G1 Therapeutics Presents Additional Data from Randomized Phase 2 Trial of Trilaciclib in Combination with Etoposide/Carboplatin for Treatment of First-Line Small Cell Lung Cancer

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- New data analyses highlight myelopreservation and immune system benefits of trilaciclib in combination with chemotherapy
- Data presented at the European Society for Medical Oncology (ESMO) 2018 Congress

RESEARCH TRIANGLE PARK, N.C., Oct. 21, 2018 (GLOBE NEWSWIRE) -- G1 Therapeutics, Inc. (Nasdaq: GTHX), a clinical-stage oncology company, today announced data from new analyses of its randomized Phase 2 clinical trial of trilaciclib in combination with etoposide/carboplatin for the treatment of first-line small cell lung cancer (SCLC). The analyses demonstrated clinically meaningful improvements for neutrophil, red blood cell (RBC) and lymphocyte measures in patients treated with trilaciclib compared to placebo. With regard to lymphocytes, trilaciclib preserved or improved B cell and T cell subset counts, including activated CD8+ cells, and increased CD8+/regulatory T cell and activated CD8+/regulatory T cell ratios in peripheral blood compared to placebo. These data were presented in two separate posters at the European Society for Medical Oncology (ESMO) 2018 Congress, being held in Munich, Germany.

"The totality of these favorable data highlight the unique, multi-lineage myelopreservation potential of trilaciclib. Trilaciclib demonstrated improvement in multiple hematological endpoints, including neutrophils, red blood cells and lymphocytes, which may improve outcomes for patients receiving chemotherapy. Trilaciclib may also enhance immune system function, potentiating the efficacy of chemotherapy/checkpoint combinations," said Raj Malik, M.D., Chief Medical Officer and Senior Vice President, R&D. "Chemotherapy remains a cornerstone of cancer treatment, and emerging data support the use of chemotherapy/checkpoint combinations in an increasing number of indications. Trilaciclib may play an important role in multiple chemotherapy treatment regimens. In addition to the data presented at ESMO, we expect to report findings from three other randomized Phase 2 clinical trials combining trilaciclib with chemotherapy and chemotherapy/checkpoint regimens by the end of the year."

The company reported topline data from this trial in March 2018 showing robust myelopreservation benefits of trilaciclib. Consistent with previously reported results, new analyses demonstrated that trilaciclib reduced clinically relevant consequences of chemotherapy-induced myelosuppression versus placebo. Overall, there were fewer ≥ Grade 3 treatment emergent adverse events (TEAEs) with trilaciclib compared to placebo (28.9 percent versus 75.7 percent), mostly due to lower number of ≥ Grade 3 hematologic TEAEs (23.7 percent versus 73.0 percent).

Myelopreservation Findings: Neutrophils and Red Blood Cells

- **Neutrophils:** consistent with previously reported data, treatment with trilaciclib compared to placebo reduced rates of Grade 4 absolute neutrophil count (ANC) (5.3 percent versus 43.2 percent; p=0.0001), Grade 4 ANC in the first chemotherapy cycle (2.6 percent versus 35.1 percent; p=0.0003) and granulocyte-colony stimulating factor (G-CSF) administration (10.5 percent versus 64.9 percent; p <0.0001). New analyses of the trial data showed that treatment with trilaciclib compared to placebo reduced median duration of Grade 4 ANC for patients who experienced an event (3 days versus 8 days; p=0.0097).
- **RBCs:** new analyses of the trial data showed that treatment with trilaciclib compared to placebo reduced rates of RBC transfusions (10.5 percent versus 24.3 percent; p=0.1109), transfusions on or after five weeks on study (5.7 percent versus 21.6 percent; p=0.0615) and Grade 3/4 hemoglobin values (10.5 percent versus 18.9 percent).

Myelopreservation Findings: Lymphocyte/Immune System Function
Analyses of absolute numbers and percentages of immune subsets were conducted by flow cytometry using peripheral blood samples.

Patients who received trilaciclib demonstrated faster recovery of lymphocytes following chemotherapy compared to those who received placebo. Analyses of lymphocyte subpopulations showed that the addition of trilaciclib to chemotherapy preserved or increased B and T lymphocyte counts, increased the total number of CD8+ T cells, and increased CD8+/regulatory T cell and activated CD8+/regulatory T cell ratios compared to placebo. Collectively, these data support that trilaciclib has the potential to preserve multiple immune system components and enhance CD8+ cell function. In preclinical studies, the presence of activated CD8+ cells and higher activated CD8+/regulatory T cell ratio have been shown to improve the efficacy of checkpoint inhibitors.

Anti-Tumor Findings
In this trial, measures of anti-tumor efficacy trended in favor of trilaciclib without reaching statistical significance. Overall response rate (complete response + partial response) for the response-evaluable population as assessed by investigators was 66.7 percent for trilaciclib versus 56.8 percent for placebo and median duration of response was 5.7 months for trilaciclib versus 5.4 months for placebo. Median progression free survival was 6.1 months for trilaciclib versus 5.0 months for placebo (hazard ratio 0.68; p=0.1286) and median overall survival (OS) was 10.9 months for trilaciclib versus 10.6 months for placebo (hazard ratio 0.86; p=0.5948). OS data are still immature; the company plans to provide an update in 2019. A greater percentage of patients receiving trilaciclib went on to additional lines of treatment compared to those receiving placebo (44.7 percent versus 40.5 percent).

Safety Findings
Consistent with previously reported results, trilaciclib was well tolerated. TEAEs more commonly reported in the trilaciclib arm compared to placebo included fatigue, nausea, upper abdominal pain, and headache; the majority of these events were reported as Grade 1/2 in severity. There were no

trilaciclib- related ≥ Grade 3 TEAEs reported.

Trial Design
This double-blind, placebo-controlled Phase 2 trial enrolled patients with a confirmed diagnosis of extensive-stage SCLC. The trial randomized 77 treatment-naïve patients in a 1:1 ratio, and 75 received trilaciclib or placebo administered intravenously prior to chemotherapy. Consistent with standard of care, patients generally received up to six cycles of chemotherapy. Patients in both arms of the trial were able to receive standard supportive care as recommended by the trial investigator. Growth factors, including G-CSF and erythropoietin, and transfusion support were available to all patients. Baseline demographics and disease characteristics were generally well balanced between the two arms. The statistical analysis plan prospectively defined several clinically relevant endpoints.

Both posters are available on the Publications page of the company's website. For more information about the ESMO 2018 Congress and details on the poster presentations, please visit https://www.esmo.org/Conferences/ESMO-2018-Congress/.

About Trilaciclib
Trilaciclib is a first-in-class myelopreservation therapy designed to preserve hematopoietic stem and progenitor cell function, as well as immune system function, during chemotherapy. Trilaciclib is a short-acting intravenous CDK4/6 inhibitor administered prior to chemotherapy and has the potential to significantly improve treatment outcomes.

Trilaciclib is being evaluated in four randomized Phase 2 clinical trials. In March 2018, G1 announced positive Phase 2 data showing myelopreservation benefits in newly diagnosed, treatment-naive small cell lung cancer (SCLC) patients (NCT02499770). Additional results from this trial were reported at the European Society for Medical Oncology (ESMO) 2018 Congress in October 2018. The company plans to report topline data from two other randomized Phase 2 SCLC trials in the fourth quarter of 2018: a trial in combination with chemotherapy and Tecentriq® in first-line SCLC (NCT03041311) and a trial in combination with chemotherapy in previously treated SCLC (NCT02514447). Preliminary data from a trial in combination with chemotherapy in triple-negative breast cancer (NCT02978716) will be reported in a Spotlight Session at the San Antonio Breast Cancer Symposium on December 5, 2018.

About G1 Therapeutics
G1 Therapeutics, Inc. is a clinical-stage biopharmaceutical company focused on the discovery, development and delivery of innovative therapies that improve the lives of those affected by cancer. The company is advancing three clinical-stage programs, trilaciclib, lerociclib and G1T48, that are designed to enable more effective combination treatment strategies and improve patient outcomes across multiple oncology indications.

G1 is based in Research Triangle Park, NC. For additional information, please visit www.g1therapeutics.com and follow us on Twitter @G1Therapeutics.

Forward-Looking Statements
This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "may," "will," "expect," "plan," "anticipate," "estimate," "intend" and similar expressions (as well as other words or expressions referencing future events, conditions or circumstances) are intended to identify forward-looking statements. Forward-looking statements in this news release include, but are not limited to, the therapeutic potential of trilaciclib, lerociclib and G1T48, and are based on G1 Therapeutics' expectations and assumptions as of the date of this press release. Each of these forward-looking statements involves risks and uncertainties. Factors that may cause G1 Therapeutics' actual results to differ from those expressed or implied in the forward-looking statements in this press release are discussed in G1 Therapeutics' filings with the U.S. Securities and Exchange Commission, including the "Risk Factors" sections contained therein and include, but are not limited to, G1 Therapeutics' ability to complete clinical trials for, obtain approvals for and commercialize any of its product candidates; the inherent uncertainties associated with developing new products or technologies and operating as a development-stage company; G1 Therapeutics' initial success in ongoing clinical trials may not be indicative of results obtained when these trials are completed or in later stage trials; G1 Therapeutics' development of a CDK4/6 inhibitor to reduce chemotherapy-induced myelosuppression is novel, unproven and rapidly evolving and may never lead to a marketable product; and market conditions. Except as required by law, G1 Therapeutics assumes no obligation to update any forward-looking statements contained herein to reflect any change in expectations, even as new information becomes available.

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