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Enzon Announces Data From Phase I Study of PEG-SN38 in Pediatric Neuroblastoma and Other Solid Tumors Presented at 2012 Advances in Neuroblastoma Research Conference

PISCATAWAY, NJ -- (Marketwire) -- 06/19/12 -- Enzon Pharmaceuticals, Inc. (NASDAQ: ENZN) today announced the presentation of results from a Phase I study of PEG-SN38 in children with recurrent or refractory neuroblastoma and other solid tumors. The data were presented in a poster session (Poster #POC02) at the 2012 Advances in Neuroblastoma Research Conference in Toronto, Ontario.

"PEG-SN38 was associated with acceptable toxicity, and the preliminary evidence of activity in children with neuroblastoma supports further evaluation," said Dr. Ro Bagatell, specialist at The Children's Hospital of Philadelphia. "Neuroblastoma occurs primarily in children, and is a disease of high unmet medical need. These data lay the groundwork for a Phase 2 study of PEG-SN38. Such a study may quickly provide meaningful evidence of PEG-SN38's therapeutic potential in this setting."

The study was designed to define the dose limiting toxicities (DLTs) and maximum tolerated dose (MTD) of PEG-SN38 in pediatric patients with neuroblastoma and other solid tumors, including sarcoma and central nervous system tumors. Escalating doses of PEG-SN38 were administered on day one of a 21 day cycle. The primary objective of the study was to determine the MTD, or recommended Phase 2 dose (RPTD) of PEG-SN38 administered intravenously every 3 weeks.

The study concluded that administration of PEG-SN38 at a dose of 24 mg/m2 every 3 weeks is safe, well tolerated, and is the RPTD for pediatric patients. Thrombocytopenia was dose-limiting when PEG-SN38 was given at a dose of 30 mg/m2. Objective responses lasting > 10 months were seen among children with neuroblastoma, all of whom had undergone previous stem cell transplantation and had been previously treated with a camptothecin. Cumulative toxicity was not observed. Investigators concluded that PEG-SN38 warrants further clinical study in pediatric neuroblastoma.

Enzon does not intend to pursue development of PEG-SN38 in this indication or in other malignancies on its own, absent a partner. Zhejiang Hisun Pharmaceuticals Co. Ltd recently acquired exclusive development and commercialization rights to PEG-SN38 in China. Enzon is seeking strategic partners for PEG-SN38 in other territories.

About PEG-SN38 (EZN-2208)

Through the use of our PEGylation technology, Enzon designed PEG-SN38 (EZN-2208), a PEGylated conjugate of SN38, to offer therapeutic advantages over unmodified SN38 and existing therapies. The PEGylated version allows parenteral delivery, increased solubility, higher exposure, more profound deoxyribonucleic acid (DNA) damage, inhibition of angiogenesis, and longer apparent half-life of SN38 as compared to irinotecan.

About Enzon

Enzon Pharmaceuticals, Inc. is a biotechnology company dedicated to the research and development of innovative therapeutics for patients with high unmet medical need. Enzon's drug-development programs utilize two platforms: Customized PEGylation Linker Technology (Customized Linker Technology®) and third-generation mRNA-targeting agents utilizing the Locked Nucleic Acid (LNA) technology. Enzon currently has four compounds in human clinical development and multiple novel mRNA antagonists in preclinical research. Enzon receives royalty revenues from licensing arrangements with other companies related to sales of products developed using its proprietary Customized Linker Technology. Further information about Enzon and this press release can be found on the Company's website at www.enzon.com.

Forward-Looking Statements

This press release contains, or may contain, forward-looking statements within the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995. All statements contained in this press release, other than statements that are purely historical, are forward-looking statements, 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. Forward-looking statements in this press release include, but are not limited to, statements regarding the potential of PEG-SN38.

Such forward-looking statements are based upon management's present expectations, objectives, anticipation, plans, hopes, beliefs, intentions or strategies regarding the future and are subject to known and unknown risks and uncertainties that could cause actual results, events or developments to be materially different from those indicated in such forward-looking statements, including but not limited to Enzon's reliance on third parties in conducting clinical trials for our product candidates. A more

detailed discussion of these and other factors that could affect results is contained in Enzon's filings with the U.S. Securities and Exchange Commission, including Enzon's Annual Report on Form 10-K for the year ended December 31, 2011. 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.

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