ZIOPHARM Oncology, Inc.

August 1, 2012

Independent Data Monitoring Committee of ZIOPHARM's Phase 3 Study of Palifosfamide in Metastatic Soft Tissue Sarcoma Recommends Continuation of Trial Following Planned Interim Futility Analysis

NEW YORK, Aug. 1, 2012 (GLOBE NEWSWIRE) -- ZIOPHARM Oncology, Inc. (Nasdaq:ZIOP), a biopharmaceutical company focused on the development and commercialization of new cancer therapies, announced today that the Independent Data Monitoring Committee of the Company's Phase 3 trial (PICASSO 3) of palifosfamide (ZIO-201) in first-line metastatic soft tissue sarcoma has recommended continuation of the trial as designed and conducted. This is after completing a planned, pre-specified futility analysis using all available study data.

Enrollment in PICASSO 3, which is an international, randomized, double-blinded, placebo-controlled study, was completed in June 2012. ZIOPHARM expects to announce the results of the trial, which has a primary endpoint of progression-free survival for accelerated approval, in the fourth quarter of 2012.

About ZIOPHARM Oncology, Inc.:

ZIOPHARM Oncology is a biopharmaceutical company focused on the development and commercialization of new cancer therapies. The Company's clinical programs include:

Palifosfamide (ZIO-201), a novel DNA-targeted cancer treatment that bypasses drug resistance mediated by ALDH (aldehyde dehydrogenase), an enzyme associated with cancer stem cells, and has a favorable toxicity profile. Intravenous palifosfamide is currently being studied in a randomized, double-blinded, placebo-controlled Phase 3 trial (PICASSO 3) for the treatment of first-line metastatic soft tissue sarcoma and is also in a pivotal Phase 3 trial (MATISSE) for first-line metastatic small cell lung cancer. Additionally, the Company is developing an oral capsule form of palifosfamide.

IL-12 DNA, a novel DNA therapeutic that is delivered to the patient's tumor and expresses interleukin-12, a protein that controls anti-cancer immune responses. IL-12 DNA is currently in two Phase 1 studies, with plans to move into Phase 2 studies. ZIOPHARM's DNA therapeutics are being developed in partnership with Intrexon Corporation through a revolutionary synthetic biology platform that allows for targeted, controlled production of therapies in humans with a biologic on/off switch (the RheoSwitch Therapeutic System®). Preclinical and discovery work with multiple therapeutic approaches, such as antibodies, immunotoxins and protein decoys, is expected to result in multiple clinical candidates in the next 12 to 24 months.

Indibulin (ZIO-301) is a novel, tubulin binding agent that is expected to have several potential benefits, including oral dosing, application in multi-drug resistant tumors, no neuropathy and a tolerable toxicity profile. It is currently being studied in a Phase 1/2 trial in metastatic breast cancer.

Darinaparsin (ZIO-101) is a novel mitochondrial- and hedgehog-targeted agent (organic arsenic) currently in ongoing studies with Solasia Pharma K.K.

ZIOPHARM's operations are located in Boston, MA, and New York City. Further information about ZIOPHARM may be found at www.ziopharm.com.

Forward-Looking Safe Harbor Statement:

This press release contains certain forward-looking information about ZIOPHARM Oncology that is intended to be covered by the safe harbor for "forward-looking statements" provided by the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements are statements that are not historical facts. Words such as "expect(s)," "feel(s)," "believe(s)," "will," "may," "anticipate(s)" and similar expressions are intended to identify forward-looking statements. These statements include, but are not limited to, statements regarding our ability to successfully develop and commercialize our therapeutic products; our ability to expand our long-term business opportunities; financial projections and estimates and their underlying assumptions; and future performance. All of such statements are subject to certain risks and uncertainties, many of which are difficult to predict and generally beyond the control of the Company, that could cause actual results to differ materially from those expressed in, or implied or projected by, the forward-looking information and statements. These risks and uncertainties include, but are not limited to: whether Palifosfamide, Darinaparsin, Indibulin, or any of our other therapeutic products will advance further in the clinical trials process and whether and when, if at all, they will receive final approval from

the U.S. Food and Drug Administration or equivalent foreign regulatory agencies and for which indications; whether Palifosfamide, Darinaparsin, Indibulin, and our other therapeutic products will be successfully marketed if approved; whether our DNA-based biotherapeutics discovery and development efforts will be successful; our ability to achieve the results contemplated by our collaboration agreements; the strength and enforceability of our intellectual property rights; competition from pharmaceutical and biotechnology companies; the development of and our ability to take advantage of the market for DNA-based biotherapeutics; our ability to raise additional capital to fund our operations on terms acceptable to us; general economic conditions; and the other risk factors contained in our periodic and interim SEC reports filed from time to time with the Securities and Exchange Commission, including but not limited to our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, and our Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2012. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date hereof, and we do not undertake any obligation to revise and disseminate forward-looking statements to reflect events or circumstances after the date hereof, or to reflect the occurrence of or non-occurrence of any events.

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