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PHARMACYCLICS ANNOUNCES ENCOURAGING PHASE 2 DATA WITH XCYTRIN® IN RECURRENT NON-SMALL CELL LUNG CANCER PATIENTS

SEOUL, Korea and SUNNYVALE, Calif., -- September 5, 2007 -- Pharmacyclics, Inc. (Nasdaq: PCYC) today announced results from three open-label, multi-center Phase 2 clinical trials evaluating Xcytrin® (motexafin gadolinium) Injection, the company's lead product candidate, as a single-agent and in combination with chemotherapy as a second-line treatment for patients with non-small cell lung cancer (NSCLC) who failed at least one platinum-based chemotherapy regimen. The results were presented today at the 12th World Conference on Lung Cancer of the International Association for the Study of Lung Cancer.

The first Phase 2 trial is evaluating the safety, tumor response and survival in patients with recurrent NSCLC who are treated with Xcytrin as a single agent. Patients in the trial were randomized to receive either a 10mg/kg dose of Xcytrin every week, or a 15mg/kg dose every three weeks. Of 60 evaluable patients, there was a confirmed response rate of 5%, or three partial responses (using Response Evaluation Criteria in Solid Tumors). Seventeen patients (30%) had stable disease. Median survival was 9.2 months, with one year survival of 34%. The most common severe (grade 3 or higher) side effects were hypophosphatemia (23%), fatigue (12%), dyspnea (8.3%), hypoxia (6.7%), and pneumonia (6.7%).

A second ongoing study is evaluating Xcytrin in combination with Alimta® (pemetrexed) and has enrolled 52 patients of which 35 are evaluable for survival and 24 are evaluable

for response at this time. Patients have received a median of three cycles (range of 1-12 cycles) of 15mg/kg Xcytrin with a standard dose of Alimta every 21 days. Eighteen of the 24 patients with response data receiving Xcytrin and Alimta have achieved stabilization of their tumors (75%), with three of the 18 still on treatment. Patients still on treatment remain under evaluation for tumor response. For the 35 patients evaluable for survival, the median survival time exceeds one year with an actuarial one year survival of 52%. The most common severe side effects were asthenia (11.4%), pneumonia (8.6%), thrombocytopenia (8.6%), and neutropenia (8.6%).

The third ongoing study is testing the combination of Xcytrin plus Taxotere® (docetaxel) and has enrolled 35 patients of which 23 are evaluable for response at this time. Patients have received a median of four cycles (range of 1-9 cycles) of 15 mg/kg Xcytrin with a standard dose of Taxotere every 21 days. One patient (4%) receiving Xcytrin and Taxotere has a partial remission, and 17 patients (74%) have achieved stabilization of their tumors. Seven patients still on treatment remain under evaluation for tumor response. The median survival time is 8.6 months with a one year actuarial survival of 34%. The most common severe side effects were neutropenia (19.4%), asthenia (12.9%), and febrile neutropenia (9.7%).

With currently available therapies, response rates to second-line treatments for NSCLC range from 4% to 10% with median survivals of about 6 months. Currently approved agents for second-line treatment of NSCLC include Alimta, Tarceva® and Taxotere.

"These results support Xcytrin's activity in lung cancer, with patients who failed previous treatment with a platinum therapy exhibiting tumor responses and a high proportion of stable disease following single-agent treatment with Xcytrin," said Richard A. Miller, M.D., president and CEO of Pharmacyclics. "Although early, the combination studies are very promising with stable disease and very encouraging survival seen in a substantial proportion of patients."

About Non-Small Cell Lung Cancer

The American Cancer Society estimates that there will be more than 213,000 new cases of lung cancer in the United States in 2007. Lung cancer is the leading cause of cancer death, and accounts for over 160,000 deaths in the United States each year. The most common form of lung cancer, non-small cell, is incurable in advanced stages. Lung cancer frequently spreads to other body parts, including the brain.

Xcytrin in Second-Line Lung Cancer

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). Xcytrin is a redox-active drug that has been shown to disrupt redox-dependent pathways in cells and inhibit oxidative stress-related proteins such as thioredoxin reductase. Its multifunctional mode of action, including its magnetic resonance imaging detectability, provides the opportunity for Xcytrin to be used in a broad range of cancers.

The target for Xcytrin is the enzyme thioredoxin reductase, which is frequently overexpressed in lung cancer cells. This enzyme has been shown to confer to cancer cells characteristics of aggressive tumor growth and resistance to chemotherapy.

About Pharmacyclics

Pharmacyclics is a pharmaceutical company developing innovative products to treat cancer and other serious diseases. The company is leveraging its small-molecule drug development expertise to build a pipeline in oncology and other diseases based on a wide range of targets, pathways and mechanisms. Its lead product, Xcytrin® (motexafin gadolinium) Injection, has completed Phase 3 clinical trials and several ongoing Phase 1 and Phase 2 clinical trials are evaluating Xcytrin, either as a single agent or in combination with chemotherapy and/or radiation in multiple cancer types. A New Drug Application for use of Xcytrin in combination with whole brain radiation therapy for treatment of brain metastases from non-small cell lung cancer was filed with the Food and Drug Administration in April 2007. More information about the company, its technology, and products can be found at www.pharmacyclics.com. In addition, more

information about advocacy on behalf of Xcytrin can be found at www.yourcanceryourchoice.com. Pharmacyclics®, Xcytrin® and the "pentadentate" logo® are registered trademarks of Pharmacyclics, Inc.

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NOTE: Other than statements of historical fact, the statements made in this press release about our NDA filing, enrollment and future plans for our clinical trials, progress of and reports of results from preclinical and clinical studies, 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," "may," "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 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 obtain future financing and fund the product development of our pipeline; the possibility that the FDA refuses to approve our NDA; because our Phase 3 clinical trial known as the SMART (**S**tudy of Neurologic Progression with **M**otexafin Gadolinium **A**nd **R**adiation **T**herapy) trial failed to meet its primary endpoint, the FDA may require additional data, analysis or studies before the NDA is approved by the FDA; the outcome of any discussions with the FDA; the initiation, timing, design, enrollment and cost of clinical trials; unexpected delays in clinical trials and preparation of materials for submission to the FDA as part of our NDA filing; our ability to establish successful partnerships and collaborations with third parties; the regulatory approval process in the United States and other countries; and our 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 annual report on Form 10-K for the period ended June 30, 2006 and its subsequently filed quarterly reports on Form 10-Q. 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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