FOR IMMEDIATE RELEASE **NASDAQ: TRIL**
TSX: TRIL

TRILLIUM EXPANDS CLINICAL TRIAL WITH TTI-621 TO INCLUDE COMBINATION WITH PD-1 BLOCKADE

TORONTO, June 7, 2017 – Trillium Therapeutics Inc. (NASDAQ/TSX: TRIL), a clinical stage immuno-oncology company, today announced that based upon promising early evidence of anti-tumor activity in patients with both myeloid and lymphoid malignancies, it has further expanded its current intravenous dosing trial of TTI-621, an IgG1 SIRPaFc fusion protein targeting CD47.

Changes to the trial include:

- An additional cohort of patients with Hodgkin lymphoma treated with a combination of TTI-621 and the PD-1 checkpoint inhibitor nivolumab
- Two additional cohorts of patients with T- and B-cell acute lymphoblastic leukemia and small cell lung cancer treated with TTI-621 monotherapy
- Cautious exploration of dose-intensification, building upon the observation of good overall tolerability associated with attenuated thrombocytopenia over successive weekly doses of TTI-621
- Increasing the size of cohorts exhibiting early evidence of clinical benefit

"Having observed meaningful objective responses among multiple treatment-refractory cancer patients, we are now expanding the trial's scope with additional focused enrollment to extend these preliminary observations and to seek promising new signals of activity—both with TTI-621 monotherapy, with rituximab, and in a novel combination with T-cell checkpoint inhibition," said Trillium's Chief Medical Officer, Dr. Eric Sievers. "With emerging data linking CD47 blockade with T cell activation, we are excited to pursue the combination of TTI-621 and nivolumab in an attempt to optimally engage both the innate and adaptive arms of the immune system to generate a robust and enduring anti-tumor response."

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, TTI-621, is a SIRPaFc 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 intravenous dosing of SIRPaFc in patients with advanced cancer is ongoing, and a second Phase 1 trial evaluating direct intratumoral injections is underway in solid tumors and mycosis fungoides (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 contains forward-looking statements within the meaning of applicable United States securities laws and forward looking information within the meaning of Canadian securities laws (collectively, "forward-looking statements"). Forward-looking statements in this press release include statements about, without limitation, Trillium's plans to open new cohorts of cancer patients, increase the size of cohorts where there is early evidence of clinical benefit, its intention to dose intensify, and the potential benefit of combining with PD-1 or PD-L1 targeted drugs. With respect to the forward-looking statements contained in this press release, Trillium has made numerous assumptions regarding, among other things: the effectiveness and timeliness of preclinical and clinical trials; and the completeness, accuracy and usefulness of the data. While Trillium considers these assumptions to be reasonable, these assumptions are inherently subject to significant scientific, business, economic, competitive, market and social uncertainties and contingencies. Additionally, there are known and unknown risk factors that could cause Trillium's actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements contained in this press release. Known risk factors include, among others: positive preliminary results from early-stage clinical trials may not be indicative of the final results from the trial or be indicative of favorable outcomes in later-stage clinical trials and data are subject to audit for inclusion in the final clinical trial database; clinical data may not demonstrate adequate efficacy and safety to result in regulatory approval to market any of our product candidates in any jurisdiction; given the early stage of Trillium's product development, there can be no assurance that its research and development programs will result in regulatory approval or commercially viable products and that Trillium can adequately demonstrate TTI-621's individual contribution

in a combination therapy; clinical trials may be more costly or take longer to complete than anticipated, and may never be initiated or completed, or may not generate results that warrant future development of the tested drug candidate; Trillium may not receive the necessary regulatory approvals for the clinical development of Trillium's products; economic and market conditions may worsen; and market shifts may require a change in strategic focus. A more complete discussion of the risks and uncertainties facing Trillium appears in Trillium's Annual Report on Form 20-F and Trillium's continuous disclosure filings, which are available at www.sedar.com and at www.sec.gov. All forward-looking statements herein are qualified in their entirety by this cautionary statement, and Trillium disclaims any obligation to revise or update any such forward-looking statements or to publicly announce the result of any revisions to any of the forward-looking statements contained herein to reflect future results, events or developments, except as required by law.

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