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PHARMACYCLICS ANNOUNCES PRESENTATION OF RESULTS FROM PHASE 1/2 TRIAL OF XCYTRIN PLUS ZEVALIN AND PRECLINICAL DATA WITH NOVEL BTK AND HDAC INHIBITORS

- Presentations at ASH 2007 Highlight Diverse Pipeline -

SUNNYVALE, Calif. -- December 10, 2007 -- Pharmacyclics, Inc. (Nasdaq: PCYC) today announced data from a Phase 1/2 study demonstrating a 59 percent overall response rate in patients with multiply recurrent non-Hodgkin's lymphoma (NHL) who were treated with Xcytrin® (motexafin gadolinium) Injection in combination with Zevalin® (Yttrium-Ibritumomab Tiuxetan). The Company also presented data from preclinical studies demonstrating anti-tumor activity in lymphoma with its Bruton's tyrosine kinase (BTK) inhibitor and with its novel histone deacetylase (HDAC) inhibitor in combination with Velcade® (bortezomib). These data were presented at the American Society of Hematology (ASH) 49th Annual Meeting taking place this week in Atlanta, GA.

The Phase 1/2 study (n=28) of Xcytrin plus Zevalin, which was conducted in collaboration with investigators at Northwestern University Feinberg School of Medicine, showed a 59 percent overall response rate (complete plus partial response) and 48 percent complete response rate in patients with multiply recurrent NHL. In patients who were Rituxan® (rituximab) refractory (n=14), the overall response rate was 86 percent, with a 64 percent complete response rate. In patients with aggressive lymphoma (n=10), the overall and complete response rate was 22 percent.

In a second study, researchers tested the effects of Pharmacyclics' BTK inhibitor, PCI-32765, on B-cell receptor (BCR) -expressing human lymphoma cell lines. Results of the study demonstrated that PCI-32765 inhibits growth of these tumor cells by inhibiting BCR signaling, a critical factor in the survival of NHL cells. In animal studies, a single oral dose of PCI-32765 inhibited BTK activity, required for BCR signaling, for up to 24 hours. Data were also presented describing a new fluorescent BTK molecular probe, which was used as a pharmacodynamic marker and may allow optimization of dosing and schedule for future clinical trials.

Results from a third study, done in collaboration with researchers from Northwestern, demonstrate that Pharmacyclics' HDAC inhibitor, PCI-24781, suppressed RAD51 gene

expression in NHL cell lines, leading to the inhibition of homologous recombination, a cellular mechanism of DNA repair. The data also show that RAD51, a gene that provides instructions for making a protein essential for the repair of damaged DNA, is overexpressed in a majority of follicular lymphomas and diffuse large B-cell lymphomas (DLCBL). As a result of these data and other data published recently in the *Proceedings of the National Academy of Sciences*, Pharmacyclics plans to use RAD51 as a novel biomarker that may predict clinical efficacy of PCI-24781 in cancer patients. PCI-24781 is currently in Phase 1/2 clinical trials evaluating its safety and effectiveness in both solid and hematologic malignancies.

A fourth study, also done in collaboration with investigators at Northwestern, demonstrated that PCI-24781 and bortezomib are active in Hodgkin's lymphoma and NHL cell lines and that the combination results in synergistic apoptosis. Synergistic downregulation of the nuclear factor kappa B pathway also was observed.

"These presentations at ASH highlight continued progress with the drug candidates from our diverse pipeline," said Richard A. Miller, M.D., president and CEO of Pharmacyclics. "In addition to the HDAC inhibitor now in phase 1/2 trials, our novel BTK inhibitor is in IND-enabling studies potentially leading to clinical applications in B cell lymphoma and autoimmune diseases. Our proprietary biomarker will be used in clinical trials with our HDAC inhibitor to predict drug sensitivity and may facilitate development of the product."

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). 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. In previously conducted randomized trials, Xcytrin combined with whole brain radiation therapy (WBRT) has been shown to prolong time to neurologic progression in patients with brain metastases from NSCLC. Xcytrin's non-overlapping toxicity makes it an appealing agent to use in combination with standard chemotherapy regimens.

About Bruton's Tyrosine Kinase and Immune Diseases
B-cells are immune cells, which are activated by antigens, pathogens or, in the case of autoimmunity, by host tissues. B-cells produce antibodies, which when self-reactive can trigger autoimmune disease. Activation of B-cells is also thought to play a major role in lymphomas where continuous, or tonic, stimulation results in uncontrolled B-cell proliferation. BTK is a tyrosine kinase inside B-cells that plays an early key role in B-cell activation. Drugs that can inhibit BTK may prevent B-cell activation and therefore may play a role in treatment of lymphomas or autoimmune disease. Other tyrosine kinases are important in cell signaling and have been targets for other drugs such as Gleevec® (imatanib mesylate), which is approved for treatment of certain leukemias. New drug or biological candidates targeting B-cells, including Rituxan for lymphomas and rheumatoid arthritis, are aimed at eliminating abnormally functioning B-cells.

About HDAC Inhibition and Cancer
Histone deacetylase (HDAC) inhibitors are a new class of anticancer drugs that modulate transcriptional activity in cells and may thus block angiogenesis and cell cycling, key components of tumor proliferation. HDAC inhibitors also appear to promote apoptosis (cell death) and differentiation. These compounds also may improve the efficacy of existing cancer therapies and, because they target the transcription of specific disease-causing genes, may offer new therapeutic approaches to cancer therapy.

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. 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, initiation of and 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, 2007 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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