Oncternal Announces Clinical Supply Arrangement to Evaluate the Combo of Cirmtuzumab and Ibrutinib

May 24, 2018

SAN DIEGO, May 24, 2018 – Oncternal Therapeutics, Inc., a clinical-stage biotechnology company developing first-in-class therapies for rare and common malignancies, today announced a clinical supply arrangement with Pharmacyclics through which Pharmacyclics supplies ibrutinib, a small molecule inhibitor of Bruton's tyrosine kinase (BTK), for a Phase 1b/2 clinical trial combining Oncternal's novel monoclonal antibody, cirmtuzumab, and ibrutinib in patients with mantle cell lymphoma (MCL) and chronic lymphocytic leukemia (CLL)/small lymphocytic leukemia (SLL).

"What we're looking to achieve in the treatment of B-cell malignancies is the production of deeper responses in patients — an outcome that is elusive with current standard of care therapies, despite their effectiveness," said James Breitmeyer, M.D., Ph.D., Oncternal's President and CEO. "We believe the complementary mechanisms of action of cirmtuzumab and ibrutinib could deliver this type of response and bring a new, urgently-needed treatment option to this patient population. We are very pleased that Pharmacyclics' support demonstrates a shared vision to improve the lives of patients with cancer."

Oncternal's CIRLL study (Cirmtuzumab and Ibrutinib targeting ROR1 for Lymphoma and Leukemia) is now underway, enrolling approximately 117 patients with MCL and CLL/SLL who have not received previous BTK inhibitor therapy. CIRLL is a randomized, open label, dose-finding study designed to evaluate the safety and efficacy of cirmtuzumab when given in combination with ibrutinib. The objective is to demonstrate that even more patients treated with the combination of cirmtuzumab plus ibrutinib will achieve complete response, compared to treatment with ibrutinib alone.

Under the terms of the agreement, Pharmacyclics has committed to supplying ibrutinib to Oncternal during the Phase 1b/2 trial. Oncternal is responsible for conducting the clinical trial.

The CIRLL study is being conducted in collaboration with researchers at the University of California San Diego (UC San Diego) School of Medicine and the California Institute for Regenerative Medicine (CIRM). In addition to UC San Diego, CIRLL study sites include MD Anderson Cancer Center in Houston as well as Columbia University Medical Center and Northwell Health in New York. Study details can be found on https://www.clinicaltrials.gov/ under the study ID number NCT03420183.

About Cirmtuzumab

Cirmtuzumab is a first-in-class humanized monoclonal antibody that binds with high affinity to a biologically important epitope on ROR1 (Receptor-tyrosine kinase-like Orphan Receptor 1). ROR1 is a type 1 transmembrane protein expressed on the plasma membrane with an extracellular domain that is essential for ligand binding and signal transduction. Cirmtuzumab binds to many different types of cancer cells, but does not recognize normal human tissues. Tumor cells that express ROR1 have stem-cell like features that are associated with the dedifferentiated oncogenic state. When expressed by hematologic malignancies such as mantle cell lymphoma (MCL), chronic lymphocytic leukemia (CLL), and small lymphocytic leukemia (SLL), ROR1 acts as a receptor for the tumor growth factor Wnt5a. When cirmtuzumab binds to ROR1, it blocks Wnt5a activation and inhibits tumor-cell proliferation, migration and survival.

About Ibrutinib

IMBRUVICA (ibrutinib) is a first-in-class, oral, once-daily therapy that mainly works by blocking a protein called Bruton's tyrosine kinase (BTK). BTK is a key signaling molecule in the B-cell receptor signaling complex that plays an important role in the survival and spread of malignant B cells as well as other serious, debilitating conditions.[i]IMBRUVICA blocks signals that tell malignant B cells to multiply and spread uncontrollably.

More information on IMBRUVICA, including its approved indications can be found on www.imbruvica.com.

[i] Genetics Home Reference. Isolated growth hormone deficiency. Accessed December 2017.