Enanta Pharmaceuticals Presents Data for its COVID-19 and Respiratory Syncytial Virus Programs at the 33rd European Congress of Clinical Microbiology and Infectious Diseases

April 17, 2023

- *Preclinical Data Demonstrate EDP-235's Superior Target Tissue Distribution and Cell Penetration Compared to Other Protease Inhibitors*
- *New Preclinical Pharmacokinetic Data Highlight EDP-323's Strong Bioavailability and Favorable Tissue Targeting*

WATERTOWN, Mass.--(BUSINESS WIRE)--Apr. 17, 2023-- Enanta Pharmaceuticals, Inc. (NASDAQ: ENTA), a clinical-stage biotechnology company dedicated to creating small molecule drugs for viral infections, today announced the company will present two posters supporting the continued clinical development of EDP-235, its 3CL protease inhibitor in development as an oral, once-daily treatment for SARS-CoV-2 infection, and EDP-323, its L-protein inhibitor in development as an oral, once-daily treatment for respiratory syncytial virus (RSV), at the 33rd European Congress of Clinical Microbiology and Infectious Diseases (ECCMID) being held April 15-18, 2023 both virtually and at the Bella Center Copenhagen in Copenhagen, Denmark.

Preclinical data presented demonstrate EDP-235's preferential target tissue distribution and cell penetration, enabling EDP-235 to reach potential sites of persistent viral replication, which may impact progression of long COVID-19. EDP-235 is currently being evaluated in SPRINT (**S**ARS-Cov-2 **PR**otease **IN**hibitor **T**reatment), a Phase 2 study of non-hospitalized, symptomatic adults with mild or moderate COVID-19. Enanta continues to expect topline data from the study in May 2023. Additionally, preclinical data presented showcase EDP-323's favorable preclinical pharmacokinetic (PK) properties, excellent bioavailability with low plasma clearance, and favorable target tissue distribution, supporting a once-daily oral dosing regimen for RSV. EDP-323 is currently being evaluated in a Phase 1 double-blind, placebo-controlled, first-in-human study with a topline data readout planned for the second quarter of 2023.

"We are pleased to present these data which highlight the strong and differentiated preclinical profiles of EDP-235 and EDP-323," said Jay R. Luly, Ph.D., President and Chief Executive Officer of Enanta Pharmaceuticals. "Both our EDP-235 and EDP-323 programs are advancing through clinical development, and we look forward to presenting our Phase 2 SPRINT trial for EDP-235 and Phase 1 study for EDP-323 this quarter. Our robust pipeline and important upcoming milestones move us closer to our vision of developing important therapies for patients in need."

Poster #: P2633, Monday, April 17 from 12:00 – 1:30pm CEST
"EDP-235, a Potent, Once-Daily, Oral Antiviral, Demonstrates Potential for Treatment and Prevention of Long COVID" Yang Li, Ph.D.

Intracellular uptake of EDP-235 compared to nirmatrelvir, the protease inhibitor in Paxlovid, was evaluated in both rat and human cells. To determine the *in vivo* drug distribution into target tissues, including potential COVID-19 reservoirs: lung, heart, salivary glands, kidney, adipose tissue and lung alveolar macrophages, rats were dosed orally with 25 mg/kg of EDP-235 or nirmatrelvir and plasma and tissue drug levels were analyzed by liquid chromatography-tandem mass spectrometry. The ratios of intracellular to extracellular concentrations of EDP-235 in salivary gland epithelial cells, adipocytes, and macrophages were 11.3, 33.6 and 30.5, respectively, compared to ratios ranged from 0.6 to 1.2 for nirmatrelvir in these human cells. Consistent with the *in vitro* observations, EDP-235 showed excellent target tissue exposure with tissue-to-plasma ratios of 6.5 in salivary glands, 23.0 in adipose tissues, and 28.4 in lung alveolar macrophages, whereas nirmatrelvir had corresponding values of 0.8, 0.6, and 0.5. These preclinical data demonstrate that EDP-235 achieved preferential target tissue distribution and cell penetration, enabling EDP-235 to target viral reservoirs and minimize viral persistence, which are important factors potentially related to some cases of long COVID-19.

Poster #: P2844, Monday, April 17 from 12:00 – 1:30pm CEST
"Pharmacokinetics of EDP-323, a Potent, Once-Daily, Oral Antiviral Treatment for Respiratory Syncytial Virus" Lisha Xu

The preclinical pharmacokinetic profile of EDP-323, a novel and potent non-nucleoside RSV L-protein inhibitor, was evaluated in preclinical species, and human oral absorption and metabolic stability were tested using Caco-2 cells and human liver microsomes, respectively. To determine the PK profile, a single intravenous dose of 5 mg/kg or oral dose of 25 mg/kg was administered in mice, rats, and dogs. Consistent with *in vitro* data, EDP-323 had good plasma exposure with an oral bioavailability of 34.8% in mice, 70.4% in rats, and 50.5% in dogs. Oral absorption for EDP-323 was 16.1 x 10^{-6} cm/s with a low plasma clearance of 0.2 L/h/kg. EDP-323 displayed excellent oral bioavailability with low plasma clearance and demonstrated favorable target tissue distribution in the lungs and alveolar macrophages, with an alveolar macrophage-to-plasma ratio of 3.7 in rats without off-target distribution to the brain. These preclinical data support the potential of EDP-323 as a convenient, once-daily oral treatment for RSV.

About Enanta Pharmaceuticals, Inc.
Enanta is using its robust, chemistry-driven approach and drug discovery capabilities to become a leader in the discovery and development of small molecule drugs for the treatment of viral infections. Enanta's research and development programs include clinical candidates for the following disease targets: respiratory syncytial virus (RSV), SARS-CoV-2 (COVID-19) and hepatitis B virus (HBV). Enanta is also conducting research on a single agent targeting both RSV and human metapneumovirus (hMPV).

Enanta's research and development activities are funded by royalties from hepatitis C virus (HCV) products developed under its collaboration with AbbVie. Glecaprevir, a protease inhibitor discovered by Enanta, is part of one of the leading treatment regimens for curing chronic HCV infection and is sold by AbbVie in numerous countries under the tradenames MAVYRET® (U.S.) and MAVIRET® (ex-U.S.) (glecaprevir/pibrentasvir). Please visit www.enanta.com for more information.

Forward Looking Statements
This press release contains forward-looking statements, including statements with respect to the prospects for advancement of Enanta's clinical programs in RSV and COVID-19. 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 impact of development, regulatory and marketing efforts of others with respect to competitive treatments for RSV or COVID-19; the discovery and development risks of Enanta's RSV and COVID-19 programs; the competitive impact of development, regulatory and marketing efforts of others in this disease area; any continuing impact of the COVID-19 pandemic on business operations and clinical trials; Enanta's lack of clinical development experience; Enanta's need to attract and retain senior management and key research and development personnel; Enanta's need to obtain and maintain patent protection for its 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 Form 10-K for the fiscal year ended September 30, 2022, and any 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: https://www.businesswire.com/news/home/20230417005226/en/

Media and Investors Contact
Jennifer Viera
617-744-3848
jviera@enanta.com

Source: Enanta Pharmaceuticals, Inc.