Annual Report on Form 10-K for the year ended December 31, 2007, as supplemented by the interim quarterly reports, filed with the SEC.

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