NASDAQ: TNXP

Investor Presentation

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Cautionary note on forward-looking statements

Certain statements in this presentation regarding strategic plans, expectations and objectives for future operations or results are "forward-looking statements" as defined by 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 possible 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 risks related to failure to obtain U.S Food and Drug Administration clearances or approvals and noncompliance with its regulations. As with any pharmaceutical under development, there are significant risks in the development, regulatory approval and commercialization of new products. The forward-looking statements in this presentation are made as of the date of this presentation, even if subsequently made available by the Company on its website or otherwise. Tonix does not undertake an obligation to update or revise any forward-looking statement, except as required by law. Investors should read the risk factors set forth in the Annual Report on Form 10-K for the year ended December 31, 2014 and Quarterly Report on Form 10-Q for the period ended September 30, 2015, as filed with the Securities and Exchange Commission (the "SEC") on February 27, 2015 and November 6, 2015, respectively, and future periodic reports filed with the SEC on or after the date hereof. All of the Company's forward-looking statements are expressly qualified by all such risk factors and other cautionary statements.

TONIX PHARMACEUTICALS

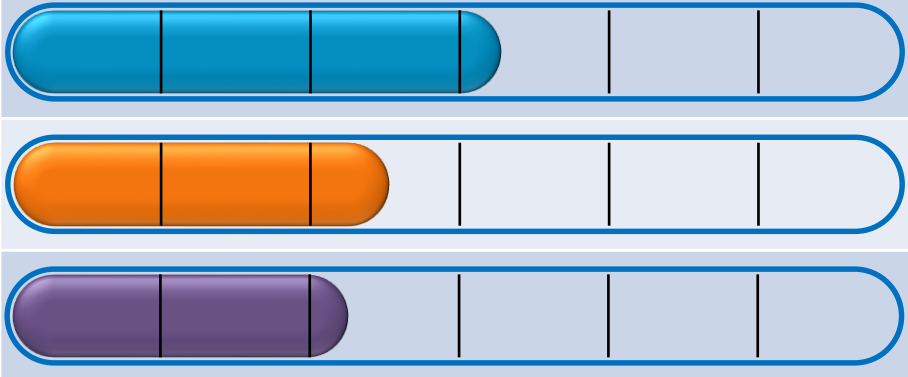
Developing innovative medicines for large and growing markets

- **Targeting common pain conditions and a serious psychiatric disorder**
  - Two clinical-stage proprietary candidates targeting three indications
  - Differentiated products with potential for sustainable competitive advantages
- **2016 to reveal results from three clinical trials**
  - Fibromyalgia – Phase 3 to report in 3Q
  - Post-traumatic stress disorder – Phase 2 to report in 2Q
  - Episodic tension-type headache – proof-of-concept Phase 2 to report in 1Q
- **All intellectual property owned by Tonix – from internal R&D**

TONIX PHARMACEUTICALS

Pipeline led by TNX-102 SL for fibromyalgia

Candidate	Indication	Preclinical	Phase 1	Phase 2	Phase 3	NDA	Market	Near-term Catalyst
TNX-102 SL (Tonmya*)	Fibromyalgia							Top line data 3Q 2016
TNX-102 SL	Post-Traumatic Stress Disorder							Top line data 2Q 2016
TNX-201	Episodic Tension-Type Headache							Top line data 1Q 2016



* Tonmya has been conditionally accepted by the FDA as the proposed tradename of TNX-102 SL for fibromyalgia.

NDA = New Drug Application; FDA = U.S. Food and Drug Administration.
TNX-102 SL (cyclobenzaprine HCl sublingual tablets, 2.8 mg) and TNX-201 (dexisometheptene mucate) are Investigational New Drugs and are not approved for any indication.

TONIX PHARMACEUTICALS

TNX-102 SL in Phase 3 clinical development for fibromyalgia

- **Phase 3 AFFIRM Study is underway**

TNX-102 SL once-daily at bedtime
2.8 mg *N = 250*

Placebo once-daily at bedtime
N = 250

12 weeks → ***open-label extension***

- Randomized, double-blind, placebo-controlled study in fibromyalgia
- N=500; approximately 35 U.S. clinical sites
- Primary efficacy endpoint:
  - Difference in 30% pain responder analysis at Week 12 between TNX-102 SL and placebo

Top line data expected 3Q 2016

- **Second Phase 3 Study ("REAFFIRM") expected to begin in 2Q 2016**
  - Expected to be similar to AFFIRM in design and size

Source: Phase 2b BESTFIT study data.
TNX-102 SL is an Investigational New Drug and is not approved for any indication.

TONIX PHARMACEUTICALS

Phase 2 "AtEase" trial of TNX-102 SL in PTSD is fully enrolled

TNX-102 SL at bedtime once-daily
2.8 mg — *N = 88*

TNX-102 SL at bedtime once-daily
5.6 mg — *N = 44*

Placebo at bedtime once-daily
N = 88

12 weeks → ***open-label extension***

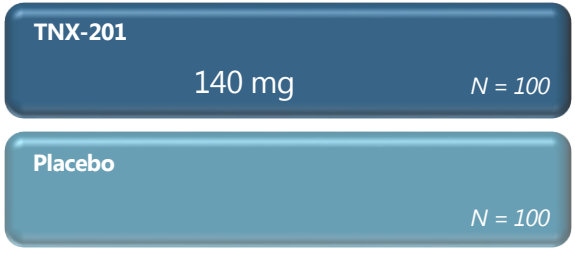
- Randomized, double-blind, placebo-controlled trial in military-related PTSD
- N=240+; approximately 25 U.S. clinical sites
- Primary efficacy endpoint:
  - Difference in Clinician-Administered PTSD Scale (CAPS) score between TNX-102 SL 2.8 mg and placebo at 12 weeks

Top line data expected 2Q 2016

TNX-102 SL is an Investigational New Drug and is not approved for any indication.

TONIX PHARMACEUTICALS

Phase 2 proof-of-concept trial of TNX-201 in ETTH is fully enrolled



- Randomized, double-blind, placebo-controlled trial in episodic tension-type headache
- Goal is to assess treatment of approx. 150 headaches
- ~10 U.S. clinical sites

Top line data expected 1Q 2016

- **A proof-of-concept study to evaluate:**
  - Proportion of subjects who report "pain free" at several intervals post-dose
  - Proportion of subjects who use rescue medication during the 24 hour post-dose period
  - Change from baseline in pain severity score at several intervals post-dose
- **Results will be used to support discussion with FDA on Phase 3 study design**

TNX-201 is an Investigational New Drug and is not approved for any indication.

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Milestones – recent and upcoming

TNX-102 SL – Fibromyalgia

☑	May 2015	Began Phase 3 AFFIRM study
☑	November 2015	Presented additional data from Phase 2b BESTFIT study at ACR Annual Meeting
❑	3Q 2016	Report top-line results from AFFIRM study

TNX-102 SL – Post-Traumatic Stress Disorder

☑	December 2015	Entered into CRADA with USAMMDA
☑	December 2015	Reported completion of enrollment in Phase 2 AtEase study
❑	2Q 2016	Report top-line results from AtEase study

TNX-201 – Episodic Tension-Type Headache

☑	June 2015	Presented non-clinical data at AHS Annual Meeting (receptor, animal models)
☑	December 2015	Reported completion of enrollment in proof-of-concept Phase 2 study
❑	1Q 2016	Report top-line results from Phase 2 study

ACR = American College of Rheumatology; AHS = American Headache Society
CRADA = Cooperative Research & Development Agreement
USAMMDA = U.S. Army Medical Materiel Development Activity
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