August 19, 2013

Tonix Pharmaceuticals Presents Nonclinical Results at the Ninth World Congress on Myofascial Pain Syndrome and Fibromyalgia Syndrome

Data Elucidate Cyclobenzaprine as a Serotonin and Norepinephrine Receptor Antagonist and Reuptake Inhibitor (SNARI)

NEW YORK, NY -- (Marketwired) -- 08/19/13 -- Tonix Pharmaceuticals Holding Corp. (NASDAQ: TNXP), a specialty pharmaceutical company developing novel treatments for challenging disorders of the central nervous system (CNS), including fibromyalgia and post-traumatic stress disorder (PTSD), presented results from nonclinical studies of cyclobenzaprine (CBP), the active ingredient of Tonix's lead candidate, TNX-102 sublingual tablet (TNX-102 SL), at the International Pain Society's Ninth World Congress on Myofascial Pain Syndrome and Fibromyalgia Syndrome in Seattle, Washington.

The presentation, titled "Cyclobenzaprine (CBP) Inhibits Serotonin (5HT) Receptor Type 2A, Adrenergic Receptor alpha1A and the 5HT and Norepinephrine (NE) Reuptake Transporters: Mechanistic Implications for Treating Fibromyalgia Syndrome and Post-traumatic Stress Disorder (PTSD) by Improving Sleep Quality," was given by Bruce Daugherty, Ph.D., Tonix's Chief Scientific Officer and the study's lead author, on Friday, August 16, at 1:45 PM Pacific Time.

As observed in nonclinical studies conducted under Tonix's direction, CBP and its major metabolite, norcyclobenzaprine (nCBP), exhibited potent binding (Ki) to certain CNS receptors including 5HT2A (5.2 and 13 nM, respectively), adrenergic alpha1A (5.6 and 34 nM), and histamine H1 (1.3 and 5.9 nM). In addition, CBP and nCBP are functional antagonists (IC50) at 5HT2A (230 and 140 nM, respectively), alpha1A (4.9 and 16 nM, respectively), and H1 (5.2 and 16 nM, respectively). CBP and nCBP also exhibited potent binding to the serotonin (35 and 2.6 nM, respectively) and norepinephrine (29 and 91 nM, respectively) monoamine reuptake transporters.

Dr. Daugherty commented, "We have significantly advanced our understanding of the mechanisms of action of CBP in the CNS. We have shown that CBP exerts multiple effects on serotonergic and adrenergic neurotransmission. As a Serotonin and Norepinephrine Receptor Antagonist and Reuptake Inhibitor, or SNARI, we believe TNX-102 SL exerts pharmacological effects distinct from those exerted by products approved by the Food and Drug Administration for the management of fibromyalgia and PTSD. We look forward to commencing our Phase 2b/3 trial of TNX-102 SL in patients with fibromyalgia this quarter."

About Tonix Pharmaceuticals Holding Corp.
Tonix is developing innovative prescription medications for challenging disorders of the central nervous system. The Company seeks to address conditions characterized by significant unmet medical need, inadequate existing treatment options, and high dissatisfaction among patients and physicians. Tonix's lead pharmaceutical candidate, TNX-102 SL, targets central pain. Fibromyalgia is a central pain syndrome, and central pain is a component of post-traumatic stress disorder. Tonix applies its core technology toward the treatment of central pain by increasing the restorative power of sleep. To learn more, please visit www.tonixpharma.com.

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" 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, substantial competition; our ability to continue as a going concern; our need for additional financing; uncertainties of patent protection and litigation; uncertainties of government or third party payer reimbursement; limited sales and marketing efforts and dependence upon third parties; and risks related to failure to obtain FDA clearances or approvals and noncompliance with FDA regulations. 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 filed with the SEC on March 11, 2013 and future periodic reports filed with the Securities and Exchange Commission. All of the Company'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 hereof.

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Source: TONIX Pharmaceuticals Holding Corp.