Karyopharm Announces Presentation of Interim Data from Phase 2 Study of Single-Agent Eltanexor in Relapsed/Refractory (R/R) Higher-Risk Myelodysplastic Neoplasms (MDS) at 17th International Congress on MDS

– Relapsed/Refractory MDS Patients Achieved Median Overall Survival of 8.7 months –

– Historically, Median Overall Survival in this Hard to Treat Patient Population is Only 4-6 Months[1,2] *–*

– Results Indicate Potential Single Agent Activity of Eltanexor in Patients with R/R MDS –

NEWTON, Mass., May 3, 2023 /PRNewswire/ -- Karyopharm Therapeutics Inc. (Nasdaq: KPTI), a commercial-stage pharmaceutical company pioneering novel cancer therapies, today announced interim data from the Phase 2 portion of the open-label Phase 1/2 study of single-agent eltanexor in patients with higher R/R myelodysplastic neoplasms. The data, featured in a poster presentation at the 17th International Congress on Myelodysplastic Syndromes, showed that eltanexor has promising single-agent efficacy with a generally manageable safety profile.

As of the February 8, 2023 data cut-off date, 30 patients had been treated with 10mg eltanexor, oral, on Days 1-5 of each week. Eltanexor demonstrated a 27% overall response rate (ORR) in the intent-to-treat (ITT) population and a 31% ORR in the efficacy evaluable population. Median overall survival (mOS) was 8.7 months in both populations. Transfusion independence rate for red blood cells and/or platelets was 29%.

Eltanexor was generally well-tolerated and manageable. The most common adverse events (AEs) were asthenia (47%), diarrhea (43%), and nausea (33%), the majority of which were Grade 1-2. The most common Grade ≥3 treatment-emergent AEs were neutropenia (30%), thrombocytopenia (26.7%), and asthenia (16.7%).

"Existing first-line treatments for higher risk MDS are not typically curative; approximately half of these patients do not respond. Upon progression, median overall survival for these higher risk, relapsed or refractory MDS patients is approximately four to six months. There is a critical need for novel and more effective treatment options for this patient population," said Reshma Rangwala, MD, PhD, Chief Medical Officer of Karyopharm. "We are encouraged by the improved overall survival observed to date with eltanexor in this higher risk patient population. These preliminary results are promising and reinforce the potential of XPO1 inhibition to provide meaningful clinical benefit to patients with relapsed/refractory myelodysplastic neoplasms."

Approximately 12,000 to 20,000 people in the United States are diagnosed with MDS each year, with an estimated 87,000 new cases each year worldwide[3]. HMAs are the current standard of care for newly diagnosed, higher risk MDS patients, who are not candidates for transplant. However, only about 50% of patients respond, with these responses typically lasting less than two years.[4] The prognosis of higher risk relapsed/refractory disease is poor, with a median overall survival of four to six months.[1,2] There are a limited number of novel agents currently in clinical development for relapsed refractory MDS.

About Eltanexor

Eltanexor (KPT-8602) is an investigational novel SINE compound that functions by binding with, and inhibiting, the nuclear export protein, XPO1, leading to the accumulation of tumor suppressor proteins in the cell nucleus. This reinitiates and amplifies their tumor suppressor function and is believed to lead to the selective induction of apoptosis in cancer cells, while largely sparing normal cells.

In preclinical models, eltanexor has a broad therapeutic window with minimal penetration of the blood brain barrier and, therefore, has the potential to serve as another SINE compound for cancer indications. Following oral administration, animals treated with eltanexor show lower percentage of body weight loss and improved food consumption than animals similarly treated with selinexor. This allows more frequent dosing of eltanexor, enabling a longer period of exposure than is possible with selinexor.

Eltanexor is an investigational medicine and has not been approved by the United States Food and Drug

Administration or any other regulatory agency.

About Karyopharm Therapeutics

Karyopharm Therapeutics Inc. (Nasdaq: KPTI) is a commercial-stage pharmaceutical company pioneering novel cancer therapies. Since its founding, Karyopharm has been an industry leader in oral Selective Inhibitor of Nuclear Export (SINE) compound technology, which was developed to address a fundamental mechanism of oncogenesis: nuclear export dysregulation. Karyopharm's lead SINE compound and first-in-class, oral exportin 1 (XPO1) inhibitor, XPOVIO® (selinexor), is approved in the U.S. and marketed by the Company in three oncology indications and has received regulatory approvals in various indications in a growing number of ex-U.S. territories and countries, including Europe and the United Kingdom (as NEXPOVIO®) and China. Karyopharm has a focused pipeline targeting multiple high unmet need cancer indications, including in multiple myeloma, endometrial cancer, myelodysplastic neoplasms and myelofibrosis. For more information about our people, science and pipeline, please visit www.karyopharm.com, and follow us on Twitter at @Karyopharm and LinkedIn.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of The Private Securities Litigation Reform Act of 1995. Such forward-looking statements include those regarding the ability of eltanexor to treat patients with MDS; and expectations related to the clinical development of eltanexor and potential regulatory submissions of eltanexor. 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 guarantee 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 risk that the COVID-19 pandemic could disrupt Karyopharm's business more severely than it currently anticipates, including by negatively impacting sales of XPOVIO, interrupting or delaying research and development efforts, impacting the ability to procure sufficient supply for the development and commercialization of selinexor or other product candidates, delaying ongoing or planned clinical trials, impeding the execution of business plans, planned regulatory milestones and timelines, or inconveniencing patients; 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 trials and preclinical studies, including subsequent analysis of existing data and new data received from ongoing and future studies; 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 studies; 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; 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 Annual Report on Form 10-K for the year ended December 31, 2022, which was filed with the Securities and Exchange Commission (SEC) on February 17, 2023, and in other filings that Karyopharm may make with the SEC in the future. Any forward-looking statements contained in this press release speak only as of the date hereof, and, except as required by law, Karyopharm expressly disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

References:

[1] Jabbour E, Cancer. 2010;116(16):3830-4

[2] Prébet T. J Clin Oncol. 2011;29:3322-7

[3] What is MDS?," MDS Foundation, accessed April 21, 2021, https://www.mds-foundation.org/what-is-mds/

[4] Gil-Perez A. Ther Adv Hematol. 2019 doi:10.1177/2040620719847059

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