August 1, 2006

Enzon Pharmaceuticals Announces Advancements in Its Oncology Pipeline; Oncaspar Phase I solid tumor trial begins; IND approved for rhMBL study

BRIDGEWATER, N.J., Aug 01, 2006 (BUSINESS WIRE) -- Enzon Pharmaceuticals, Inc. (Nasdaq: ENZN) today announced the initiation of a phase I clinical trial of Oncaspar to assess its safety and potential utility in the treatment of advanced solid tumors and lymphomas in combination with Gemzar(R) (gemcitabine HCl for Injection). The Company also announced the U.S. Food and Drug Administration (FDA) completed review of the Company's Investigational New Drug (IND) application for the use of recombinant human Mannose-Binding Lectin (rhMBL) for the prevention and treatment of severe infections in patients with multiple myeloma with low levels of MBL undergoing high-dose chemotherapy and hematopoietic stem cell transplantation. Clinical trials are expected to begin enrollment later this year.

"The advancement of these two important oncology programs is a testament to our commitment to both reinvest in our brands and build our pipeline," said Jeffrey H. Buchalter, Enzon's chairman and chief executive officer. "Oncaspar moving into clinical trials in solid tumors also marks an important turning point for the Company as we begin to explore broader markets of unmet medical need."

Oncaspar Phase I Trial

The multi-center trial is being lead by Dr. Amita Patnaik M.D. at the Cancer Therapy and Research Center (CTRC) and is being conducted with Dr. Mitesh Borad M.D. at the Translational Genomics Research Institute (TGEN) and Dr. Jean Grem M.D. at the University of Nebraska Medical Center. The open-label, dose-escalation trial is designed to assess the safety and maximum-tolerated dose of Oncaspar in combination with Gemzar in patients with advanced solid tumors and lymphomas.

rhMBL Program

rhMBL is a protein therapeutic being developed for the prevention and treatment of severe infections in individuals with low levels of Mannose-Binding Lectin (MBL). Over 10 percent of the general population is estimated to be MBL-deficient. MBL deficiency may explain why some but not all individuals who are immunosuppressed develop infectious complications even when they receive prophylactic anti-infectious treatment. Studies have shown a correlation between low MBL levels and susceptibility to serious infections in patients immunosuppressed from chemotherapy, including patients with multiple myeloma undergoing high-dose chemotherapy and hematopoietic stem cell transplantation.

Enzon acquired the worldwide rights, excluding the Nordic countries, to rhMBL from NatImmune A/S in September 2005. In December 2004, NatImmune completed a Phase 1 clinical trial that evaluated the safety and pharmacokinetic profile of single- and multi-dose intravenous administration of rhMBL in 28 MBL-deficient, healthy volunteers. Results from the Phase 1 trials demonstrated that rhMBL therapy is well-tolerated. NatImmune has also completed a prospective correlation study of 255 hematological cancer patients which documented that patients with low levels of MBL undergoing treatment for cancer have a significantly higher risk of severe infections following chemotherapy compared to patients with normal MBL levels.

About Oncaspar

Oncaspar is a PEG-enhanced version of the naturally occurring enzyme L-asparaginase. L-asparaginase is an enzyme that depletes the amino acid asparagine, which certain leukemic cells are dependent upon for survival. Oncaspar was initially approved by the U.S. Food and Drug Administration in February 1994 and is now indicated as a component of a multi-agent chemotherapeutic regimen for the first-line treatment of patients with acute lymphoblastic leukemia. Through its proprietary PEGylation technology, Enzon designed Oncaspar to offer therapeutic advantages over unmodified L-asparaginase. Oncaspar provides a more convenient, patient-friendly dosing regimen that allows for administration every 14 days, versus twice weekly for unmodified L-asparaginase. Enzon's specialized oncology sales force markets Oncaspar in the United States.

About MBL

MBL is a natural human plasma protein that plays an important role in the humoral innate immune defense. It specifically recognizes a broad range of microorganisms, including bacteria, fungi, viruses, and parasites, through common carbohydrate structures located on their surfaces. MBL binds to the microorganisms, resulting in activation of secondary immune effector mechanisms, such as the complement system, leading to enhanced phagocytosis, killing and clearance of the invading microorganism.

About Enzon

Enzon Pharmaceuticals, Inc. is a biopharmaceutical company dedicated to the development and commercialization of therapeutics to treat patients with cancer and adjacent diseases. Enzon's specialized sales force markets Abelcet(R), Oncaspar (R), Adagen(R), and Depocyt(R) in the United States. In addition, Enzon also receives royalties on sales of PEG-INTRON(R), marketed by Schering-Plough Corporation, and MACUGEN(R), marketed by OSI Pharmaceuticals and Pfizer Inc. Enzon's product-driven strategy includes an extensive drug development program that leverages its proprietary technologies, including a Customized Linker Technology(TM) PEGylation platform that utilizes customized linkers designed to release compounds at a controlled rate. Enzon also utilizes contract manufacturing opportunities to broaden its revenue base and enhance its organizational productivity. Enzon complements its internal research and development efforts with strategic initiatives, such as partnerships designed to broaden its revenue base or provide access to promising new technologies or product development opportunities. Further information about Enzon and this press release can be found on the Company's Web site at www.enzon.com.

Forward Looking Statements

There are forward-looking statements contained herein, which can be identified by the use of forward-looking terminology such as the words "believes," "expects," "may," "will," "should", "potential," "anticipates," "plans" or "intends" and similar expressions. Such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be materially different from the future results, events or developments indicated in such forward-looking statements. Among the factors that could cause actual results, events or developments to differ materially are decisions by regulatory authorities regarding whether and when to approve our regulatory applications as well as their decisions regarding labeling and other matters that could affect the commercial potential of Enzon's products, and the risks that there will be a decline in sales of one or more of our marketed products or products sold by others from which we derive royalty revenues or that we will not achieve success in our research and development efforts including clinical trials conducted by us or by our collaborative partners. A more detailed discussion of these and other factors that could affect results is contained in our filings with the U.S. Securities and Exchange Commission, including our transition report on Form 10-K for the six-month period ended December 31, 2005. These factors should be considered carefully and readers are cautioned not to place undue reliance on such forward-looking statements. No assurance can be given that the future results covered by the forward-looking statements will be achieved. All information in this press release is as of August 1, 2006 and Enzon undertakes no duty to update this information.

SOURCE: Enzon Pharmaceuticals, Inc.

Enzon Pharmaceuticals, Inc.
Craig Tooman, 908-541-8777