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Tonix Pharmaceuticals Launches National Awareness Campaign on the Impact of Gastroparesis or Stomach Paralysis on the Absorption of Oral Migraine Medications at PAINWeek

Gastroparesis slows the ability of the stomach to empty into the small intestine and thereby can delay absorption of oral medications into the bloodstream

Non-oral medications including nasal and injectables can bypass the digestive system providing better absorption and faster relief

CHATHAM, N.J., Sept. 06, 2024 (GLOBE NEWSWIRE) -- Tonix Pharmaceuticals Holding Corp. (Nasdaq: TNXP) (Tonix or the Company), a fully-integrated biopharmaceutical company with marketed products and a pipeline of development candidates, today announced the launch of its new educational campaign, “Does Your Migraine Pill Work Every Time?” at this week’s PAINWeek National Conference in Las Vegas. The goal of the campaign is to educate patients and their healthcare providers on the benefits of non-oral migraine medications including nasal and injectable treatment options.

Gastroparesis is a condition where the stomach empties food into the small intestine slower than normal. This can cause symptoms of nausea, vomiting, and abdominal pain. Many studies over the last 40 years show a connection between gastroparesis and migraine. Gastroparesis is common before, during, and sometimes in between migraine attacks. Gastroparesis can slow or even block the absorption of oral medications causing delayed, incomplete, or no migraine symptom relief.

“Non-oral migraine medications, such as injectables and nasal sprays, do not rely on the digestive system to be absorbed and can offer the potential for faster relief from migraine symptoms in as little as 10 minutes,” said Deborah I. Friedman MD, MPH, FAHS, Board Certified Neuro-Ophthalmologist and Headache Medicine Specialist and Founding Director of the Headache and Facial Pain Program and Cerebrospinal Fluid Dynamics Program at the University of Texas Southwestern Medical Center. Dr. Friedman continued, “There are several options when it comes to nasal and injectable treatments, and I encourage patients to talk with their clinician about adding a non-oral medication to their treatment plan.”

“Migraine often requires patients to advocate for themselves to develop an effective migraine treatment plan. Empowering patients to understand why they are experiencing delayed or inconsistent relief from oral medications and educating them on other migraine treatment options could ultimately improve their management of migraine symptoms and ultimately

enhance their quality of life," said Shoshana Lipson, Executive Director of Migraine Meanderings™ and Hope for Migraine™.

Tonix will launch a new disease education website, https://gpmigraine.com/, for patients who want to learn more about gastroparesis and migraine and why their oral medications do not work. Migraine Meanderings is hosting a webinar about gastroparesis on September 19, 2024, at 4:00 p.m. EDT entitled, "Non-Oral Acute Migraine Meds: Could They Make a Difference for You?" with Christopher Gottschalk, MD, FAHS Director Yale Headache Center and Shoshana Lipson, Executive Director of Migraine Meanderings. Register here: https://us06web.zoom.us/meeting/register/tZwtfuCgrjopG9FGdw7b5-SftV2Mi47rZWvp#/registration.

"Tonix is dedicated to educating patients and their healthcare providers on gastroparesis and how non-oral medicines including nasal and injectable medications can help patients manage their migraines. We hope to inspire patients to optimize their migraine treatment plan with non-oral medications," said Seth Lederman, M.D., Chief Executive Officer of Tonix Pharmaceuticals.

Tonix Pharmaceuticals Holding Corp.*

Tonix is a fully-integrated biopharmaceutical company focused on developing, licensing and commercializing therapeutics to treat and prevent human disease and alleviate suffering. Tonix's development portfolio is focused on central nervous system (CNS) disorders. Tonix's priority is to submit a New Drug Application (NDA) to the FDA in the second half of 2024 for TNX-102 SL, a product candidate for which two statistically significant Phase 3 studies have been completed for the management of fibromyalgia. The FDA has granted Fast Track designation to TNX-102 SL for the management of fibromyalgia. TNX-102 SL is also being developed to treat acute stress reaction. Tonix's CNS portfolio includes TNX-1300 (cocaine esterase), a biologic designed to treat cocaine intoxication that has Breakthrough Therapy designation. Tonix's immunology development portfolio consists of biologics to address organ transplant rejection, autoimmunity and cancer, including TNX-1500, which is a humanized monoclonal antibody targeting CD40-ligand (CD40L or CD154) being developed for the prevention of allograft rejection and for the treatment of autoimmune diseases. Tonix also has product candidates in development in the areas of rare disease and infectious disease. Tonix Medicines, our commercial subsidiary, markets Zembrace® SymTouch® (sumatriptan injection) 3 mg and Tosymra® (sumatriptan nasal spray) 10 mg for the treatment of acute migraine with or without aura in adults.

*Tonix's product development candidates are investigational new drugs or biologics and have not been approved for any indication.

Zembrace SymTouch and Tosymra are registered trademarks of Tonix Medicines. All other marks are property of their respective owners.

This press release and further information about Tonix can be found at www.tonixpharma.com.

Forward Looking Statements

Certain statements in this press release are forward-looking within the meaning of the

Private Securities Litigation Reform Act of 1995. These statements may be identified by the use of forward-looking words such as “anticipate,” “believe,” “forecast,” “estimate,” “expect,” and “intend,” among others. These forward-looking statements are based on Tonix's current expectations and actual results could differ materially. There are a number of factors that could cause actual events to differ materially from those indicated by such forward-looking statements. These factors include, but are not limited to, risks related to the failure to obtain FDA clearances or approvals and noncompliance with FDA regulations; risks related to the failure to successfully market any of our products; risks related to the timing and progress of clinical development of our product candidates; our need for additional financing; uncertainties of patent protection and litigation; uncertainties of government or third party payor reimbursement; limited research and development efforts and dependence upon third parties; and substantial competition. As with any pharmaceutical under development, there are significant risks in the development, regulatory approval and commercialization of new products. Tonix does not undertake an obligation to update or revise any forward-looking statement. Investors should read the risk factors set forth in the Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the Securities and Exchange Commission (the “SEC”) on April 1, 2024, and periodic reports filed with the SEC on or after the date thereof. All of Tonix's forward-looking statements are expressly qualified by all such risk factors and other cautionary statements. The information set forth herein speaks only as of the date thereof.

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