Karyopharm Therapeutics Presents Promising Data for Selinexor, an Oral, First-in-Class Selective Inhibitors of Nuclear Export (SINE) Compound, in Hematologic Malignancies at 2013 ASH Annual Meeting

NATICK, Mass., Dec. 8, 2013 (GLOBE NEWSWIRE) -- Karyopharm Therapeutics Inc. (Nasdaq:KPTI), 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, today announced the oral presentation of clinical data from an ongoing Phase 1 clinical trial of its lead oral SINE compound, Selinexor (KPT-330), in patients with relapsed and/or refractory non-Hodgkin lymphoma (NHL) and chronic lymphocytic leukemia (CLL) at the 2013 American Society of Hematology (ASH) Annual Meeting and Exposition being held December 7-10, 2013 in New Orleans, LA. The data indicate that, as of December 4, 2013, first-in-class oral Selinexor showed preliminary evidence of anti-cancer activity as a single agent in the majority of heavily pretreated relapsed and/or refractory NHL and CLL patients in the study cohort with progressive disease on study entry. In these NHL and CLL patients, Selinexor induced low levels of severe (Grade 3/4) adverse events, and several of these patients have remained on study with Selinexor as their only anti-cancer treatment for more than 6-12 months.

"We believe the data presented at ASH further demonstrate the potential of Selinexor as a single agent treatment for heavily pretreated, relapsed and/or refractory hematologic malignancies. The patients in our Phase 1 study have hematologic malignancies that have progressed after multiple previous treatments, including combinations of highly active agents. These data support our plans to conduct future studies of Selinexor alone and in combination with standard of care chemotherapy regimens and other approved therapies," said Sharon Shacham, Ph.D., founder, Chief Scientific Officer and President of Research and Development of Karyopharm. "We plan to continue to evaluate new indications for potential treatment with Selinexor based on these initial results as well as to assess the maximum tolerated dose and dosing schedule and expect to report more data from the Phase 1 trial and investigator-sponsored single agent and combination studies in the first half of 2014. In addition, we expect to initiate randomized studies in the first half of next year designed to potentially serve as the basis for an application seeking regulatory approval of Selinexor."

Dr. John Kuruvilla (Princess Margaret Hospital, Toronto, ON) presented data from the Phase 1 advanced hematologic malignancies study presented at ASH. Thirty patients with heavily pretreated, progressive NHL or CLL received oral Selinexor as a single agent across eight dose levels (3 to 45 mg/m2) given 2-3 times per week. Selinexor was generally well tolerated with supportive care given to prevent anorexia and fatigue. Grade 1/2 drug-related toxicities in &#62 15% of the patients were nausea (63%), fatigue (57%), anorexia (55%), vomiting (37%), and diarrhea (33%). Grade ≥ 3 toxicities in at least two patients included only fatigue (10%). Treatment induced partial responses in 27% of the patients across all disease types (see table), with tumor (lymph node) shrinkage observed in the majority of patients (17 of 18 patients who had baseline and at least one follow up CT scan. One patient with ibrutinib-refractory CLL with Richter's transformation who had progressed on chemotherapy achieved a rapid 60% reduction in lymph nodes in Cycle 1 of treatment and was referred for stem cell transplantation. Several patients with diffuse large b-cell lymphoma (DLBCL) refractory to standard of care chemotherapy as well as bone marrow transplantation achieved strong partial responses (93%, 74%, 73%) tumor shrinkage. Seven patients have remained on study for &#62 5 months; one patient with DLBCL has remained on study for &#62 16 months. There were no clinically significant cumulative toxicities or major organ dysfunction with prolonged dosing. A maximum tolerated dose (MTD) of oral Selinexor given twice weekly has not been reached; evaluations at 45mg/m2 are ongoing and further dose escalations are possible.

"Data from this Phase 1 trial of Selinexor show good tolerability and promising clinical responses across a wide range of hematologic malignancies, and in patients with poor prognosis disease," commented Dr. Kuruvilla. "We look forward to seeing more data out of this trial as the dose escalation continues."

Responses in NHL/CLL/Richter's syndrome patients as of December 4, 2013 are as follows:

Diagnosis*	Patients Evaluated	Partial Response (PR) (%)	Stable Disease (SD) (%)	Progressive Disease (%)	Withdrew Consent (%)	Not Evaluable (%)	Total PR and SD (%)
CLL	4	2 (50%)	2 (50%)	--	--	--	4 (100%)
Richter's Syndrome	4	1 (25%)	3 (75%)	--	--	--	4 (100%)
NHL							
DLBCL	11	3 (27%)	5 (45%)	2 (18%)	--	1 (9%)	8 (72%)
MCL	3	1 (33%)	1 (33%)	--	--	1 (33%)	2 (67%)
FL	6	1 (17%)	4 (66%)	--	1 (17%)	--	5 (83%)
Transformed FL	2	--	--	2 (100%)	--	--	--
Total	30	8 (27%)	15 (50%)	4 (13%)	1 (3.3%)	2 (6.7%)	23 (77%)

*MCL (mantle cell lymphoma), FL (follicular lymphoma)

A chart accompanying this release is available at http://media.globenewswire.com/cache/23538/file/23620.pdf

About the Phase 1 Selinexor Trial

Data were reported from 30 patients with NHL or CLL as part of trial NCT01607892 in the dose escalation Phase 1 clinical trial. The primary objectives of the Phase 1 dose escalation trial were to determine the safety, tolerability and recommended Phase 2 dose of orally administered Selinexor. All patients entered the study with advanced non-Hodgkin lymphoma (NHL) or chronic lymphocytic leukemia (CLL) relapsed and/or refractory after multiple previous treatments and objectively progressing on study entry. Patients were administered 8-10 doses of Selinexor orally in a 4-week cycle (2-3 times per week) and response evaluation was done every cycle with detailed pharmacokinetic and pharmacodynamic analyses and serial tumor biopsies. Evaluations of twice-weekly and once-weekly dosing are ongoing.

About Selinexor

Selinexor (KPT-330) is a first-in-class, oral Selective Inhibitors of Nuclear Export (SINE) compound that is undergoing Phase 1 studies in patients with advanced hematologic malignancies (NCT01607892), solid tumors (NCT01607905), and sarcomas (NCT01896505). Selinexor functions by blocking 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.

About Karyopharm

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 blocking the XPO1, preventing the export of various proteins out of the nucleus. SINE compounds have shown biological activity in models of cancer, autoimmune disease, certain viruses, and wound-healing. Karyopharm was founded by Dr. Sharon Shacham and is located in Natick, Massachusetts.

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 Selinexor, 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 Selinexor or any other drug candidate 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 which may impact management's expectations are described in greater detail in the "Risk Factors" section of the prospectus for Karyopharm's initial public offering, which is on file with the Securities and Exchange Commission, and in subsequent filings filed by Karyopharm with the Securities and Exchange Commission. 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: Beth DelGiacco, Stern Investor Relations, Inc.

beth@sternir.com 212-362-1200
