

Onconova Presents Positive Clinical Results for Rigosertib at ASH Meeting

Three Trials Demonstrate Safety and Tolerability in Hematological Malignancies

December 10, 2012 – NEWTOWN, PA & PENNINGTON, NJ: Onconova Therapeutics, Inc. today announced three presentations relating to clinical trials of its Phase III-stage anti-cancer agent, rigosertib (ON 01910.Na), at the 54th American Society of Hematology (ASH) Annual Meeting in Atlanta, GA, December 8-11, 2012. The presentations highlighted data from Phase I and Phase I/II clinical trials evaluating rigosertib in patients with relapsed/refractory acute myeloid leukemia (AML), myelodysplastic syndrome (MDS), myeloproliferative neoplasms (MPNs), and relapsed/refractory B-Cell malignancies.

Shyamala Navada, M.D. and colleagues from the Mount Sinai School of Medicine presented a poster entitled, "Evaluation of Rigosertib in Patients with a Myelodysplastic Syndrome (MDS) or Acute Myeloid Leukemia (AML) Relapsed or Refractory to Hypomethylating Agents: A Phase I/II Study." Dose and duration of exposure of single agent rigosertib were evaluated in this study. Investigators found that single agent rigosertib was well tolerated and achieved effects that were in line with previously published clinical studies of the drug in MDS and AML, supporting continued development of rigosertib.

Lakshmikanth Katragadda, M.D. and colleagues from the MD Anderson Cancer Center presented a poster entitled "Phase I/2 Single Arm Study of Rigosertib (ON 01910.Na) In Patients (Pts) with Relapsed or Refractory Acute Leukemia or Transformed Myeloproliferative Neoplasms." In this study, patients received a fixed dose of rigosertib (2400 mg/day) by continuous intravenous infusion (CIV) for 72 hours or 120 hours every other week using a standard dose escalation scheme; however the study was subsequently amended, and after 2 cycles of CIV rigosertib (each cycle being 2 weeks) patients were switched over to an oral regimen consisting of 560mg of drug administered twice a day continuously for 20 weeks. The objectives of the Phase I arm were to define maximum tolerated dose (MTD), dose limiting toxicities (DLT), and to identify anti-leukemia activity; the Phase II arm characterized time to response or progression, duration of response, and 6-month survival as well as signs of clinical activity including disease stabilization and defined hematological responses.

Mark Roschewski, M.D. and colleagues from the National Institutes of Health in Bethesda, MD presented a poster entitled "Phase I study of ON 01910.Na (Rigosertib), a multikinase PI3K inhibitor in relapsed/refractory B-cell malignancies." This study enrolled patients with relapsed/refractory chronic lymphocytic leukemia (CLL), mantle cell lymphoma (MCL), multiple myeloma (MM), and hairy cell leukemia (HCL). The primary endpoint of the study was safety and tolerability. All patients were evaluated for toxicity, and 10 patients completed 4 cycles of therapy and were evaluable for secondary anti-tumor endpoints. Rigosertib was found to be well tolerated as a single agent with no dose limiting toxicities. Since single agent anti-tumor activity was not observed at the dose levels tested, further development in lymphoid malignancies will explore alternative single agent dosing schedules and/or combination therapy.

"The findings reported in these three presentations provide further evidence of the safety, tolerability, and potential for broad utility of rigosertib in a variety of hematological malignancies," commented Ramesh Kumar, President and CEO of Onconova. "These data will inform future clinical studies of rigosertib and provide additional support for ongoing advanced clinical studies in MDS. We look forward to reporting data from the pivotal Phase III trial of rigosertib in high-risk MDS patients in the second half of 2013."

ASH 2012 Presentations Relating to Rigosertib (ON 01910.Na)

Saturday, December 8th 2012

5:30 PM-7:30 PM:

Session: 642 CLL Therapy: Poster I, Building B (Georgia World Congress Center)

Abstract #1803

"Phase I study of ON 01910.Na (Rigosertib), a multikinase PI3K inhibitor in relapsed/refractory B-cell malignancies"

Mark Roschewski, Mohammed Farooqui, Georg Aue, Clifton Mo, Janet Valdez, Susan Soto, Patricia Perez-Galan, Francois Wilhelm, and Adrian Wiestner

Monday, December 10th, 2012

6:00 PM-8:00 PM:

Session: 615 AML Therapy: Poster III, Building B (Georgia World Congress Center)

Abstract #3606

“Phase 1/2 Single Arm Study of Rigosertib (ON 01910.Na) In Patients (Pts) with Relapsed or Refractory Acute Leukemia or Transformed Myeloproliferative Neoplasms”

Lakshmi Kanth Katragadda, Hagop Kantarjian, Guillermo Garcia-Manero, Tapan Kadia, Alessandra Ferrajoli, Elias Jabbour, Alfonso Quintas-Cardama, Marina Konopleva, Manoj Maniar, Francois Wilhelm, Farhad Ravandi, Jorge E. Cortes

Session: 633 MDS Therapy: Poster III, Building B (Georgia World Congress Center)

Abstract #3794

“Evaluation of Rigosertib in Patients with a Myelodysplastic Syndrome (MDS) or Acute Myeloid Leukemia (AML) Relapsed or Refractory to Hypomethylating Agents: A Phase I/II Study”

Shyamala C. Navada, MD, Rosalie Odchimar-Reissig, RN, E. Premkumar Reddy, Ph.D., James F. Holland, MD, Francois Wilhelm, MD, Ph.D., Lewis R. Silverman, M.D.

About Rigosertib

Rigosertib (ON 01910.Na) is a small molecule multikinase inhibitor that targets the PI3- kinases and the PLK mitotic pathways, critical pathways to the growth and survival of cancer cells. Phase I-III studies with rigosertib have been conducted at leading institutions in the U.S. and abroad in more than 800 patients with solid tumors and hematological cancers, including myelodysplastic syndrome (MDS) and acute myeloid leukemia (AML). A multi-site Phase III trial (ONTIME) in MDS patients is being conducted under a Special Protocol Assessment (SPA) from the U.S. Food and Drug Administration (FDA) and is being supported by an award from the Therapeutics Acceleration Program of The Leukemia and Lymphoma Society. Both the FDA and European Medicines Agency have granted Orphan Drug Designation for the use of rigosertib in MDS. The rigosertib clinical program in solid tumors is also advancing in a Phase III adaptive design trial (ONTRAC) for pancreatic cancer. ONTRAC is a Phase III, multicenter, randomized, controlled study (with an interim analysis for futility) that compares the efficacy and safety of gemcitabine alone vs. rigosertib combined with gemcitabine in patients with previously untreated metastatic pancreatic cancer.

About Onconova Therapeutics, Inc.

Onconova Therapeutics, based in Newtown, PA and Pennington, NJ, discovers and develops novel small molecule therapeutics directed against targets involved in signal transduction, cell-cycle, and DNA repair. The most advanced product, rigosertib (ON 01910.Na), is now in a pivotal trial being conducted under a Special Protocol Assessment (SPA) from the U.S. Food and Drug Administration (FDA) for myelodysplastic syndrome (MDS), as well as in a Phase III trial for pancreatic cancer. In addition to rigosertib, Onconova is developing two other clinical stage products: Ex-RAD® (a radioprotectant) and ON 013105 (a novel anti-cancer agent initially directed toward refractory lymphoma, including mantle cell lymphoma). For additional information, please visit <http://www.onconova.com>.

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