Phathom Pharmaceuticals Announces FDA Acceptance for Filing of Vonoprazan NDA for the Treatment of Erosive Esophagitis

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FLORHAM PARK, N.J., May 25, 2022 (GLOBE NEWSWIRE) -- Phathom Pharmaceuticals, Inc. (Nasdaq: PHAT), a biopharmaceutical company focused on developing and commercializing novel treatments for gastrointestinal diseases, announced today the U.S. Food and Drug Administration (FDA) has accepted for review the company's New Drug Application (NDA) for vonoprazan as a treatment for adults for the healing of all grades of erosive esophagitis (EE) and relief of heartburn, and maintenance of healing of all grades of EE and relief of heartburn. The FDA has assigned the application standard review and a Prescription Drug User Fee Act (PDUFA) target action date of January 11, 2023.

Vonoprazan is a novel, orally administered investigational potassium-competitive acid blocker (PCAB) from a new class of acid suppressant agents and under development for the treatment of erosive esophagitis and non-erosive gastroesophageal reflux disease (NERD).

Erosive esophagitis is a major type of gastroesophageal reflux disease (GERD) and affects approximately 20 million people in the U.S. In addition to experiencing troubling heartburn symptoms, patients with inadequately treated EE may progress to more severe diseases including Barrett's esophagus, a condition in which esophageal tissue changes can progress to cancer.

"The FDA's commencement of a substantive review of our new drug application for vonoprazan in EE is an important milestone for Phathom and the patients we seek to serve, bringing us another step closer toward the approval of a new class of treatment and the first major innovation to the U.S. GERD market in over 30 years," said Azmi Nabulsi, M.D., Chief Operating Officer at Phathom. "With this NDA filing, we are excited about our potential to offer a treatment option to address the significant unmet needs that exist for the millions of patients suffering from painful erosions caused by all grades of EE."

This NDA is supported by the positive data previously announced from Phathom's pivotal Phase 3 PHALCON-EE trial, a randomized, double-blind, multicenter trial that enrolled 1,027 patients with EE in the U.S. and Europe and compared vonoprazan to lansoprazole, a proton pump inhibitor (PPI), in the healing and maintenance of healing of EE, and heartburn symptom relief. PHALCON-EE successfully met its primary endpoints and key secondary superiority endpoints.

Under the terms of Phathom's loan agreement with Hercules Capital, following Phathom's recent approval of vonoprazan-based therapies for treatment of *H. pylori* infection in adults and the FDA's acceptance for filing of the NDA for vonoprazan for the healing and maintenance of healing of EE, the remaining $50 million is now available to be drawn down.

About Erosive Esophagitis

Erosive Esophagitis (EE) is a major type of gastroesophageal reflux disease (GERD) characterized by erosions in the gastric mucosa caused by acidic reflux of stomach contents into the esophagus. There are estimated to be over 65 million individuals with GERD in the U.S., of which approximately 30% have EE. In addition to experiencing troubling heartburn symptoms, patients with inadequately treated EE may progress to more severe diseases including Barrett's esophagus and esophageal cancer.

About PHALCON-EE

PHALCON-EE was a randomized, double-blind, two-phase, multicenter, Phase 3 trial that enrolled 1,024 patients with EE in the U.S. and Europe. The first phase of the trial evaluated the efficacy and safety of vonoprazan 20 mg administered once-daily (QD) compared to lansoprazole 30 mg QD for the healing of EE for up to eight weeks. The second phase of the trial evaluated the efficacy and safety of vonoprazan 10 mg QD and 20 mg QD compared to lansoprazole 15 mg QD for the maintenance of healing of EE for 24 weeks. Both phases also evaluated heartburn symptoms.

About Phathom Pharmaceuticals, Inc.

Phathom Pharmaceuticals is a biopharmaceutical company focused on the development and commercialization of novel treatments for gastrointestinal diseases and disorders. Phathom has in-licensed the exclusive rights in the United States, Europe, and Canada to vonoprazan, a first-in-class potassium-competitive acid blocker (PCAB). Vonoprazan-based regimens are approved in the U.S. as part of a co-packaged product in combination with antibiotics for the treatment of *H. pylori* infection in adults, marketed as VOQUEZNA™ TRIPLE PAK™ (vonoprazan, amoxicillin, clarithromycin) and VOQUEZNA™ DUAL PAK™ (vonoprazan, amoxicillin). Phathom has submitted a New Drug Application to the FDA for vonoprazan in erosive esophagitis (EE) and is studying the use of vonoprazan for the treatment of non-erosive reflux disease (NERD). For more information about Phathom, visit the Company's website at www.phathompharma.com and follow the Company on LinkedIn and Twitter.

Indication and Important Safety Information

INDICATIONS AND USAGE

VOQUEZNA™ TRIPLE PAK™ is a co-packaged product containing vonoprazan, a potassium-competitive acid blocker (PCAB), amoxicillin, a penicillin-class antibacterial, and clarithromycin, a macrolide antimicrobial. VOQUEZNA™ DUAL PAK™ is a co-packaged product containing vonoprazan and amoxicillin. Both products are indicated for the treatment of *Helicobacter pylori* infection in adults.

To reduce the development of drug-resistant bacteria and maintain the effectiveness of VOQUEZNA TRIPLE PAK, VOQUEZNA DUAL PAK and other antibacterial drugs, both products should be used only to treat or prevent infections that are proven or strongly suspected of being caused by bacteria.

IMPORTANT SAFETY INFORMATION

CONTRAINDICATIONS

VOQUEZNA TRIPLE PAK and VOQUEZNA DUAL PAK are contraindicated in patients with known hypersensitivity to vonoprazan or amoxicillin, any other components of the formulation, any other beta-lactams, or in patients receiving rilpivirine-containing products.

Due to the clarithromycin component, VOQUEZNA TRIPLE PAK is also contraindicated in patients with any known hypersensitivity to clarithromycin or any macrolide antibiotic, in patients receiving pimozide, lomitapide, lovastatin, simvastatin, ergotamine, dihydroergotamine, colchicine in patients with renal or hepatic impairment, or those with a history of cholestatic jaundice/hepatic dysfunction.

WARNINGS AND PRECAUTIONS
Hypersensitivity Reactions: Serious and occasionally fatal reactions (e.g., anaphylaxis) have been reported with components of VOQUEZNA TRIPLE PAK and VOQUEZNA DUAL PAK. If hypersensitivity reactions occur, discontinue use and institute immediate therapy (e.g., anaphylaxis management).

Severe Cutaneous Adverse Reactions (SCAR): Discontinue use of VOQUEZNA TRIPLE PAK or VOQUEZNA DUAL PAK at first signs or symptoms of SCAR or other signs of hypersensitivity and consider further evaluation. SCAR, including Stevens-Johnson syndrome (SJS) and toxic epidermal necrolysis (TEN) have been reported with the components of both products. In addition, drug reaction with eosinophilia and systemic symptoms (DRESS), and acute generalized exanthematous pustulosis (AGEP) have been reported with amoxicillin and clarithromycin.

Clostridioides difficile-associated diarrhea (CDAD): Evaluate if diarrhea occurs with VOQUEZNA TRIPLE PAK or VOQUEZNA DUAL PAK. CDAD has been reported with use of acid suppressing therapies and nearly all antibacterial agents, and may range in severity from mild diarrhea to fatal colitis. If CDAD is confirmed, discontinue therapy and treat appropriately.

VOQUEZNA TRIPLE PAK Warnings or Precautions Due to the Clarithromycin Component:
QT Prolongation: Avoid VOQUEZNA TRIPLE PAK in patients with known QT prolongation or receiving drugs known to prolong the QT interval, ventricular arrhythmia (*torsades de pointes*), hypokalemia/hypomagnesemia, significant bradycardia, or taking Class IA or III antiarrhythmics.

Hepatotoxicity: Discontinue use of VOQUEZNA TRIPLE PAK if signs and symptoms of hepatitis occur.

Serious adverse reactions due to concomitant use with other drugs: Serious adverse reactions can occur with VOQUEZNA TRIPLE PAK due to drug interactions of clarithromycin with colchicine, some lipid lowering agents, some calcium channel blockers, hypoglycemic agents including insulin, quetiapine, warfarin, benzodiazepines, and other drugs.

Embryo-Fetal Toxicity: VOQUEZNA TRIPLE PAK is not recommended for use in pregnancy as clarithromycin may cause fetal harm.

Myasthenia Gravis: Exacerbation of myasthenia gravis can occur with VOQUEZNA TRIPLE PAK since it has been reported in patients receiving clarithromycin tablets.

ADVERSE REACTIONS
The most common adverse reactions (≥2%) include diarrhea, dysgeusia, vulvovaginal candidiasis, abdominal pain, headache, hypertension, and nasopharyngitis.

DRUG INTERACTIONS
Components of VOQUEZNA TRIPLE PAK and VOQUEZNA DUAL PAK have the potential for clinically important drug interactions. See full Prescribing Information for important drug interactions.

USE IN SPECIFIC POPULATIONS
Lactation: Breastfeeding not recommended during treatment, but a lactating woman can pump and discard breast milk during treatment and for 2 days after VOQUEZNA TRIPLE PAK and VOQUEZNA DUAL PAK administration.

Geriatrics: VOQUEZNA TRIPLE PAK increased risk of *torsades de pointes* due to clarithromycin.

Renal and Hepatic Impairment: Avoid use in patients with severe renal impairment and avoid use in patients with moderate to severe hepatic impairment.

You are encouraged to report suspected adverse reactions by contacting Phathom Pharmaceuticals at 1-888-775-PHAT (7428) or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

Please see full Prescribing Information for VOQUEZNA TRIPLE PAK and VOQUEZNA DUAL PAK here.

Forward Looking Statements
Phathom cautions you that statements contained in this press release regarding matters that are not historical facts are forward-looking statements. These statements are based on the Company's current beliefs and expectations. Such forward-looking statements include, but are not limited to, statements regarding the PDUFA action date for and FDA approval of the Company's NDA for erosive esophagitis, and vonoprazan's ability to address unmet needs of erosive esophagitis patients. The inclusion of forward-looking statements should not be regarded as a representation by Phathom that any of its plans will be achieved. Actual results may differ from those set forth in this press release due to the risks and uncertainties inherent in Phathom's business, including, without limitation: the inherent risks of clinical development of vonoprazan; Phathom's dependence on third parties in connection with product manufacturing, research and preclinical and clinical testing; regulatory developments in the United States and foreign countries; Phathom's ability to successfully launch and commercialize vonoprazan; unexpected adverse side effects or inadequate efficacy of vonoprazan that may limit its development, regulatory approval and/or commercialization, or may result in recalls or product liability claims; Phathom's QIDP designations may not actually lead to extended exclusivity; Phathom's ability to obtain and maintain intellectual property protection for vonoprazan; Phathom's ability to comply with its license agreement with Takeda; Phathom's ability to maintain undisrupted business operations due to the ongoing spread of the COVID-19 coronavirus, including delaying or otherwise disrupting its clinical trials, manufacturing and supply chain and launch and commercialization efforts; Phathom's ability to achieve and maintain adequate levels of coverage and reimbursement for vonoprazan; Phathom's ability to access additional capital under its term loan facility is subject to certain conditions, and other risks described in the Company's prior press releases and the Company's filings with the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in the Company's Annual Report on Form 10-K and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and Phathom undertakes no obligation to update such statements to reflect events that

occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

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