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Onconova Therapeutics, Inc. Submits Pivotal Clinical Trial Protocol for IV Rigosertib in Higher-Risk Myelodysplastic Syndromes to FDA and EMA

NEWTOWN, Pa., April 20, 2015 (GLOBE NEWSWIRE) -- Onconova Therapeutics, Inc. (Nasdaq:ONTX), a clinical-stage biopharmaceutical company focused on discovering and developing novel products to treat cancer, today announced that the Company has submitted a protocol for a global pivotal study of IV rigosertib in patients with higher-risk myelodysplastic syndromes (HR-MDS) for whom prior treatment with approved hypomethylating agents has failed for regulatory review. Parallel submissions were made to the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA).

The new Phase 3 randomized controlled trial of IV rigosertib derives from the findings of the ONTIME trial and is based on guidance received from previous consultations with FDA and EMA. The protocol includes a subgroup of HR-MDS patients, identified from an analysis of the ONTIME trial, who demonstrated an encouraging improvement in overall survival compared to the control arm. Based on previous guidance received from both FDA and EMA, and following discussions with key opinion leaders in the U.S. and Europe, the proposed primary endpoint for the new trial is overall survival. Additional details of the trial design and plan, including postings on national clinical trials registration databases, will be available following completion of the regulatory review process in the U.S. and Europe. Pending regulatory review and appropriate financing, international clinical trial sites are expected to be opened for enrollment into this new study during the second half of 2015.

About Onconova Therapeutics, Inc.

Onconova Therapeutics is a clinical-stage biopharmaceutical company focused on discovering and developing novel products to treat cancer. Onconova's clinical and pre-clinical stage drug development candidates are derived from its extensive chemical library and are designed to work against specific cellular pathways that are important in cancer cells, while causing minimal damage to normal cells. In addition to rigosertib, the Company's most advanced product candidate, two other candidates are clinical stage, and several candidates are in pre-clinical stages. For more information, please visit http://www.onconova.com.

About Rigosertib

Rigosertib is a small molecule that inhibits cellular signaling by acting as a Ras mimetic. This is believed to be mediated by direct binding of rigosertib to the Ras-binding domain (RBD) found in many Ras effector proteins, including the Raf kinases and PI3K. The initial therapeutic focus for rigosertib is myelodysplastic syndromes (MDS), a group of bone marrow disorders characterized by ineffective formation of blood cells that often converts into acute myeloid leukemia (AML). Clinical trials with intravenous (IV) and oral formulations of rigosertib are being conducted at leading institutions in the U.S. and Europe.

About the ONTIME Trial

The ONTIME Trial, a Phase 3 multi-center, randomized, controlled study assessed the efficacy and safety of rigosertib 72-hour continuous intravenous infusion plus best supportive care (BSC) compared to BSC alone, in higher-risk MDS patients with excess blasts (5% to 30% bone marrow blasts), who had progressed on, failed or relapsed after treatment with HMAs. Results of stratified and exploratory subgroup analyses, demonstrating heterogeneity in the study population, were presented at the 2014 American Society of Hematology Annual Meeting (Garcia-Manero et al., Abstract 163). The ONTIME trial did not meet its primary endpoint in the intent-to-treat population, but improvements in median overall survival (mOS) were observed in various pre-specified and exploratory subgroups of patients, including "primary HMA failure" patients (those who had progressed on or failed to respond to previous treatment with HMAs) and patients in the Revised International Prognostic Scoring System (IPSS-R) Very High Risk category (IPSS-R calculates a risk score for MDS patients based on the location and type of chromosome abnormalities, number and degree of cytopenias, and percentage of bone marrow blasts observed at diagnosis). Among the 184 patients (62% of patients in the trial) with primary HMA failure, mOS was 8.6 months in the rigosertib arm (127 patients) compared to 5.3 months in the best supportive care arm (57 patients), with a hazard ratio of 0.69 and a p value of 0.040. Among the 134 patients (45% of patients in the trial) who were in the IPSS-R Very High Risk category, mOS was 7.6 months in the rigosertib arm (93 patients) compared to 3.2 months in the best supportive care arm (41 patients), with a hazard ratio of 0.56 and a p value of 0.005. Further, the safety and tolerability of rigosertib IV in the ONTIME trial was acceptable.

Forward Looking Statements

Some of the statements in this release are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended, and the Private Securities Litigation Reform Act of 1995, which involve risks and uncertainties. These statements relate to future events or Onconova Therapeutics, Inc.'s future operations, clinical development of Onconova's product candidates and presentation of data with respect thereto,

regulatory approvals, expectations regarding the sufficiency of Onconova's cash and other resources to fund operating expenses and capital expenditures, Onconova's anticipated milestones and future expectations and plans and prospects. Although Onconova believes that the expectations reflected in such forward-looking statements are reasonable as of the date made, expectations may prove to have been materially different from the results expressed or implied by such forward-looking statements. Onconova has attempted to identify forward-looking statements by terminology including "believes," "estimates," "anticipates," "expects," "plans," "intends," "may," "could," "might," "will," "should," "approximately" or other words that convey uncertainty of future events or outcomes. These statements are only predictions and involve known and unknown risks, uncertainties, and other factors, including those discussed under the heading "Risk Factors" in our most recent Annual Report on Form 10-K and quarterly reports on Form 10-Q.

Any forward-looking statements contained in this release speak only as of its date. We undertake no obligation to update any forward-looking statements contained in this release to reflect events or circumstances occurring after its date or to reflect the occurrence of unanticipated events.

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