DAWSONJAMES SECURITIES

Member FINRA/SIPC

INSTITUTIONAL RESEARCH

Specialty Pharma

COMPANY UPDATE

Toll Free: 561-391-5555 ♦ www.DawsonJames.com ♦ 1 North Federal Highway - Suite 500 ♦ Boca Raton, FL 33432

Tonix Pharmaceuticals (Nasdaq/TNXP)

BUY News expected on Tonmya Phase 3 trial in 2018

Tonix is developing innovative pharmaceutical products to address public health challenges

August 21, 2017

Robert M. Wasserman
Senior Research Analyst
561-208-2905
rwasserman@dawsonjames.com

Investment Highlights

1) Tonix is making solid progress in its key HONOR trial, a Phase 3 study using the Company's Tonmya (Cyclobenzaprine HCI Sublingual Tablets) 5.6 mg in the treatment of military-related posttraumatic stress disorder, or PTSD. In Tonix's most recent quarterly earnings report (Q2/17 ending June), the Company related that enrollment in the 275-patient trial is continuing, and the study is on track for an unblended interim analysis of 50% of efficacy-evaluable participants in the first half of 2018, with topline results from the full study expected to be released later in 2018. In addition, the Company announced this week that Dr. Gregory Sullivan, Tonix's Chief Medical Officer, will present two scientific posters at next week's 2017 Military Health System Research Symposium in Orlando (Tuesday, August 29). The posters cover additional retrospective analyses of the Phase 2 atEase study of Tonmya and an analysis of the study protocol of the ongoing HONOR Phase 3 Tonmya study. Earlier in the second quarter, Tonix received notice that the US Patent and Trademark Office had issued a patent protecting the composition and manufacture of the proprietary Tonmya formulation (with a patent life through 2034) as well as receiving conditional approval by the FDA of the proposed trade name of Tonmya for the Company's TNX-102 SL treatment of PTSD.

2) In other pipeline-related developments, Tonix continues to add value to its other clinical programs, including TNX-601 for daytime dosing treatment for PTSD and TNX-801, a pre-IND candidate vaccine for Smallpox. In the most recent second quarter, Tonix continued work on TNX-801 (synthesized horsepox) to meet Good Manufacturing Practice (GMP) quality standards related to a potential study to be supported by an Investigational New Drug (IND) application. Longer-term, the Company's TNX-601 (tianeptine oxalate oral formulation) would provide leverage as a product line alternative to Tonmya in PTSD, as TNX-601 has a different mechanism of action from Tonmya and would be developed for

Current Price	**$3.04**
Price Target	**$9.00**

Estimates	F2016A	F2017E	F2018E
Revenues($000s)	$0	$0	$0
EPS	($15.41)	($2.81)	($2.79)

Stock Data	
52-Week Range	$2.85-$28
Shares Outstanding (mil.)	7.5
Market Capitalization (mil.)	$22.8
Enterprise Value (mil.)	-$11.6
Debt to Capital (6/17)	0.0%
Book Value/Share (6/17)	$4.53
Price/Book	0.7 x
Average Trading Volume (3-Month)	156,500
Insider Ownership	4.0%
Institutional Ownership	23.7%
Short interest	500,000
Dividend / Yield	$0.00/0.0%

Price target and ratings changes over the past 3 yrs:
Re- Initiate BUY rating with Price Target of $9 - August 21, 2017

daytime dosing. While the active ingredient in TNX-601 has been approved in a number of international markets for a long period of time, Tonix will be developing a proprietary formulation for application in treatment of PTSD in the US.

3) Tonix recently reported its second quarter 2017 results, including a reduced net loss of $4.8 million or ($0.65) per share, as compared to a net loss of $9.8 million or ($4.97) per share in Q2/16. The reduced net loss this year was due to both lower R&D costs and general and administrative expenses, as the Company was involved in fewer product candidate programs, specifically its TNX-102 SL fibromyalgia treatment, which was discontinued in September 2016. During the third quarter, cash used in operations for Tonix was approximately $4.4 million, and with a little over $34 million in cash on hand as of June 30th, Tonix management estimates that the Company will have adequate financial resources available to complete its ongoing Phase 3 HONOR trial in PTSD. In addition, earlier this month Tonix announced a new $9 million at-the-market equity sales agreement with Cowen and Company.

Conclusion/Stock Valuation

We are re-initiating our BUY rating on Tonix Pharmaceuticals due to changes in research staffing, and initiating a $9 Price Target on these shares as well. With a solid balance sheet, a primary focus on a Phase 3 clinical program for PTSD, and other assets as well, growth-oriented investors may find these shares attractive. On the same hand, with a current market capitalization well below cash on hand, value-oriented investors may also look with interest at TNXP shares. Our comparable group of neurology-targeted or new formulation oriented stocks currently trade at an average market capitalization of slightly over $67 million, well above the current $23 million value of TNXP. The aforementioned group of stocks include Brainstorm Cell Therapeutics (BCLI, Not Rated), Cerecor (CERC, Not Rated), Marinus Pharmaceuticals (MRNS, Not Rated), Ovid Technologies (OVID, Not Rated), Prana Biotechnology (PRAN, Not Rated), Rexahn Pharmaceuticals (RNN, Not Rated) and vTv Therapeutics (VTVT, Not Rated). Using the average market capitalization for our seven-member comparable stock group, we estimate a stock valuation of $9 for TNXP, and therefore we are re-initiating our BUY rating on TNXP shares and initiating a 12-18 month price target of $9 per share.

Risk Factors

In addition to normal economic and market risk factors that impact most equities and the common risks shared by Tonix with other companies in the industry, we believe an investment in TNXP involves the following risks:

- **Reliance on key management** – At present, TNXP relies on several key members of its management team who either founded the Company or have been in key executive positions for an extended period of time. Should one or more of these key executives leave the Company, TNXP could find it difficult to replace their long-standing knowledge of operations and industry expertise.
- **Reliance on partnerships –** To date, TNXP has signed certain development partnerships and agreements for its pharmaceutical technologies and products. Thus, in the future certain factors related to product commercialization and new product development may be determined by third parties and out of the control of Company management.
- **Limited stock liquidity** – Trading volume in TNXP stock is comparatively light and these shares have a relatively limited history of trading on major US stock exchanges compared with other healthcare stocks. As such, news regarding TNXP, its target market, partners and/or competitors could lead to significant volatility in the stock price.

- **Competitive Markets** – The Company competes in its target neurological product market with a number of companies, many of which are considerably larger than the Company. There can be no assurance that the Company will be able to successfully compete and launch new products into these competitive markets in the future.
- **FDA and regulatory risks** – TNXP is subject to regulatory review for its ongoing research and development activities, principally the US Food and Drug Administration's application processes. In addition, the quality assurance and manufacture of the Company's pharmaceutical products are subject to ongoing oversight and regulation, and any negative correspondence from the FDA or other regulatory agencies could have an adverse effect on the ongoing operations of the Company.
- **Lack of historic profitability** - TNXP has not achieved operating profitability on an annual basis for several years, and according to our forecasts may not be expected to do so in the near future. Although the Company maintains adequate cash reserves at the present time, there can be no assurance the Company will not need to raise additional working capital in the future should operating losses continue.
- **Need to defend patents and other intellectual property** – TNXP currently holds a number of US and International patents on its products and related technologies, some of which expire in the near future. The Company may be required to defend its patents in the US and overseas in the future, and there can be no assurance these defenses will be successful.

Tonix Pharmaceuticals, Inc.
Consolidated Statements of Income
(in $000s, except EPS)

Robert M. Wasserman

FYE December	2009	2010	2011	2012	2013	2014	2015	2016	2017E	2018E
Revenues										
Licensing fees	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Grants and other funding					0.0	0.0	0.0	0.0	0.0	0.0
Product sales and royalties	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total revenues	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Expenses										
Research and development	32.5	584.3	1,158.2	2,583.3	4,649.8	18,617.0	35,504.0	28,533.0	11,600.0	12,500.0
Payroll costs	0.0	414.0	731.3	1,820.9	3,247.7	4,511.0	5,824.0	5,200.0	4,200.0	5,000.0
Professional services	126.9	614.3	915.2	1,444.5	1,882.1	2,564.0	4,247.0	3,200.0	2,400.0	3,000.0
General and administrative and other	26.0	316.2	573.9	812.8	1,108.9	1,964.0	2,587.0	2,036.0	1,700.0	2,000.0
Total operating expenses	185.4	1,928.7	3,378.5	6,661.4	10,888.4	27,656.0	48,162.0	38,969.0	19,900.0	22,500.0
Loss from operations	(185.4)	(1,928.7)	(3,378.5)	(6,661.4)	(10,888.4)	(27,656.0)	(48,162.0)	(38,969.0)	(19,900.0)	(22,500.0)
Interest expense, net	(43.3)	(35.8)	(91.6)	(1,613.0)	4.0	40.0	108.0	127.0	200.0	200.0
Other expense, net	7.9	0.0	0.0	(1,175.2)	0.0	0.0	0.0	0.0	0.0	0.0
Net income (loss)	(220.8)	(1,964.5)	(3,470.1)	(9,449.6)	(10,884.4)	(27,616.0)	(48,054.0)	(38,842.0)	(19,700.0)	(22,300.0)
Cumulative dividends on preferred stock	32.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Net income (loss) attributable to common stock	(252.8)	(1,964.5)	(3,470.1)	(9,449.6)	(10,884.4)	(27,616.0)	(48,054.0)	(38,842.0)	(19,700.0)	(22,300.0)
Basic and diluted income (loss) per share	($73.72)	($35.16)	($32.39)	($55.80)	($33.68)	($27.66)	($28.62)	($15.41)	($2.81)	($2.79)
Basic and diluted shares outstanding	3.4	55.9	107.1	169.3	323.1	998.6	1,679.1	2,521.0	7,000.0	8,000.0
Key ratios:										
Cash Flow/share	($60.39)	($27.30)	($27.72)	($42.26)	($28.11)	($23.95)	($25.91)	($13.98)	($2.50)	($2.51)

Balance Sheets
($000s)

Assets:	12/31/16	6/30/17
Cash and equivalents	$18,941	$34,355
Marketable securities	7,180	
Prepaid expenses and other	1,019	1,130
Total current	27,140	35,485
Property & equip., net	150	118
Restricted cash	89	89
Intangible assets and security deposits	131	131
TOTAL ASSETS	$27,510	$35,823
Liabilities:		
Accounts payable	$872	$1,179
Accrued expenses	2,116	651
Total current	2,988	1,830
Deferred rent payable	33	24
Stockholders' equity (deficiency)	25,361	33,969
TOTAL LIAB & EQ	$28,382	$35,823

Source: Dawson James Securities, Inc. estimates; Company documents

Important Disclosures:

Price Chart:

Price target and ratings changes over the past 3 years:
Re-Initiated with BUY rating and Price target of $9 - August 21, 2017

Dawson James Securities, Inc. (the "Firm") is a member of the Financial Industry Regulatory Authority ("FINRA") and the Securities Investor Protection Corporation ("SIPC").

The Firm does not make a market in the securities of the subject company (s). The Firm has engaged in investment banking relationships with TNXP in the prior twelve months, as a manager or co-manager of a public offering and has received compensation resulting from those relationships. The Firm may seek compensation for investment banking services in the future from the subject company(s). The Firm has received other compensation from the subject company(s) in the last 12 months for services unrelated to investment banking.

Neither the research analyst(s) whose name appears on this report nor any member of his (their) household is an officer, director or advisory board member of these companies. The Firm and/or its directors and employees may own securities of the company(s) in this report and may increase or decrease holdings in the future. As of July 31, 2017, the Firm as a whole did not beneficially own 1% or more of any class of common equity securities of the subject company (s) of this report. The Firm, its officers, directors, analysts or employees may effect transactions in and have long or short positions in the securities (or options or warrants related to those securities) of the company(s) subject to this report. The Firm may effect transactions as principal or agent in those securities.

Analysts receive no direct compensation in connection with the Firm's investment banking business. All Firm employees, including the analyst(s) responsible for preparing this report, may be eligible to receive non-product or service specific monetary bonus compensation that is based upon various factors, including total revenues of the Firm and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.

Although the statements in this report have been obtained from and are based upon recognized statistical services, issuer reports or communications, or other sources that the Firm believes to be reliable, we cannot guarantee their accuracy. All opinions and estimates included in this report constitute the analyst's judgment as of the date of this report and are subject to change without notice.

Information about valuation methods and risks can be found in the "STOCK VALUATION" and "RISK FACTORS" sections of this report.

The securities of the company discussed in this report may be unsuitable for investors depending on their specific investment objectives and financial position. This report is offered for informational purposes only, and does not constitute an offer or solicitation to buy or sell any securities discussed herein in any jurisdiction where such would be prohibited. Additional information is available upon request.

Ratings Definitions:

1) **Buy**: the analyst believes the price of the stock will appreciate and produce a total return of at least 20% over the next 12-18 months;
2) **Neutral**: the analyst believes the price of the stock is fairly valued for the next 12-18 months;
3) **Sell**: the analyst believes the price of the stock will decline by at least 20% over the next 12-18 months and should be sold.

The following chart reflects the range of current research report ratings for all companies followed by the analysts of the Firm. The chart also reflects the research report ratings relating to those companies for which the Firm has performed investment banking services.

	Company Coverage		Investment Banking	
Ratings Distribution	# of Companies	% of Total	# of Companies	% of Totals
Market Outperform (Buy)	11	79%	3	27%
Market Perform (Neutral)	0	0%	0	0%
Market Underperform (Sell)	0	0%	0	0%
Ratings Suspension*	3	21%	3	100%
Total	14	100%	6	43%
*Suspensions are ratings under review for possible change due to unusual market-moving news, and/or analyst departure/change				

Analyst Certification:

The analyst(s) whose name appears on this research report certifies that 1) all of the views expressed in this report accurately reflect his (their) personal views about any and all of the subject securities or issuers discussed; and 2) no part of the research analyst's compensation was, is, or will be directly or indirectly related to the specific recommendations or views expressed by the research analyst in this research report; and 3) all Dawson James employees, including the analyst(s) responsible for preparing this research report, may be eligible to receive non-product or service specific monetary bonus compensation that is based upon various factors, including total revenues of Dawson James and its affiliates as well as a portion of the proceeds from a broad pool of investment vehicles consisting of components of the compensation generated by investment banking activities, including but not limited to shares of stock and/or warrants, which may or may not include the securities referenced in this report.