

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of report (date of earliest event reported): February 28, 2024

TONIX PHARMACEUTICALS HOLDING CORP.

(Exact name of registrant as specified in its charter)

Nevada
(State or Other Jurisdiction
of Incorporation)

001-36019
(Commission
File Number)

26-1434750
(IRS Employer
Identification No.)

26 Main Street, Chatham, New Jersey 07928
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (862) 904-8182

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	TNXP	The NASDAQ Capital Market

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§ 240.12b-2 of this chapter).

Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

On February 28, 2024, Tonix Pharmaceuticals Holding Corp. (the "Company") announced the completion of the clinical stage of its Phase 1 single ascending dose escalation trial of its TNX-1500 (Fc-modified humanized anti-CD40L monoclonal antibody, or mAb) product candidate in healthy volunteers.

The information in this Item 7.01 of this Current Report on Form 8-K, including Exhibit 99.01 attached hereto, shall not be deemed "filed" for purposes of Section 18 of the United States Securities Exchange Act of 1934 (the "Exchange Act") or otherwise subject to the liabilities of that section, nor shall they be deemed incorporated by reference in any filing under the United States Securities Act of 1933 or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 8.01 Other Events.

On February 28, 2024, the Company announced the completion of the clinical stage of its Phase 1 single ascending dose escalation trial of TNX-1500 in healthy volunteers. The results of this trial are expected in the third quarter of 2024.

Forward-Looking Statements

This Current Report on Form 8-K contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and Private Securities Litigation Reform Act, as amended, including those relating to the Company's product development, clinical trials, clinical and regulatory timelines, market opportunity, competitive position, possible or assumed future results of operations, business strategies, potential growth opportunities and other statement that are predictive in nature. These forward-looking statements are based on current expectations, estimates, forecasts and projections about the industry and markets in which we operate and management's current beliefs and assumptions.

These statements may be identified by the use of forward-looking expressions, including, but not limited to, "expect," "anticipate," "intend," "plan," "believe," "estimate," "potential," "predict," "project," "should," "would" and similar expressions and the negatives of those terms. These statements relate to future events or our financial performance and involve known and unknown risks, uncertainties, and other factors which may cause actual results, performance or achievements to be materially different

from any future results, performance or achievements expressed or implied by the forward-looking statements. Such factors include those set forth in the Company's filings with the SEC. Prospective investors are cautioned not to place undue reliance on such forward-looking statements, which speak only as of the date of this press release. The Company undertakes no obligation to publicly update any forward-looking statement, whether as a result of new information, future events or otherwise.

Item 9.01 Financial Statements and Exhibits.

(d)	Exhibit No.	Description.
	99.01	Press Release, dated February 28, 2024
	104	Cover Page Interactive Data File (embedded within the Inline XBRL document)

SIGNATURE

Pursuant to the requirement of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TONIX PHARMACEUTICALS HOLDING CORP.

Date: February 28, 2024

By: /s/ Bradley Saenger
Bradley Saenger
Chief Financial Officer

Tonix Pharmaceuticals Completes Clinical Stage of Phase 1 Trial for TNX-1500 (Fc-modified humanized anti-CD40L mAb) in Healthy Volunteers

Topline results expected in the third quarter of 2024; planning a Phase 2 Trial for prevention of kidney transplant rejection

Anti-CD40L has multiple possible indications in addition to solid organ and bone marrow transplantation including autoimmune diseases: potential pipeline in a product

Sanofi recently published results on their Fc-modified humanized anti-CD40L mAb, frexalimab, for multiple sclerosis in the New England Journal of Medicine¹

CHATHAM, N.J., February 28, 2024 (GLOBE NEWSWIRE) – Tonix Pharmaceuticals Holding Corp. (Nasdaq: TNXP), a biopharmaceutical company with marketed products and a pipeline of development candidates, today announced the completion of the clinical stage of its Phase 1, single ascending dose escalation trial of TNX-1500 (Fc-modified humanized anti-CD40L monoclonal antibody, or mAb)* in healthy volunteers. TNX-1500 is in development for the prevention of rejection in solid organ and bone marrow transplant and for the treatment of autoimmune disorders.

“Despite advancements in the field of solid organ transplantation, there remains a significant need for new treatments with improved activity and tolerability,” said Seth Lederman, M.D., Chief Executive Officer of Tonix Pharmaceuticals. “Anti-CD40L modulates T cell function and has the potential to promote tolerance of transplanted organs. We are excited to have completed the clinical stage of this Phase 1 trial of TNX-1500, a third-generation Fc-modified anti-CD40L mAb that has been designed by protein engineering to eliminate the risk of thrombosis associated with first-generation anti-CD40L mAbs. Preclinical studies in non-human primates did not result in any thrombotic complications, suggesting that the protein engineering of TNX-1500’s Fc region has achieved its design goals.”

Dr. Lederman continued, “Recently, positive clinical data with other CD40L blockers have been reported by Sanofi, with its Fc-modified humanized anti-CD40L mAb frexalimab in treating relapsing multiple sclerosis.² Eledon Pharmaceuticals is developing tegoprubart, a non-covalent dimer antibody with no heavy-light or heavy-heavy interchain disulfide bridges for the prevention of rejection of kidney transplants³.”

Dr. Lederman concluded, “We believe TNX-1500 has the potential to prevent organ transplant rejection and improve graft survival with reduced long-term toxicity burden of current immunosuppressive regimens. In addition, TNX-1500 has the potential to address multiple other indications, including several autoimmune diseases. We look forward to the results of this Phase 1 trial, which are expected in the third quarter of this year, and to continuing the development of TNX-1500 as a promising candidate in an important therapeutic space.”

About TNX-1500

TNX-1500 (Fc-modified humanized anti-CD40L mAb) is a humanized monoclonal antibody that interacts with the CD40-ligand (CD40L), also known as CD154. TNX-1500 is being developed for the prevention of allograft and xenograft rejection, for the prevention of graft-versus-host disease (GvHD) after hematopoietic stem cell transplantation (HCT) and for the treatment of autoimmune diseases. The first-in-human Phase 1 trial of TNX-1500 was initiated in the third quarter of 2023. The primary objective of the Phase 1 trial is to assess the safety, tolerability, pharmacokinetics, and pharmacodynamics of intravenous (*i.v.*) TNX-1500. Eligible participants enrolled in the Phase 1 trial were distributed across three dosing cohorts (3 mg/kg, 10 mg/kg, and 30 mg/kg, respectively) and evaluated regularly over a 120-day period after dosing. This first-in-human trial is intended to support dosing in a planned Phase 2 trial in kidney transplant recipients. Two published articles in the *American Journal of Transplantation* demonstrate TNX-1500 prevents rejection, prolongs survival and preserves graft function as a single agent or in combination with other drugs in non-human primate renal and heart allografts.^{4,5}

About anti-CD40L Therapeutics in Development

No anti-CD40L mAb has been approved in any jurisdiction. In addition to TNX-1500, frexalimab and tegoprubart, tn03 fusion protein dazodalibep is being developed by Amgen (formerly Horizon Therapeutics Public Limited Company) for the treatment of Sjögren’s Syndrome.^{6,7} Dapirolizumab pegol, an anti-CD40L pegylated Fab, is being developed by UCB for the treatment of systemic lupus erythematosus.⁸

*TNX-1500 is an investigational new biologic and is not approved for any indication

1. Vermersch P., et al. *N Engl J Med*. 2024. 390(7):589-600 <https://doi.org/10.1056/nejmoa2309439>
2. Sanofi press release. May 31, 2023. <https://www.sanofi.com/en/media-room/press-releases/2023/2023-05-31-05-00-00-2678991> (accessed August 2023)
3. Eledon press release. November 2, 2023. <https://ir.eledon.com/news-releases/news-release-details/eledon-reports-updated-data-ongoing-phase-1b-trial-evaluating> (accessed February 2024)
4. Lassiter G., et al. *Am J Transplantation*. 2023. <https://doi.org/10.1016/j.ajt.2023.03.022>
5. Miura S., et al. *Am J Transplantation*. 2023. <https://doi.org/10.1016/j.ajt.2023.03.025>
6. BioSpace. September 12, 2022. <https://www.biospace.com/article/releases/horizon-therapeutics-plc-announces-phase-2-trial-evaluating-dazodalibep-for-the-treatment-of-sjogren-s-syndrome-meets-primary-endpoint> (accessed February 2024)
7. BioSpace. January 18, 2023. <https://www.biospace.com/article/horizon-bags-second-phase-ii-win-in-sjogren-s-syndrome> (accessed February 2024)
8. <https://www.ucb.com/our-science/pipeline> (accessed August 2023)

Tonix Pharmaceuticals Holding Corp.*

Tonix is a 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 Tonmya¹, a product candidate for which two positive Phase 3 studies have been completed for the management of fibromyalgia. TNX-102 SL is also being developed to treat acute stress reaction as well as fibromyalgia-type Long COVID. Tonix's CNS portfolio includes TNX-1300 (cocaine esterase) a biologic designed to treat cocaine intoxication with 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.

¹Tonmya™ is conditionally accepted by the U.S. Food and Drug Administration (FDA) as the tradename for TNX-102 SL for the management of fibromyalgia. Tonmya has 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, 2022, as filed with the Securities and Exchange Commission (the "SEC") on March 13, 2023, 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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