



FOR IMMEDIATE RELEASE

**NASDAQ:TRIL
TSX: TR**

**TRILLIUM THERAPEUTICS DOSES FIRST PATIENT WITH TTI-621, A
NOVEL IMMUNE CHECKPOINT INHIBITOR TARGETING CD47**

Toronto, Canada – February 3, 2016 – Trillium Therapeutics Inc. (NASDAQ: TRIL; TSX: TR) a clinical stage immuno-oncology company developing innovative therapies for the treatment of cancer, today announced that it has initiated dosing in its Phase 1 clinical trial of TTI-621 (SIRPaFc), a novel checkpoint inhibitor of the innate immune system, in relapsed or refractory hematologic malignancies.

TTI-621 is an antibody-like fusion protein that blocks the inhibitory activity of CD47, a molecule that is overexpressed by a wide variety of tumors. CD47 binds to SIRPa on macrophages and delivers a “do not eat” signal that inhibits the ability of macrophages to engulf and destroy cancer cells. Preclinical studies have shown that TTI-621 has anti-tumor activity across a range of hematologic tumors.

“This is an exciting time for Trillium as we now emerge as a clinical stage oncology company evaluating a novel immune checkpoint inhibitor,” commented Dr. Eric Sievers, Trillium’s Chief Medical Officer. “At a fundamental level, a cancer patient’s ineffective immune response allows the tumor to propagate unchecked. By blocking CD47, a key cell-surface protein that inhibits phagocytosis, we hope to summon a durable anti-tumor response in patients who are beset by cancer.”

The two-part clinical trial is designed as a multi-center, open-label Phase 1a/1b trial, evaluating TTI-621 as a single-agent in patients with relapsed or refractory hematologic malignancies. During the dose escalation phase set to enroll up to 36 subjects, the safety, tolerability, pharmacokinetics and pharmacodynamics will be characterized to determine the optimal dose for subsequent enrollment in the expansion phase. In this second part of the trial, the safety and preliminary antitumor activity of TTI-621 at the optimal dose identified in the escalation phase will be explored in 12–15 subjects per hematologic malignancy type: indolent B-cell lymphoma, aggressive B-cell lymphoma, T-cell

lymphoma, Hodgkin lymphoma, chronic lymphocytic leukemia, multiple myeloma, acute myeloid leukemia, and myelodysplastic syndrome.

Trillium has proposed five trial sites including the Mayo Clinic, Columbia University Medical Center, City of Hope National Medical Center, The Colorado Blood Cancer Institute, and Tennessee Oncology.

About Trillium Therapeutics:

Trillium Therapeutics Inc. is a clinical stage immuno-oncology company developing innovative therapies for the treatment of cancer. The Company's lead program is a SIRPaFc antibody-like fusion protein that consists of the CD47-binding domain of human SIRPa linked to the Fc region of a human immunoglobulin. It is designed to act as a soluble decoy receptor, preventing CD47 from delivering its inhibitory ("do not eat") signal. Neutralization of the inhibitory CD47 signal enables the activation of macrophage anti-tumor effects by pro-phagocytic ("eat") signals. A Phase 1 clinical trial ([NCT02663518](https://clinicaltrials.gov/ct2/show/study/NCT02663518)) evaluating SIRPaFc (TTI-621) is ongoing. Trillium also has a proprietary medicinal chemistry platform, using unique fluorine chemistry, which permits the creation of new chemical entities from validated drugs and drug candidates with improved pharmacological properties. Stemming from this platform, the Company's most advanced preclinical program is an orally-available bromodomain inhibitor, followed by an epidermal growth factor receptor antagonist with increased uptake in the brain, both of which have been differentiated from competitors and have potential for best-in-class status. In addition, a number of compounds directed at undisclosed immuno-oncology targets are currently in the discovery phase.

Caution Regarding Forward-Looking Information:

This press release may contain forward-looking statements, which reflect Trillium's current expectation regarding future events. These forward-looking statements involve risks and uncertainties that may cause actual results, events or developments to be materially different from any future results, events or developments expressed or implied by such forward-looking statements. Such risks and uncertainties, including our expectations about the enrollment in the Phase 1a dose escalation and expansion into Phase 1b of the study of TTI-621, are described in the Company's ongoing quarterly and annual reporting. Except as required by applicable securities laws, Trillium undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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