



Triphase Accelerator Corporation Announces Preclinical Data on Proteasome Inhibitor Marizomib at 2014 ASCO Annual Meeting

-- Results Show Potent Synergistic Anti-Multiple Myeloma Activity with Combination of Marizomib and Pomalidomide --

Toronto and San Diego, May 30, 2014 -- Triphase Accelerator Corporation, a private drug development accelerator dedicated to advancing compelling, well-differentiated drugs through Phase II proof-of-concept, today announced preclinical study results demonstrating that the combination of marizomib, Triphase's highly-differentiated proteasome inhibitor, and pomalidomide (Pomalyst®) was synergistic in killing multiple myeloma cells. The marizomib data will be presented on Monday, June 2, in a poster session at the American Society of Clinical Oncology (ASCO) 50th Annual Meeting in Chicago.

"Patients with relapsed and refractory multiple myeloma urgently need new options to treat this otherwise fatal hematologic cancer," said Paul G. Richardson, M.D., the lead clinical investigator of the marizomib study group and director of Clinical Research, Jerome Lipper Multiple Myeloma Center, Dana-Farber Cancer Institute. "These preclinical findings are especially promising because they demonstrate the potent activity of marizomib when combined with pomalidomide, and add to the growing body of evidence that marizomib is potentially very active against resistant multiple myeloma."

"These data provide a strong rationale for clinical trials of a combination of marizomib and pomalidomide to increase response, overcome drug resistance and improve outcomes in patients with relapsed and refractory multiple myeloma," said Frank Stonebanks, founder, president and CEO of Triphase. "We have seen marked enhancement of marizomib efficacy when used in combination with biologics and chemotherapeutics, and we will continue to study marizomib in these settings."

Triphase is currently evaluating marizomib in a Phase I study in combination with pomalidomide and dexamethasone in relapsed and refractory multiple myeloma. Marizomib is also being evaluated in an ongoing Phase II clinical trial in combination with dexamethasone in a highly refractory multiple myeloma population, including patients refractory to carfilzomib.

Study Design and Results

Previous preclinical studies have shown that marizomib triggers apoptosis (cell death) in multiple myeloma cells resistant to bortezomib and induces synergistic anti-multiple myeloma activity in combination with the immunomodulatory agent lenalidomide. This new study evaluated the anti-multiple myeloma activity of a combination of marizomib and pomalidomide, which has immunomodulatory properties, using multiple myeloma cell lines, multiple myeloma cells from patients, and blood cells from healthy donors. The multiple myeloma cells were pretreated with a control or with pomalidomide for 24 hours, and marizomib was then added for an additional 24 hours, followed by analysis of cell viability.

Results showed a significant decrease in viability of all cell lines in response to treatment with combined marizomib and pomalidomide compared with either agent alone. The synergistic anti-multiple myeloma activity of these agents was confirmed by a separate method of evaluating combination chemotherapy. The cytotoxicity of the marizomib/pomalidomide combination treatment also was observed in multiple myeloma cells resistant to bortezomib. Additionally, marizomib and pomalidomide were shown to overcome the cytoprotective effects of the bone marrow.

The marizomib abstract is available at abstracts.asco.org. Details of the poster presentation follow.

Abstract Title: Effect of combination of proteasome inhibitor marizomib and immunomodulatory agent pomalidomide on synergistic cytotoxicity in multiple myeloma (Abstract #8588, Poster Board #275)

Date/Time: Monday, June 2, 1:15-5:00 p.m. CT

Session: General Poster Session

Track: Lymphoma and Plasma Cell Disorders

Location: S Hall A2, McCormick Place

About Marizomib

Marizomib is a novel, highly potent proteasome inhibitor that irreversibly targets and inhibits all three proteasome subunits, allowing for more durable and sustained responses. Triphase is developing marizomib in both intravenous (IV) and oral formulations as a potential best-in-class proteasome inhibitor for hematologic malignancies and solid tumors. Marizomib has demonstrated activity in a Phase I study in patients with multiple myeloma refractory to lenalidomide or bortezomib. An IV formulation has been evaluated in more than 230 patients in four Phase I studies in patients with solid and hematologic malignancies, either as a single agent or in combination with dexamethasone or an HDAC inhibitor.

Triphase is currently evaluating the IV formulation in an ongoing Phase II clinical trial in combination with dexamethasone in a highly refractory multiple myeloma population, including those refractory to carfilzomib; it is also being tested in a Phase I study in combination with pomalidomide and dexamethasone in relapsed and refractory multiple myeloma. Triphase is evaluating an oral formulation of marizomib in IND-enabling studies. The Company has received orphan drug designation from the U.S. Food and Drug Administration for marizomib in multiple myeloma.

About Multiple Myeloma

Multiple myeloma is a hematologic cancer in which plasma cells, a type of white blood cell made in the bone marrow, become cancerous, multiply too quickly and accumulate throughout the body. The accumulation of these cancerous plasma cells can form tumors in bones throughout the body. Multiple myeloma can prevent the bone marrow from making sufficient quantities of healthy red blood cells, white blood cells and platelets, which can severely weaken the bones and immune system.

Worldwide, an estimated 750,000 people are living with multiple myeloma.ⁱ An estimated 103,000 new cases are diagnosed annually, accounting for about 1 percent of all cancers diagnosed and 12 percent of all hematologic cancers diagnosed.ⁱⁱ

About Triphase

Triphase is a private drug development accelerator with a primary focus on oncology and operations in San Diego and Toronto. Triphase is dedicated to advancing compelling, well-differentiated drugs through Phase II proof-of-concept clinical studies using a unique, science-based, high-quality model that is faster and more cost-effective than traditional pharmaceutical and biotech industry drug development approaches. Triphase was spun out of the Ontario Institute for Cancer Research (OICR) and has a strategic relationship with Celgene for oncology-focused drug development opportunities. For more information, visit www.triphaseco.com or LinkedIn.

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ⁱ <http://myeloma.org/ArticlePage.action?articleId=1774>. (Accessed 5/22/14).

ⁱⁱ <http://www.cancerresearchuk.org/cancer-info/cancerstats/types/myeloma/incidence/uk-multiple-myeloma-incidence-statistics#europeandworldwide> (Accessed 5/22/14).