

Karyopharm to Present Late-Breaking Data at American Association for Cancer Research Annual Meeting

NEWTON, Mass., April 17, 2015 (GLOBE NEWSWIRE) -- Karyopharm Therapeutics Inc. (Nasdaq:KPTI), a clinical-stage pharmaceutical company, today announced that two late-breaking abstracts describing the activity of selinexor (KPT-330), the company's lead drug candidate in development for hematological malignancies and solid tumors, have been selected for presentation at the 2015 Annual Meeting of the American Association for Cancer Research (AACR) taking place April 18-22 in Philadelphia. The abstracts, which represent company and investigator-sponsored preclinical studies, describe preclinical data related to selinexor (KPT-330), Karyopharm's first-in-class, oral Selective Inhibitor of Nuclear Export / SINE™ compound that inhibits exportin 1 (XPO1). Detailed results from these studies will be presented at the conference.

"These late-breaking abstracts which were accepted for presentation at the AACR annual meeting, demonstrate the potential role of XPO1 inhibition in two difficult to treat tumor types for which current therapies provide minimal benefit," said Sharon Shacham, PhD, MBA, President and Chief Scientific Officer of Karyopharm. "Selinexor demonstrated potent anti-cancer effects both alone and in combination with chemotherapy in double and triple-hit diffuse large B-cell lymphoma patient cell lines consistent with selinexor's activity in our ongoing phase 1 clinical trial in hematologic malignancies. In addition, the combination of selinexor and olaparib, an approved PARP inhibitor, showed synergistic activity in models of triple-negative breast cancer, supporting further investigation of selinexor in solid tumors."

Late-breaking abstracts include:

- **Poster Title:** XPO1 is a rational target for double and triple-hit aggressive B-cell lymphomas

Author: Marullo, Weill Cornell Medical College

Poster #: LB-062

Date/Time: Monday, April 20, 8:00 AM - 12:00 PM

Karyopharm researchers in collaboration with Dr. Leandro Cerchietti's lab at Weill Cornell Medical College will present data demonstrating the potent anti-proliferative effects of selinexor treatment in double and triple-hit diffuse large B-cell lymphoma (DLBCL) patient cell lines in which XPO1 over-expression was observed. These data demonstrated that selinexor can be combined with CHOP (cyclophosphamide vincristine, doxorubicin and dexamethasone) to significantly reduce tumor growth without additional observed toxicity, providing further support for selinexor as a potential treatment option for patients with DLBCL including the double- and triple-hit subtypes.

- **Poster Title:** Selinexor, a selective inhibitor of nuclear export (SINE) compound, shows enhanced antitumor activity in combination with the PARP inhibitor, olaparib, in models of triple-negative breast cancer

Author: Marijon, Cedars Sinai Medical Center

Poster #: LB-255

Date/Time: Tuesday, April 21, 1:00 - 5:00 PM

Karyopharm researchers in collaboration with Dr. Harold Phillip Koeffler's lab at Cedars-Sinai Medical Center will present data from combination studies demonstrating that selinexor enhances the anti-tumor activity of the Poly-ADP-Ribose Polymerase (PARP) inhibitor olaparib (Lynparza®, FDA approved for ovarian cancer), in models of triple-negative breast cancer. The combination of selinexor and olaparib was shown to act synergistically to induce apoptosis and amplify anti-tumor effects in mouse model of BRCA1 mutant breast cancer.

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, which subsequently reinitiates and amplifies their tumor suppressor function. This is believed to lead to the selective induction of apoptosis in cancer cells, while largely sparing normal cells. Over 700 patients have been treated with selinexor in Phase 1 and Phase 2 clinical trials in advanced hematologic malignancies and solid tumors. Karyopharm has initiated three registration-directed clinical trials of selinexor, one in older patients with acute myeloid leukemia (SOPRA), one in patients with Richter's transformation (SIRRT) and one in patients with diffuse large B-cell lymphoma (SADAL). Karyopharm plans to initiate a single-arm trial of selinexor in multiple myeloma in the first half of 2015 that is also intended to be registration-directed. In solid tumors, Karyopharm plans to initiate a Phase 3 pivotal trial of selinexor to treat liposarcoma during the second half of 2015. Other potential registration-directed trials in hematological and solid tumor indications are being evaluated. Additional Phase 1 and Phase 2 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 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). SINE™ compounds have also shown biological activity in models of cancer, inflammation, autoimmune disease, certain viruses, and wound-healing. Karyopharm was founded by Dr. Sharon Shacham and is located in Newton, Massachusetts. 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) or any PAK4 inhibitor, or any other drug candidate that Karyopharm is developing 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; 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 Annual Report on Form 10-K for the year ended December 31, 2014, which is on file with the Securities and Exchange Commission (SEC) as of March 13, 2015. 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.

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