



## Fourth Quarter and Full Year 2023 Financial Results & Business Update

February 29, 2024

### On Today's Call

Welcome

Elhan Webb, CFA, Senior Vice President, Investor Relations

Overview

Richard Paulson, President and Chief Executive Officer

Pipeline Update

Dr. Reshma Rangwala, Chief Medical Officer

Commercial Highlights

Sohanya Cheng, Chief Commercial Officer

Financial Results and Guidance

Michael Mason, Chief Financial Officer

Closing Remarks

Richard Paulson, President and Chief Executive Officer

Q&A Session

### Forward-looking Statements and Other Important Information

This presentation contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Such forward-looking statements include those regarding Karyopharm's guidance on its 2024 total revenue, 2024 U.S. net product revenue and 2024 R&D and SG&A expenses; Karyopharm's expected cash runway; beliefs about the market opportunity and annual peak revenue opportunities for selinexor; the ability of selinexor to treat patients with multiple myeloma, endometrial cancer, myelofibrosis, diffuse large B-cell lymphoma, and other diseases; expectations related to future clinical development and potential regulatory submissions of selinexor; expectations with respect to commercialization efforts; submissions to, and the review and potential approval of selinexor or any of its other product candidates by, regulatory authorities, including the Company's regulatory strategy, the anticipated availability of data to support such submissions, timing of such submissions and actions by regulatory authorities and the potential availability of accelerated approval pathways; the expected design of the Company's clinical trials; and the therapeutic potential of and potential clinical development plans for Karyopharm's product candidates, especially selinexor. Such statements are subject to numerous important factors, risks and uncertainties, many of which are beyond Karyopharm's control, that may cause actual events or results to differ materially from Karyopharm's current expectations. For example, there can be no quarantee that Karyopharm will successfully commercialize XPOVIO or that any of Karyopharm's drug candidates, including selinexor and eltanexor, will successfully complete necessary clinical development phases or that development of any of Karyopharm's drug candidates will continue. Further, there can be no guarantee that any positive developments in the development or commercialization of Karyopharm's drug candidate portfolio will result in stock price appreciation. Management's expectations and, therefore, any forward-looking statements in this press release could also be affected by risks and uncertainties relating to a number of other factors, including the following: the adoption of XPOVIO in the commercial marketplace, the timing and costs involved in commercializing XPOVIO or any of Karyopharm's drug candidates that receive regulatory approval; the ability to obtain and retain regulatory approval of XPOVIO or any of Karyopharm's drug candidates that receive regulatory approval; Karyopharm's results of clinical and preclinical trials, including subsequent analysis of existing data and new data received from ongoing and future trials; the content and timing of decisions made by the U.S. Food and Drug Administration and other regulatory authorities, investigational review boards at clinical trial sites and publication review bodies, including with respect to the need for additional clinical trials; the ability of Karyopharm or its third party collaborators or successors in interest to fully perform their respective obligations under the applicable agreement and the potential future financial implications of such agreement; Karyopharm's ability to enroll patients in its clinical trials; unplanned cash requirements and expenditures; development or regulatory approval of drug candidates by Karyopharm's competitors for products or product candidates in which Karyopharm is currently commercializing or developing; the direct or indirect impact of the COVID-19 pandemic or any future pandemic on Karyopharm's business, results of operations and financial condition; and Karyopharm's ability to obtain, maintain and enforce patent and other intellectual property protection for any of its products or product candidates. These and other risks are described under the caption "Risk Factors" in Karyopharm's Quarterly Report on Form 10-Q for the quarter ended September 30, 2023, which was filed with the Securities and Exchange Commission (SEC) on November 2, 2023, and in other filings that Karyopharm may make with the SEC in the future. Any forward-looking statements contained in this presentation speak only as of the date hereof, and, except as required by law, Karvopharm expressly disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise. Karyopharm regularly uses its website to post information regarding its business, drug development programs and governance. Karyopharm encourages investors to use www.karyopharm.com, particularly the information in the section entitled "Investors," as a source of information about Karyopharm. References to www.karyopharm.com in this presentation are not intended to, nor shall they be deemed to, incorporate information on www.karyopharm.com into this presentation by reference. Other than the currently approved indications of XPOVIO, selinexor and eltanexor are investigational drugs that have not been approved by the FDA or any other regulatory agency, and the safety and efficacy of these drugs has not been established by any agency.

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# Driven to Positively Impact Lives and Defeat Cancer Through Scientific Innovation

### **Committed to Driving Value with Next Stage of Growth**

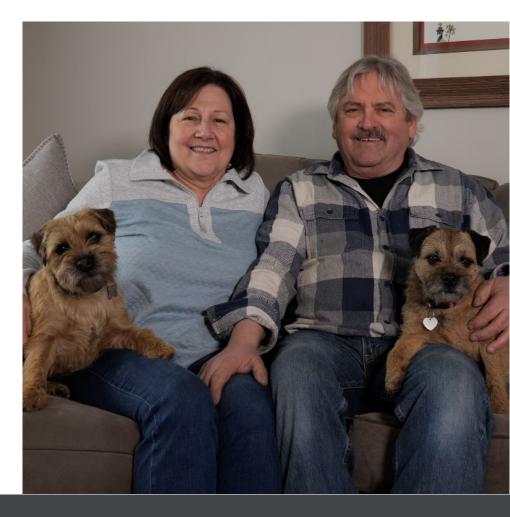
**Novel & Differentiated Mechanism of Action** 

**Transformative Late-Stage Clinical Development Opportunities** 

**Strong Financial Position to Deliver 3 Pivotal Studies** 

**Global Commercial Presence & Approvals in over 40 Countries** 

Potential For ~\$2 Billion Annual Peak U.S. Revenues<sup>1,2</sup>

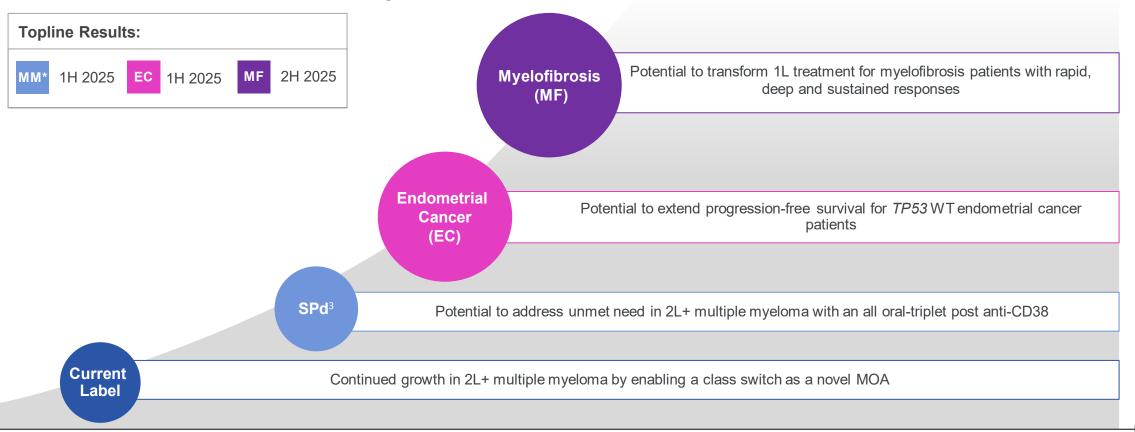


### Key Program Accomplishments in 2023

#### ☐ Initiated Phase 3 trial of selinexor + ruxolitinib in treatment naïve MF Myelofibrosis ☐ Data presented at ASH 2023 (Phase 1 of selinexor + ruxolitinib in treatment-naïve MF) showed encouraging spleen reduction, symptom improvement, long-term durability and was suggestive of disease modification (MF) ☐ Received Fast Track Designation from the FDA for selinexor for the treatment of patients with MF □ Long-term progression free survival (PFS) from the TP53 wild-type (WT) exploratory subgroup from the **Endometrial** Phase 3 SIENDO trial presented at the ASCO Plenary Series showed meaningful PFS benefit Cancer ☐ Preliminary analysis in the *TP53* wild-type exploratory subgroup from the Phase 3 SIENDO trial, presented (EC) as an oral presentation at IGCS 2023, showed encouraging overall survival ☐ Continued XPOVIO shift to earlier lines, with patient mix ~70% in the 2-4L Multiple ☐ Update from NCCN guidelines to list XVd¹ as Category 1 & Preferred in lenalidomide-refractory patients Myeloma ☐ Presentation of selinexor (40mg)+Pd<sup>2,3</sup> showed an optimal risk-benefit profile (MM) ☐ Further approvals and commercial launches by partners ex-US

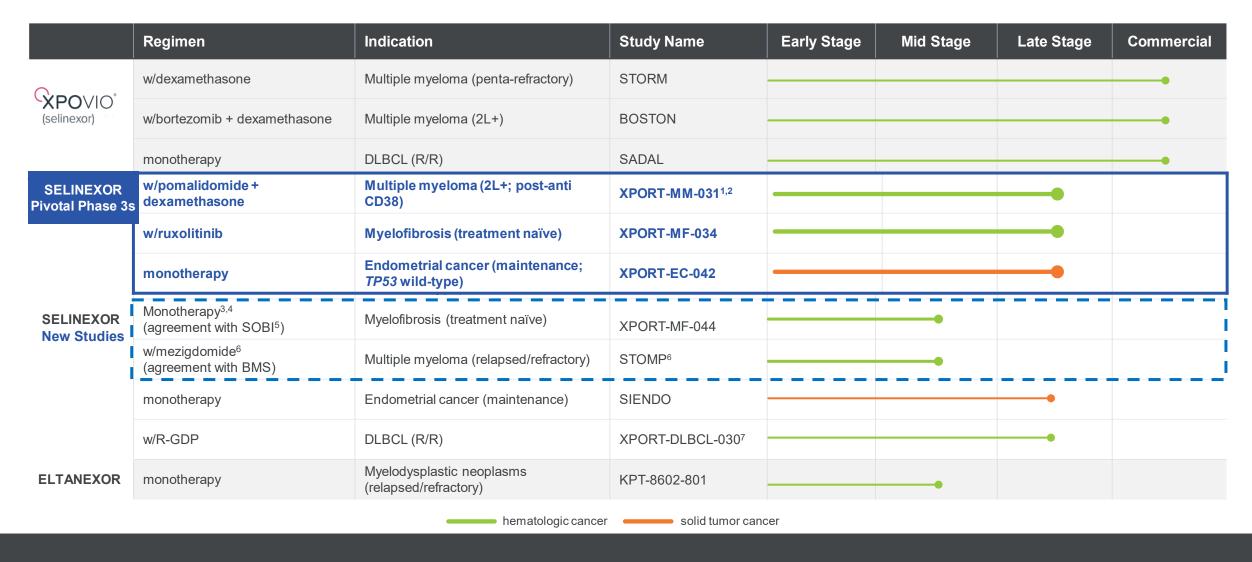
### Positioned for Success with 3 Pivotal Studies in Indications with Total US Potential of ~\$2B Annual Peak Revenues<sup>1,2</sup>

### **Data Readouts from Selinexor Expected in 2025**





# Focused High Potential Pipeline with 3 Pivotal Studies Across Cancers With High Unmet Needs





### Selinexor Has the Potential to Define a New Treatment Paradigm in MF<sup>1</sup>

### Treatment Landscape and Unmet Need

#### **Population living with MF:**

• ~20,000 in the U.S<sup>2;</sup> ~17,000 in EU<sup>2</sup>

### No other approved class of therapy other than JAK inhibitors

 Ruxolitinib generates over \$1 billion<sup>3</sup> revenues annually in MF in the U.S.

### Significant unmet need in 1L treatment with current standard of care, ruxolitinib

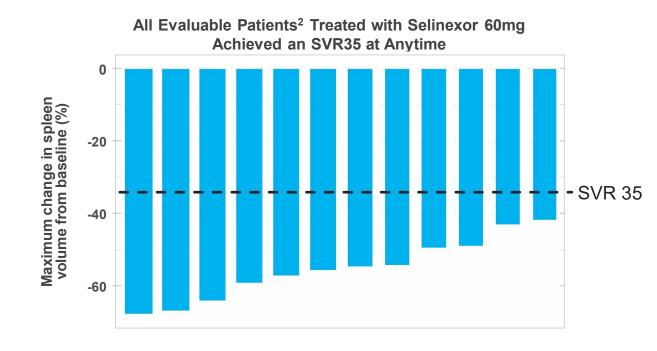
- Only ~35% of patients achieve SVR35 with ruxolitinib<sup>4</sup>
- <50% achieve TSS50<sup>4</sup>

#### Selinexor

- ✓ XPO1 inhibition is a novel and potentially fundamental mechanism in MF
- ✓ Synergism with ruxolitinib observed in preclinical data<sup>5</sup>
- ✓ Rapid, deep and sustained spleen response, robust symptom improvement and rapid, sustained cytokine reduction across all subgroups¹
- Potentially disease modifying with rapid normalization of platelets, maintenance of hemoglobin levels and rapid cytokine reduction
- Generally tolerable and manageable side effect profile enabling sustained therapy

# Rapid and Deep SVR35 Achieved with Selinexor 60mg + Ruxolitinib in Phase 1 Study

		SVR35	
		Selinexor 60mg +ruxolitinib	
Population	Timepoint	n/N (%)	
Efficacy Evaluable	Week 12	10/12 <sup>1</sup> (83.3)	
	Week 24	11/12 (91.7)	
Intent-to-Treat	Week 12	10/14 (71.4)	
	Week 24	11/14 (78.6)	



SVR35, spleen reduction volume ≥35%

The most common adverse events were GI side effects:

• Nausea (79%, grade ≥3: 7%), anemia (64%, grade ≥3: 43%), thrombocytopenia (64%, grade ≥3: 29%), and fatigue (57%, grade ≥3: 0%)

# Meaningful Improvement Observed in TSS50 and Absolute TSS with Selinexor 60mg + Ruxolitinib at Week 24

		TSS50 <sup>1</sup>	
Population	Timepoint	Selinexor 60mg +ruxolitinib n/N (%)	
Efficacy Evaluable	Week 12	8/10 <sup>3</sup> (80.0)	
	Week 24	7/94 (77.8)	
Intent-to-Treat	Week 12	8/12 (66.7)	
	Week 24	7/12 (58.3)	

	Absolute TSS <sup>2</sup>	
Timepoint	Selinexor 60mg +ruxolitinib mean (SD*)	
Baseline	27.3 (17.43)	
Week 24	-18.5 (13.48)	

<sup>\*</sup> standard deviation

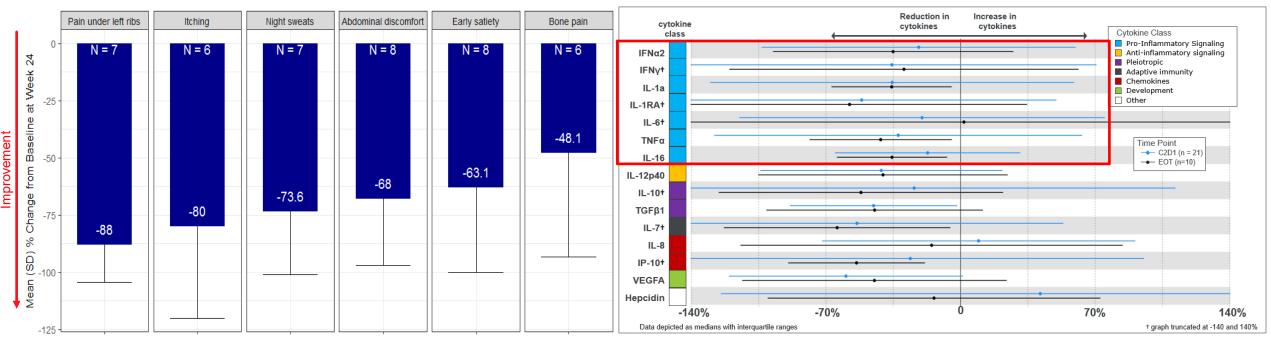
<sup>1.</sup> Proportion of patients with ≥50% reduction in TSS from baseline to Week 24 based on modified MPN-SAF TSS V.4.0
2. Average reduction in total symptom score at week 24 relative to baseline, calculated for each evaluable subject. Least square mean of the absolute TSS change was not estimated in the ITT population due to limitations in sample size

### Robust Symptom Improvement Observed with Selinexor + Ruxolitinib

## Corroborated by Rapid and Sustained Reduction in Pro-Inflammatory Cytokines and Improvement in all Relevant Symptom Domains



#### Plasma Change in Cytokines<sup>2</sup>



C2D1: Week 4 (blue); EOT: End of treatment (black)

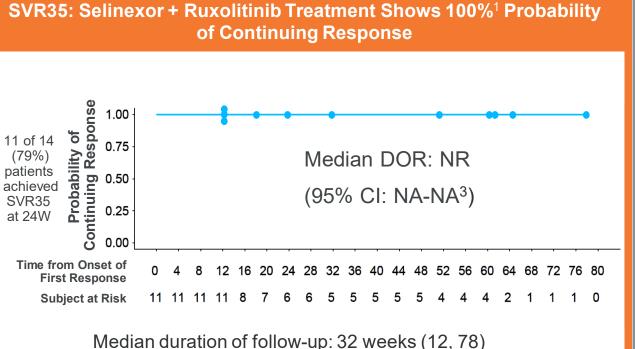
Data cut August 1, 2023

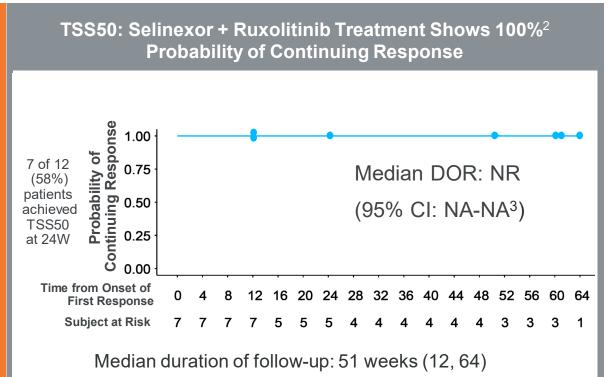
<sup>1.</sup> Percentage change from baseline to Week 24 was calculated for each symptom domain for subjects (N) who have non-zero and non-missing baseline score and non-missing Week 24 score at the domain. The Bar graph summarizes the mean and SD of the percentage changes.

non-missing week 24 score at the domain. The Bar graph summarizes the mean and SD of the percentage changes.

2. Plasma sample cytokine levels were assessed by Eve Technologies (Calgary, Alberta, Canada) using the 71-plex, TFGB, and Hepcidin assays. For patients with available longitudinal samples, screening samples were used to determine % change at C2D1 or EOT. Graph depicts median and interquartile ranges for selected cytokines important for myelofibrosis pathobiology.

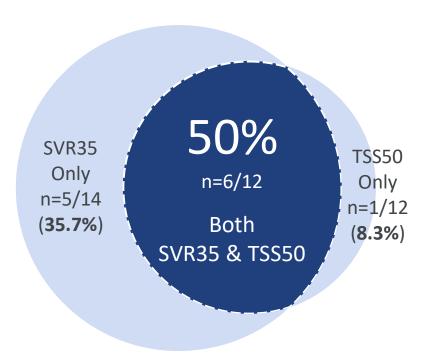
# No Progression for SVR35 or TSS50 Responders<sup>1,2</sup> on Selinexor 60mg + Ruxolitinib at Data Cutoff of August 1, 2023



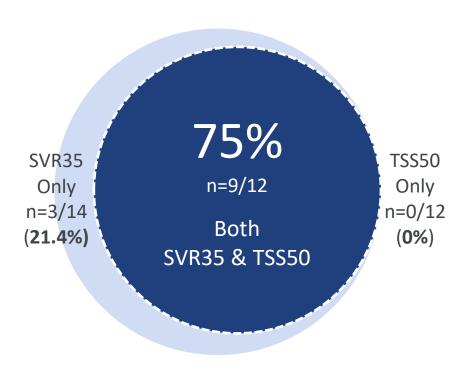


# 50% of All Patients Treated with Selinexor 60 mg + Ruxolitinib Achieved SVR35 and TSS50 at Week 24; 75% of Patients Achieved Both at Anytime

#### **Response at Week 24**



#### **Response at Anytime**



<sup>\* 2</sup> patients with no baseline symptoms (TSS = 0) were excluded from the TSS50 response and the SVR35/TSS50 dual response analyses.

### Markers of Disease Modification Observed With Stable Hemoglobin

#### Stable Hemoglobin Achieved with Selinexor 60mg QW



# Selinexor Plus Ruxolitinib Combination Has The Potential to Significantly Improve SVR and TSS for Myelofibrosis Patients



JOHN MASCARENHAS, MD

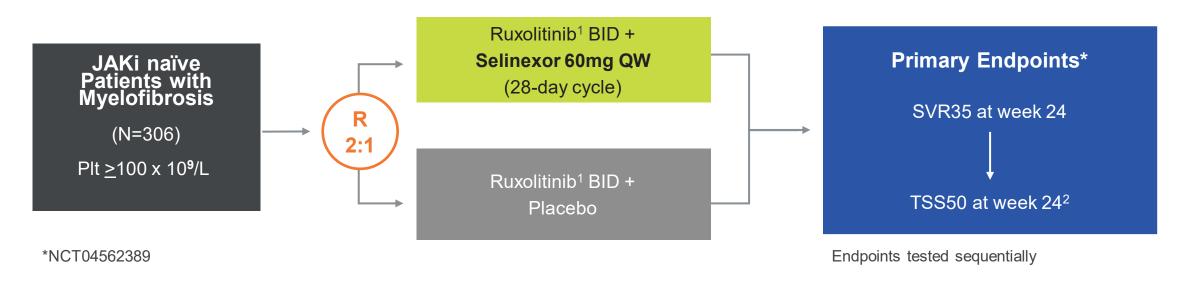
Professor of Medicine at the Icahn School of Medicine at Mount Sinai, Director of the Center of Excellence for Blood Cancers and Myeloid Disorders

In the Phase 1 study, selinexor 60mg plus ruxolitinib in patients with JAKi naïve myelofibrosis has demonstrated compelling results, particularly regarding spleen and symptom improvement, and illustrates the promising activity of this rational combination regimen in the form of deep and durable responses.

These data suggest that this tolerable and unique combination of XPO1 and JAK inhibition can significantly improve these efficacy measures for first-line myelofibrosis patients.

# Phase 3 Part of Study (XPORT-MF-034\*) Evaluating Selinexor in Combination with Ruxolitinib in Treatment-naïve Myelofibrosis

#### **Study is Actively Enrolling**



#### Randomization stratified by:

- Dynamic International Prognostic Scoring System (DIPSS) risk category intermediate -1 vs. intermediate -2 or high-risk
- Spleen volume <1800 cm³ vs. ≥1800 cm³ by MRI/CT scan
- Baseline platelet counts 100-200 x 10<sup>9</sup>/L vs. >200 x 10<sup>9</sup>/L

### Top-line Data Expected in 2H 2025



# Potential for Significant Paradigm Shift for the Treatment of Women with Advanced or Recurrent *TP53* Wild-Type (WT) EC

Phase 3 SIENDO Study

Generated strong
hypothesis in
patients with *TP53*WT EC

Targeted Mechanism and Oral Treatment

XPO1 inhibition
forces retention of
p53 in the cell
nucleus, allowing it
to carry out its tumor
suppressor and
other regulatory
functions

Addressing a Significant Unmet Need

No FDA approved treatments for pMMR¹ (proficient mismatch repair), which represents ~80% of advanced and recurrent EC²

Significant Market Opportunity

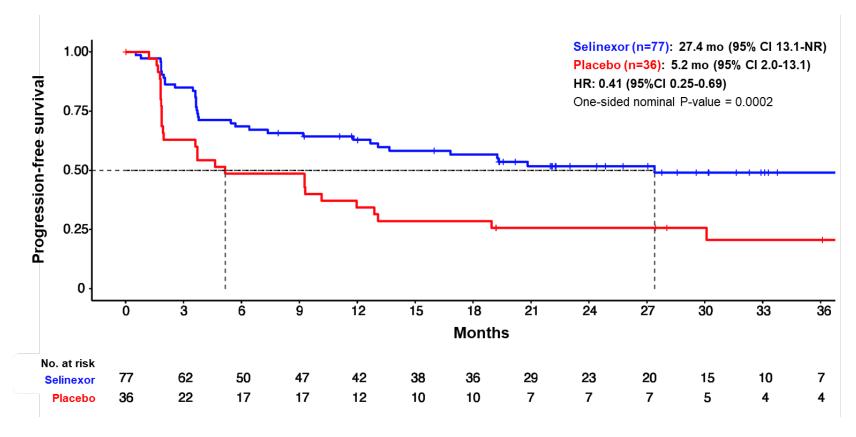
~16K patients diagnosed with advanced and recurrent EC in the U.S. each year<sup>3</sup>

~ >50% have TP53 WT EC, and 40-55% are TP53WT and pMMR<sup>2,4</sup>



The safety and efficacy of selinexor in endometrial cancer has not been established and has not been approved by the U.S. FDA or any other regulatory authority for use in endometrial cancer.

# Updated Data from SIENDO Study<sup>1</sup> Indicate Encouraging Signal of PFS Benefit with Median PFS Benefit > Two Years in *TP53* Wild Type EC

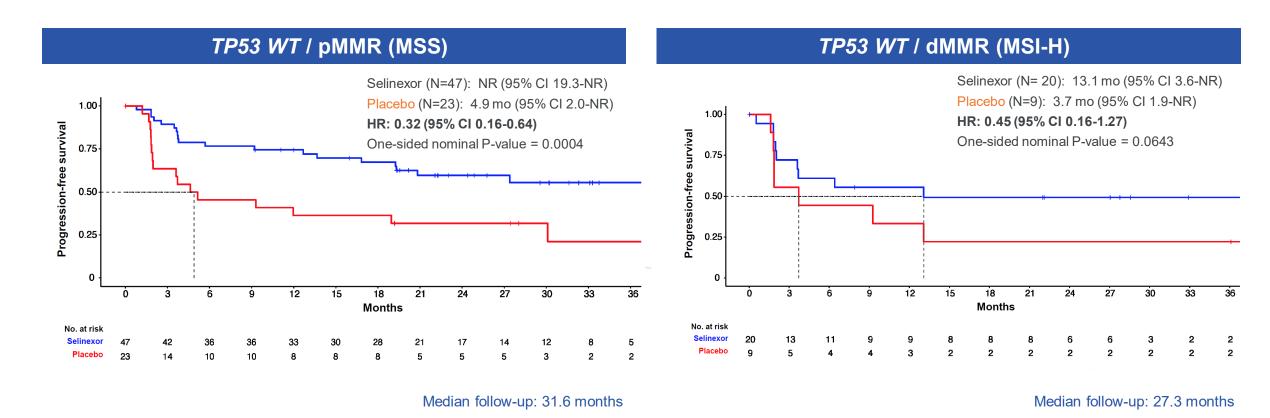


Most common adverse events in TP53 wt exploratory subgroup: Nausea (90%, grade ≥3 : 12%), vomiting (60%, grade ≥3: 3%), thrombocytopenia (42%, grade ≥3 : 10%) and diarrhea (42%, grade ≥3 : 4%). TEAE's leading to discontinuation 16% and death 0%.

The safety and efficacy of selinexor in endometrial cancer has not been established and has not been approved by the U.S. FDA or any other regulatory authority.

# SIENDO Study: Strongest Signal in *TP53* WT pMMR with Median PFS Not Reached; PFS Improvement Observed Regardless of MMR Status

### Long Term Follow-Up<sup>1</sup>: PFS in TP53 WT Exploratory Subgroup Based on MMR status



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# XPORT-EC-042\* Global Phase 3, Randomized, Double-Blind Trial of Selinexor as Maintenance Therapy for Patients with *TP53* Wild-type, Advanced or Recurrent Endometrial Cancer

#### **Study is Actively Enrolling**

TP53 Wild-type Status is Assessed by Companion Diagnostic Partner Foundation Medicine<sup>1</sup>

#### Study in Collaboration with ENGOT<sup>2</sup> and GOG<sup>3</sup>



The safety and efficacy of selinexor in endometrial cancer has not been established and has not been approved by the U.S. FDA or any other regulatory authority.

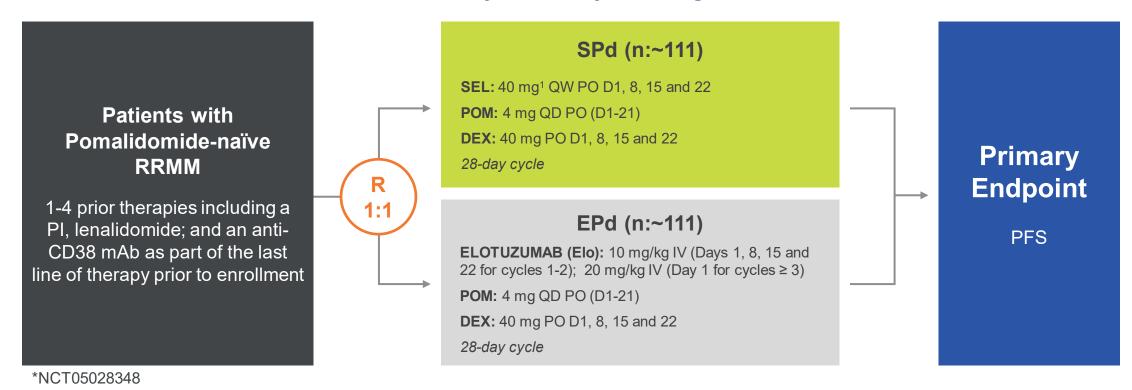
### Top-line Data in 1H 2025

PFS, progression-free survival; PD, progressive disease; QW, every week



# Phase 3 Global Study (XPORT-MM-031/ EMN29\*) Evaluating SPd in Patients with Previously Treated Multiple Myeloma

#### **Study is Actively Enrolling**



The safety and efficacy of SPd has not been established and has not been approved by the FDA or any other regulatory authority

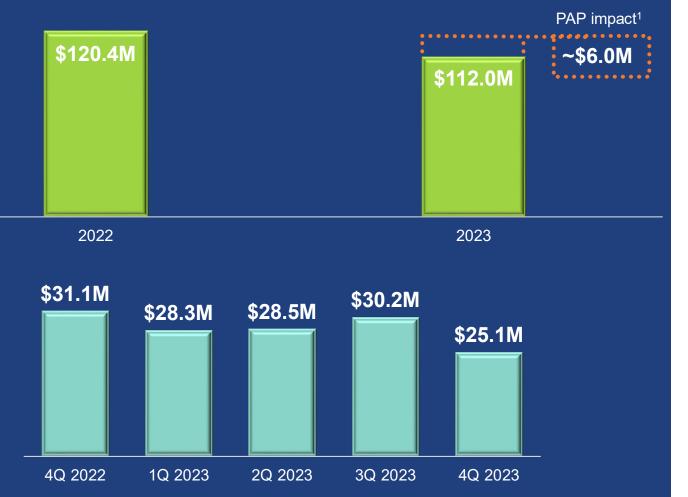
### Top-line Data in 1H 2025

PI: proteasome inhibitor; mAB: monoclonal antibody



### XPOVIO Update: 4Q 2023 and FY 2023

Net Product Revenue in 2023 Adversely Impacted by Increase in PAP<sup>1</sup>, Higher Gross-To-Net and Increased Competition



### 4Q and FY 2023 Highlights

- XPOVIO Net Product Revenue of \$112M and \$25M for FY 2023 and Q4 2023, respectively
- Demand<sup>2</sup> growth in the community setting in FY 2023 vs 2022, accounting for ~ two thirds of XPOVIO net product revenue
- Demand<sup>2</sup> adversely impacted in the academic setting due to increasing competition in 4L+
- ~\$6M impact from PAP due to closure of multiple myeloma foundations. In 2024, fewer patients expected to utilize PAP for co-pay assistance due to re-design of Part D benefits.
- Continued shift in XPOVIO new patient mix<sup>3</sup> to 2-4L, approaching 70%, compared to 55% in 2022, with favorable impact on duration
- US XPOVIO Net Product Revenue guidance of \$100-\$120M in 2024



### 4Q and FY 2023 Financial Results

Statements of Operations (\$ millions)	4Q 2023	4Q 2022	FY 2023	FY 2022
Total Revenue	\$33.7	\$33.6	\$146.0	\$157.1
XPOVIO Net Sales	25.1	31.1	112.0	120.4
License and Other Revenue	8.7	2.5	34.0	36.6
Total Operating Expenses	\$71.6	\$67.4	\$275.6	\$299.3
Cost of Sales	1.5	1.9	4.9	5.2
Research and Development Expenses	39.4	30.9	138.8	148.7
Selling, General & Administrative Expenses	30.7	34.6	131.9	145.4
Net Loss	\$41.8	\$38.5	\$143.1	\$165.3
Net Loss per share	\$0.36	\$0.43	\$1.25	\$2.02
Balance Sheet (\$ millions)	Do	c 31 2023	Dec 3	1 2022

Balance Sheet (\$ millions)	Dec 31, 2023	Dec 31, 2022	
Cash, Cash Equivalents Restricted Cash and Investments	\$192.4	\$279.7	

### 2024 Financial Guidance

- Total Revenue of \$140-\$160 million
- U.S. XPOVIO Net Product Revenue of \$100-\$120 million
- R&D and SG&A Expenses of \$260-\$280 million, including estimated non-cash stock compensation of ~ \$20-\$25 million
- Cash runway expected to be sufficient to fund planned operations into late 2025\*



## Accelerating Innovation and Growth Strategy with Key Milestones in 2024 and 2025

## Multiple Myeloma

- □ Leverage commercial capabilities and grow XPOVIO (2024)
- ☐ Continuation of global launches (2024)
- Report data on XPOVIO pre/post T cell therapy (2024)
- □ Report top line results from EMN29 trial (1H 2025)

## Endometrial Cancer

- ☐ Continue to present exploratory updated results from the *TP53* subgroup from the SIENDO trial at medical conferences (2024)
- □ Complete enrollment in pivotal EC-042 Phase 3 trial in *TP53* wild-type EC (2H 2024)
- Report top-line results from pivotal EC-042 Phase 3 trial in *TP53* wild-type EC (1H 2025)

### Myelofibrosis

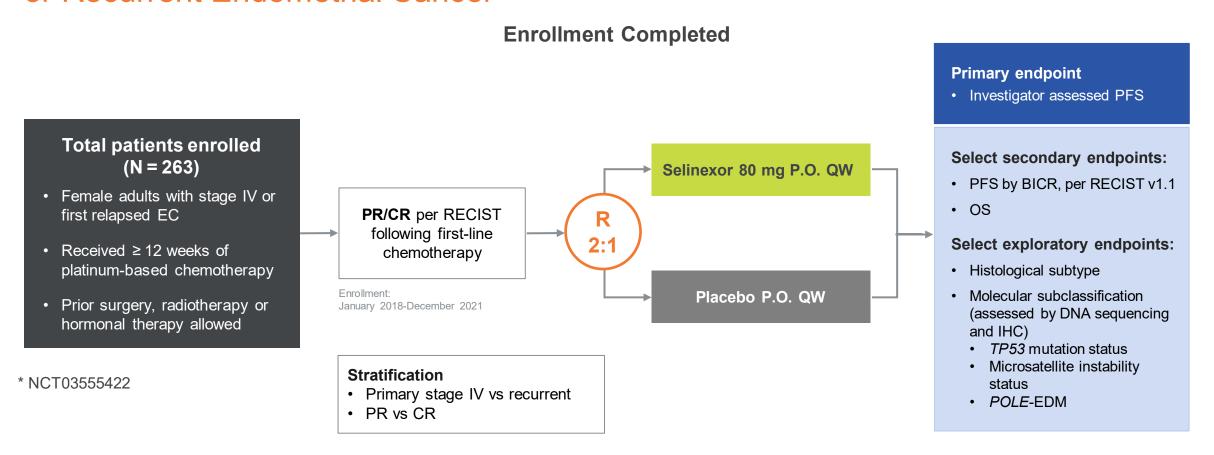
- □ Report updated results in Phase 1 trial of selinexor + ruxolitinib in treatment-naïve MF (2024)
- □ Report preliminary data from MF-044 Phase 2 study with single agent selinexor in JAKi naïve MF with platelet counts below 50 × 10<sup>9</sup>/L. (2H 2024)
- □ Report top-line results from Phase 3 trial of selinexor + ruxolitinib in treatment-naïve MF (2H 2025)



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**APPENDIX** 

# SIENDO\*: A Randomized Double-Blind, Phase 3 Trial of Maintenance with Selinexor / Placebo after Combination Chemotherapy for Patients with Advanced or Recurrent Endometrial Cancer<sup>1,2</sup>



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