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

TRILLIUM THERAPEUTICS ANNOUNCES UPDATED DATA FROM ITS ONGOING TTI-622 AND TTI-621 DOSE ESCALATION STUDIES

- *TTI-622 (SIRPα-IgG4 Fc) completed 8 mg/kg safety assessment in the ongoing dose escalation study in relapsed/refractory lymphoma; now escalating to 12 mg/kg dose level.*
- *TTI-622 monotherapy shows 6/18 (33%) objective responses at 0.8 to 8 mg/kg dose levels, including 3/6 (50%) objective responses at 8 mg/kg.*
- *TTI-621 (SIRPα-IgG1 Fc) well tolerated at 1.4 mg/kg; continues to show monotherapy signal and dose-dependent improvement in skin disease scores in the ongoing dose escalation study in relapsed/refractory CTCL.*
- *Trillium to host conference call at 5:30 p.m. ET today*

CAMBRIDGE, MA, September 8, 2020 – Trillium Therapeutics Inc. ("Trillium" or the "Company") (NASDAQ/TSX: TRIL), a clinical stage immuno-oncology company developing innovative therapies for the treatment of cancer, today announced updated data from its ongoing TTI-622 and TTI-621 dose escalation studies.

"We are exceedingly encouraged by the evolving profile of TTI-622, our SIRPα-IgG4 Fc fusion protein, as demonstrated in the ongoing dose escalation study in relapsed and refractory lymphomas," said Jan Skvarka, Trillium's President and Chief Executive Officer. "TTI-622 is showing substantial monotherapy activity in highly pre-treated patients, with a broad therapeutic window, a rapid onset of action, and across a range of lymphoma indications. With no significant safety signals observed, we are further escalating the dose. TTI-621, our SIRPα-IgG1 Fc fusion protein, is showing a strong safety profile, and we have not observed any dose limiting thrombocytopenia for doses up to 1.4 mg/kg. We continue to see a monotherapy activity signal, and are further dose escalating to characterize clinical activity at higher doses. We expect to declare maximum tolerated doses or recommended phase 2 doses for both molecules either towards the end of this year or in the first half of 2021. Abstracts for both trials have been submitted to the American Society of Hematology annual meeting, and we look forward to presenting further details and additional data in December."

TTI-622 Study Update:

- TTI-622 is being evaluated in a two-part, multicenter, open-label, phase 1a/1b study in patients with advanced relapsed or refractory lymphoma or multiple myeloma (NCT03530683).
- In the phase 1a portion of the study, the safety assessment of the 8 mg/kg dosing cohort has been successfully completed. One Grade 4 thrombocytopenia dose-limiting toxicity (DLT) was reported among the six evaluable patients; no additional Grade 3 or higher thrombocytopenia events have been observed.
- A total of six objective responses (33%; 1 complete response, 5 partial responses) have been observed among 18 response evaluable patients treated at dose levels of 0.8, 2.0, 4.0 and 8.0 mg/kg. Responses have occurred across all dose levels in this range, with three of six (50%) patients achieving responses in the 8.0 mg/kg cohort (response assessment for one additional patient at 8 mg/kg dose not yet available).
- Clinical responses have been observed across multiple lymphoma indications, including diffuse large B-cell lymphoma, cutaneous T-cell lymphoma with large cell transformation, peripheral T-cell lymphoma, and follicular lymphoma.
- All responses were observed at the first assessment at 8 weeks.
- The study is currently enrolling patients at the 12 mg/kg dose level.

TTI-621 Study Update:

- TTI-621 is being evaluated in a four-part, multicenter, open-label phase 1 study in patients with advanced relapsed or refractory hematologic malignancies (NCT02663518). In the ongoing Part 4, TTI-621 dosing is being escalated beyond 0.5 mg/kg in patients with cutaneous T-cell lymphoma.
- Preliminary data from Part 4 indicate the weekly infusions of TTI-621 up to 1.4 mg/kg are well tolerated without dose-limiting thrombocytopenia. Platelet decreases generally occurred on dosing days, recovered in 2-4 days, and have not worsened with increasing dose levels. Infusion-related reactions (IRRs) typically occurred during initial infusions and often resolved without recurrence. One Grade 3 IRR DLT was observed at 1.0 mg/kg.
- Antitumor activity in the 1 mg/kg cohort includes 1 partial response and 1 skin complete response (overall assessment stable disease) in 6 evaluable patients; 2 patients were bridged to allogeneic transplantation. Preliminary data suggest dose-dependent improvements in modified severity weighted assessment tool (mSWAT) scores in the 0.5 to1.0 mg/kg cohorts (1.4 mg/kg cohort data not yet available).
- The study is currently enrolling patients at the 2.0 mg/kg dose level.

Webcast Information:

Trillium will host a live conference call and webcast at 5:30 p.m. ET today to discuss this clinical data update. The conference call may be accessed by (833) 670-0758 and with conference ID 7695694. The webcast may be accessed on Trillium's Events and Presentations page at https://ir.trilliumtherapeutics.com/events-and-presentations or at

https://event.on24.com/wcc/r/2645255/C032FE41D7E0F23D4D47E9DFA2D71982. The archived webcast will be available on Trillium's website for 30 days following the call.

About Trillium Therapeutics
Trillium is an immuno-oncology company developing innovative therapies for the treatment of cancer. The company's two clinical programs, TTI-621 and TTI-622, target CD47, a "don't eat me" signal that cancer cells frequently use to evade the immune system.

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, the expected timing of the release of further data on Trillium's TTI-621 and TTI-622 studies, and timing of expected maximum tolerated doses or recommended phase 2 doses. With respect to the forward-looking statements contained in this press release, Trillium has made numerous assumptions regarding, among other things: the impact of the Covid-19 pandemic on its operations, 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. A discussion of risks and uncertainties facing Trillium appears in Trillium's Annual Information Form for the year ended December 31, 2019 filed with Canadian securities authorities and on Form 40-F with the U.S. Securities Exchange Commission, each as updated by 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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