Karyopharm Publishes Preclinical and Phase 1 Clinical Data for Selinexor in Ovarian Cancer in Clinical Cancer Research Publication

- XPO1 Inhibition Significantly Reduced Tumor Burden in Platinum Sensitive and Resistant Ovarian Cancer Models-
- Company to Report Updated Phase 2 SIGN Data of Selinexor in Gynecological Malignancies at ESMO 2016 -

NEWTON, Mass., Sept. 28, 2016 (GLOBE NEWSWIRE) -- Karyopharm Therapeutics Inc. (Nasdaq:KPTI), a clinical-stage pharmaceutical company, today announced that preclinical and Phase 1 clinical data describing XPO1 inhibition with selinexor (KPT-330), the Company's lead, oral Selective Inhibitor of Nuclear Export / SINE™ compound, in ovarian cancer models and in patients, were published online in Clinical Cancer Research. The paper, entitled "Inhibition of the Nuclear Export Receptor XPO1 as a Therapeutic Target for Platinum Resistant Ovarian Cancer," discusses scientific results supporting selinexor's potential as a new therapeutic strategy for platinum resistant ovarian cancer.

Published data have shown that XPO1 mRNA overexpression is correlated with decreased survival and platinum resistance in human ovarian cancer. Inhibition of XPO1 with Karyopharm's SINE compounds decreased cell viability and synergistically restored platinum sensitivity in preclinical models. In addition, selinexor treatment, alone and in combination with cisplatin, markedly decreased tumor growth and prolonged survival in a platinum-resistant ovarian cancer in vivo model. These results were further confirmed in a Phase 1 clinical trial, which evaluated single agent oral selinexor in patients with late-stage, recurrent, and heavily pre-treated, platinum resistant ovarian cancer. In this study, selinexor had manageable toxicity and tumor growth was halted in three of five evaluable patients, including one patient with a confirmed partial response. These results lead to the Phase 2 clinical study "SIGN" (Selinexor in Gynecologic Malignancies), with results to be released in an oral presentation at the European Society of Medical Oncology (ESMO) 2016 annual meeting in Copenhagen.

"Ovarian cancer mortality rates are high, with chemoresistance representing the major cause of treatment failure. These data are encouraging, not only because they demonstrate that inhibition of XPO1 with selinexor significantly increased tumor killing regardless of platinum sensitivity, but also because selinexor can be given safely in this late-stage, heavily pretreated and platinum-resistant disease setting," said John A. Martignetti, MD, PhD, Associate Professor, The Mount Sinai Hospital, and co-lead author of the paper.

Sharon Shacham, PhD, MBA, President and Chief Scientific Officer of Karyopharm commented, "These findings are important because they provide insights into the potential value of XPO1 as a therapeutic target in ovarian cancer. We look forward to expanding on our growing body of selinexor clinical data in early October when we report results from the Phase 2 SIGN study in patients with gynecological malignancies, including ovarian cancer, at the ESMO Meeting."

About Selinexor

Selinexor (KPT-330) is a first-in-class, oral Selective Inhibitor of Nuclear Export / SINE™ compound. Selinexor functions by binding with and inhibiting the nuclear export protein XPO1 (also called CRM1), 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. To date, over 1,700 patients have been treated with selinexor, which is currently being evaluated in several mid- and later-phase clinical trials across multiple cancer indications, including multiple myeloma in combination with low-dose dexamethasone (STORM) and backbone therapies (STOMP), acute myeloid leukemia (SOPRA), diffuse large B-cell lymphoma (SADAL), and liposarcoma (SEAL), among others. Karyopharm plans to initiate a pivotal randomized Phase 3 study of selinexor in combination with bortezomib (Velcade®) and low-dose dexamethasone (BOSTON) in patients with multiple myeloma in early 2017. Additional Phase 1, Phase 2 and Phase 3 studies are ongoing or currently planned, including multiple studies in combination with one or more approved therapies in a variety of tumor types to further inform the Company's clinical development priorities for selinexor. The latest clinical trial information for selinexor is available at www.clinicaltrials.gov.

About Karyopharm Therapeutics

Karyopharm Therapeutics Inc. (Nasdaq:KPTI) is a clinical-stage pharmaceutical company focused on the

discovery and development of novel first-in-class drugs directed against nuclear transport and related targets for the treatment of cancer and other major diseases. Karyopharm's SINE™ compounds function by binding with and inhibiting the nuclear export protein XPO1 (or CRM1). In addition to single-agent and combination activity against a variety of human cancers, SINE™ compounds have also shown biological activity in models of neurodegeneration, inflammation, autoimmune disease, certain viruses and wound-healing. Karyopharm, which was founded by Dr. Sharon Shacham, currently has several investigational programs in clinical or preclinical development. For more information, please visit www.karyopharm.com.

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 therapeutic potential of and potential clinical development plans for Karyopharm's drug candidates, including the timing of initiation of certain trials and of the reporting of data from such trials. Such statements are subject to numerous important factors, risks and uncertainties that may cause actual events or results to differ materially from the Company's current expectations. For example, there can be no guarantee that any of Karyopharm's SINE™ compounds, including selinexor (KPT-330), will successfully complete necessary preclinical and 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 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: 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; Karyopharm's ability to obtain and maintain requisite regulatory approvals and to enroll patients in its clinical trials; unplanned cash requirements and expenditures; development of drug candidates by Karyopharm's competitors for diseases in which Karyopharm is currently developing its drug candidates; and Karyopharm's ability to obtain, maintain and enforce patent and other intellectual property protection for any drug candidates it is developing. These and other risks are described under the caption "Risk Factors" in Karyopharm's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, which was filed with the Securities and Exchange Commission (SEC) on August 4, 2016, 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 Karyopharm expressly disclaims any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise.

Contact:
Justin Renz
(617) 658-0574
jrenz@karyopharm.com

Gina Nugent
(617) 460-3579
nugentcomm@aol.com
