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Enzon Provides New Data on Customized Linker Technology

PEG-SN38 and PEG-LNA demonstrate positive preclinical results

BRIDGEWATER, N.J., Oct 30, 2007 (BUSINESS WIRE) -- Enzon Pharmaceuticals, Inc. (Nasdaq: ENZN) announced new preclinical data showing that treatment with PEG-SN38, Enzon's PEGylated SN38 compound, resulted in significant tumor growth inhibition in mice with tumors resistant to Camptosar(R) (irinotecan HCl injection). New data also demonstrated excellent in vitro activity of Enzon's Customized Linker Technology(TM) when applied to the Locked Nucleic Acid (LNA) antagonists The data were presented at the AACR-NCI-EORTC (American Association for Cancer Research-National Cancer Institute-European Organization for Research and Treatment of Cancer) International Conference on "Molecular Targets and Cancer Therapeutics" in San Francisco, California October 22-26, 2007.

"We continue to be encouraged by the positive preclinical results of PEG-SN38 and it further validates our ongoing Phase 1 program," said Jeffrey H. Buchalter, Enzon's chairman and chief executive officer. "Furthermore, while LNA therapy is efficacious in preclinical cancer models, the further enhancement of the pharmaceutical properties of LNA molecules using our Customized Linker Technology, could prove to be a unique approach for more efficient delivery of RNA targeted therapy."

Novel Delivery of SN38 Markedly Inhibits Tumor Growth In Xenograft Models, Including A CPT-11 Refractory Model (Abstract #C117)

Data from this study showed PEG-SN38 (EZN-2208) displayed potent in vitro cytotoxicity against a panel of human cancer cell lines and that it outperformed CPT-11 (Camptosar) in various preclinical cancer models including colorectal, breast, pancreatic, prostate, and lung cancers.

The study also demonstrated that treatment with PEG-SN38 resulted in remarkable tumor growth inhibition in animals with tumors resistant to Camptosar. Biodistribution data showed high and prolonged exposure of SN38 within tumors, supporting the Enhanced Permeation and Retention (EPR) effect.

Customized PEG Linkers for Delivery of Oligonucleotides without Transfection (Abstr #C119)

Locked Nucleic Acid (LNA) represents third generation antisense technology that has emerged as a promising new therapeutic platform for many human diseases including cancers.

The data reported in this study found that a series of PEGylated LNA molecules created using Enzon's Customized PEG Linkers, improved the cellular uptake of the molecule and had a potent dose-dependent and specific target mRNA gene down modulation without transfection. Currently, the Company's lead PEG-LNA compounds are being screened in preclinical studies.

About PEG-SN38

SN38 is the active metabolite of the widely used cancer drug CPT-11, marketed as Camptosar(R) in the U.S. Although unmodified SN38 is 1,000 times more potent than Camptosar, it has not been converted into a viable drug candidate because it is insoluble. Using Enzon's new customized linker technology, the Company developed PEG-SN38 (EZN-2208), which results in a novel compound with excellent pharmaceutical properties as shown in animal models: increased solubility, higher exposure, and longer half-life than unmodified SN38. Previously reported preclinical data showed that these features led to greater efficacy over Camptosar in breast, colorectal and pancreatic cancer models.

About PEGylation and Customized Linker Technology(TM)

One of Enzon's core capabilities has been in engineering improved versions of injectable therapeutics through the chemical attachment of polyethylene glycol, PEG. In some cases, PEGylation can render a compound therapeutically effective, where the unmodified form had only limited clinical utility. Currently, there are five marketed biologic products that utilize our proprietary PEG platform, two of which Enzon markets, Adagen(R) and Oncaspar(R), and three for which Enzon receives royalties, PEG-INTRON(R), Pegasys(R), and Macugen(R). Specific advantages of PEG may include: increased efficacy; reduced dosing frequency; reduced toxicity and immunogenicity; increased drug stability; and enhanced drug solubility.

Enzon's Customized Linker Technology utilizes novel approaches to improve the pharmaceutical properties of drugs. The customized linkers expand the utility of the Company's existing PEGylation technology, and introduce new functionalities to

PEGylation technology. Customized linker technology may improve cell penetration, tumor targeting, pharmacokinetic and pharmacodynamic profile of a drug. This technology can potentially overcome the pharmacologic limitations for a broad universe of molecules and generate compounds with substantially enhanced therapeutic value over their unmodified forms.

About Enzon

Enzon Pharmaceuticals, Inc. is a biopharmaceutical company dedicated to the development, manufacturing, commercialization of important medicines for patients with cancer and other life-threatening conditions. Enzon has a portfolio of four marketed products, Oncaspar(R), DepoCyt(R), Abelcet(R) and Adagen(R). The Company's drug development programs utilize several cutting-edge approaches, including its industry-leading PEGylation technology platform used to create product candidates with benefits such as reduced dosing frequency and less toxicity. Enzon's PEGylation technology was used to develop two of its products, Oncaspar and Adagen, and has created a royalty revenue stream from licensing partnerships for other products developed using the technology. Enzon also engages in contract manufacturing for several pharmaceutical companies to broaden the Company's revenue base. 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. Such factors include, but are not limited to the timing, success and cost of clinical studies; the ability to obtain regulatory approval of products, market acceptance of, and continuing demand for, Enzon's products and the impact of competitive products and pricing. 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 year ended December 31, 2006 and our quarterly reports on Form 10-Q. 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 the date of this press release and Enzon does not intend to update this information.

SOURCE: Enzon Pharmaceuticals, Inc.

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