

Onconova Announces Multiple Presentations at the 22nd Congress of the European Hematology Association

Clinical and Non-clinical Data Evaluating Oral Rigosertib Plus Azacitidine Combination Therapy

SymBio, Onconova's Partner in Japan, to Present Phase 1 Data Evaluating Oral Rigosertib as a Single Agent

NEWTOWN, Pa., May 22, 2017 (GLOBE NEWSWIRE) -- Onconova Therapeutics, Inc. (NASDAQ:ONTX), a Phase 3-stage biopharmaceutical company focused on discovering and developing novel products to treat cancer, with a primary focus on myelodysplastic syndromes (MDS), today announced multiple presentations discussing clinical and non-clinical studies relating to their oral rigosertib plus azacitidine combination therapy for which a Phase 3 trial is being designed. In addition, SymBio, Onconova's partner in Japan and Korea, will present Phase 1 data evaluating intravenous rigosertib in Japanese patients with recurrent/relapsed or refractory Myelodysplastic Syndromes.

DETAILS OF THE PRESENTATIONS:

Combination Therapy with Rigosertib Plus Azacitidine

Oral Rigosertib Combined With Azacitidine in Patients with Acute Myeloid Leukemia (AML) and Myelodysplastic Syndromes (MDS): Effects in Treatment of Naive and Relapsed/Refractory Patients

Format:	Oral presentation
Date:	June 24, 2017
Presenter:	Shyamala Navada, M.D., Assistant Professor, Mount Sinai School of Medicine
Abstract:	S488

Rigosertib Combined with Azacitidine Epigenetically Modulates Chromatin and Hematopoietic Stem Cell Populations in the Myelodysplastic Syndromes (MDS)

Author:	Pratima Chaurasia, Ph.D., Assistant Clinical Professor, Mount Sinai School of Medi	
	Shyamala C. Navada, M.D., Assistant Professor, Mount Sinai School of Medicine	
Abstract:	E1170	

Oral Rigosertib as a Single Agent

A Multicenter, Open-label, Phase 1 Cinical Study: Safety, Efficacy, and Pharmacokinetics of Oral Rigosertib in Japanese Patients with Recurrent/Relapsed or Refractory Myelodysplastic Syndromes

Format: E Poster Presentation

Author: Kenichi Ishizawa, M.D., Ph.D.

Abstract: E1199

Another abstract of Phase 1 Data Demonstrating Intravenous Rigosertib as a Single Agent from SymBio collaborators will be published as an abstract only:

Safety, Efficacy and Pharmacokinetics of Intravenous Rigosertib in Japanese Patients with Recurrent/Relapsed or Refractory Myelodysplastic Syndromes (MDS): A Multicenter, Open-label, Phase 1 Study

Format:	Publication only
Author:	Michinori Ogura, M.D., Ph.D.
Abstract:	PB1919

About Onconova Therapeutics, Inc.

Onconova Therapeutics, Inc. is a Phase 3-stage biopharmaceutical company focused on discovering and developing novel small molecule drug candidates to treat cancer, with a primary focus on Myelodysplastic Syndromes (MDS). Rigosertib, Onconova's lead candidate, is a proprietary Phase 3 small molecule agent, which the Company believes blocks cellular signaling by targeting RAS effector pathways. Using a proprietary chemistry platform, Onconova has created a pipeline of targeted agents designed to work against specific cellular pathways that are important in cancer cells, while causing minimal damage to normal cells. Onconova has three product candidates in the clinical stage and several pre-clinical programs. Advanced clinical trials with the Company's lead compound, rigosertib, are aimed at what the Company believes are unmet medical needs of patients with MDS. For more information, please visit http://www.onconova.com.

About IV Rigosertib

The intravenous form of rigosertib has been employed in Phase 1, 2, and 3 clinical trials involving more than 800 patients, and is currently being evaluated in the randomized Phase 3 international INSPIRE trial for patients with higher-risk MDS, after failure of hypomethylating agent, or HMA, therapy. This formulation is intended for patients with advanced disease, provides long duration of exposure, and ensures dosing under a controlled setting.

About INSPIRE

The **IN**ternational **S**tudy of **P**hase III IV **R**igosErtib, or **INSPIRE**, is based on guidance received from the U.S. Food and Drug Administration and European Medicines Agency and derives from the findings of the ONTIME Phase 3 trial. INSPIRE is a multi-center, randomized controlled study to assess the efficacy and safety of IV rigosertib in HR-MDS patients who had progressed on, failed to respond to, or relapsed after previous treatment with an HMA within the first 9 months or nine cycles over the course of one year after initiation of HMA treatment. This time frame optimizes the opportunity to respond to treatment with an HMA prior to declaring treatment failure, as per NCCN Guidelines. The trial will enroll approximately 225 patients randomized at a 2:1 ratio into two treatment arms: IV rigosertib plus Best Supportive Care versus Physician's Choice plus Best Supportive Care. The primary endpoint of INSPIRE is overall survival and an interim analysis is anticipated. Full details of the INSPIRE trial, such as inclusion and exclusion criteria, as well as secondary endpoints, can be found on clinicaltrials.gov (NCT02562443).

About Oral Rigosertib

The oral form of rigosertib was developed to provide more convenient dosing for use where the duration of treatment may extend to multiple years. This dosage form also supports many combination therapy modalities. To date, 368 patients have been treated with the oral formulation of rigosertib. Initial studies with single-agent oral rigosertib were conducted in hematological malignancies, lower-risk MDS, and solid tumors. Combination therapy of oral rigosertib with azacitidine and chemoradiotherapy has also been explored. Currently, oral rigosertib is being developed as a combination therapy together with azacitidine for patients with higher-risk MDS who require HMA therapy. A Phase 2 trial of the combination therapy has been fully enrolled and the preliminary results were presented in 2016. This novel combination is the subject of an issued US patent with earliest expiration in 2028.

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, and 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 Onconova's ability to continue as a going concern, the need for additional financing and current plans and future needs to scale back operations if adequate financing is not obtained, the success and timing of Onconova's 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. Onconova undertakes 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.

GENERAL CONTACT:

http://www.onconova.com/contact/

INVESTOR RELATIONS CONTACT:

Lisa Sher, MBS Value Partners on behalf of Onconova Therapeutics

Lisa.Sher@mbsvalue.com / (212) 750-5800