



Clinical and Preclinical Data for Oral Indibulin (ZIO-301) Presented at AACR/NCI/EORTC Conference

Unique Targeting Mechanism; Translation to Early Clinical Activity without Neurotoxicity

SAN FRANCISCO, Oct 25, 2007 (BUSINESS WIRE) -- ZIOPHARM Oncology, Inc. (NASDAQ: ZIOP) announced today the presentation of two posters reporting clinical and pre-clinical data for the oral administration of indibulin (ZIO-301) at the Molecular Targets and Cancer Therapeutics Conference, an international conference hosted by the American Association for Cancer Research (AACR), the National Cancer Institute (NCI) and the European Organization for Research and Treatment of Cancer (EORTC) being held in San Francisco, California, from October 22-26, 2007.

Data presented in two separate posters, "Indibulin (ZIO-301): An Orally Active Tubulin Polymerization Inhibitor with a Unique Molecular Mechanism of Action" and "Translation of Indibulin (ZIO-301) Preclinical Antiangiogenic and Antimetastatic Activity to the Clinic," highlight indibulin's unique molecular mechanism and the demonstration of early clinical activity in the recently initiated U.S. phase I study in various tumor types.

Preclinical data show indibulin to have a potent, and uniquely targeted antitumor activity as a single agent. Indibulin has a unique molecular mechanism and targets specific subsets in cellular microtubules, altering the apical recycling endosome while not affecting acetylated tubulin or the Golgi. In cell lines, indibulin has potent synergistic activity in combination with several approved cancer drugs. The strongest synergy was observed in a non-small cell lung cancer cell line (NSCLC) with erlotinib (Tarceva(R)), which is an epidermal growth factor receptor inhibitor. Indibulin also enhanced the effect of carboplatin in the same cell line.

In the recently initiated U.S. phase I dose escalation study of indibulin, data is reported on the first three patients who have been treated with 400 mg twice daily on a continuous dosing schedule. Two of these patients have shown activity. An elderly patient with metastatic papillary thyroid cancer evidenced stable disease with an 11% decrease in tumor measurements and 34% decrease in thyroglobulin levels early in treatment. A patient with ovarian cancer and brain metastases showed an 11% reduction of CA125 levels from baseline, also after early treatment. The study continues to escalate the dosing level and, indibulin treatment has not demonstrated the neurotoxicities commonly associated with all other microtubulin inhibitors.

Commenting on the findings, James R. Goldenring, MD, Ph.D., Paul W. Sanger Professor and Vice-Chairman for Research at Vanderbilt School of Medicine, Ingram Cancer Center, and a senior co-investigator said, "These data suggest that indibulin has a unique molecular mechanism, targeting specific subsets in cellular microtubules and likely in a cell-specific manner. This unique mechanism may account for its potent oral single-agent antitumor activity and its high synergy with a number of widely used anticancer agents. When viewed with the lack of neurotoxicity in the phase I trials to date, these data would strongly support successful clinical translation in upcoming phase II studies both as a single agent and in combination with established chemotherapeutics."

Dr. Brian Schwartz, MD, Chief Medical Officer, concluded, "These encouraging data are important in that they further elucidate indibulin's unique and exciting cell biology and support our ongoing clinical development program to further evaluate its utility as a single agent and in combination with widely-used anticancer agents. The clinical activity demonstrated in patients in our ongoing phase I study is most encouraging especially as the drug is well tolerated and lacks the neurotoxicities commonly associated with other anticancer agents. We look forward to completing these studies and to reporting the data in the near future."

About ZIO-301

ZIO-301 (indibulin) is a novel synthetic anti-mitotic agent that binds to tubulin, destabilizes microtubule polymerization, and arrests tumor cell growth at the G2/M phase. Microtubules are well-established targets for anti-cancer drug development and tubulin-binding drugs such as taxanes and vinca alkaloids are currently widely used to treat cancer. Indibulin is in a phase I dose-ranging and safety study in the U.S. and Europe. The Company expects to begin U.S. phase II trials in 2008.

About ZIOPHARM Oncology, Inc.

ZIOPHARM Oncology, Inc. is a biopharmaceutical company engaged in the development and commercialization of a diverse, risk-sensitive portfolio of in-licensed cancer drugs to address unmet medical needs. The Company applies new insights from

molecular and cancer biology to understand the efficacy and safety limitations of approved and developmental cancer therapies and identifies proprietary and related molecules for better patient treatment. For more information, visit www.ziopharm.com.

Forward-Looking Safe Harbor Statement:

This press release contains forward-looking statements for ZIOPHARM Oncology, Inc. that involve risks and uncertainties that could cause the Company's actual results to differ materially from the anticipated results and expectations expressed in these forward-looking statements. These statements are based on current expectations, forecasts and assumptions that are subject to risks and uncertainties, which could cause actual outcomes and results to differ materially from these statements. Among other things, there can be no assurance that any of the Company's development efforts relating to its product candidates will be successful, or such product candidates will be successfully commercialized. Other risks that affect forward-looking information contained in this press release include the possibility of being unable to obtain regulatory approval of the Company's product candidates, the risk that the results of clinical trials may not support the Company's claims, and risks related to the Company's ability to protect its intellectual property and its reliance on third parties to develop its product candidates. The Company assumes no obligation to update these forward-looking statements, except as required by law.

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