



Kura Oncology Reports Clinical Activity of Tipifarnib in Subsets of Pancreatic Cancer Associated with High CXCL12 Expression

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- Tipifarnib is a CXCL12 pathway inhibitor that may provide clinical benefit in subsets of patients with pancreatic cancer –
- Analysis of a previously conducted, randomized Phase 3 trial reveals patients with lymph node or liver metastases and those with no abdominal pain appear more likely to benefit from tipifarnib –
- Low KRAS mutant allele frequency (~ 30% of pancreatic patient population) associated with high CXCL12 expression –
- Kura exploring opportunities for further development of tipifarnib in pancreatic cancer and other disease indications in which CXCL12 is implicated –

SAN DIEGO, Jan. 18, 2019 (GLOBE NEWSWIRE) -- Kura Oncology, Inc. (Nasdaq: KURA), a clinical-stage biopharmaceutical company focused on the development of precision medicines for oncology, reported new findings identifying a potential association between CXCL12 expression and clinical benefit in patients with pancreatic cancer treated with tipifarnib. These findings are being presented today at the 2019 Gastrointestinal Cancers Symposium in San Francisco. A copy of the poster is available on Kura's website at www.kuraoncology.com.

Tipifarnib has been shown to downregulate CXCL12, and previously reported data support tipifarnib as a CXCL12/CXCR4 pathway inhibitor. Elevated CXCL12 expression is known to be a poor prognosis factor in patients with pancreatic, lung and esophageal-gastric cancers. In the specific context of pancreatic cancer, high CXCL12 expressing tumors may evade early diagnosis by decreasing abdominal pain through the attraction of pain-suppressing Schwann cells.

To investigate the potential for association between CXCL12 expression and clinical benefit in pancreatic cancer patients, Kura conducted a retrospective analysis of study INT-11, a randomized, placebo-controlled Phase 3 study of gemcitabine plus tipifarnib compared with gemcitabine plus placebo in patients with advanced pancreatic cancer.

A total of 688 pancreatic cancer patients were enrolled in study INT-11, of whom 155 reported no abdominal pain at study entry. Although no differences in survival were observed in the overall study, the absence of patient-reported abdominal pain at study entry was associated with higher median survival in the tipifarnib plus gemcitabine arm (10.2 months vs. 5.9 months, HR=0.52, p<0.0001), whereas no significant effect was observed in the placebo plus gemcitabine arm (6.0 months vs. 6.1 months), suggesting that the absence of abdominal pain may serve as a surrogate of clinical benefit from tipifarnib in pancreatic cancer.

In addition, patients with nodal disease or distant metastases limited to the liver also appeared more likely to receive clinical benefit from tipifarnib. Significant clinical benefit was observed in 67 patients with nodal metastases (12.8 months vs. 8.2 months, HR=0.46, p=0.01) and in 233 patients with liver (only) metastases (6.8 months vs. 5.0 months, HR=0.7, p=0.02), respectively. Nodal and liver metastases of pancreatic cancer were found to express high levels of CXCL12.

Analyzing data from The Cancer Genome Atlas (TCGA), Kura also found an association between high CXCL12 expression and pancreatic tumors with low KRAS mutant allele frequency (\leq 5%, representing approximately 30% of pancreatic cancer patients), which may help identify patients with tumors overexpressing CXCL12.

"We are very encouraged by these results, which we believe support the development of tipifarnib in pancreatic cancer," said Antonio Gualberto, M.D., Ph.D., Head of Development and Chief Medical Officer of Kura Oncology. "In December 2018, we presented prospective proof-of-concept data in peripheral T-cell lymphoma which we believe validated our initial observations on tipifarnib as a CXCL12 pathway inhibitor in lymphoma and acute myeloid leukemia. This study now extends the therapeutic potential of tipifarnib to pancreatic cancer, and we intend to explore opportunities for further development of tipifarnib in this and other CXCL12-expressing hematologic and solid tumor indications."

About Tipifarnib

Kura Oncology's lead drug candidate, tipifarnib, is a potent and highly selective inhibitor of farnesylation, a key cell signaling process implicated in cancer initiation and development. Tipifarnib was previously studied in more than 5,000 cancer patients and showed compelling and durable anti-cancer activity in certain patient subsets, however no molecular mechanism of action had previously been determined that could explain its activity across a range of diverse clinical indications, including squamous tumors that carry mutant HRAS, as well as in lymphoid, myeloid and solid tumors that do not carry HRAS mutations. Leveraging advances in next-generation sequencing as well as emerging information about cancer genetics and tumor biology, Kura is seeking to identify those patients most likely to benefit from tipifarnib.

In December 2018, Kura reported activity from an ongoing Phase 2 study of tipifarnib in patients with relapsed or refractory peripheral T-cell lymphoma (PTCL), including a significant association between CXCL12 expression and clinical benefit.

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 where there is a strong scientific and clinical rationale to improve outcomes by identifying those patients most likely to benefit from treatment. Kura's lead drug candidate is tipifarnib, a farnesyl

transferase inhibitor, for which the Company has initiated a registration-directed trial of tipifarnib in recurrent or metastatic patients with HRAS mutant HNSCC. In addition, tipifarnib is being evaluated in multiple other Phase 2 clinical trials in solid tumor and hematologic indications. Kura's pipeline also includes KO-947, an ERK inhibitor, currently in a Phase 1 dose-escalation trial, and KO-539, a menin-MLL inhibitor, currently in IND-enabling studies. For additional information about Kura Oncology, please visit the Company'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 tipifarnib, the conduct, results and timing of clinical trials of tipifarnib, including Kura Oncology's Phase 2 clinical trial of tipifarnib in patients with PTCL, plans regarding future clinical trials and development and commercial activities, the regulatory approval path for tipifarnib and expectations regarding intellectual property and biomarkers related to tipifarnib. 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 Oncology may not obtain approval to market its product candidates, uncertainties associated with performing clinical trials, regulatory filings and applications, 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," "anticipated," "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, which are available at www.sec.gov. Such forward-looking statements are current only as of the date they are made, and Kura Oncology assumes no obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

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