Geron Announces Presentations at Upcoming ASH Annual Meeting Including Long-term Phase 2 Data Showing Continuous Durable Transfusion Independence in Patients with Lower Risk MDS

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- Updated imetelstat data from IMerge Phase 2 describe significant continuous durable transfusion independence, meaningful reduction in mutational burden and progression-free survival, which indicate disease-modifying activity
- Ongoing Phase 3 IMerge clinical trial of imetelstat designed to confirm Phase 2 data; top-line results expected in early January 2023
- Additional ASH abstracts support the broad potential of imetelstat in hematologic malignancies

FOSTER CITY, Calif.--(BUSINESS WIRE)-- Geron Corporation (Nasdaq: GERN), a late-stage clinical biopharmaceutical company, today announced that four abstracts related to imetelstat, a first-in-class telomerase inhibitor, have been accepted for presentation at the 64th American Society of Hematology (ASH) Annual Meeting taking place from December 10-13 in New Orleans, Louisiana. A fifth abstract has been published on the ASH website and will be available in Blood. These abstracts assess the potential of imetelstat in various blood cancers, or hematologic malignancies, including lower risk myelodysplastic syndromes (MDS), acute myeloid leukemia (AML), myelofibrosis (MF) and lymphoid malignancies.

“The upcoming presentation at ASH of the longer-term follow-up data from our Phase 2 IMerge trial showing unprecedented greater than one-year continuous transfusion independence in approximately one-third of the 38 lower risk MDS patients in the study highlights the differentiating qualities of imetelstat that could address significant unmet needs in this indication,” said Faye Feller, M.D., Executive Vice President, Chief Medical Officer of Geron. “We look forward to reporting top-line results from the Phase 3 IMerge trial shortly after ASH, in early January 2023.”

Dr. Feller continued: “Further, I am pleased to see other abstracts representing our imetelstat pipeline at ASH, demonstrating broad potential for the drug in hematologic malignancies.”

Clinical Data – Lower Risk Myelodysplastic Syndromes (MDS)

Abstract #459: “Imetelstat Achieved Prolonged, Continuous Transfusion Independence in Patients With Heavily Transfused Non-Del(5q) Lower Risk MDS (LR-MDS) Relapsed/Refractory to Erythropoiesis Stimulating Agents Within the IMerge Phase 2 Study”

Oral Presentation on December 11, 2022, at 5pm CT

The abstract describes the 29% (11/38) of patients in Phase 2 IMerge who achieved a greater than one-year sustained transfusion independence (TI). These transfusion dependent patients were treated with imetelstat for a median of 126.1 weeks (range: 70.1-168.1), and their median duration of TI was 92.4 weeks (95% CI: 69.6, 92.4). After a median follow-up of 51.5 months, median progression-free survival (PFS) was 34.2 months (95% CI: 25.1, 39.2), median overall survival (OS) was 57.0 months (95% CI: 29.4, NE), and none of these patients progressed to AML.

Mutation data was available for the majority of the patients who achieved greater than 1-year sustained TI, and 89% had any reduction in SF3B1 variant allele frequency (VAF) while 56% achieved greater than or equal to 50% VAF reduction. Reduction in VAF correlated with longer TI duration and shorter time to onset of TI.

Safety findings for these patients were consistent with the overall population, and the most frequent adverse events were reversible thrombocytopenia and neutropenia.

The abstract concludes that the greater than one-year periods of transfusion independence observed in these patients represents relief from iron overload and other transfusion associated complications, and decreased demand on healthcare resources. Furthermore, durable TI, meaningful reduction in mutational burden, and good survival post-ESA suggest imetelstat may have disease-modifying activity.

Non-Clinical Data – Acute Myeloid Leukemia

Abstract #201: “Imetelstat-Mediated Alterations in Lipid Metabolism to Induce Ferroptosis As Therapeutic Strategy for Acute Myeloid Leukemia”

Oral Presentation on December 10, 2022, at 2:30pm CT

This abstract describes results from non-clinical in vitro and animal in vivo experiments of imetelstat using AML cell lines and AML patient samples. Conducted by Geron collaborators in Australia, Germany and the U.S., the experiments found that imetelstat promotes the formation of polyunsaturated fatty acids-containing phospholipids which cause excessive levels of lipid peroxidation and oxidative stress in AML cells, potentially leading to programmed cell death. The abstract concludes that this mechanistic insight could be leveraged to develop an

optimized therapeutic strategy using oxidative stress-inducing chemotherapy to sensitize patient samples to imetelstat causing significant delay of relapse in AML.

Trials in Progress Poster Presentations – Myelofibrosis

Abstract #3037: "MYF3001: A Randomized Open Label, Phase 3 Study to Evaluate Imetelstat Versus Best Available Therapy in Patients with Intermediate-2 or High-Risk Myelofibrosis Relapsed/Refractory to Janus Kinase Inhibitor"

Poster Presentation on December 11, 2022, 6-8pm CT

MYF3001, or IMpactMF (NCT04576156), is a Phase 3, randomized (2:1), open label multicenter study of imetelstat compared with best available therapy (BAT) in approximately 320 adult patients with Intermediate-2 or High-Risk MF whose disease has relapsed after or is refractory to janus associated kinase inhibitor, or JAKi, treatment. The primary endpoint is overall survival and secondary endpoints include symptom and spleen response rates at Week 24, progression-free survival, clinical response assessments, time to and duration of response, reduction in degree of bone marrow fibrosis, safety, pharmacokinetics and patient-reported outcomes. Biomarkers and mutation analyses will be performed to evaluate the impact of imetelstat on reduction/depletion of malignant clones. Approximately 180 sites are planned in North and South America, Europe, Middle East, Australia and Asia. The study is actively enrolling.

Abstract #1713: "An Open Label, Dose Escalation and Expansion, Phase 1/1b Study to Evaluate the Safety, Pharmacokinetics, Pharmacodynamics and Clinical Activity of Imetelstat in Combination with Ruxolitinib in Patients with Intermediate-1, Intermediate-2 or High-Risk Myelofibrosis"

Poster Presentation on December 10, 5:30-7:30pm CT

MYF1001, or IMproveMF (NCT05371964), is a single arm, open label, two-part Phase 1 study to evaluate the safety, pharmacokinetics, pharmacodynamics and clinical activity of imetelstat in combination with ruxolitinib as a frontline treatment in patients with Intermediate-1 or -2 or High-risk MF (frontline MF). In both parts, patients will receive ruxolitinib followed by imetelstat. Part 1 will enroll up to 20 frontline MF patients who, at the time of enrollment, have received an optimized dose of ruxolitinib, to which imetelstat treatment will be added at increasing dose levels based on safety and tolerability. The primary purpose of Part 1 is to identify a safe dose for treating frontline MF patients with a combination of imetelstat and ruxolitinib. If a safe dose is identified in Part 1, participants in Part 2 will be JAK inhibitor naïve and will receive treatment with ruxolitinib after screening and enrollment at a starting dose based on standard-of-care or local prescribing information. Treatment with single-agent ruxolitinib will continue for at least 12 weeks, including four consecutive weeks at a stable dose prior to the addition of imetelstat. Part 2 is designed to confirm the safety profile of imetelstat in combination with ruxolitinib

and to evaluate for preliminary clinical activity of the combination. Part 1 is open for enrollment, with approximately three sites planned in North America.

Non-Clinical Data – Lymphoid Malignancies

Published online in Blood: “Pharmacological Inhibitory Effect of Imetelstat, A Novel Human Telomerase Inhibitor in Diffuse Large B-cell Lymphoma and Peripheral T-Cell Lymphoma”

This abstract describes the characterization of telomerase activity and telomere length, as well as results from in vitro experiments of imetelstat, on a panel of diffuse large B-cell lymphoma (DLBCL) and peripheral T-cell lymphomas (PTCL) cell lines. This work was conducted by Geron collaborators at MD Anderson Cancer Center. These in vitro experiments found that imetelstat reduced cell viability and increased apoptosis in DLBCL cell lines. In contrast, imetelstat single-agent activity on cell viability was limited in PTCL cell lines, even though a time and dose-dependent reduction of telomerase activity were noted. The greater inhibitory effect of imetelstat in DLBCL, compared to PTCL cell lines, may be attributed to higher telomerase activity observed in DLBCL compared to PTCL cells. Furthermore, the PTCL cell lines had a ~7.3 fold longer telomere length than DLBCL cell lines, which potentially also influenced the lower response to imetelstat.

The abstracts are available on the ASH website at **www.hematology.org**.

In accordance with ASH policies, abstracts submitted to the ASH Annual Meeting are embargoed from the time of submission. To be eligible for presentation at the ASH Annual Meeting, any additional data or information to be presented at the Annual Meeting may not be made public before the presentation. The presentations and posters will be available at **www.geron.com/r-d/publications** following the ASH Annual Meeting presentations.

About Imetelstat

Imetelstat is a novel, first-in-class telomerase inhibitor exclusively owned by Geron and being developed in hematologic malignancies. Data from Phase 2 clinical trials provide strong evidence that imetelstat targets telomerase to inhibit the uncontrolled proliferation of malignant stem and progenitor cells in myeloid hematologic malignancies resulting in malignant cell apoptosis and potential disease-modifying activity. Imetelstat has been granted Fast Track designation by the United States Food and Drug Administration for both the treatment of patients with non-del(5q) lower risk MDS who are refractory or resistant to an erythropoiesis stimulating agent and for patients with Intermediate-2 or High-risk MF whose disease has relapsed after or is refractory to janus associated kinase (JAK) inhibitor treatment.

About Geron

Geron is a late-stage biopharmaceutical company pursuing therapies with the potential to extend and enrich the lives of patients living with hematologic malignancies. Our first-in-class telomerase inhibitor, imetelstat, harnesses Nobel Prize-winning science in a treatment that may alter the underlying drivers of disease. Geron currently has two Phase 3 pivotal clinical trials underway evaluating imetelstat in lower risk myelodysplastic syndromes (LR MDS), and in relapsed/refractory myelofibrosis (MF). To learn more, visit **www.geron.com** or follow us on **LinkedIn**.

Use of Forward-Looking Statements

Except for the historical information contained herein, this press release contains forward-looking statements made pursuant to the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. Investors are cautioned that such statements, include, without limitation, those regarding: (i) the potential link between imetelstat activity and clinical efficacy in lower risk MDS; (ii) that imetelstat may have potential disease-modifying activity; (iii) that there may be additional potential applications for imetelstat in hematologic malignancies; (iv) that IMerge Phase 3 results will be reported in early January 2023; (v) that imetelstat could address significant unmet patient need in lower risk MDS; and (vi) other statements that are not historical facts, constitute forward-looking statements. These forward-looking statements involve risks and uncertainties that can cause actual results to differ materially from those in such forward-looking statements. These risks and uncertainties include, without limitation, risks and uncertainties related to whether: (i) imetelstat demonstrates disease-modifying activity in clinical trials; (ii) regulatory authorities permit the further development of imetelstat; (iii) imetelstat is safe and efficacious in clinical trials; and (iv) any future efficacy or safety results cause the benefit-risk profile of imetelstat to become unacceptable. Additional information on the above risks and uncertainties and additional risks, uncertainties and factors that could cause actual results to differ materially from those in the forward-looking statements are contained in Geron's periodic reports filed with the Securities and Exchange Commission under the heading "Risk Factors," including Geron's quarterly report on Form 10-Q for the quarter ended June 30, 2022. Undue reliance should not be placed on forward-looking statements, which speak only as of the date they are made, and the facts and assumptions underlying the forward-looking statements may change. Except as required by law, Geron disclaims any obligation to update these forward-looking statements to reflect future information, events or circumstances.

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