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PHARMACYCLICS ANNOUNCES PRESENTATION OF DATA AT ASCO THAT SUPPORT USE OF NEUROLOGIC ENDPOINT IN BRAIN METASTASES STUDIES

-ASCO Abstract #1534-

Orlando, Fla. – May 16, 2005 -- Pharmacyclics, Inc. (Nasdaq: PCYC) today announced the presentation of data that validates the time-to-neurologic progression endpoint, which has been used in clinical trials evaluating Xcytrin® (motexafin gadolinium) Injection for the potential treatment of lung cancer patients with brain metastases. The presentation took place at the 2005 American Society of Clinical Oncology Annual Meeting (ASCO) being held this week at the Orange County Convention Center in Orlando, FL.

The purpose of this study was to compare the outcomes of the time-to-neurologic progression (TNP) endpoint using the blinded events review committee (ERC) procedures performed in an earlier published Phase 3 trial of whole brain radiation therapy (WBRT) with or without Xcytrin Injection to other clinical endpoints. The TNP endpoint was found to correlate with commonly used measures of clinical benefit such as survival, radiologic tumor progression and loss of functional independence.

"We believe these data validate the use of a blinded events review committee for determination of neurologic endpoints in clinical trials for patients with brain metastases," stated Markus Renschler, M.D., vice president of Oncology Clinical Development at Pharmacyclics and co-author on the study. "TNP outcomes correlate

very well with other measures of clinical benefit such as survival and tumor response. Our Phase 3 SMART trial is currently using similar procedures for the measurement of TNP, the primary endpoint of the trial."

Researchers at the Barrow Neurological Institute in Phoenix, AZ, analyzed results from the 401 patients treated in a previous Phase 3 trial, all of whom had metastatic cancer to the brain resulting either from lung, breast or other types of solid tumors. The patients were given standardized neurological exams and neurocognitive tests, and had evaluation of symptoms, functional independence (Barthel Index) and tumor response by magnetic resonance imaging (MRI). TNP was then compared to commonly used clinical endpoints such as survival, tumor response by MRI and time-to-loss of functional independence.

The data showed that the procedures used to evaluate neurologic outcomes produced results very consistent with other clinical benefit outcomes. Patients with neurologic progression, as determined by the ERC, had inferior survival compared to patients who did not have neurological progression ($P<0.001$). Patients whose tumors were shown to progress by MRI had shorter TNP as determined by the ERC compared to those patients with stable or improved cancers ($P<0.001$). Patients with neurological progression as determined by the ERC lost functional independence more rapidly than those with no neurological progression as determined by the ERC ($P<0.001$)

About Xcytrin

Pharmacyclics is developing Xcytrin as an anti-cancer agent with a novel mechanism of action that is designed to selectively concentrate in tumors and induce apoptosis (programmed cell death). Pharmacyclics has been granted Fast-Track status by the U.S. Food and Drug Administration (FDA) for Xcytrin for the treatment of brain metastases (cancer that has spread to the brain from another part of the body) in non-small cell lung

cancer (NSCLC) patients. Xcytrin is currently being evaluated in a randomized Phase 3 clinical trial (the SMART trial) that recently completed enrollment and is designed to compare the effects of WBRT alone to WBRT plus Xcytrin for the treatment of brain metastases in patients suffering from NSCLC. The primary endpoint of the SMART trial is TNP determined by a blinded ERC; survival is a secondary endpoint of the trial. Xcytrin also is currently under investigation in several Phase 1 and Phase 2 clinical trials in various cancers evaluating its use as a single agent and in combination with chemotherapy and/or radiation therapy.

About Pharmacyclics

Pharmacyclics is a pharmaceutical company developing innovative products to treat cancer and atherosclerosis. The company's products are rationally designed, ring-shaped small molecules called texaphyrins that are designed to selectively target and disrupt the bioenergetic processes of diseased cells, such as cancer and atherosclerotic plaque. More information about the company, its technology, and products in development can be found on its website at www.pharmacyclics.com. Pharmacyclics®, Xcytrin® and the "pentadentate" logo® are registered trademarks of Pharmacyclics, Inc.

NOTE: Other than statements of historical fact, the statements made in this press release about enrollment and future plans for our clinical trials, progress of and reports of results from preclinical and clinical studies, including results from our SMART trial, clinical development plans and product development activities are forward-looking statements, as defined in the Private Securities Litigation Reform Act of 1995. The words "believe," "will," "continue," "plan," "expect," "intend," "anticipate," variations of such words, and similar expressions also identify forward-looking statements, but their absence does not mean that the statement is not forward-looking. The forward-looking statements are not guarantees of future performance and are subject to risks and uncertainties that may cause actual results to differ materially from those in the forward-looking statements. Factors that could affect actual results include risks associated with the initiation, timing, design, enrollment and cost of clinical trials; the fact that data from preclinical studies and Phase 1 or Phase 2 clinical trials may not necessarily be indicative of future clinical trial results; our ability to collect complete and audited data from clinical sites participating in our SMART trial, our ability to establish successful

partnerships and collaborations with third parties; the regulatory approval process in the United States and other countries; and future capital requirements. For further information about these risks and other factors that may affect the actual results achieved by Pharmacyclics, please see the company's reports as filed with the U.S. Securities and Exchange Commission from time to time, including but not limited to its quarterly report on Form 10-Q for the period ended March 31, 2005. Forward-looking statements contained in this announcement are made as of this date, and we undertake no obligation to publicly update any forward- looking statement, whether as a result of new information, future events or otherwise.

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