Kura Oncology Presents Updated Clinical Data from KOMET-001 Trial of Menin Inhibitor Ziftomenib at American Society of Hematology Annual Meeting

December 10, 2022

– 30% CR rate at 600 mg in 20 patients with relapsed/refractory NPM1-mutant AML –
– Low frequency of differentiation syndrome, including 5% rate (1/20) of ≥ Grade 3 among NPM1-mutant patients treated at 600 mg –
– 600 mg determined as recommended Phase 2 dose for ziftomenib in NPM1-mutant AML following positive Type C meeting with FDA –
– Company expects to dose first patient in Phase 2 registration-directed trial in NPM1-mutant AML in first quarter of 2023 –
– Further clinical development of KTM2A-rearranged AML to be pursued in combination with standards of care –
– Multiple combination studies of ziftomenib in NPM1-mutant and KMT2A-rearranged AML anticipated in 2023 –
– Management to host investor event today at 11:15 a.m. CT / 12:15 p.m. ET –

SAN DIEGO, Dec. 10, 2022 (GLOBE NEWSWIRE) -- Kura Oncology, Inc. (Nasdaq: KURA), a clinical-stage biopharmaceutical company committed to realizing the promise of precision medicines for the treatment of cancer, today announced updated clinical data from KOMET-001, a Phase 1/2 trial of the Company's potent and selective menin inhibitor, ziftomenib, including an encouraging safety and tolerability profile and clinical activity in patients with relapsed/refractory acute myeloid leukemia (AML).

These data are being featured during an oral session today at the American Society of Hematology (ASH) Annual Meeting. A copy of the presentation is available on Kura's website at www.kuraoncology.com/pipeline/#publications.

"NPM1-mutant and KMT2A-rearranged AML represent diseases of significant unmet need for which no approved targeted therapies exist," said Harry Erba, M.D., Ph.D., Director of the Leukemia Program at the Duke Cancer Institute. "Notably, NPM1-mutant disease accounts for approximately 30% of new AML cases annually. Although typically associated with a more favorable prognosis, the risk of relapse remains high after initial chemotherapy for NPM1-mutant AML, especially when other poor risk mutations such as FLT3 are present as well. Relapsed/refractory NPM1 mutated AML is associated with a poor prognosis. These data reported today demonstrate encouraging activity and manageable toxicity of ziftomenib in heavily pretreated AML patients with NPM1 mutations."

In the Phase 1a dose-escalation trial, ziftomenib demonstrated a wide therapeutic window and encouraging monotherapy activity in an all-comer population of 30 patients with relapsed/refractory AML, including a complete remission (CR) with no evidence of minimal residual disease (MRD) in an NPM1-mutant patient with DNMT3A and KMT2D co-mutations. The patient entered the trial having progressed through seven prior lines of therapy and remains on ziftomenib after two years.

In order to inform an optimal Phase 2 dose and in consultation with the U.S. Food and Drug Administration (FDA) and its Project Optimus initiative, Kura conducted a Phase 1b trial with two randomized expansion cohorts, each comprised of NPM1-mutant and KMT2A-rearranged AML patients. A total of 53 patients were ultimately treated in the Phase 1b trial: 17 at 200 mg and 36 at 600 mg. These patients were heavily pretreated and received a median of three prior lines of therapy (range 1-11), with the majority of patients having received prior venetoclax and a quarter having progressed after at least one prior stem cell transplant. As of the data cutoff on October 24, 2022, 10 of the patients treated at 600 mg remained on ziftomenib and 17 were still in follow-up. Median duration of response has not been reached.

Ziftomenib demonstrated optimal clinical benefit at 600 mg with a 30% CR rate (6/20) in patients with NPM1-mutant AML, compared to 17% (1/6) at 200 mg. Notably, four of the six NPM1-mutant patients who achieved a CR at 600 mg had IDH and/or FLT3 co-mutations. Overall, four of the seven patients with IDH co-mutations achieved a CR on ziftomenib. Of the five patients assessed for MRD at 600 mg, three were MRD negative.

Although meaningful clinical benefit was observed in patients with KMT2A rearrangements, symptoms of differentiation syndrome prevented most patients from receiving sufficient therapy to attain response criteria for CR or CR with partial hematologic recovery (CRh), and only one patient achieved a CR/CRh.

Continuous daily dosing of ziftomenib has been well tolerated. Reported adverse events most often were consistent with features of underlying disease. No evidence of drug-induced QTc prolongation was observed. Six patients discontinued due to adverse events; however, none of these were considered treatment related. The most common treatment-emergent adverse event observed was differentiation syndrome (DS), a known adverse event related to AML treatments that promote differentiation of AML cells. Of the 20 NPM1-mutant patients treated at 600 mg, four (20%) experienced DS; three of these events were less than Grade 3, and only one of these events (5%)was Grade 3. For KMT2A-rearranged patients, rates of DS were similar across doses, and approximately 38% of patients experienced DS; 25-30% of treated KMT2A-rearranged patients experienced Grade 3 or greater events.

Kura believes the higher incidence of DS observed in the KMT2A-rearranged patients is due to their much higher incidence of disease in extramedullary (outside of the bone marrow) sites, induced to differentiate by the high tissue penetrance demonstrated by ziftomenib preclinically. By combining ziftomenib with appropriate standards of care, the Company believes it can reduce this extramedullary disease burden and consequent DS symptoms, keep patients on ziftomenib therapy longer and drive superior treatment outcomes in patients with KMT2A-rearranged AML.

"We are excited by these data and the potential for ziftomenib to improve the lives of patients with acute leukemias," said Stephen Dale, M.D., Chief Medical Officer of Kura Oncology. "In addition to encouraging activity as a monotherapy in patients with NPM1 mutations, we believe ziftomenib is supportive of future combination strategies, with no predicted adverse drug-drug interactions and oral daily dosing that should enable convenient administration with standards of care. We believe that rational combination approaches will also help to mitigate DS in the KMT2A-rearranged

population, maximizing patients' time on therapy and ultimately leading to improved outcomes for patients in dire need of new therapeutic options."

Regulatory Update

Kura also announced that 600 mg has been determined as the recommended Phase 2 dose for ziftomenib in NPM1-mutant AML following a positive Type C meeting with the FDA. Agreement was also reached on key elements of a registration-enabling study design, and the Company is now preparing to initiate the Phase 2 registration-directed trial. Kura expects to dose the first patient in the first quarter of 2023, followed by a series of combination studies in frontline and relapsed/refractory AML that will prioritize development with venetoclax and FLT3 in combination.

"We believe our growing body of data support ziftomenib's position as a potential best-in-class menin inhibitor," said Troy Wilson, Ph.D., J.D., President and Chief Executive Officer of Kura Oncology. "Through our team's relentless hard work and dedication, we believe we have optimized the benefit-risk profile and paths forward in both the NPM1-mutant and KMT2A-rearranged subsets. The large number of patients treated in our Phase 1 experience provides a robust data set to support our Phase 2 registration-directed trial as well as combination studies. We have already begun the work needed to initiate both the first potentially registration-enabling study for ziftomenib as well as multiple studies in combination with standards of care and in earlier lines of therapy to realize the full potential of ziftomenib in the treatment of acute leukemias."

Investor Event

Kura's management will host an investor event at 11:15 a.m. CT / 12:15 p.m. ET today, December 10, 2022, following the oral presentation of updated data from the KOMET-001 clinical trial at the ASH Annual Meeting in New Orleans. The event will feature members of the Kura management team along with two investigators from the KOMET-001 clinical trial. A live webcast of the event will be available in the Investors section of Kura's website at www.kuraoncology.com, with an archived replay available shortly after the conclusion of the event.

About Acute Myeloid Leukemia

AML is the most common acute leukemia in adults and begins when the bone marrow makes abnormal myeloblasts (white blood cells), red blood cells or platelets. Despite the many available treatments for AML, prognosis for patients remains poor. Approximately 50% of patients with AML who achieve a CR after induction therapy relapse within one to three years. NPM1-mutations are among the most common genetic alterations, representing approximately 30% of AML. While patients with NPM1-mutant AML have high response rates to frontline therapy, relapse rates are high and survival outcomes are poor. Median overall survival is only six months following relapse for NPM1-mutant patients. KMT2A-rearrangements are less frequent, representing approximately 5-10% of AML, however these patients have a poor prognosis with high rates of resistance and relapse following standard of care therapies. Currently, there are no approved therapies indicated for NPM1-mutant or KMT2A-rearranged leukemias.

About Ziftomenib

Ziftomenib (KO-539) is a novel, once-daily, oral investigational drug candidate targeting the menin-KMT2A/MLL protein-protein interaction for treatment of genetically defined AML patients with high unmet need. In preclinical models, ziftomenib inhibits the KMT2A/MLL protein complex and exhibits downstream effects on HOXA9/MEIS1 expression and potent anti-leukemic activity in genetically defined preclinical models of AML. Ziftomenib has received Orphan Drug Designation from the U.S. Food and Drug Administration for the treatment of AML. Additional information about clinical trials for ziftomenib can be found at kuraoncology.com/clinical-trials-komet.

About Kura Oncology

Kura Oncology is a clinical-stage biopharmaceutical company committed to realizing the promise of precision medicines for the treatment of cancer. The Company's pipeline consists of small molecule drug candidates that target cancer signaling pathways. Ziftomenib, a potent and selective menin inhibitor, is currently in a Phase 1/2 clinical trial (KOMET-001) in patients with NPM1-mutant and KMT2A-rearranged AML. Tipifarnib, a potent, selective and orally bioavailable FTI, has received Breakthrough Therapy Designation for the treatment of patients with HRAS-mutant head and neck squamous cell carcinoma (HNSCC). Kura is conducting a Phase 1/2 trial (KURRENT-HN) of tipifarnib in combination with the PI3Kα inhibitor alpelisib to address larger genetic subsets of HNSCC patients, including those whose tumors are dependent on HRAS and/or PI3Kα pathways. The Company has also initiated a Phase 1 trial (KURRENT-LUNG) of tipifarnib in combination with osimertinib in EGFR-mutant non-small cell lung cancer. Kura intends to perform initial clinical evaluation with tipifarnib while in parallel advancing KO-2806, the Company's next-generation FTI, through IND-enabling studies. For additional information, please visit Kura's website at www.kuraoncology.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, the efficacy, safety and therapeutic potential of ziftomenib, potential benefits of combining ziftomenib with appropriate standards of care, and progress and expected timing of the ziftomenib program and clinical trials. Factors that may cause actual results to differ materially include the risk that compounds that appeared promising in early research or clinical trials do not demonstrate safety and/or efficacy in later preclinical studies or clinical trials, the risk that Kura may not obtain approval to market its product candidates, uncertainties associated with performing clinical trials, regulatory filings, applications and other interactions with regulatory bodies, risks associated with reliance on third parties to successfully conduct clinical trials, the risks associated with reliance on outside financing to meet capital requirements, and other risks associated with the process of discovering, developing and commercializing drugs that are safe and effective for use as human therapeutics, and in the endeavor of building a business around such drugs. You are urged to consider statements that include the words "may," "will," "would," "could," "should," "believes," "estimates," "projects," "promise," "potential," "expects," "plans," "anticipates," "intends," "continues," "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 the Company's periodic and other filings with the Securities and Exchange Commission (SEC), including the Company's Form 10-Q for the quarter ended September 30, 2022 filed with the SEC on November 3, 2022, which are available at www.sec.gov. Such forward-looking statements are current only as of the date they are made, and Kura assumes no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

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Source: Kura Oncology, Inc.