Karyopharm Updates Data for Selinexor in Solid Tumors at 2014 ASCO Annual Meeting

NATICK, Mass., June 2, 2014 (GLOBE NEWSWIRE) -- Karyopharm Therapeutics Inc. (Nasdaq:KPTI), a clinical-stage pharmaceutical company, today announced multiple presentations of clinical data from an ongoing Phase 1 trial of its lead drug candidate, Selinexor (KPT-330), in patients with advanced or metastatic solid tumors and an ongoing Phase 1b food effects study of Selinexor in patients with advanced sarcomas at the 2014 American Society of Clinical Oncology (ASCO) Annual Meeting in Chicago, IL. Data from these trials indicate that first-in-class oral Selinexor showed continued evidence of anti-cancer activity as a single agent across a broad range of solid tumor indications in patients with progressive disease whose cancers had relapsed after, or were refractory to, multiple prior therapies.

Advanced or Metastatic Solid Tumor Cancers

In two poster presentations (Abstract #2537 and Abstract #5522), data was reported across a variety of heavily pretreated, progressing solid tumors including melanoma, head & neck, ovarian, cervical, colorectal, and chemotherapy refractory prostate cancers. Enrolled patients had a mean of 3.7 prior therapies and were progressing at study entry. Patients received doses of Selinexor ranging from 3 - 85 mg/m2. The disease control rate was 49% (stable disease or better). Partial responses were observed in 4 patients: colorectal cancer (KRAS mutant), melanoma (BRAFwt), ovarian adenocarcinoma, and cervical. Stable disease was noted in 47 patients, with 17 patients (16%) experiencing stable disease for six months or longer. Seven of eight evaluable patients with hormone and chemotherapy refractory prostate cancer achieved stable disease and remained on study for 70 to 317+ days. Among 14 evaluable patients with head and neck cancer, nine achieved stable disease with eight on study for 75 - 401+ days.

Best Responses in Solid Tumor Patients as of 13-May-2014

Cancer Type	N	PRs and SD (%)	PR (%)	SD (%)	PD (%)
Colorectal	39	14 (36%)	1 (3%)	13 (33%)	25 (64%)
Head & Neck	14	9 (64%)	--	9 (64%)	5 (36%)
Prostate	8	7 (88%)	--	7 (88%)	1 (12%)
Cervical	5	4 (80%)	1 (20%)	3 (60%)	1 (20%)
Ovarian	5	3 (60%)	1 (20%)	2 (40%)	2 (40%)
GBM	5	--	--	--	5 (100%)
Melanoma	3	2 (67%)	1 (33%)	1 (33%)	1 (33%)
Sarcoma	8	7 (88%)	--	7 (88%)	1 (12%)
Other	19	6 (32%)	--	6 (32%)	13 (68%)
Total	106	52 (49%)	4 (4%)	48 (45%)	54 (51%)

PR=Partial Response, SD=Stable Disease, PD=Progressive Disease

Side effects were generally low grade and typically gastrointestinal in nature, or fatigue. These common side effects decreased over time, in part due to prophylactic use of standard supportive care. Major organ dysfunction or clinically significant cumulative toxicities have not been observed. The recommended single agent dose for Phases 2 and 3 is 65 mg/m2 twice weekly.

Morten Mau-Soerensen, MD, PhD, of the Rigshospitalat, Copenhagen, presented the updated study data in solid tumors at a poster highlights presentation at ASCO. He commented, "I have been impressed by the single agent activity of Selinexor across a variety of different tumor types. While it is unusual to see such broad activity, the results of tumor biopsies before and after treatment support the understanding of the novel mechanism of action of Selinexor as inducing selective killing of malignant cells. I look forward to additional single agent and combination studies."

"All patients treated in our Phase 1 clinical trial of Selinexor in advanced or metastatic solid tumors had progressive disease upon entering the study and had exhausted available therapies," stated Dr. Michael Kauffman, Karyopharm's CEO. "These encouraging data warrant further evaluation of Selinexor in solid tumors. Therefore, we have initiated a Phase 2 study in patients with advanced gynecologic malignancies including cervical, ovarian and uterine carcinomas. We plan to initiate Phase 2 clinical trials in additional indications including treatment-resistant prostate cancer and squamous head and neck cancer."

Food Effects Study in Advanced Sarcomas

A Phase 1b trial (Abstract # 10587) was designed to assess the effects of food and formulation (capsules and tablets) on the absorption of oral Selinexor and to determine the anti-tumor activity, if any, of Selinexor in sarcoma patients whose disease has progressed on available therapies. Selinexor was administered orally at 30 mg/m2 twice weekly. Tumor shrinkage and disease stabilization were observed in a variety of soft tissue sarcomas including Liposarcoma and Leiomyosarcoma. Among 19 patients evaluable for response, stable disease was observed in 52% of patients. Five patients remain on study (61-211+ days).

Best Responses in Solid Tumor Patients as of 13-May-2014

Cancer Type	N	SD (%)	PD (%)	NE (%)
Sarcoma Type				
Leiomyosarcoma	6	3 (50%)	2 (33%)	1 (17%)
Liposarcoma	4	4 (100%)	--	--
Synovial Sarcoma	3	--	3 (100%)	--
Chondrosarcoma	2	1 (50%)	1 (50%)	--
Others	6	3 (50%)	2 (33%)	1 (17%)
Total	21	11 (52%)	8 (38%)	2 (10%)

SD=Stable Disease, PD=Progressive Disease, NE=Non-Evaluable

Dr. Sharon Shacham, Karyopharm's Founder, President and CSO stated, "As a result of this encouraging data in diverse types of treatment-resistant sarcomas, we have initiated an expansion cohort at 50mg/m2 twice weekly to further evaluate Selinexor's potential. In addition, we anticipate studying Selinexor's activity both as a single agent and in combination with chemotherapy in future studies in advanced or metastatic sarcomas."

The Phase 1 Clinical Trial of Selinexor in Advanced or Metastatic Solid Tumor Cancers

Data were reported from 106 patients with solid tumors as part of trial NCT01607905 in the dose escalation Phase 1 clinical trial. All patients entered the study with advanced or metastatic solid tumor cancers relapsed or refractory after multiple previous treatments and objectively progressing on study entry. 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. Patients were administered 8-10 doses of Selinexor from 3 - 85 mg/m2 orally in a 4-week cycle (2-3 times per week) and response evaluation was done every 2 cycles in accordance with RECIST 1.1.

The Phase 1b Food Effects Study in Advanced Sarcomas

Data were reported from 21 patients with advanced sarcomas as part of trial NCT01896505. All patients entered the study with documented progressive disease. The primary objectives of this Phase 1b study were to determine the effects of high and low fat foods on the pharmacokinetics (PK) of oral Selinexor tablets, to compare PK of capsules and tablets and to assess the effects of Selinexor on cellular morphology and biomarker changes on sarcoma biopsy specimens (in patients who can safely undergo biopsy). Patients were administered 30 mg/m2 of Selinexor twice weekly in capsule or tablet form and response evaluation was done every 8 weeks in accordance with RECIST 1.1.

About Selinexor

Selinexor (KPT-330) is a first-in-class, oral Selective Inhibitor of Nuclear Export (SINE) compound. Selinexor functions by binding with 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. To date, over 300 patients have been treated with Selinexor in Phase 1 and Phase 2 clinical trials in advanced hematologic malignancies and solid tumors. Additional Phase 1 and Phase 2 studies are ongoing or currently planned and three registration-directed clinical trials in hematological indications are expected to begin enrollment during 2014. 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. 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. For more information about Karyopharm, 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 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, 2013, which is on file with the Securities and Exchange Commission (SEC), 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.

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