Cyclacel Pharmaceuticals Reports New Clinical Data at 2024 ASCO Annual Meeting Highlighting Oral Fadraciclib's Potential as a Precision Medicine for Cancer

June 3, 2024

- Clinical, PK and PD data from novel CDK2/9 inhibitor fadraciclib monotherapy studies support ongoing proof of concept study in patients with solid tumors and lymphoma -

BERKELEY HEIGHTS, N.J., June 03, 2024 (GLOBE NEWSWIRE) -- Cyclacel Pharmaceuticals, Inc. (NASDAQ: CYCC, NASDAQ: CYCCP; "Cyclacel" or the "Company"), a biopharmaceutical company developing innovative medicines based on cancer cell biology, today announced that new clinical, pharmacokinetic (PK) and pharmacodynamic (PD) data from the CYC065-101 study of fadraciclib as oral monotherapy was presented at a poster at the American Society of Clinical Oncology (ASCO) Annual Meeting from May 31-June 4, 2024 in Chicago, IL. See link to poster here.

"We are excited to report data with fadraciclib monotherapy from the entire Phase 1 population at ASCO. Clinical benefit was observed in heavily pretreated patients with several tumor types, including endometrial, lung, ovarian, pancreatic cancer, and T-cell lymphoma," said Spiro Rombotis, President and Chief Executive officer. "Retrospective analysis suggests that this activity may be associated in part with alterations in certain tumor suppressor genes forming a hypothesis which we are testing in the ongoing Phase 2 part of the study. We look forward to reporting initial proof of concept data in the second half of 2024."

"We are encouraged about the early safety and efficacy results of our novel therapeutic candidate fadraciclib. We are continuing fadraciclib's development in the proof of concept part of the 065-101 study, initially in patients prospectively selected for CDKN2A/CDKN2B alterations, followed by patients with T-cell lymphoma," added Brian Schwartz, M.D., interim Chief Medical Officer.

New clinical, PK and PD data were presented at ASCO from the fully enrolled, Phase 1, dose escalation part of the CYC065-101 study of fadraciclib as monotherapy (n=47). The patients were heavily pretreated, having received a median of four prior lines of therapy.

Fadraciclib was generally well tolerated with good compliance between dose levels 1 and 5. The most common treatment related adverse events reported were nausea (66.0%), vomiting (46.8%), diarrhea (31.9%) fatigue (25.5%), and hyperglycemia (21.3%). A total of 25 drug-related SAEs were reported in 8 patients, with most common being hyperglycemia (n=4), platelet count decrease (n=3), and accidental overdose (n=3).

There were no drug-related SAEs at dose level 5 (100 mg bid, 5 days a week, for 4/4 weeks) which was selected for the Phase 2 proof of concept part of the 065-101 study. PKs were dose-proportional and exceeded the preclinical efficacy targets for both CDK2 and CDK9. PDs evaluated in peripheral blood showed suppression of CDKN2A/B by four hours post treatment in most patients who received 100 mg bid or higher.

A total of 34 patients had measurable target lesions at baseline. Two partial responses were reported in patients with T-cell lymphoma, one of whom had CDKN2A loss. A squamous non-small cell lung (NSCLC) cancer patient with CDKN2A and CDKN2B loss achieved 22% reduction in tumor burden at 4 weeks per RECIST 1.1 criteria. In addition, clinical benefit was reported in two patients with endometrial cancer, and one each with ovarian and pancreatic cancers.

The proof of concept part of the study is now enrolling patients with CDKN2A/B loss or T-cell lymphoma.

Details of the presentations are as follows:

Title: A phase 1 study evaluating the safety, pharmacokinetics, and efficacy of fadraciclib, an oral CDK2/9 inhibitor, in patients with advanced solid tumors and lymphoma

Abstract No. for Publication: 3125

Session Title: Poster Session – Developmental Therapeutics—Molecularly Targeted Agents and Tumor Biology

Date and Time: June 1, 2024, 9:00 AM - 12:00 PM CDT

About Cyclin-Dependent Kinases and Fadraciclib

Cyclin-dependent kinases (CDKs) are critical for cell cycle control and transcriptional regulation. Dysregulated CDKs have been linked to the cancer hallmarks of uncontrolled proliferation and increased cancer cell survival. Fadraciclib is a highly selective, potent, orally and intravenously available, next generation inhibitor of CDK2 and CDK9. By inhibiting CDK2 and CDK9 fadraciclib causes apoptotic death through anaphase catastrophe of cancer cells at sub-micromolar concentrations.

To date single agent activity, including CR, PR and SD, has been observed in patients with advanced endometrial, squamous non-small cell lung, ovarian and pancreatic cancers and also T-cell lymphoma. In an earlier Phase 1 study of intravenous (IV) fadraciclib, a heavily pretreated endometrial cancer patient with CDKN2A, CDKN2B and MTAP loss achieved confirmed CR and remained on treatment for approximately three years.

065-101 Study of Oral Fadraciclib

Oral fadraciclib is being tested in a Phase 1/2 trial for the treatment of advanced solid tumors and lymphoma (065-101; NCT#04983810). A total of 47 patients have been treated as monotherapy in this ongoing study. The study is enrolling unselected, all comer patients with advanced solid tumors and lymphoma.

The proof of concept part of the 065-101 study is designed to further evaluate fadra safety and efficacy in up to 8 cohorts defined by histology and/or NGS. The study is currently enrolling the biomarker cohort for patients prospectively selected for CDKN2A/CDKN2B alterations and the T-cell lymphoma cohort. The study is powered to demonstrate response in the molecular subtype suggested by the Phase 1 data and others that may be sensitive.

CDKN2A, CDKN2B deletions

CDKN2A gene deletions occur in over 10% of several solid tumors, including glioma, head and neck, pancreatic, esophageal, lung (incl. squamous), bladder, hepatobiliary, breast, melanoma, sarcoma, and others. CDKN2A deletions have been reported in 46% of patients with PTCL-NOS, a subtype of lymphoma. CDKN2B deletions occur in over 10% of several solid tumors, including bladder, glioma, lung (incl. squamous), head and neck, pancreatic, melanoma, esophageal, sarcoma, hepatobiliary, breast, ovarian and others.

About Cyclacel Pharmaceuticals, Inc.

Cyclacel is a clinical-stage, biopharmaceutical company developing innovative cancer medicines based on cell cycle, transcriptional regulation and mitosis biology. The transcriptional regulation program is evaluating fadraciclib, a CDK2/9 inhibitor, and the anti-mitotic program CYC140, a PLK1 inhibitor, in patients with both solid tumors and hematological malignancies. Cyclacel's strategy is to build a diversified biopharmaceutical business based on a pipeline of novel drug candidates addressing oncology and hematology indications. For additional information, please visit www.cyclacel.com.

Forward-looking Statements

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, statements related to the intended use of proceeds from the private placement, 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, trials may have difficulty enrolling, Cyclacel may not obtain approval to market its product candidates, 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. For a further list and description of the risks and uncertainties the Company faces, please refer to our most recent Annual Report on Form 10-K and other periodic and other filings we file with the Securities and Exchange Commission and are available at www.sec.gov. Such forward-looking statements are current only as of the date they are made, and we assume no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

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