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TRILLIUM THERAPEUTICS PROVIDES ADDITIONAL DETAILS ON ASCO-SITC CONFERENCE PRESENTATION ON TTI-621

TTI-621's Half-life and Receptor Occupancy Significantly Increased with Weekly Dosing

TORONTO, Feb. 24, 2017 – Trillium Therapeutics Inc. (NASDAQ/TSX: TRIL), a clinical-stage immuno-oncology company developing innovative therapies for the treatment of cancer, today presented new pharmacology data from its ongoing Phase 1 a/b trial of TTI-621, a SIRPaFc fusion protein targeting CD47 in patients with advanced hematologic malignancies. The presentation took place at the ASCO-SITC Clinical Immuno-Oncology Symposium in Orlando, Florida.

The company presented the following new information from the trial:

Receptor occupancy increases with multiple infusions of TTI-621, conferring robust CD47 blockade on circulating leukemic cells: Compared to the initial infusion, the extent and duration of CD47 occupancy on peripheral leukocytes was elevated following the sixth dose. Importantly, emerging data suggests increased receptor occupancy on circulating leukemic blast cells. The level of target engagement achieved is associated with strong phagocytosis activity of tumor cells in vitro.

Increases in cytokines associated with macrophage activation suggest rapid engagement of the innate immune system: Post-infusion elevations were observed in MIP-1a, MIP-1b and other cytokines associated with macrophage activation, supporting the proposed role of TTI-621 as an innate immune checkpoint inhibitor.

Transient thrombocytopenia due to target mediated clearance is attenuated subsequent to the first infusion of TTI-621: Additional data has clarified that the transient thrombocytopenia observed following TTI-621 exposure is often diminished

after multiple infusions. This suggests that there may be an opportunity to increase TTI-621 exposure in patients after the initial dose.

Weekly infusions lead to a longer half-life and accumulation of circulating drug, overcoming the platelet antigen sink: After six infusions the terminal half-life of TTI-621 increased to 3.7 days with an attendant rise in circulating drug trough levels, which is consistent with the half-lives of many marketed Fc fusion proteins. Drug accumulation was accompanied by stable pre-dose platelet counts, suggesting that multiple infusions of TTI-621 overcome the platelet antigen sink.

"This recently expanded data set markedly advances our understanding of TTI-621's pharmacological properties, and exemplifies the emerging nature of this exciting development program," said Dr. Niclas Stiernholm, Trillium's Chief Executive Officer. "These latest results suggest that we overcome the antigen sink and achieve meaningful TTI-621 exposure while maintaining acceptable platelet counts. We are excited to continue the exploration of this unique checkpoint inhibitor in patients with multiple types of blood cancers, as well as in patients with solid tumors."

The ASCO-SITC poster presentation on TTI-621 can be found on the company's website at www.trilliumtherapeutics.com. Additional information about this clinical trial of TTI-621 is available at www.clinicaltrials.gov using identifier: NCT02663518.

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, SIRPaFc (TTI-621), is a fusion protein that consists of the CD47-binding domain of human SIRPa linked to the Fc region of a human immunoglobulin (IgG1). 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) evaluating SIRPaFc is ongoing in advanced hematologic malignancies, and a second Phase 1 trial is underway in solid tumors (NCT02890368). TTI-622 is an IgG4 SIRPaFc protein, which is primarily being developed for combination therapy. An IND filing is targeted for 2H/17. 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. In addition, a number of compounds directed at undisclosed immuno-oncology targets are currently in the discovery phase.

For more information visit: www.trilliumtherapeutics.com

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 overcoming the antigen sink and having drug concentrations associated with biological activity, and the longer terminal serum half-life of the drug and increased target receptor occupancy and attenuated decreases in platelets with repeated dosing, 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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