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Forward-Looking Statements

Except for the historical information contained herein, this presentation contains forward-looking statements made pursuant to the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995. Investors are cautioned that statements in this press release regarding: (i) timing of data presentations, including data from the Mayo Clinic MDS-RARS patient cohort; (ii) timing and management of planned and potential clinical trials of imetelstat to be conducted under the collaboration agreement with Janssen, including the current Phase 2 clinical trial in MF and the planned Phase 2 clinical trial in MDS, and other potential activities under the collaboration agreement with Janssen; (iii) the safety and efficacy of imetelstat; (iv) the current design of the Phase 2 clinical trial in MF and planned Phase 2 clinical trial in MDS, including planned reviews or analyses of clinical data; (v) the potential receipt by Geron of additional payments up to a potential total of \$900 million for the achievement of development, regulatory and commercial milestones, and royalties from sales of imetelstat; (vi) Geron’s desire to diversify; and (vii) other statements that are not historical facts, constitute forward-looking statements. These 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: (i) the uncertain, time-consuming and expensive product development and regulatory process, including whether Geron and Janssen will succeed in overcoming all of the clinical safety and efficacy, technical, scientific, manufacturing and regulatory challenges in the development and commercialization of imetelstat; (ii) regulatory authorities permitting the clinical trials to begin or continue to proceed; (iii) Janssen’s ability to enroll patients in any of the planned or potential clinical trials of imetelstat; (iv) the fact that Janssen may terminate the collaboration agreement for any reason; (v) whether imetelstat is safe and efficacious, and whether any future efficacy or safety results may cause the benefit-risk profile of imetelstat to become unacceptable; (vi) the fact that Geron may not receive any milestone, royalty or other payments from Janssen; (vii) the ability of Geron and Janssen to protect and maintain intellectual property rights for imetelstat; (viii) Geron’s dependence on Janssen, including the risks that if Janssen were to breach or terminate the collaboration agreement or otherwise fail to successfully develop and commercialize imetelstat and in a timely manner, Geron would not obtain the anticipated financial and other benefits of the collaboration agreement and the clinical development or commercialization of imetelstat could be delayed or terminated; (ix) whether imetelstat can be applied to any or to multiple hematologic malignancies; and (x) whether Geron is able to acquire any new assets to enable it to diversify. Additional information on the above risks and uncertainties and other 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, 2015. 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.

Imetelstat: a novel and transformative oncology product candidate

- First telomerase inhibitor in clinical development
- Disease-modifying activity suggested by clinical data in ET (ASH 2012, EHA 2013) and MF (ASH 2013 and 2014)
- Recent publication of data from both trials in the New England Journal of Medicine (September 2015)

Strategic partnership with Janssen for worldwide imetelstat development and commercialization

- Janssen – extensive portfolio of products; deep expertise in hematologic malignancies
- Potential collaboration cash flows: development, regulatory and sales milestones up to \$900M and royalty tier % up to low twenties
- Broad development plan for imetelstat in MF, MDS and AML as primary indications

Clinical development of imetelstat led by Janssen

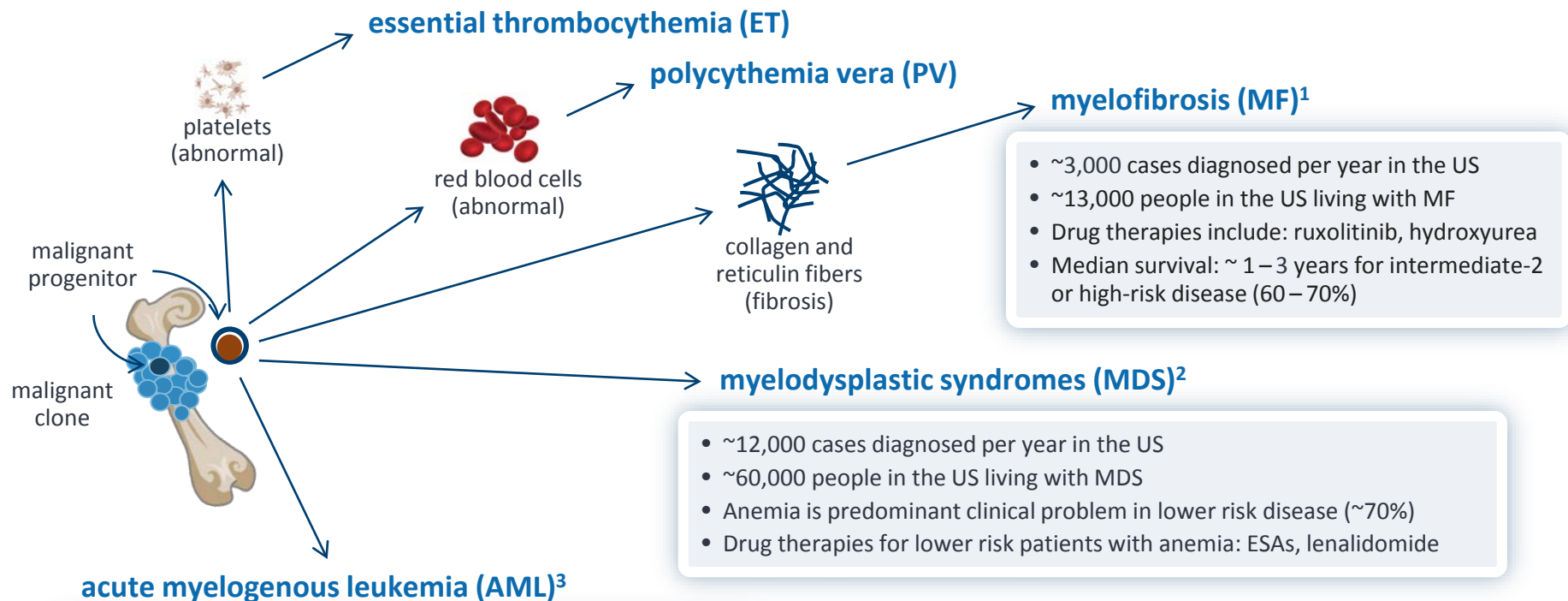
- Phase 2 MF study initiated mid-2015 (first patient dosed in September 2015)
 - Approximately 200 patients, multi-center, open-label, single agent, single blind study
 - Intermediate-2 and high risk MF patients who are relapsed after or refractory to JAK inhibitor treatment
 - Two dosing treatment regimens
- Planned Phase 2 MDS study expected to open to patient enrollment by the end of 2015

Foundation for future growth

- Strong financial position: ~\$157 million in cash and investments as of June 30, 2015
- Imetelstat primed to maximize value creation with collaboration expected to be self-funding
- Seeking to diversify through future acquisitions of new oncology products, programs or companies

Hematologic Malignancies

Arise from Malignant Progenitor Cell Clones in the Bone Marrow



- ~3,000 cases diagnosed per year in the US
- ~13,000 people in the US living with MF
- Drug therapies include: ruxolitinib, hydroxyurea
- Median survival: ~ 1 – 3 years for intermediate-2 or high-risk disease (60 – 70%)

- ~12,000 cases diagnosed per year in the US
- ~60,000 people in the US living with MDS
- Anemia is predominant clinical problem in lower risk disease (~70%)
- Drug therapies for lower risk patients with anemia: ESAs, lenalidomide

- ~13,000 cases diagnosed per year in the US
- ~37,000 people in the US living with or in remission from AML
- Drug therapies include: cytotoxic agents
- Poor prognosis following relapse from initial remission
- ~25% of patients diagnosed are alive after 5 years

¹ Mehta et al, Leuk Lymphoma 2013, Jul (epub)
Gangat et al, J Clin Oncol 2011, 29:392-397

² Sekeres, J Natl Compr Canc Netw 2011; 9:57-63
Malcovati et al, J Clin Oncol 2007; 25:3503-3510

³ NCI SEER database: www.seer.cancer.gov

Preliminary Clinical Efficacy Data Suggest Transformative Potential of Imetelstat

Proof-of-concept study in essential thrombocythemia¹

- Compelling and durable hematologic responses
- Significant and durable molecular responses
- Molecular responses suggest effect on underlying malignant progenitor cell clones

Pilot study in MF²

- Intermediate-2 and high-risk MF patients (n=33)
- Dosing intensity and schedule explored
- Primary efficacy endpoints as defined by 2013 IWG-MRT criteria³
 - Overall response rate (CR+PR+CI): 36.4% (12/33)
 - Overall response rate in JAK inhibitor experienced subgroup: 31.3% (5/16)
- Unprecedented complete and partial remission responses suggest disease-modifying activity
- Durable responses recently reported: median for CR 18 months (range 7 to 20+ as of Dec 5, 2014)
- Spleen responses (by palpation lasting greater than 12 weeks): 34.8% (8/23)
 - Spleen response in JAK inhibitor experienced subgroup: 27.3% (3/11)

1. Baerlocher GM, et al. Telomerase Inhibitor Imetelstat in Patients with Essential Thrombocythemia. N Engl J Med 2015;373:920-928

2. Tefferi A, et al. A Pilot Study of the Telomerase Inhibitor Imetelstat for Myelofibrosis. N Engl J Med 2015;373:908-919 & Tefferi A, et al. ASH 2014 Abstract #634: Imetelstat, a Telomerase Inhibitor, Therapy for Myelofibrosis: A Pilot Study

3. Tefferi, A et al. Revised response criteria for myelofibrosis: International Working Group-Myeloproliferative Neoplasms Research and Treatment (IWG-MRT) and European LeukemiaNet (ELN) consensus report. Blood 122: 1395-1398, 2013

Preliminary Clinical Safety Data Indicate Myelosuppression is the Dose Limiting Toxicity

Proof-of-concept study in essential thrombocythemia¹

- Cytopenias most frequently reported adverse event
- Mild-to-moderate non-hematologic adverse events (gastrointestinal events and fatigue)
- Persistent low-grade liver function test abnormalities with long-term administration
 - Reversibility to normal or baseline after drug discontinuation observed for majority of patients

Pilot study in MF²

- Cytopenias most frequently reported adverse event
 - Managed through dose hold rules and dose modifications
- Non-hematologic adverse events (gastrointestinal events and fatigue) not dose limiting

1. Baerlocher GM, et al. Telomerase Inhibitor Imetelstat in Patients with Essential Thrombocythemia. N Engl J Med 2015;373:920-928
2. Tefferi A, et al. A Pilot Study of the Telomerase Inhibitor Imetelstat for Myelofibrosis. N Engl J Med 2015;373:908-919 & Tefferi A, et al. ASH 2014 Abstract #634: Imetelstat, a Telomerase Inhibitor, Therapy for Myelofibrosis: A Pilot Study

Partnership with Janssen

Exclusive Worldwide Collaboration for Imetelstat



First Stage

Phase 2 MF study

Primary analysis

Phase 2 MDS study*

- Janssen to execute Phase 2 MF and Phase 2 MDS studies
- Janssen to provide Continuation Decision following primary analysis of Phase 2 MF study

First Stage Economics

Cost Share	50% Geron 50% Janssen
Upfront	\$35M

* Results from Mayo Clinic pilot study in MDS (n=9) expected at ASH 2015

Continuation Stage

Phase 3: MF, MDS
Phase 2,3: AML

Phase 2: Additional exploratory indications

- Geron has Opt-In right to share further US development and promotion costs
- Under Opt-In, Geron may provide 20% of US selling effort with sales force personnel, in lieu of funding 20% of US promotion costs

Continuation Stage Economics

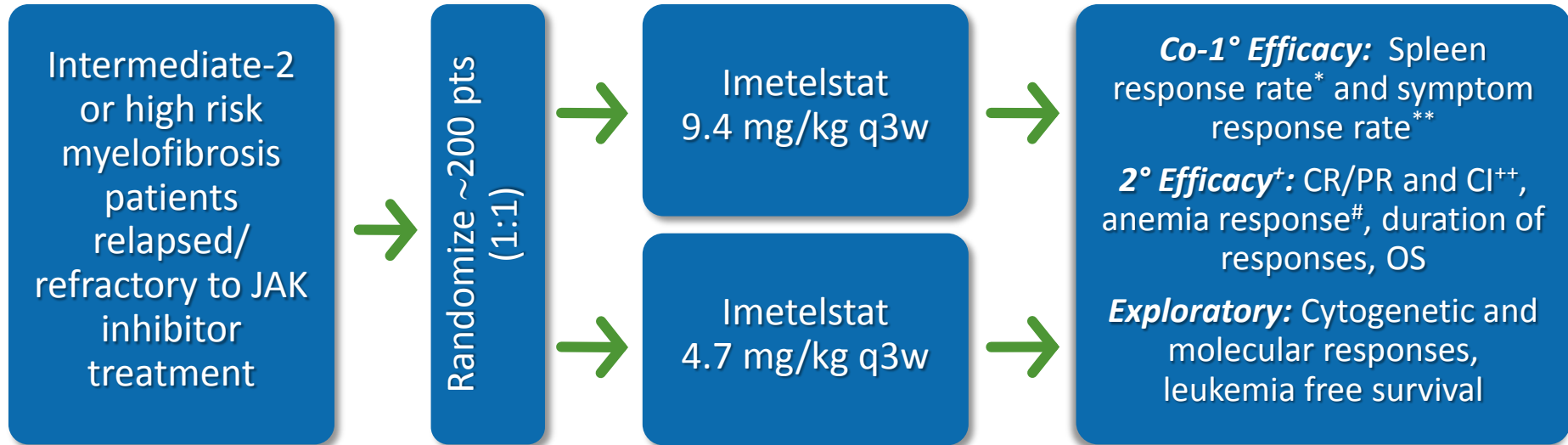
	Opt-In	Opt-Out
Cost Share	20% Geron 80% Janssen	100% Janssen
Continuation/US Rights Fee	\$65M	\$135M
Dev/Reg Milestones	up to \$470M	up to \$415M
Sales Milestones	up to \$350M	up to \$350M
Royalty % Tier**	Mid-teens to low twenties	Double digit to mid-teens

**Calculated on worldwide net sales in any countries where regulatory exclusivity exists or there are valid claims under patent rights exclusively licensed to Janssen

Phase 2 Trial in Myelofibrosis (IMbark™)

An open label, single-blind study being conducted by Janssen Biotech, Inc.

- Multi-center across US, Europe, and Asia
- Objectives: Define proper dosing and confirm efficacy using current validated regulatory endpoints
- Opened for enrollment in July 2015; first patient dosed in September 2015



* Spleen response rate defined as the percentage of participants who achieve a $\geq 35\%$ reduction in spleen volume at Week 24 from baseline measured by imaging scans.

** Symptom response rate defined as the percentage of participants who achieve $\geq 50\%$ reduction in Total Symptom Score (TSS) at Week 24 from baseline as measured by the modified Myelofibrosis Symptom Assessment Form (MFSAF) version 2.0 diary.

+ Complete list of secondary endpoints can be found on clinicaltrials.gov.

++ Complete remission (CR) or partial remission (PR), and clinical improvement (CI) per modified 2013 IWG-MRT criteria.

Anemia response per 2013 IWG-MRT criteria.

q3w = every 3 weeks; OS = overall survival

Data Review Time Points

Interim Review

- To assess the adequacy of one or both of the initial dosing regimens
 - One or both arms could continue as planned
 - One or both arms could be stopped or modified
 - An alternative dose could be selected
- To be conducted after 20 patients in each arm followed for at least 12 weeks
- Enrollment continues during interim review

Primary Analysis

- To assess co-primary and secondary endpoints
- To be conducted after all patients followed for at least 24 weeks
- Top-line results to be reported

Final Analysis

- To perform final assessment of all endpoints
- To be conducted 18 months after last patient enrolled or when sponsor terminates the study, whichever comes first

Rationale for Study Design

Patient Population

Targets significant unmet medical need population

- No approved alternative therapies beyond Jakafi
- Median survival reported to be approximately 6 months
- 3-year discontinuation rate for Jakafi ~86%
 - Major reasons: loss of therapeutic effect and lack of response

Endpoints

Co-primary endpoints reflect current validated regulatory pathway

- Spleen response and symptom response were basis for approval of Jakafi

Secondary endpoints capture depth of responses

- To enable differentiation of imetelstat efficacy compared to JAK inhibitors
- To support imetelstat as a highly innovative and potentially transformative treatment

Dosing Arms

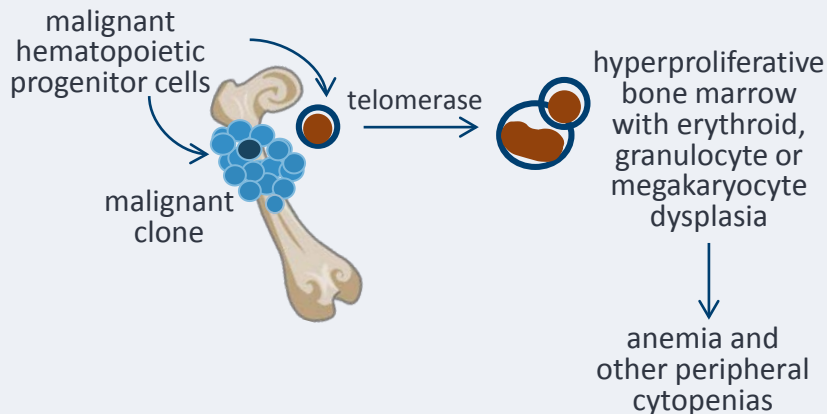
Covers potential therapeutic range of the drug

- 9.4 mg/kg q3w: appropriate max dosing regimen used in the MF pilot study
- 4.7 mg/kg q3w: lowest dose in which target engagement (telomerase inhibition) is predicted

Myelodysplastic Syndromes (MDS)

Disease Characteristics

Diverse group of clonal hematologic malignancies with disordered and ineffective production of the myeloid lineage in the bone marrow characterized by abnormal cell morphology and counts



Sekeres J, Natl Compr Canc Netw 2011; 9:57-63
Malcovati et al, J Clin Oncol 2007; 25:3503-3510
Greenberg P et al, Blood 1997; 89:2079-2028
Bejar R & Steensma DP, Blood 2014; 124:2793-2803

- Most common myeloid malignancy
 - ~12,000 cases diagnosed per year in the US
 - ~60,000 people in the US living with MDS
- Median age at diagnosis is ~70 years
- Up to 30% of patients progress to acute leukemia (AML)
- Median survival by International Prognostic Scoring System (IPSS) :
 - 3.5 - 5.7 years for lower risk MDS (IPSS low and intermediate-1 risk; ~70%)
 - 0.4 - 1.2 years for higher risk MDS (IPSS intermediate-2 and high risk; ~30%)
- Chronic anemia is predominant clinical problem in lower risk MDS and many patients become dependent on transfusions
- Transfusion dependency may lead to iron overload and is associated with shorter survival (2 units RBC* per month may reduce life expectancy by 50%) and increased risk of transformation to AML

*RBC = red blood cell

Treatments for lower risk MDS patients with anemia are inadequate

- Erythropoiesis stimulating agent (ESA):
 - Patients may experience a transient (median duration of ~2 years) improvement in anemia
 - Patients who do not respond or who relapse within 6 months are predicted to have poor survival (median of ~3 years)
- Lenalidomide:
 - Approved for **del 5q** patients with transfusion-dependent anemia (represents 10-20% of MDS patients)
 - **Non-del 5q** patients resistant to ESA: in a clinical trial ~27% patients achieved RBC transfusion independence (>8 weeks) with a median duration of ~8 months

No new drug approved for MDS in the US in almost a decade

- As in MF, MDS is a disease driven by highly proliferative malignant progenitor cells in the bone marrow with high telomerase activity

Upcoming Events

Data from MDS-RARS cohort from Mayo Clinic Pilot Study expected at the ASH Annual Meeting in December 2015

- A cohort of nine patients with subtype of MDS – refractory anemia with ring sideroblasts (RARS)
- MDS-RARS:
 - primarily a lower risk subtype of MDS
 - characterized by anemia, erythrocyte dysplasia in the bone marrow, and ring sideroblasts
 - associated with an increased risk of progression to AML and shortened survival
- Imetelstat was administered to MDS-RARS patients at 7.5 mg/kg every four weeks

Initiation of Phase 2 MDS study to be conducted by Janssen

- Based on preliminary data from MDS-RARS cohort from the Mayo Pilot Study
- Anticipated to be open to patient enrollment by the end of 2015