# Enanta Announces New Preclinical Data on its FXR Agonist EDP-305 for Non-Alcoholic Steatohepatitis (NASH) and Primary Biliary Cholangitis (PBC) at The International Liver Congress™ 2017

April 19, 2017

- *New preclinical data support investigation of new indication for EDP-305 in primary sclerosing cholangitis (PSC)*

WATERTOWN, Mass.--(BUSINESS WIRE)--Apr. 19, 2017-- Enanta Pharmaceuticals, Inc. (NASDAQ:ENTA), a research and development-focused biotechnology company dedicated to creating small molecule drugs for viral infections and liver diseases, today announced new data from its lead FXR agonist candidate EDP-305 for NASH and PBC. This new data is being presented during The International Liver Congress™ (ILC) 2017, April 19-23, in Amsterdam.

Data from three poster presentations being presented at the Congress will demonstrate that EDP-305 is a potent Farnesoid X Receptor (FXR) agonist that has been shown to reduce expression of fibrogenic genes, reduce fibrosis progression and improve non-alcoholic fatty liver disease (NAFLD) activity scores (NAS) in a variety of preclinical models.

NAFLD is the accumulation of excessive fat in the form of triglycerides in patients' liver cells (steatosis) that is not caused by alcohol. NAFLD is widely considered to be the liver expression of metabolic disease associated with type 2 diabetes, insulin resistance, obesity, and hyperlipidemia. A subgroup of NAFLD patients has liver cell injury and inflammation in addition to excessive fat (steatohepatitis). Progression of this condition leads to non-alcoholic steatohepatitis (NASH). Patients with NASH can develop fibrosis and ultimately cirrhosis of the liver, potentially leading to hepatocellular carcinoma or requiring a liver transplant.

The first poster will be presented by Bryan C. Fuchs, Ph.D., Assistant Professor of Surgery, Harvard Medical School, Massachusetts General Hospital. Poster #THU-377, titled "*A Novel Farnesoid X Receptor (FXR) Agonist, EDP-305, Reduces Fibrosis Progression in Animal Models of Fibrosis"*, demonstrates that EDP-305 reduced fibrosis progression in a choline-deficient, high-fat-diet mouse model of NASH and a rat model of PBC induced by bile duct ligation. Fibrosis progression was measured by quantitative molecular imaging of collagen crosslinking and Type 1 collagen, markers that are sensitive to changes in fibrosis.

The second poster will be presented by Lijuan Jiang, Ph.D., Executive Director DMPK and Bioanalysis, Enanta Pharmaceuticals, Inc. Poster #FRI-363, titled " *EDP-305, a Novel and Highly Potent Farnesoid X Receptor (FXR) Agonist, Improves Liver Steatosis, Ballooning and Non-Alcoholic Fatty Liver Disease (NAFLD) Activity Score (NAS) in a Diet-Induced Murine Model of Non-Alcoholic Steatohepatitis"*, demonstrates that EDP-305 exerts beneficial pharmacological effects in a dietary-induced NASH (DIN) mouse model that mimics the human NAFLD/NASH physiological setting. In addition to reducing plasma and liver lipid content, EDP-305 showed a significant decrease in hepatocyte ballooning, and NAS in DIN mice, suggesting that EDP-305 may have potential beneficial effects in treating NASH.

The third poster will be presented by Yury Popov, M.D., Ph.D., Staff Scientist, Beth Israel Deaconess Medical Center and Assistant Professor of Medicine, Harvard Medical School. Poster #SAT-459, titled "*A Novel FXR Agonist EDP-305 Potently Suppresses Liver Injury and Fibrosis in Mouse Models of Biliary and Metabolic Liver Disease"*, demonstrates that treatment with EDP-305 potently improved pre-established liver injury and hepatic fibrosis in biliary (BALBc.Mdr2-/-) and metabolic (MCD) models of liver disease in mice.

"The BALBc.Mdr2-/- mouse model may represent the most relevant model that we have to evaluate the potential of new agents for the treatment of primary sclerosing cholangitis (PSC). We are very encouraged by the results we have observed with EDP-305 showing a very robust response in this biliary disease model," stated Yury Popov, M.D., Ph.D.

"The extensive preclinical profiling of EDP-305 in a variety of *in vitro* and *in vivo* models has given Enanta the confidence to continue to advance EDP-305 in the clinic and to consider new areas, such as PSC, for exploration," stated Jay R. Luly, Ph.D., President and CEO, Enanta. "We expect to present clinical data from our ongoing clinical study in healthy volunteers and presumed NAFLD subjects and to initiate NASH-enabling studies in the second half of this year, and also to begin phase 2 studies in PBC in the fourth quarter of calendar 2017. We are planning for phase 2 studies in NASH in early 2018."

EDP-305 is currently in Phase 1 clinical development. Enanta's ongoing double-blind, placebo-controlled Phase 1a/b study is designed to evaluate the safety, tolerability and pharmacokinetics of single ascending doses (SAD) and multiple ascending doses (MAD) of EDP-305 in healthy adults, and in adults with presumptive non-alcoholic fatty liver disease (NAFLD) (obese, with or without pre-diabetes or type 2 diabetes). The study will enroll approximately 150 subjects and is planned to evaluate at least 5 single and multiple dose cohorts, with EDP-305 administered orally, once daily.

The current study includes subjects with presumptive NAFLD in order to obtain initial safety data and additional data regarding the relationship between EDP-305 plasma concentration levels and certain pharmacological effects in the context of fatty liver disease. This relationship will be explored by using biomarkers that are relevant to the disease and to the activity of EDP-305, such as evaluation of lipids, glucose, insulin resistance and specific markers of FXR activity.

**About EDP-305, a Farnesoid X Receptor (FXR) Agonist**
EDP-305 is a potent FXR agonist and Enanta's lead product candidate being developed for the treatment of NASH and PBC. EDP-305 represents a new class of FXR agonists that has been designed to take advantage of increased binding interactions with the receptor. Further, this non-bile acid class contains steroidal and non-steroidal components, and does not contain the carboxylic acid group normally present in other classes of FXR agonists and natural bile acids that can lead to the formation of taurine and glycine conjugates. EDP-305 has been granted Fast Track Designation by the U.S. Food and Drug Administration and is currently in Phase 1 clinical development.

**About NAFLD, NASH, and FXR**
Non-alcoholic fatty liver disease (NAFLD) is the accumulation of excessive fat in the form of triglycerides in patients' liver cells (steatosis) that is not caused by alcohol. NAFLD is widely considered to be the liver expression of metabolic disease associated with type 2 diabetes, insulin resistance, obesity, and hyperlipidemia. A subgroup of NAFLD patients has liver cell injury and inflammation in addition to excessive fat (steatohepatitis). Progression of this condition leads to non-alcoholic steatohepatitis (NASH). Patients with NASH can develop fibrosis and ultimately cirrhosis of the liver, potentially leading to hepatocellular carcinoma or requiring a liver transplant. The Farnesoid X receptor (FXR) is a nuclear receptor and a main regulator of bile acid levels in the liver and small intestine. It responds to bile acids by regulating gene transcription of key enzymes and transporters, many of which play important roles in lipid metabolism, insulin resistance, inflammation, and fibrosis.

**About Enanta**

Enanta Pharmaceuticals is a research and development-focused biotechnology company that uses its robust chemistry-driven approach and drug discovery capabilities to create small molecule drugs for viral infections and liver diseases. Enanta's research and development efforts are currently focused on the following disease targets: non-alcoholic steatohepatitis (NASH)/ primary biliary cholangitis (PBC), respiratory syncytial virus (RSV) and hepatitis B virus (HBV).

Enanta has discovered novel protease inhibitors for use against the hepatitis C virus (HCV). These protease inhibitors, developed through Enanta's collaboration with AbbVie, include paritaprevir, part of AbbVie's currently marketed HCV regimens, and glecaprevir (ABT-493), Enanta's second protease inhibitor product, which AbbVie is developing as part of its investigational, pan-genotypic HCV regimen of glecaprevir/pibrentasvir (G/P) now in registration in the U.S., the E.U. and Japan. Royalties and any further milestone payments from this collaboration will provide additional funding for Enanta's earlier development programs, including its Phase 1 FXR agonist program for NASH/PBC, and its preclinical programs for HBV and RSV. Please visit www.enanta.com for more information on Enanta's programs and pipeline.

**Forward Looking Statements Disclaimer**
This press release contains forward-looking statements, including statements with respect to the prospects for Enanta's further development of EDP-305. Statements that are not historical facts are based on management's current expectations, estimates, forecasts and projections about Enanta's business and the industry in which it operates and management's beliefs and assumptions. The statements contained in this release are not guarantees of future performance and involve certain risks, uncertainties and assumptions, which are difficult to predict. Therefore, actual outcomes and results may differ materially from what is expressed in such forward-looking statements. Important factors and risks that may affect actual results include: the development risks of early stage discovery efforts in disease areas such as NASH, PBC and PSC; the impact of development, regulatory and marketing efforts of others with respect to competitive treatments for NASH, PBC and/or PSC; regulatory and reimbursement actions affecting any competitive treatment for NASH, PBC and/or PSC; Enanta's lack of clinical development experience; Enanta's need to attract and retain senior management and key scientific personnel; the need to obtain and maintain patent protection for EDP-305 and Enanta's other product candidates and avoid potential infringement of the intellectual property rights of others; and other risk factors described or referred to in "Risk Factors" in Enanta's most recent Form 10-K for the fiscal year ended September 30, 2016 and other periodic reports filed more recently with the Securities and Exchange Commission. Enanta cautions investors not to place undue reliance on the forward-looking statements contained in this release. These statements speak only as of the date of this release, and Enanta undertakes no obligation to update or revise these statements, except as may be required by law.

View source version on businesswire.com: http://www.businesswire.com/news/home/20170419005634/en/

Source: Enanta Pharmaceuticals, Inc.

**Investor Contact**
Enanta Pharmaceuticals, Inc.
Carol Miceli, 617-607-0710
cmiceli@enanta.com
or
**Media Contact**
MacDougall Biomedical Communications
Kari Watson, 781-235-3060
kwatson@macbiocom.com