Pharmacyclics Initiates Phase 1 Clinical Trial of Novel Oral Btk Inhibitor for Refractory B-cell Non-Hodgkin's Lymphoma

--Multiple Pharmacyclics Presentations to be made at the American Association of Cancer Research (AACR) 100th Annual Meeting 2009 in Denver, CO

SUNNYVALE, Calif., April 13, 2009 /PRNewswire-FirstCall via COMTEX News Network/ -- Pharmacyclics, Inc. (Nasdaq: PCYC) today announced that it has begun treating patients in a Phase 1 dose-escalation study to evaluate the safety and tolerability of PCI-32765, an orally available, selective inhibitor of Bruton's tyrosine kinase, or Btk, as a potential treatment for patients with relapsed or refractory B-cell non-Hodgkin's lymphoma (NHL). This is the first Btk selective inhibitor to be tested in humans, and is Pharmacyclics' fourth product in clinical development.

Bruton's tyrosine kinase is the gene that is disrupted in the human disease X-linked agammaglobulenemia (XLA). Patients with XLA are devoid of mature B-lymphocytes and immunoglobulins in the bloodstream, but are otherwise healthy. XLA thus provides strong clinical rationale for development of a novel therapeutic drug targeting Btk for safe inhibition of B-cell mediated diseases. In preclinical studies, PCI-32765 has the remarkable ability to selectively inhibit human B-cell activation without effecting T cells. Strong preclinical validation of Btk as a target in lymphoma was generated using PCI-32765 in a mouse model of B-cell receptor-driven lymphoma and in spontaneous B-cell lymphoma in companion canines. These studies will be reported in presentations at the 2009 AACR annual meeting in Denver, Colorado (see below). Unlike anti-CD20 protein therapies, treatment with PCI-32765 in animal models is not myeloablative, which could result in prolonged and dangerous immunosuppression for the patient.

> "This is a very selective compound for B-cells, and it could represent an important alternative to rituximab therapy for the treatment of B-cell NHL. Other obvious applications include autoimmune disorders such as rheumatoid arthritis and lupus, and Pharmacyclics also has strong preclinical efficacy with PCI-32765 in these disease models," said Dr. Mark Genovese, Professor of Medicine and Co-Chief of the Division of Immunology and Rheumatology at Stanford University Medical Center and member of Pharmacyclics' Scientific Advisory Board.

"Despite recent success with biologics in the treatment of B-cell NHL, there is still a large group of patients that do not respond to therapy or who experience recurrence," said Ranjana Advani, MD, Associate Professor, Stanford University Medical Center and principle investigator of the Phase 1 clinical trial. "A drug that could not only have an impact on this patient group, but also be delivered orally would represent a significant step forward in the treatment of this disease."

This Phase 1 study is evaluating the safety and pharmacokinetics of PCI-32765 in patients with refractory B-cell non-Hodgkin's lymphoma at Stanford University, MD Anderson Cancer Center and the University of Chicago using a 28-day dose-escalation design. The study is also utilizing a proprietary pharmacodynamic assay developed by Pharmacyclics to directly assess Btk drug occupancy. Preliminary results from the Phase I trial shows good patient tolerability under conditions of Btk-drug occupancy with potent bioactivity in targeted cell populations derived from the B-cell lymphoma patients.

Pharmacyclics Btk Presentations at AACR

Monday April 20, 2009

9:30 am - 1:00 pm; Minisymposium Novel Molecular Targets / Targeting Cell Death Pathways; Experimental and Molecular Therapeutics 12 Room 405-407, Colorado Convention Center 9:40am-9:55am

#1984 Btk is a Novel Therapeutic Target to Treat Large B-cell Lymphomas Ryan M. Young, Ashley Smith, Lee Honigberg, Yosef Refaeli. National Jewish Health, Denver, CO, Pharmacyclics, Inc., Sunnyvale, CA

Tuesday April 21, 2009

8:00 am - 12:00 pm Poster Session Kinase Inhibitors 3 Experimental and Molecular Therapeutics 24 Hall B-F, Poster Section 36

8:00 am - 12:00 pm Poster Board Number 24

#3740 A Clinical Trial of the Bruton's Tyrosine Kinase (Btk) Inhibitor PCI-32765 in Naturally Occurring Canine Lymphoma. Lee A. Honigberg, Ashley M. Smith, David J. Loury, Joseph J. Buggy, Douglas H. Thamm. Pharmacyclics, Sunnyvale, CA, Colorado State University Animal Cancer Center, Fort Collins, CO

About Pharmacyclics' Btk Inhibitor Program

PCI-32765 is currently targeted for oncology while other Pharmacyclics Btk inhibitors are being developed for application to autoimmune and inflammatory diseases. Bruton's tyrosine kinase is a critical enzyme involved in B-cell activation and function, and inhibition may be useful in the treatment of a number of immune mediated diseases. B-cells are a type of white blood cell that normally play an important role in the body's immune response. However, when B-cells are overactive, the immune system produces inflammatory cells and antibodies that begin to attack the body's own tissue, leading to autoimmune disorders. Also many lymphomas are caused by uncontrolled growth of B-cells where activation of the B-cell receptor and Btk signaling are thought to play important roles.

In addition to being studied in a Phase 1 trial for refractory B-cell non- Hodgkin lymphoma, PCI-32765 has been evaluated in preclinical studies in collagen-induced arthritis, an established animal model for RA. In these studies, PCI-32765 dramatically reduced inflammation and induced regression of established disease as reported at the Federation of Clinical Immunology Societies (FOCIS) 2008 annual meeting .

About B-cell Non-Hodgkin's Lymphoma

Lymphoma is cancer of the lymphatic system, an integral part of the immune system, and is typically classified as either Hodgkin's or non-Hodgkin's lymphoma (NHL). NHL is the most prevalent type of lymphoma: the National Cancer Institute estimates there will be more than 66,000 new cases and over 19,000 deaths from NHL in the United States in 2008. There are many different types of NHL, which are generally divided as either B-cell, the most common, or T-cell NHL. Though treatment of NHL has improved significantly, nearly 25% of patients with B-cell lymphomas do not respond to standard therapy, which generally consists of high-dose radiotherapy, chemotherapy or a combination of both.

About Pharmacyclics

Pharmacyclics(R) is committed to creating and developing novel pharmaceutical products that treat serious unmet medical needs in oncology and autoimmune diseases. Its deep and broad pipeline includes four first in class/best in class drug candidates that are currently under clinical development. The Company is headquartered in Sunnyvale, California and is listed on NASDAQ under the symbol PCYC. To learn more about how Pharmacyclics advances science to improve human healthcare visit us at http://www.pharmacyclics.com.

NOTE:

This announcement may contain forward-looking statements made in reliance upon the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, including statements regarding our expectations and beliefs regarding our future results or performance. Because these statements apply to future events, they are subject to risks and uncertainties. When used in this announcement, the words "anticipate", "believe", "estimate", "expect", "expectation", "should", "would", "project", "plan", "predict", "intend" and similar expressions are intended to identify such forward-looking statements. Our actual results could differ materially from those projected in the forward-looking statements. Additionally, you should not consider past results to be an indication of our future performance. For a discussion of the risk factors and other factors that may affect our results, please see the Risk Factors section of our filings with the Securities and Exchange Commission, including our annual report on Form 10-K and quarterly reports on Form 10-Q. We do not intend to update any of the forward-looking statements after the date of this announcement to conform these statements to actual results, to changes in management's expectations or otherwise, except as may be required by law.

SOURCE Pharmacyclics

http://www.pharmacyclics.com