Agios Announces Initiation of Phase 1b Frontline Trial of AG-221 or AG-120 in Combination with Intensive Chemotherapy in Newly Diagnosed Acute Myeloid Leukemia (AML) Patients

December 18, 2015

Frontline Combination Study of AG-221 or AG-120 in AML Patients Not Eligible for Intensive Chemotherapy on Track for Initiation in First Quarter of 2016

CAMBRIDGE, Mass., Dec. 18, 2015 (GLOBE NEWSWIRE) -- Agios Pharmaceuticals, Inc. (NASDAQ:AGIO), a leader in the fields of cancer metabolism and rare genetic metabolic disorders, today announced the initiation of a Phase 1b, multicenter, international, open-label study of AG-221 or AG-120 in combination with induction and consolidation therapy in patients with newly diagnosed acute myeloid leukemia (AML) with an isocitrate dehydrogenase (IDH) mutation who are eligible for intensive chemotherapy. AG-221 and AG-120 are first-in-class, oral, selective, potent inhibitors of mutant IDH2 and IDH1, respectively, and are being developed in collaboration with Celgene.

“The five-year survival rate for AML is just 20 to 25 percent, and treatment options for newly diagnosed AML patients have not changed in decades,” said Courtney DiNardo, M.D., lead investigator and assistant professor, department of leukemia at the University of Texas MD Anderson Cancer Center. “By combining a targeted therapy such as AG-221 or AG-120 with standard-of-care intensive chemotherapy in the newly diagnosed setting, we have the potential to provide significant clinical benefit early in the course of treatment.”

“Having established favorable safety profiles and durable single agent response rates for AG-221 and AG-120 in advanced AML, we believe there is a compelling case to evaluate our IDH mutant inhibitors in the frontline setting with standard of care,” said Chris Bowden, M.D., chief medical officer of Agios. “Our goal is to advance AG-221 and AG-120 as rapidly as possible in a broad population in order to bring better treatment options to patients in need. This study is the first wave of our frontline strategy, with a second trial, being conducted by Celgene, combining our IDH mutant inhibitors with VIDAZA® in patients not eligible for intensive chemotherapy planned for the first quarter of 2016.”

About the Phase 1b Frontline Combination Trial of AG-221 or AG-120 in Newly Diagnosed AML Patients Eligible for Intensive Chemotherapy

The Phase 1b, multicenter, international, open-label clinical trial will evaluate the safety and clinical activity of AG-221 or AG-120 in combination with induction and consolidation therapy in patients with newly diagnosed AML with an IDH2 and/or IDH1 mutation who are eligible for intensive chemotherapy. The study will evaluate continuous dosing for up to one year with AG-221 administered at an initial oral dose of 100 mg once daily in patients with an IDH2 mutation or AG-120 administered at an initial oral dose of 500 mg once daily in patients with an IDH1 mutation. AG-221 or AG-120 will be administered with two types of AML induction therapies (cytarabine with either daunorubicin or idarubicin) and two types of AML consolidation therapies (mitoxantrone with etoposide [ME] or cytarabine).

The primary endpoint of the trial is to determine safety and tolerability, and the secondary endpoints include: characterization of pharmacokinetics, establishment of the recommended Phase 2 dose, and evaluation of 2-HG levels and clinical activity of the combination with standard induction. This study is open for enrollment and will include approximately twenty centers that will enroll up to 90 patients.

All patients will receive induction therapy in combination with AG-120 or AG-221. Patients who achieve a complete remission (CR), CR with incomplete platelet recovery (CRp) or CR with incomplete hematologic recovery (CRi) at the end of induction therapy will go on to receive consolidation therapy. Following consolidation therapy, patients may continue on maintenance therapy and receive daily treatment with AG-120 or AG-221 for up to one year, until relapse, development of an unacceptable toxicity or hematopoietic stem cell transplant (HSCT).

Please refer to www.clinicaltrials.gov for additional clinical trial details.

About Acute Myelogenous Leukemia (AML)

AML, a cancer of blood and bone marrow characterized by rapid disease progression, is the most common acute leukemia affecting adults. Undifferentiated blast cells proliferate in the bone marrow rather than mature into normal blood cells. AML incidence significantly increases with age, and according to the American Cancer Society, the median age of onset is 66. Less than 10 percent of U.S. AML patients are eligible for bone marrow transplant, and the vast majority of patients do not respond to chemotherapy and progress to relapsed/refractory AML. The five-year survival rate for AML is approximately 20 to 25 percent. IDH2 mutations are present in about 9 to 13 percent of AML cases.

About IDH Mutations and Cancer

IDH1 and IDH2 are two metabolic enzymes that are mutated in a wide range of hematologic and solid tumor malignancies, including AML. Normally, IDH enzymes help to break down nutrients and generate energy for cells. When mutated, IDH increases production of an oncometabolite 2-hydroxyglutarate (2HG) that alters the cells' epigenetic programming, thereby promoting cancer. 2HG has been found to be elevated in several tumor types. Agios believes that inhibition of the mutated IDH proteins may lead to clinical benefit for the subset of cancer patients whose tumors carry them.

About Agios/Celgene Collaboration

AG-221, AG-120 and AG-881 are part of Agios' global strategic collaboration with Celgene Corporation. Under the terms of the collaboration, Celgene has worldwide development and commercialization rights for AG-221 (CC-90007). Agios continues to conduct clinical development activities within the AG-221 development program and is eligible to receive up to $120 million in payments on achievement of certain milestones and royalties on net sales. For AG-120, Agios retains U.S. development and commercialization rights and Celgene retains development and commercialization rights outside the U.S. Celgene is eligible to receive royalties on net sales in the U.S. Agios is eligible to receive royalties on net sales outside the U.S. and up to $120 million in payments on achievement of certain milestones. For AG-881, the companies have a joint worldwide development and 50/50 profit

share collaboration, and Agios is eligible to receive regulatory milestone payments of up to $70 million.

About Agios

Agios is focused on discovering and developing novel investigational medicines to treat cancer and rare genetic metabolic disorders through scientific leadership in the field of cellular metabolism. In addition to an active research and discovery pipeline across both therapeutic areas, Agios has multiple first-in-class investigational medicines in clinical and/or preclinical development. All Agios programs focus on genetically identified patient populations, leveraging our knowledge of metabolism, biology and genomics. For more information, please visit the company's website at agios.com.

Cautionary Note Regarding Forward-Looking Statements
This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Such forward-looking statements include those regarding the potential benefits of Agios' product candidates targeting IDH mutations, including AG-221 and AG-120; its plans and timelines for the clinical development of AG-221 and AG-120; and the benefit of its strategic plans and focus. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "potential," "possible," "hope," "could," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Such statements are subject to numerous important factors, risks and uncertainties that may cause actual events or results to differ materially from Agios' current expectations and beliefs. For example, there can be no guarantee that any product candidate Agios is developing will successfully commence or complete necessary preclinical and clinical development phases, or that development of any of Agios' product candidates will successfully continue. There can be no guarantee that any positive developments in Agios' business will result in stock price appreciation. Management's expectations and, therefore, any forward-looking statements in this press release could also be affected by risks and uncertainties relating to a number of other important factors, including: Agios' results of clinical trials and preclinical studies, including subsequent analysis of existing data and new data received from ongoing and future studies; the content and timing of decisions made by the U.S. FDA and other regulatory authorities, investigational review boards at clinical trial sites and publication review bodies; Agios' ability to obtain and maintain requisite regulatory approvals and to enroll patients in its planned clinical trials; unplanned cash requirements and expenditures; competitive factors; Agios' ability to obtain, maintain and enforce patent and other intellectual property protection for any product candidates it is developing; Agios' ability to maintain key collaborations, such as its agreement with Celgene; and general economic and market conditions. These and other risks are described in greater detail under the caption "Risk Factors" included in Agios' Quarterly Report on Form 10-Q for the quarter ended September 30, 2015, and other filings that Agios may make with the Securities and Exchange Commission in the future. Any forward-looking statements contained in this press release speak only as of the date hereof, and Agios expressly disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

Contact:
Renee Leck, Senior Manager, Investor Relations and Public Relations
Renee.Leck@agios.com
617-649-8299

Agios Pharmaceuticals