Stifel Virtual Targeted Oncology Forum Corporate Presentation

John Scarlett, M.D.
Chairman & CEO

April 17, 2024

Forward-Looking Statements and Safe Harbor

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 such statements, include, without limitation, those regarding: (i) that the Company is on target for successful transition to a commercial company in 2024; (ii) plans for approval and a potential launch of imetelstat in TD LR-MDS in the U.S. by the end of the first half of 2024 and for the MAA review to be completed in early 2025, with potential EU approval and launch in 2025; (iii) that imetelstat has showed unprecedented durability of transfusion independence across multiple MDS patient subgroups that are not addressed by currently available products, and is a differentiated first-in-class investigational telomerase inhibitor; (iv) that for the Phase 3 IMpactMF in R/R MF, Geron expects to conduct an interim analysis in the first half of 2025 and the final analysis in the first half of 2026, together with the assumptions used in making these estimates; (v) that the Company believes imetelstat has a potential total addressable market (TAM) in the US/EU of greater than $3.5B in TD LR-MDS and greater than $3.5B in R/R MF in 2031; (vi) the status, plans and expected timing of the Company's clinical programs on its pipeline chart; (vii) that imetelstat has the potential to have disease-modifying activity in patients; (viii) the Company's estimates and assumptions used in the calculations of percentages and numbers of patients in the treatment landscape for LR-MDS; (ix) that the Company expects imetelstat to be a highly differentiated product in the TD LR-MDS commercial marketplace; (x) that there are unmet needs in TD LR-MDS and R/R MF potentially addressed with imetelstat treatment; (xi) the Company's market research used to obtain the views of practicing hematologists of the IMerge Phase 3 data and the opportunity in TD LR-MDS patients, including the characteristics of imetelstat and the Phase 3 data that support the expectation that imetelstat can become a compelling treatment option and standard of care with a significant market opportunity; (xii) that the Company is well-positioned for a successful launch of imetelstat, if approved, and the Company's plans and expectations regarding launch preparations; (xiii) the Company's assumptions and expectations regarding the expected opportunity for imetelstat in R/R MF; (xiv) the Company's projections of operating expenses in 2024; (xv) the Company's projections and expectations regarding the sufficiency of its cash resources and expected available resources to fund its projected operating requirements into Q3 2025, and the assumptions underlying such projections and expectations; (xvi) the Company's estimates and assumptions used in the calculations of total addressable market (TAM); and (xvii) 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: (a) whether the FDA and EMA may have issues with the NDA or MAA for imetelstat for TD LR-MDS that delay or prevent approval and a potential commercial launch; (b) whether we will be able to continue to develop imetelstat or advance imetelstat to subsequent clinical trials, or that we will be able to receive regulatory approval for or successfully commercialize imetelstat, on a timely basis or at all; (c) whether imetelstat may cause, or have attributed to it, adverse events that could further delay or prevent the commencement and/or completion of clinical trials, delay or prevent its regulatory approval, or limit its commercial potential; (d) whether the IMpactMF Phase 3 trial for R/R MF has a positive outcome and demonstrates safety and effectiveness to the satisfaction of the FDA and international regulatory authorities, and whether our projected rates for enrollment and death events differ from actual rates, which may cause the interim and final analyses to occur later than anticipated; (e) whether we overcome all of the enrollment, clinical, safety, efficacy, technical, scientific, intellectual property, manufacturing and regulatory challenges in order to have the financial resources for, and to meet the expected timelines and planned milestones; (f) if imetelstat is approved for marketing and commercialization, whether we are able to establish and maintain effective sales, marketing and distribution capabilities, obtain adequate coverage and third-party payor reimbursement, and achieve adequate acceptance in the marketplace; (g) whether imetelstat actually demonstrates disease-modifying activity in patients; (h) whether there are failures in manufacturing or supplying sufficient quantities of imetelstat that would delay, or not permit, the anticipated commercial launch or not enable ongoing or planned clinical trials; (i) whether we are able to obtain and maintain the exclusivity terms and scopes provided by patent and patent term extensions, regulatory exclusivity, and have freedom to operate; (j) that we may be unable to successfully commercialize imetelstat due to competitive products, or otherwise; (k) that we may decide to partner and not to commercialize independently in the U.S. or in Europe and other international markets; (l) whether we have sufficient resources to satisfy our debt service obligations and to fund our planned operations; (m) that we may seek to raise substantial additional capital in order to complete the development and commercialization of imetelstat and to meet all of the expected timelines and planned milestones, and that we may have difficulty in or be unable to do so; and (n) the impact of general economic, industry or political climate in the U.S. or internationally and the effects of macroeconomic conditions on our business and business prospects, financial condition and results of operations. 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 under the heading "Risk Factors" or other similar headings found in documents Geron files from time to time with the Securities and Exchange Commission (the "SEC"), including the Company's Annual Report on Form 10-K for the year ended December 31, 2023 and subsequent filings. 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.

Geron Positioned for Successful Imetelstat U.S. Launch, if Approved

Imetelstat TD LR-MDS PDUFA date of June 16, 2024*
MAA under review in same indication

- Underserved TD LR-MDS patient population with total addressable market (TAM) >$3.5B in 2031 (U.S./EU)^
- U.S. commercial preparations on track to launch upon potential approval
- Imetelstat also being studied in Ph3 JAKi R/R MF clinical trial
- Financially well-resourced with $378M on the balance sheet as of 12/31/23 + net proceeds of $150M offering

*Imetelstat is currently under regulatory review by FDA and EMA for the treatment of transfusion-dependent anemia in adult patients with low- to intermediate-1 risk myelodysplastic syndromes (LR-MDS) who have failed to respond or have lost response to or are ineligible for erythropoiesis-stimulating agents (ESAs).

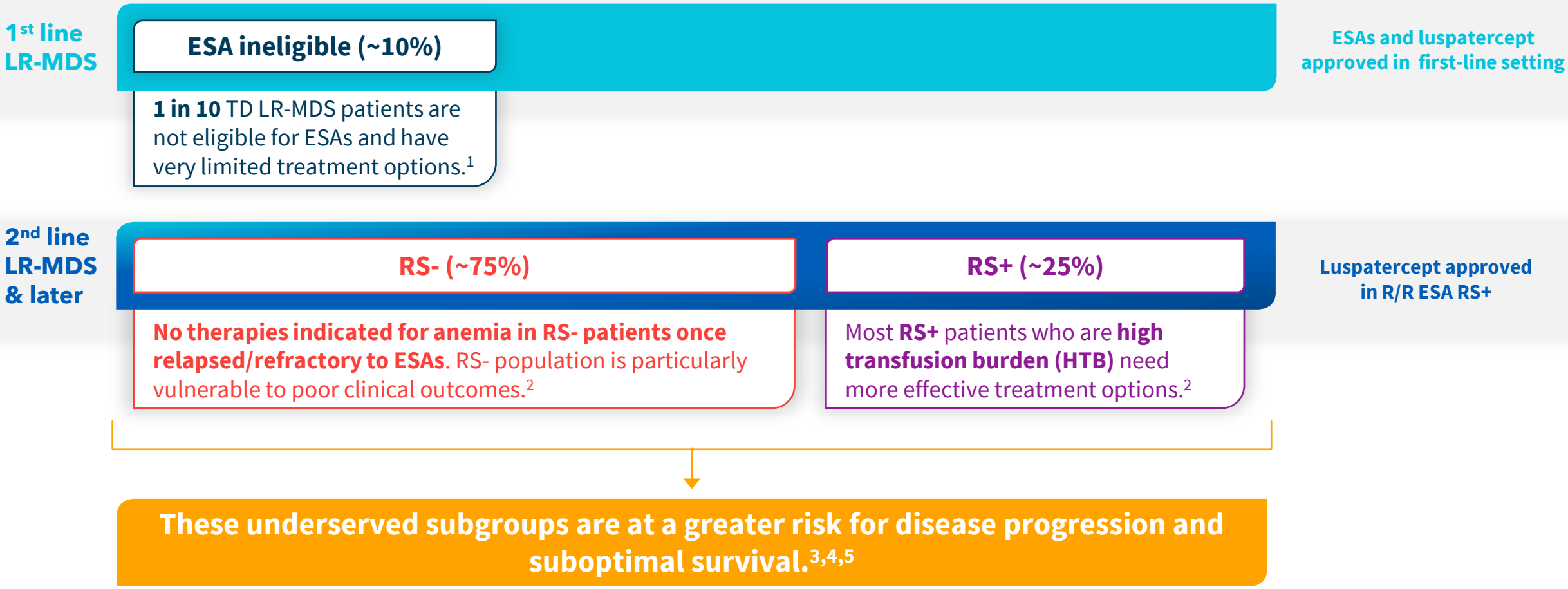
^see slide 11 for more information on TAM and patient numbers

March 14, 2024:

FDA ODAC Votes 12 to 2 in Favor of the Clinical Benefit/Risk Profile of Imetelstat for the Treatment of Transfusion-Dependent Anemia in Patients with Lower-Risk MDS

Significant Unmet Need Across Key TD LR-MDS Patient Populations

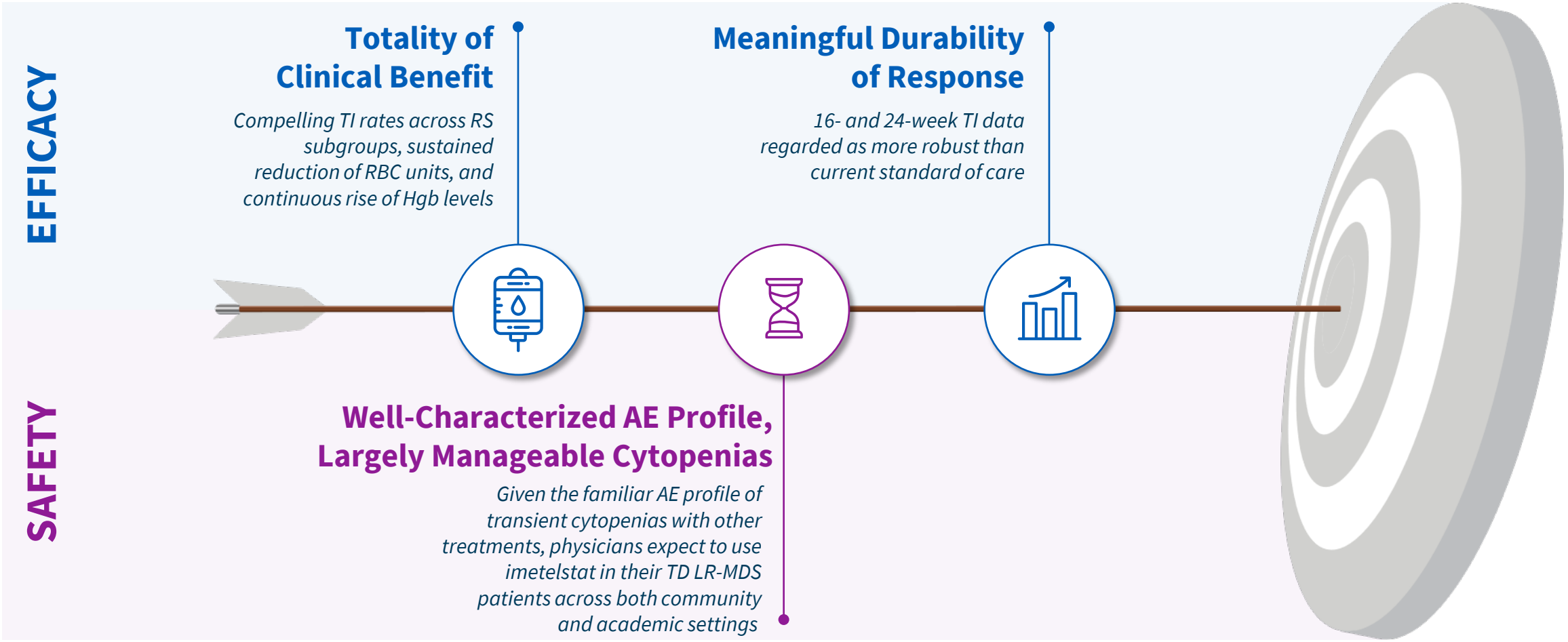
ESA ineligible, ESA R/R RS- and HTB ESA R/R RS+ subgroups are underserved by currently available options



[1]Platzbecker U. Treatment of MDS. Blood. 2019.; [2]Papaemmanuil E, Gerstung M, Malcovati L, et al. Blood. 2013. [3]Platzbecker U, Kubasch AS, Homer-Bouthiette C, Prebet T. Leukemia. 2021. [4]Sangerman MA, Pomares H, Alonso E, et al. Blood. 2019. [5]Cadenas FL, del Castillo TB, Sanz G, et al. Blood. 2021.

IMerge Phase 3 Data Received Favorably by Surveyed Practicing Hematologists Across U.S./EU Key Markets

Key attributes of imetelstat resonated strongly with community and academic hematologists



Well-Positioned for U.S. Launch upon Potential Approval

Prepare Geron

- ✓ Commercial and medical affairs teams fully integrated and preparing for launch
- ✓ Sales force hired
- ✓ Infrastructure development on track

Prepare Imetelstat

- ✓ Commercial supply plans, third-party logistics, and specialty distribution network finalized
- ✓ Trademark secured
- ✓ Value proposition messaging on target

Prepare the Market

- ✓ Comprehensive market access; payor and medical stakeholder engagement plan on target (majority of U.S. patients are treated under Medicare Part B)
- ✓ Concentrated prescriber base identified
- ✓ Pivotal Ph3 IMerge data published in *The Lancet*; additional publication planning on target
- ✓ HUB system finalized; patient access and affordability solutions on target

Goal:

Ensure broad access and reimbursement and deliver a seamless customer experience to all stakeholders

First and Only Phase 3 Trial in MF with Overall Survival as Primary Endpoint

IMpactMF

50% **Enrolled as of November 2023**

Actively enrolling global trial

Intermediate-2 or High-Risk MF

Relapsed/Refractory to JAK inhibitors (JAKi)

(n=320)

2:1

Imetelstat
9.4mg/kg every 3 weeks
(n ~214)

Best Available Therapy (BAT)
(n ~106)

Primary Endpoint:

- Overall survival (OS)

Key Secondary Endpoints:

- Symptom response
- Spleen response
- Patient Reported Outcomes (PROs)

Key Takeaways

Geron is on target for a successful transition to a commercial company in 2024

- PDUFA date of June 16, 2024, for imetelstat in TD LR-MDS*
- FDA ODAC voted 12 to 2 in favor of the clinical benefit/risk profile of imetelstat for the treatment of TD anemia in patients with LR-MDS
- U.S. commercial preparations on track for successful launch upon potential approval
- Imetelstat Ph3 data showed unprecedented durability of RBC-TI across multiple MDS patient subgroups, addressing areas of high unmet need#
- Additional Ph3 trial of imetelstat ongoing in JAKi R/R MF
- Significant commercial opportunities with total addressable market (TAM) for TD LR-MDS >$3.5B and R/R MF >$3.5B in 2031 (U.S./EU)^
- Financially well-resourced with $378M on the balance sheet as of 12/31/23 + net proceeds of $150M offering

*Imetelstat is currently under regulatory review by FDA and EMA for the treatment of transfusion-dependent anemia in adult patients with low- to intermediate-1 risk myelodysplastic syndromes (LR-MDS) who have failed to respond or have lost response to or are ineligible for erythropoiesis-stimulating agents (ESAs).

#Platzbecker, Santini et al. The Lancet 2023

^see slide 11 for more information on TAM and patient numbers

Thank you!

Contact:

Investor Relations
investor@geron.com

Appendix: TAM (U.S./EU)

Potential LR-MDS Patient Population	
ESA ineligible (RS+/RS-):	~4,000
ESA R/R RS+:	~8,000
ESA R/R RS-:	~24,000

Potential R/R MF Patient Population	
JAKi treated:	~29,000

Become part of SOC in LR-MDS (~$3.5B TAM 2031)

Expand as SOC in R/R MF (~$3.5B TAM 2031)

>$7B by 2031

LR-MDS Patient Numbers: Company projections in 2031, based on DRG MDS Landscape and Forecast syndicated data report 2021 and 2022 and YoY growth rate assumptions for eligible patient populations in LR-MDS in the U.S. and EU. EU4/UK population as % of U.S. population in 2031: ~93%; UN Population (2019) dataset used for total European population calculations. 60% patients treated for 12 months each year; 2nd line treated prevalence adjustments (~55%); LR-MDS: ~73% of all MDS; RS+ estimated as ~25%; first line ESA in-eligible estimates ~10% (Platzbecker, Treatment of MDS, Blood 2019).

R/R MF Patient Numbers: Company projections U.S./EU (2031), based on DRG 2020 MF Niche & Rare Disease Landscape & Forecast and YoY growth rate assumptions for eligible Int-2/HR patient populations (excludes Int-1, patients with platelets <50K); Int-2/HR ~65%; platelets <50K ~14% (Al-Ali HK & Vannucchi AM, Ann Hematol 2017); JAKi treated ~90% (Geron Market Research); % with leukemic transformations (~10%, Vallapureddy et al. 2019); EU4/UK population as % of US population in 2031: ~93%; UN Population (2019) dataset used for total European population calculations.

Total Addressable Market Price Assumptions: Includes annualized 12 months of treatment @ $25K/month; EU5: annualized 12 months of treatment @ $6K/month; Rest of Europe: annualized 12 months of treatment @ $3K/month