ZIOPHARM Starts Phase I Study of ZIO-101

Solid Tumor Study Underway at M. D. Anderson

CHARLESTOWN, MA May 25, 2005 - ZIOPHARM, Inc. announced today that it has initiated its second phase I study to assess safety and dosing of ZIO-101, the Company's proprietary small molecule organic arsenic. This trial is being conducted in up to 40 patients with diverse solid tumors and complements the recently initiated phase I study in patients with hematological malignancies. The principle investigator for this single center trial is Dr. Luis H. Camacho at The University of Texas M. D. Anderson Cancer Center. ZIO-101 is the first molecule from a family of novel organic arsenics. The Company's Investigational New Drug application was initially approved by the Food and Drug Administration (FDA) in April, 2005.

"In prior clinical studies, arsenic trioxide has been established as an effective agent to treat acute promyelocytic leukemia, and in combination with other agents as a treatment for multiple myeloma," commented Dr. Camacho. "Compared to inorganic arsenic, ZIO-101 is a novel organic compound that in preclinical study appears to be safe at much higher doses and has the potential to benefit not only patients with hematological malignancies, but also patients with solid tumors. We are excited to be the first cancer center to test this agent in both the hematological and solid tumor setting."

The Company anticipates that the phase I trials at M. D. Anderson Cancer Center will be followed by a phase I/II trial in advanced myeloma in the second half of this year, and in turn, to be continued with a registration study in that same indication to begin in the second half of 2006.

The Company's second clinical-stage compound, ZIO-201, also is in an ongoing phase I trial. A phase I/II trial in sarcoma is scheduled to initiate in the second half of this year with a registration trial in the second half of 2006. Additional phase II trials are also anticipated for 2005.

"With three phase I trials so soon after initiating operations, ZIOPHARM is delivering on its promise to deliver novel cancer therapies in a timely fashion," commented Jonathan Lewis, MD, PhD, Chief Executive Officer of ZIOPHARM.

About ZIOPHARM, Inc.

ZIOPHARM is a privately held specialty cancer company. Operations were initiated in January 2004 with the strategy of in-licensing proprietary drug candidate families with prior "related-molecule" efficacy in human cancer that would be efficiently and effectively developed and commercialized by a very experienced management team supported by prominent clinicians and medical advisors.

The Company's first in-licensed product in August of 2004, ZIO-101 or organic arsenic, is a small molecule from The University of Texas M. D. Anderson Cancer Center and Texas A&M University. A second organic arsenic from that broad licensing arrangement, ZIO-102, is expected to undergo further preclinical study this year as ZIO-101 progresses through phase I study in both hematologic and solid tumor cancers. A phase I/II trial of ZIO-101 in advanced myeloma is anticipated to begin in the second half of this year with a planned registration trial to begin in the second half of 2006.

ZIO-201, or proprietary IPM (isophosphoramide mustard), is a small molecule licensed in November of 2004 from DEKK-Tec of New Orleans and is currently in phase I study in patients with late-stage cancers at the Karmanos Cancer Center in Detroit, Michigan and Premiere Oncology in Santa Monica, California. A phase I/II trial and two phase II trials are expected to initiate in the second half of this year with a registration trial also scheduled to initiate in the second half of 2006. As announced in January 2005, the Company is conducting preclinical research with IPM analogs in collaboration with Southern Research Institute under its Collaboration and Option Agreement with the objective of establishing a ZIO-202 clinical candidate.

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 the Company's 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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