Cyclacel publishes study of seliciclib synergy with Tarceva and Herceptin in journal Clinical Cancer Research

-- Increased antitumor activity and molecular mechanism explored --

BERKELEY HEIGHTS, NJ – July 14, 2008 –Cyclacel Pharmaceuticals, Inc. (NASDAQ: CYCC, NASDAQ: CYCCP) announced the publication of a study conducted by Cyclacel scientists showing synergistic activity between its investigational therapy seliciclib and multiple epidermal growth factor receptor (EGFR) inhibitors, including erlotinib (Tarceva®) in models of non-small cell lung cancer and the HER2 targeting agent, trastuzumab (Herceptin®) in models of breast cancer. These preclinical results were published in the July issue of the journal, Clinical Cancer Research*. Seliciclib, Cyclacel's orally available cyclin dependent kinase (CDK) inhibitor, is currently being tested as a single agent in the Phase 2b APPRAISE trial in patients with non-small cell lung cancer and in a Phase 2 study in patients with nasopharyngeal cancer.

"Seliciclib's potential as an important regulator of cell pathways is becoming increasingly evident," explained Greg Reyes, M.D., Ph.D., Cyclacel's Senior Vice President, Research. "In addition to the recently announced Phase 1 investigator-initiated study that will be led by Professor Emiliano Calvo at Vall d'Hebron University Hospital, confirmatory preclinical results were recently reported by Dr. Abelardo López-Rivas and colleagues at the Andalusian Center for Molecular Biology and Regenerative Medicine in Spain showing that seliciclib sensitizes breast cancer cells to TRAIL-ligand experimental chemotherapy by interfering with the mechanism that protects cancer cells from apoptosis†."

It is well documented that HER2 is over-expressed in breast cancers, as is EGFR in colorectal, ovarian, head and neck, and non-small cell lung cancers. Both HER2 and EGFR are members of the ErbB receptor family. Over-stimulation of ErbB receptors results in the increased production of cyclin D1, a signaling molecule that activates cyclin dependent kinases (CDKs), resulting in tumor cell proliferation. This CDK-mediated proliferation bypasses the natural process by which cells containing genetic alterations that can potentially become cancerous would be arrested and either repaired or induced to undergo apoptosis or programmed cell death. Cyclin D1 is thought to play a central role in the ability of cancer cells to evade destruction and become resistant to the effects of anticancer drugs, such as Tarceva and Herceptin.

Seliciclib has been shown to regulate cell cycle checkpoints resulting in the induction of apoptosis. Cyclacel researchers have demonstrated that seliciclib also suppresses the transcription of cyclin D1 through a parallel mechanism. The recognition that seliciclib's regulation of cyclin D1 occurs downstream of the activity of ErbB inhibitors, led Cyclacel scientists to the hypothesis that the two mechanisms – inhibition of cyclin D1 transcription and up-stream inhibition of ErbB signaling pathways – might be synergistic.

In the published study, the synergistic effect of seliciclib combinations with ErbB targeting agents on tumor growth was explored. In vitro, the combination of seliciclib and Herceptin resulted in greater loss of cyclin D1 and increased down-regulation of HER2 than either compound produced independently. Similarly, the combination of seliciclib and EGFR inhibitors resulted in an increased down-regulation of EGFR and greater reduction in cyclin D1 than either compound produced alone. In both studies, the effects on ErbB receptors and cyclin D1 production were expressed as a synergistic inhibition of tumor cell growth, producing significantly greater inhibition than either drug when given alone.

Confirmation of the synergy between seliciclib and Tarceva was observed in mouse xenograft models of non-small cell lung cancer. In these studies, the combination of seliciclib and Tarceva resulted in a reduction in tumor volume from an average of 700 mm3 to 153 mm3 (representing 93% tumor growth inhibition) by the 49th day of treatment. This effect was statistically significant when compared to tumor growth inhibition for Tarceva or seliciclib alone. Immunohystochemical analysis confirmed a dramatic reduction in cyclin D1 production in the xenografts treated with the combination of seliciclib and Tarceva compared with xenografts from mice treated with either agent as monotherapy.

Editors notes:

* The published study, Fleming I, Hogben M, Frame S, McClue S, Green S. Synergistic Inhibition of ErbB Signaling by Combined Treatment with Seliciclib and ErbB-Targeting Agents. Clin Cancer Res (2008) 14: 4326-4335, may be downloaded from the journal website at http://clincancerres.aacrjournals.org.

† The aforementioned research by Dr. Abelardo López-Rivas et al is published in the journal Cell Research. Dr. López-Rivas and colleagues explored the mechanism by which seliciclib (roscovitine) is able to sensitize tumor cells to chemotherapy by

down-regulating Mcl-1, a protein that has been shown to protect cancer cells from apoptosis. Seliciclib's activity was studied by Dr. López-Rivas in combination with a tumor necrosis factor (TNF)-related apoptosis-inducing ligand (TRAIL) chemotherapy regimen in breast cancer cells.

The relevant citation is as follows: Ortiz-Ferrón G, Yerbes R, Eramo A, López-Pérez A, De Maria R, López-Rivas A. Roscovitine sensitizes breast cancer cells to TRAIL-induced apoptosis through a pleiotropic mechanism. Cell Research (2008) :1-13.

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 orally-available Cyclacel drugs are in clinical development. Sapacitabine (CYC682), a 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. Seliciclib (CYC202 or R-roscovitine), a CDK (cyclin dependent kinase) inhibitor, is in Phase 2 for the treatment of lung cancer and nasopharyngeal cancer and in Phase 1 in combination with Tarceva®. CYC116, an 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 hematology, oncology and other therapeutic areas based on a portfolio of commercial products and a development pipeline of novel drug candidates.

Please visit www.cyclacel.com for additional information. Note: The Cyclacel logo and Cyclacel® are trademarks of Cyclacel Pharmaceuticals, Inc.; Numoisyn™ and Xclair® are trademarks of Sinclair Pharma plc.; Tarceva® is a trademark of OSI Pharmaceuticals, Inc.; and Herceptin® is a trademark of Genentech, Inc.

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.

Contacts for Cyclacel:

Cyclacel Pharmaceuticals, Inc.
Corey Sohmer
(908) 517-7330

WeissComm Partners
Aline Schimmel
(312) 284-4706

College Hill, Life Sciences
Sue Charles & Justine Lamond
+44 (20) 7866 7857