

Prospectus Supplement
(To Prospectus dated May 5, 2021)

4,050,000 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 4,950,000 Shares of Common Stock
Series A Warrants to Purchase up to 9,000,000 Shares of Common Stock
Series B Warrants to purchase up to 9,000,000 Shares of Common
Up to 22,950,000 Shares of Common Stock underlying such Pre-Funded Warrants, Series A Warrants and Series B Warrants



We are offering on a “reasonable best efforts” basis 4,050,000 shares of our common stock, par value \$0.001 per share (the “Common Stock”), together with Series A Warrants (the “Series A Warrants”) and Series B Warrants (“Series B Warrants”, and together with the Series A Warrants, the “Warrants”) to purchase up to 8,100,000 shares of Common Stock. The combined public offering price per share of Common Stock and accompanying Warrants is \$0.50. The Series A Warrants are exercisable immediately upon issuance at an exercise price of \$0.50 per share and will expire on the fifth anniversary of the date of issuance. The Series B Warrants are exercisable immediately upon issuance at an exercise price of \$0.50 per share and will expire on the first anniversary of the date of issuance. The shares of Common Stock, Series A Warrants and Series B Warrants will be issued separately and will be immediately separable upon issuance but will be purchased together in this offering. This prospectus supplement and the accompanying prospectus also cover the shares of Common Stock issuable upon the exercise of the Warrants sold in this offering.

We are also offering pre-funded warrants (the “Pre-Funded Warrants”) to purchase 4,950,000 shares of Common Stock to those purchasers whose purchase of shares of Common Stock in this offering would result in the purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock immediately following the consummation of this offering, in lieu of shares of Common Stock that would result in beneficial ownership in excess of 4.99% (or, at the election of the purchaser, 9.99%) of our outstanding Common Stock, together with Warrants to purchase up to 9,900,000 shares of Common Stock. Each Pre-Funded Warrant is exercisable for one share of Common Stock and has an exercise price of \$0.0001 per share. The combined purchase price per Pre-Funded Warrant and accompanying Warrants is equal to \$0.4999, which is equal to the combined purchase price per share of Common Stock and accompanying Warrants less \$0.0002. Each Pre-Funded Warrant will be exercisable immediately upon issuance and will expire when exercised in full. The Pre-Funded Warrants and Warrants will be issued separately and will be immediately separable upon issuance but will be purchased together in this offering. This offering also relates to the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants sold in this offering.

The shares of Common Stock, Pre-Funded Warrants and Warrants being offered will be sold in a single closing. The shares issuable upon exercise of the Pre-Funded Warrants and Warrants will be issued upon the exercise thereof. Because there is no minimum number of securities or minimum aggregate amount of proceeds for this offering to close, we may sell fewer than all of the securities offered hereby, and investors in this offering will not receive a refund in the event that we do not sell an amount of securities sufficient to pursue the business goals outlined in this prospectus. Because there is no escrow account and there is no minimum offering amount, investors could be in a position where they have invested in our company, but we are unable to fulfill our objectives due to a lack of interest in this offering. Also, any proceeds from the sale of securities offered by us will be available for our immediate use, despite uncertainty about whether we would be able to use such funds to effectively implement our business plan. The offering of the securities offered hereby will terminate no later than October 15, 2023, unless completed sooner or unless we decide to terminate the offering (which we may do at any time in our discretion) prior to that date; however, the shares of Common Stock underlying the Pre-Funded Warrants and the Warrants will be offered on a continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended (the “Securities Act”).

Our Common Stock is listed on the Nasdaq Capital Market (“Nasdaq”) under the symbol “TNXP.” On September 28, 2023, the closing sale price of our Common Stock was \$0.698 per share. There is no established public trading market for the Warrants or Pre-Funded Warrants, and we do not expect a market to develop. Without an active trading market, the liquidity of the Warrants and Pre-Funded Warrants will be limited. In addition, we do not intend to apply for a listing of the Warrants or Pre-Funded Warrants on any national securities exchange or other nationally recognized trading system.

Investing in any of our securities involves a high degree of risk. See the “Risk Factors” section beginning on page S-5 of this prospectus supplement and page 4 of the accompanying prospectus, as well as our other filings that are incorporated by reference into this prospectus supplement and the accompanying prospectus.

Neither the Securities and Exchange Commission (the “SEC”) nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

We have engaged A.G.P./Alliance Global Partners LLC and Brookline Capital Markets, a division of Arcadia Securities, LLC to act as our placement agents (the “Placement Agents”) in connection with the securities offered by this prospectus supplement. The Placement Agents have no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities but has agreed to use their reasonable best efforts to sell the securities offered by this prospectus supplement. We have agreed to pay the Placement Agents a fee based on the aggregate proceeds raised in this offering as set forth in the table below:

	Per Share and Accompanying Warrants	Per Pre-Funded Warrant and Accompanying Warrants	Total
Offering price	\$ 0.50	\$ 0.4999	\$ 4,499,505
Placement Agent fees ⁽¹⁾	\$ 0.035	\$ 0.035	\$ 315,000
Proceeds, before expenses, to us ⁽²⁾	\$ 0.465	\$ 0.465	\$ 4,184,505

(1) We have agreed to pay the Placement Agents a cash placement commission equal to 7.0% of the aggregate proceeds from the sale of the securities sold in this offering. We have also agreed to reimburse the Placement Agents for certain expenses incurred in connection with this offering. See “Plan of Distribution” beginning on page S-13 for additional information regarding the compensation to be paid to the Placement Agents.

(2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the Pre-Funded Warrants or Warrants being issued in this offering.

Delivery of the securities being offered pursuant to this prospectus supplement and the accompanying prospectus is expected to be made on or about October 3, 2023, subject to the satisfaction of certain closing conditions.

Lead Placement Agent

A.G.P.

Co-Placement Agent

**Brookline Capital Markets
a division of Arcadia Securities, LLC**

This prospectus supplement is dated September 28, 2023

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference herein. The second part, the accompanying prospectus, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement and the information contained in the accompanying prospectus or any document incorporated by reference therein filed prior to the date of this prospectus supplement, you should rely on the information in this prospectus supplement; provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in the accompanying prospectus—the statement in the document having the later date modifies or supersedes the earlier statement.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein. We have not authorized, and the Placement Agents have not authorized, anyone to provide you with information that is different. The information contained in this prospectus supplement or the accompanying prospectus, or incorporated by reference herein or therein is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our Common Stock. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled “*Where You Can Find More Information*” and “*Incorporation of Certain Information by Reference*” in this prospectus supplement and in the accompanying prospectus, respectively.

We are offering to sell, and seeking offers to buy, the securities offered by this prospectus supplement only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the securities offered by this prospectus supplement in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the Common Stock and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

When used herein, unless the context requires otherwise, references to the “Company,” “we,” “our” and “us” refer to Tonix Pharmaceuticals Holding Corp., a Nevada corporation.

All trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus are referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend the use or display of other companies’ trademarks and trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

NOTE ON FORWARD-LOOKING STATEMENTS

This prospectus supplement and the documents incorporated by reference in this prospectus supplement contain, and our officers and representatives may from time to time make, “forward-looking statements,” which include information relating to future events, future financial performance, financial projections, strategies, expectations, competitive environment and regulation. Words such as “may,” “should,” “could,” “would,” “predicts,” “potential,” “continue,” “expects,” “anticipates,” “future,” “intends,” “plans,” “believes,” “estimates,” “goal,” “seek,” “project,” “strategy,” “likely,” and similar expressions, as well as statements in future tense, identify forward-looking statements. Forward-looking statements are neither historical facts, nor should they be read as a guarantee of future performance or results and may not be accurate indications of when such performance or results will be achieved. Forward-looking statements are based on information we have when those statements are made or management’s good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause such differences include, but are not limited to:

- our ability to continue to operate despite our history of operating losses and expectation that we will continue to incur operating losses for the foreseeable future;
- our current and future capital requirements to support our development efforts and our ability to satisfy our capital needs;
- our ability to obtain FDA approval for any of our product candidates;
- our ability to successfully commercialize our products;
- our ability to maintain or protect the validity of our patents and other intellectual property;
- our ability to retain key executives and medical and science personnel;
- the timing and progress of clinical development of our product candidates;
- our ability to internally develop new inventions and intellectual property;
- interpretations of current laws and the passages of future laws;
- acceptance of our business model by investors;
- the accuracy of our estimates regarding expenses and capital requirements;
- our ability to adequately support growth; and
- our ability to advance our clinical development programs could be impacted by the COVID-19 pandemic.

The foregoing does not represent an exhaustive list of matters that may be covered by the forward-looking statements contained herein and in the documents incorporated by reference herein or risk factors that we are faced with that may cause our actual results to differ from those anticipate in our forward-looking statements. Please see “*Risk Factors*” for additional risks which could adversely impact our business and financial performance.

Moreover, new risks regularly emerge and it is not possible for our management to predict or articulate all risks we face, nor can we assess the impact of all risks on our business or the extent to which any risk, or combination of risks, may cause actual results to differ from those contained in any forward-looking statements. The Private Securities Litigation Reform Act of 1995 and Section 27A of the Securities Act of 1933, as amended, do not protect any forward-looking statements that we make in connection with this offering. All forward-looking statements included in this prospectus and in the documents incorporated by reference in this prospectus are based on information available to us on the date of this prospectus or the date of the applicable document incorporated by reference. Except to the extent required by applicable laws or rules, we undertake no obligation to publicly update or revise any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future events or otherwise. All subsequent written and oral forward-looking statements attributable to us or persons acting on our behalf are expressly qualified in their entirety by the cautionary statements contained above and throughout this prospectus and in the documents incorporated by reference in this prospectus. We qualify all of our forward-looking statements by these cautionary statements.

IN ADDITION TO THE ABOVE RISKS, BUSINESSES ARE OFTEN SUBJECT TO RISKS NOT FORESEEN OR FULLY APPRECIATED BY OUR MANAGEMENT. IN REVIEWING THIS PROSPECTUS AND THE DOCUMENTS INCORPORATED BY REFERENCE IN THIS PROSPECTUS, POTENTIAL INVESTORS SHOULD KEEP IN MIND THAT THERE MAY BE OTHER POSSIBLE RISKS THAT COULD BE IMPORTANT.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents incorporated by reference herein and therein. This summary is not complete and does not contain all the information you should consider before investing in our securities pursuant to this prospectus supplement and the accompanying prospectus. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including “Risk Factors,” the financial statements, and related notes, and the other information incorporated by reference herein and therein.

When used herein, unless the context requires otherwise, references to the “Company,” “we,” “our” and “us” refer to Tonix Pharmaceuticals Holding Corp., a Nevada corporation.

Overview

We are a biopharmaceutical company focused on commercializing, developing, discovering and licensing therapeutics to treat and prevent human disease and alleviate suffering. Tonix Medicines, Inc., our wholly-owned commercial subsidiary, markets Zembrace® SymTouch® (sumatriptan injection) 3 mg and Tosymra® (sumatriptan nasal spray) 10 mg under a transition services agreement with Upsher-Smith Laboratories, LLC, from whom the products were acquired on June 30, 2023. Zembrace SymTouch and Tosymra are each indicated for the treatment of acute migraine with or without aura in adults. Tonix’s development portfolio is composed of central nervous system (“CNS”), rare disease, immunology and infectious disease product candidates. Our CNS development portfolio includes both small molecules and biologics to treat pain, neurologic, psychiatric and addiction conditions. Our lead CNS development candidate, TNX-102 SL (cyclobenzaprine HCl sublingual tablet), is in mid-Phase 3 development for the management of fibromyalgia and , having completed enrollment of a potentially confirmatory Phase 3 study in the third quarter of 2023, with topline data expected in the fourth quarter of 2023. TNX-102 SL is also being developed to treat fibromyalgia-type Long COVID, a chronic post-acute COVID-19 condition. Enrollment in a Phase 2 proof-of concept study has been completed, and topline results were reported in the third quarter of 2023. TNX-601 ER (tianeptine hemioxalate extended-release tablets) is a once-daily oral formulation being developed as a treatment for major depressive disorder (“MDD”), that completed enrollment in a Phase 2 proof-of-concept study in the third quarter of 2023, with topline results expected in the fourth quarter of 2023. TNX-4300 (estianeptine) is a single isomer version of TNX-601, a small molecule oral therapeutic in preclinical development to treat MDD, Alzheimer’s disease and Parkinson’s disease. Relative to tianeptine, estianeptine lacks activity on the μ -opioid receptor while maintaining activity in the rat Novel Object Recognition test in vivo and the ability to activate PPAR- β/δ and neuroplasticity in tissue culture. TNX-1900 (intranasal potentiated oxytocin) is in development for preventing headaches in chronic migraine, and has completed enrollment in a Phase 2 proof-of-concept study with topline data expected in the fourth quarter of 2023. TNX-1900 is also being studied in binge eating disorder, pediatric obesity and social anxiety disorder by academic collaborators under investigator-initiated Investigational New Drug Applications. TNX-1300 (cocaine esterase) is a biologic designed to treat cocaine intoxication and has been granted Breakthrough Therapy designation by the U.S. Food and Drug Administration (“FDA”). A Phase 2 study of TNX-1300 is expected to be initiated in the fourth quarter of 2023. Our rare disease development portfolio includes TNX-2900 (intranasal potentiated oxytocin) for the treatment of Prader-Willi syndrome. TNX-2900 has been granted Orphan Drug designation by the FDA. Our immunology development portfolio includes 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. A Phase 1 study of TNX-1500 was initiated in the third quarter of 2023. Our infectious disease pipeline includes TNX-801, a vaccine in development to prevent smallpox and mpox. TNX-801 also serves as the live virus vaccine platform or recombinant pox vaccine platform for other infectious diseases. The infectious disease development portfolio also includes TNX-3900 and TNX-4000, which are classes of broad-spectrum small molecule oral antivirals.

Tonix Medicines, Inc. owns the Zembrace® SymTouch® and Tosymra® registered trademarks. All other marks are the property of their respective owners.

All of our product candidates in development are investigational new drugs or biologics and have not been approved for any indication.

We have assembled a management team with significant industry experience to lead the development and commercialization of our product candidates and marketed products. We complement our management team with a network of scientific, clinical, and regulatory advisors that includes recognized experts in their respective fields.

Risk Factors

Investing in our securities involves a high degree of risk. You should carefully consider all of the information in this prospectus and in the documents incorporated by reference prior to investing in our securities. These risks are discussed more fully in the section titled “*Risk Factors*” herein and in our Annual Report on Form 10-K for the year ended December 31, 2022, which is incorporated by reference in this prospectus. These risks and uncertainties include, but are not limited to, the following:

- Our ability to continue as a going concern will require us to obtain additional financing to fund our current operations, which may be unavailable on acceptable terms, or at all.
- We have incurred significant losses and anticipate that we will continue to incur significant losses for the foreseeable future and may never achieve or maintain profitability.
- Our profitability depends on our ability to develop and commercialize our current and future product candidates, and commercialize our marketed products.
- Because our product candidates are in the clinical stage of development, there is a high risk of failure, and we may never succeed in developing marketable products or generating product revenue.
- We may encounter substantial delays in our clinical trials, or our clinical trials may fail to demonstrate the safety and efficacy of our product candidates to the satisfaction of applicable regulatory authorities.
- It may be difficult for us to predict the time and cost of product development. Unforeseen problems may prevent further development or approval of our product candidates.
- We will require substantial additional financing to achieve our goals, and a failure to obtain necessary capital when needed would force us to delay, limit, reduce or terminate our product development or commercialization efforts.
- We rely, and expect to continue to rely, on third parties to conduct preclinical studies and clinical trials for our product candidates, and if they do not properly and successfully perform their obligations to us, we may not be able to obtain regulatory approvals for our product candidates.
- We face substantial competition from other pharmaceutical and biotechnology companies, which may result in others discovering, developing or commercializing products before, or more successfully, than we do.
- It is difficult and costly to protect our proprietary rights, and we may not be able to ensure their protection. If our patent position and other intellectual property rights do not adequately protect our product candidates, others could compete against us (including directly), which could materially harm our business, results of operations and financial condition.

Corporate Information

We were incorporated on November 16, 2007 under the laws of the State of Nevada as Tamandare Explorations Inc. On October 11, 2011, we changed our name to Tonix Pharmaceuticals Holding Corp. Our principal executive offices are located at 26 Main St., Suite 101, Chatham, New Jersey 07928, and our telephone number is (862) 904-8182. Our website addresses are www.tonixpharma.com, www.tonix.com, and www.krele.com. The information on our websites is not part of this prospectus. We have included our website addresses as a factual reference and do not intend them to be active links to our websites.

THE OFFERING

Common Stock offered by us	4,050,000 shares of Common Stock.
Common Stock to be outstanding immediately after this offering	Up to 26,762,341 shares of Common Stock.
Pre-Funded Warrants	We are also offering Pre-Funded Warrants to purchase up to 4,950,000 shares of Common Stock in lieu of shares of Common Stock to any purchaser whose purchase of shares of Common Stock in this offering would otherwise result in such purchaser, together with its affiliates and certain related parties, beneficially owning more than 4.99% (or, at the purchaser's election, 9.99%) of our outstanding Common Stock immediately following the consummation of this offering. The exercise price of each Pre-Funded Warrant will equal \$0.0001 per share. The Pre-Funded Warrants are immediately exercisable and will not expire prior to exercise. The Pre-Funded Warrants and Warrants are immediately separable and will be issued separately but will be purchased together in this offering. This prospectus supplement and the accompanying base prospectus also relate to the offering of the Common Stock issuable upon exercise of the Pre-Funded Warrants.
Series A Warrants	We are also offering Series A Warrants to purchase up to an aggregate of 9,000,000 shares of our Common Stock. The shares of Common Stock and Pre-Funded Warrants are being sold together with the Warrants. Each Series A Warrant has an exercise price per share of \$0.50 and will be exercisable immediately and will expire on the fifth anniversary of the date of issuance. This prospectus supplement and the accompanying base prospectus also relate to the offering of the Common Stock issuable upon exercise of the Series A Warrants.
Series B Warrants	We are also offering Series B Warrants to purchase up to an aggregate of 9,000,000 shares of our Common Stock. The shares of Common Stock and Pre-Funded Warrants are being sold together with the Warrants. Each One-Year Warrant has an exercise price per share of \$0.50 and will be exercisable immediately and will expire on the first anniversary of the date of issuance. This prospectus supplement and the accompanying base prospectus also relate to the offering of the Common Stock issuable upon exercise of the Series B Warrants.
Best Efforts	We have agreed to issue and sell the securities offered hereby to the purchasers through the Placement Agents, and the Placement Agents have agreed to offer and sell such securities on a "reasonable best efforts" basis. The Placement Agents are not required to sell any specific number or dollar amount of the securities offered hereby, but will use their reasonable best efforts to sell such securities. See the section entitled " <i>Plan of Distribution</i> " on page S-13 of this prospectus supplement.
Use of Proceeds	We currently intend to use the net proceeds from the sale of our securities under this prospectus for working capital and general corporate purposes, the build out of our manufacturing and research and development facilities, and the acquisition or licensing of approved products and products in development. See the section entitled " <i>Use of Proceeds</i> " on page S-8 of this prospectus supplement.

Risk Factors

Investing in our Common Stock involves a high degree of risk. See the “*Risk Factors*” section on page S-5 of this prospectus supplement and other information included or incorporated by reference into this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in our Common Stock.

Listing; Nasdaq symbol

Our Common Stock is listed on Nasdaq under the symbol “TNXP.” There is no established trading market for the Warrants and Pre-Funded Warrants, and we do not expect a market to develop. We do not intend to apply for a listing for any such warrants on any securities exchange or other nationally recognized trading system. Without an active trading market, the liquidity of the Warrants and Pre-Funded Warrants will be limited.

The number of shares of our Common Stock outstanding after this offering is based on 17,762,341 shares of our Common Stock outstanding as of September 27, 2023, and excludes, as of such date:

- 1,384,256 shares of our Common Stock issuable upon the exercise of options outstanding at a weighted average exercise price of \$89.10 per share;
- 7,003,196 shares of our Common Stock issuable upon the exercise of outstanding warrants at a weighted average exercise price of \$3.46 per share;
- 1,062,882 shares of Common Stock reserved for issuance under our equity incentive plan; and
- the shares of Common Stock issuable upon exercise of the Pre-Funded Warrants and Warrants issued hereunder.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should carefully consider the risk factors we describe in this prospectus supplement and in any related free writing prospectus that we may authorize to be provided to you or in any report incorporated by reference into this prospectus supplement, including our Annual Report on Form 10-K for the year ended December 31, 2022, or any Quarterly Report on Form 10-Q that is incorporated by reference into this prospectus supplement. Although we discuss key risks in those risk factor descriptions, additional risks not currently known to us or that we currently deem immaterial also may impair our business. Our subsequent filings with the SEC may contain amended and updated discussions of significant risks. We cannot predict future risks or estimate the extent to which they may affect our financial performance.

Risks Related to This Offering

Management will have broad discretion as to the use of the proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our Common Stock. Moreover, a portion of the proceeds from this offering is expected to be used for the build-out of our manufacturing and research and development capabilities, and the acquisition or licensing of approved products and products in development. Our failure to apply these and any of the funds from this offering effectively could have a material adverse effect on our business and cause the price of our Common Stock to decline.

You may experience dilution as a result of future equity offerings and other issuances of our Common Stock or other securities. In addition, this offering and future equity offerings and other issuances of our Common Stock or other securities may adversely affect our Common Stock price.

In order to raise additional capital, we may in the future offer additional shares of our Common Stock or other securities convertible into or exchangeable for our Common Stock at prices that may not be the same as the price per share in this offering. We may not be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our Common Stock or securities convertible into Common Stock in future transactions may be higher or lower than the price per share in this offering. You will incur dilution upon exercise of any outstanding stock options, warrants or upon the issuance of shares of Common Stock under our stock incentive programs. In addition, the sale of shares in this offering and any future sales of a substantial number of shares of our Common Stock in the public market, or the perception that such sales may occur, could adversely affect the price of our Common Stock. We cannot predict the effect, if any, that market sales of those shares of Common Stock or the availability of those shares of Common Stock for sale will have on the market price of our Common Stock.

An active trading market for our Common Stock may not be sustained.

Although our Common Stock is listed on The Nasdaq Capital Market, the market for our Common Stock has demonstrated varying levels of trading activity. Furthermore, the current level of trading may not be sustained in the future. The lack of an active market for our Common Stock may impair investors' ability to sell their shares at the time they wish to sell them or at a price that they consider reasonable, may reduce the fair market value of their shares and may impair our ability to raise capital to continue to fund operations by selling shares and may impair our ability to acquire additional intellectual property assets by using our shares as consideration.

Our stock price may be subject to substantial volatility, and stockholders may lose all or a substantial part of their investment.

Our Common Stock currently trades on The Nasdaq Capital Market. There is limited public float, and trading volume historically has been low and sporadic. As a result, the market price for our Common Stock may not necessarily be a reliable indicator of our fair market value. The price at which our Common Stock trades may fluctuate as a result of a number of factors, including the number of shares available for sale in the market, quarterly variations in our operating results, actual or anticipated announcements of new releases by us or competitors, the gain or loss of significant customers, changes in the estimates of our operating performance, market conditions in our industry and the economy as a whole.

Because we do not anticipate paying any cash dividends on our Common Stock in the foreseeable future, capital appreciation, if any, will be your sole source of gain.

We have never paid or declared any cash dividends on our Common Stock. We currently intend to retain earnings, if any, to finance the growth and development of our business and we do not anticipate paying any cash dividends in the foreseeable future. As a result, only appreciation of the price of our Common Stock will provide a return to our stockholders.

Resales of our Common Stock in the public market during this offering by our stockholders may cause the market price of our Common Stock to fall.

Sales of a substantial number of shares of our Common Stock could occur at any time. The issuance of new shares of our Common Stock could result in resales of our Common Stock by our current stockholders concerned about the potential ownership dilution of their holdings. In turn, these resales could have the effect of depressing the market price for our Common Stock.

This offering may cause the trading price of our Common Stock to decrease.

The price per share and accompanying Warrants, together with the number of shares of Common Stock we propose to issue and ultimately will issue if this offering is completed, may result in an immediate decrease in the market price of our Common Stock. This decrease may continue after the completion of this offering.

There is no public market for the Warrants or Pre-Funded Warrants being offered in this offering.

There is no established public trading market for the Warrants or Pre-Funded Warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the Warrants or Pre-Funded Warrants on any securities exchange or nationally recognized trading system. Without an active market, the liquidity of the Warrants and Pre-Funded Warrants will be limited.

Holders of our Warrants and Pre-Funded Warrants will have no rights as common stockholders until they acquire our Common Stock.

Until you acquire shares of our Common Stock upon exercise of your Warrants or Pre-Funded Warrants, you will have no rights with respect to shares of our Common Stock issuable upon exercise of your warrants. Upon exercise of your Warrants or Pre-Funded Warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

If we do not maintain a current and effective prospectus relating to the Common Stock issuable upon exercise of the Warrants, holders will only be able to exercise such warrants on a "cashless basis."

If we do not maintain a current and effective prospectus relating to the shares of Common Stock issuable upon exercise of the Warrants at the time that holders wish to exercise such warrants, they will only be able to exercise them on a "cashless basis," and under no circumstances would we be required to make any cash payments or net cash settle such warrants to the holders. As a result, the number of shares of Common Stock that holders will receive upon exercise of the Warrants will be fewer than it would have been had such holders exercised their Warrants for cash. Under the terms of the Warrants, we have agreed to use our best efforts to maintain a current and effective prospectus relating to the shares of Common Stock issuable upon exercise of such warrants until the expiration of such warrants. However, we cannot assure you that we will be able to do so. If we are unable to do so, the potential "upside" of the holder's investment in our company may be reduced.

The Warrants and Pre-Funded Warrants are speculative in nature.

The Warrants and Pre-Funded Warrants offered hereby do not confer any rights of Common Stock ownership on their holders, such as voting rights or the right to receive dividends, but rather merely represent the right to acquire shares of Common Stock at a fixed price. Specifically, commencing on the date of issuance, holders of the Pre-Funded Warrants may acquire the Common Stock issuable upon exercise of such warrants at an exercise price of \$0.0001 per share and holders of the Warrants may acquire the Common Stock issuable upon exercise of such warrants at an exercise price of \$0.50 per share. Moreover, following this offering, the market value of the Warrants and Pre-Funded Warrants is uncertain, and there can be no assurance that the market value of the Warrants and Pre-Funded Warrants will equal or exceed their public offering price.

The Warrants may not have any value.

The Series A Warrants and Series B Warrants each have an exercise price of \$0.50 per share and will be exercisable immediately and will expire on the fifth and first anniversaries of the date of issuance, respectively. In the event our Common Stock price does not exceed the exercise price of the Warrants during the period when the warrants are exercisable, the Warrants may not have any value.

This offering is being conducted on a “reasonable best efforts” basis.

The Placement Agents are offering the shares on a “reasonable best efforts” basis, and the Placement Agents are under no obligation to purchase any shares for its own account. The Placement Agents are not required to sell any specific number or dollar amount of shares of Common Stock in this offering but will use its best efforts to sell the securities offered in this prospectus supplement. As a “reasonable best efforts” offering, there can be no assurance that the offering contemplated hereby will ultimately be consummated.

Certain provisions of the Warrants and Pre-Funded Warrants could discourage an acquisition of us by a third party.

Certain provisions of the Warrants and Pre-Funded Warrants offered by this prospectus supplement could make it more difficult or expensive for a third party to acquire us. The Warrants and Pre-Funded Warrants prohibit us from engaging in certain transactions constituting “fundamental transactions” unless, among other things, the surviving entity assumes our obligations under the Warrants and Pre-Funded Warrants. Further, the Warrants provide that, in the event of certain transactions constituting “fundamental transactions,” with some exception, holders of such warrants will have the right, at their option, to require us to repurchase such warrants at a price described in such warrants. These and other provisions of the Warrants and Pre-Funded Warrants offered by this prospectus could prevent or deter a third party from acquiring us even where the acquisition could be beneficial to you.

USE OF PROCEEDS

We estimate the net proceeds to us from this offering will be approximately \$4.0 million, after deducting the Placement Agents' fees and estimated offering expenses payable to us. However, we may sell less than the maximum number of securities offered hereby, in which case the net proceeds would be less. There is no minimum amount that we will sell under this prospectus supplement. As a "reasonable best efforts" offering, there can be no assurance that the offering contemplated hereby will ultimately be consummated or will be consummated with the sale of fewer than the maximum number of securities offered hereby. We intend to use the net proceeds from the offering of securities under this prospectus for working capital and general corporate purposes, the build out of our manufacturing and research and development facilities, and the acquisition or licensing of approved products and products in development.

Although we may use a portion of the net proceeds of this offering for the acquisition or licensing, as the case may be, of additional technologies, other assets or businesses, or for other strategic investments or opportunities, except as set forth above we have no current understandings, agreements or commitments to do so.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

DESCRIPTION OF SECURITIES WE ARE OFFERING

We are offering (i) 4,050,000 shares of our Common Stock, (ii) 4,950,000 Pre-Funded Warrants to purchase up to shares of our Common Stock, (iii) Series A Warrants to purchase up to 9,000,000 shares of our Common Stock, and (iv) Series B Warrants to purchase up to 9,000,000 shares of our Common Stock. Each share of Common Stock and Pre-Funded Warrant is being sold together with one Series A Warrant and one Series B Warrant. Each Warrant is exercisable for one share of Common Stock. The shares of Common Stock, Pre-Funded Warrants and accompanying Series A Warrants and Series B Warrants will be issued separately. We are also registering the shares of our Common Stock issuable from time to time upon exercise of the Pre-Funded Warrants and Warrants offered hereby.

Common Stock

The material terms and provisions of our Common Stock and each other class of our securities that qualifies or limits our Common Stock are described in the section entitled “*Description of Common Stock*” beginning on page 7 of the accompanying prospectus.

We are authorized to issue 160,000,000 shares of our Common Stock and 5,000,000 shares of our preferred stock, \$0.001 par value per share.

Pre-Funded Warrants

The following summary of certain terms and provisions of Pre-Funded Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Pre-Funded Warrant, the form of which will be filed as an exhibit to a Current Report on Form 8-K that we will file with the SEC and that will be incorporated by reference into the registration statement of which this prospectus supplement forms a part. Prospective investors should carefully review the terms and provisions of the form of Pre-Funded Warrant for a complete description of the terms and conditions of the Pre-Funded Warrants.

Duration and Exercise Price

Each Pre-Funded Warrant offered hereby will have an initial exercise price of \$0.0001 per share. The Pre-Funded Warrants will be immediately exercisable and may be exercised at any time until the Pre-Funded Warrants are exercised in full. The exercise price and number of shares of Common Stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Common Stock and the exercise price.

Exercisability

The Pre-Funded Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering a duly executed exercise notice accompanied by payment in full for the number of shares purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Pre-Funded Warrant to the extent that the holder would own more than 4.99% (or, at the election of a purchaser, 9.99%) of the outstanding Common Stock immediately after exercise, except that upon at least 61 days’ prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder’s Pre-Funded Warrants up to 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Pre-Funded Warrants. No fractional shares of Common Stock will be issued in connection with the exercise of a Pre-Funded Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Cashless Exercise

In lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of Common Stock determined according to a formula set forth in the Pre-Funded Warrants.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Pre-Funded Warrants and generally including any reorganization, recapitalization or reclassification of our Common Stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding voting securities, the holders of the Pre-Funded Warrants will be entitled to receive upon exercise of the Pre-Funded Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Pre-Funded Warrants immediately prior to such fundamental transaction.

Transferability

Subject to applicable laws, a Pre-Funded Warrant may be transferred at the option of the holder upon surrender of the Pre-Funded Warrant to us together with the appropriate instruments of transfer.

Exchange Listing

We do not intend to list the Pre-Funded Warrants on any securities exchange or nationally recognized trading system.

Rights as a Stockholder

Except as otherwise provided in the Pre-Funded Warrants or by virtue of such holder's ownership of, the holders of the Pre-Funded Warrants do not have the rights or privileges of holders of our Common Stock, including any voting rights, until they exercise their Pre-Funded Warrants.

Series A Warrants

The following summary of certain terms and provisions of the Series A Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series A Warrants, the form of which will be filed as an exhibit to a Current Report on Form 8-K that we will file with the SEC and that will be incorporated by reference into the registration statement of which this prospectus supplement forms a part. Prospective investors should carefully review the terms and provisions of the form of Series A Warrant for a complete description of the terms and conditions of the Series A Warrants.

Duration and Exercise Price

Each Series A Warrant offered will have an initial exercise price of \$0.50 per share. The Series A Warrants will be exercisable immediately and will expire on the fifth anniversary of the date of issuance. The exercise price and number of shares of Common Stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Common Stock and the exercise price. Series A Warrants will be issued separately from the Common Stock, Series B Warrants and Pre-Funded Warrants and may be transferred separately immediately thereafter. For each share of Common Stock (or Pre-Funded Warrant, as applicable) purchased in this offering, one Series A Warrant will be issued. Each Series A Warrant is exercisable for one share of Series A Stock.

Exercisability

The Series A Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering a duly executed exercise notice accompanied by payment in full for the number of shares purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Series A Warrant to the extent that the holder would own more than 4.99% (or, at the election of a purchaser, 9.99%) of the outstanding Common Stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's Series A Warrants up to 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Series A Warrants. No fractional shares of Common Stock will be issued in connection with the exercise of a Series A Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Cashless Exercise

If, at the time a holder exercises its Series A Warrants, a registration statement registering the issuance of the shares of Common Stock underlying the Series A Warrants under the Securities Act is not then effective or available, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of Common Stock determined according to a formula set forth in the Series A Warrants.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series A Warrants and generally including any reorganization, recapitalization or reclassification of our Common Stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding voting securities, the holders of the Series A Warrants will be entitled to receive upon exercise of the Series A Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series A Warrants immediately prior to such fundamental transaction. In certain circumstances, the holder will have the right to receive the Black Scholes Value of the Series A Warrant calculated pursuant to a formula set forth in the Series A Warrants, payable either in cash or in the same type or form of consideration that is being offered and being paid to the holders of our Common Stock as described in the Series A Warrants.

Transferability

Subject to applicable laws, a Series A Warrant may be transferred at the option of the holder upon surrender of the Series A Warrant together with the appropriate instruments of transfer.

Exchange Listing

We do not intend to list the Series A Warrants on any securities exchange or nationally recognized trading system.

Right as a Stockholder

Except as otherwise provided in the Series A Warrants or by virtue of such holder's ownership of, the holders of the Series A Warrants do not have the rights or privileges of holders of our Common Stock, including any voting rights, until they exercise their Series A Warrants.

Series B Warrants

The following summary of certain terms and provisions of the Series B Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Series B Warrants, the form of which will be filed as an exhibit to a Current Report on Form 8-K that we will file with the SEC and that will be incorporated by reference into the registration statement of which this prospectus supplement forms a part. Prospective investors should carefully review the terms and provisions of the form of One-Year Warrant for a complete description of the terms and conditions of the Series B Warrants.

Duration and Exercise Price

Each Series B Warrant offered will have an initial exercise price of \$0.50 per share. The Series B Warrants will be exercisable immediately and will expire on the fifth anniversary of the date of issuance. The exercise price and number of shares of Common Stock issuable upon exercise is subject to appropriate adjustment in the event of stock dividends, stock splits, reorganizations or similar events affecting our Common Stock and the exercise price. Series B Warrants will be issued separately from the Common Stock, Series A Warrants and Pre-Funded Warrants and may be transferred separately immediately thereafter. For each share of Common Stock (or Pre-Funded Warrant, as applicable) purchased in this offering, one Series B Warrant will be issued. Each Series B Warrant is exercisable for one share of Common Stock.

Exercisability

The Series B Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering a duly executed exercise notice accompanied by payment in full for the number of shares purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the Series B Warrant to the extent that the holder would own more than 4.99% (or, at the election of a purchaser, 9.99%) of the outstanding Common Stock immediately after exercise, except that upon at least 61 days' prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's Series B Warrants up to 9.99% of the number of shares of Common Stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the Series B Warrants. No fractional shares of Common Stock will be issued in connection with the exercise of a Series B Warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price.

Cashless Exercise

If, at the time a holder exercises its Series B Warrants, a registration statement registering the issuance of the shares of Common Stock underlying the Series B Warrants under the Securities Act is not then effective or available, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of Common Stock determined according to a formula set forth in the Series B Warrants.

Fundamental Transaction

In the event of a fundamental transaction, as described in the Series B Warrants and generally including any reorganization, recapitalization or reclassification of our Common Stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding voting securities, the holders of the Series B Warrants will be entitled to receive upon exercise of the Series B Warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the Series B Warrants immediately prior to such fundamental transaction. In certain circumstances, the holder will have the right to receive the Black Scholes Value of the Series B Warrant calculated pursuant to a formula set forth in the Series B Warrants, payable either in cash or in the same type or form of consideration that is being offered and being paid to the holders of our Common Stock as described in the Series B Warrants.

Transferability

Subject to applicable laws, a Series B Warrant may be transferred at the option of the holder upon surrender of the One-Year Warrant together with the appropriate instruments of transfer.

Exchange Listing

We do not intend to list the Series B Warrants on any securities exchange or nationally recognized trading system.

Right as a Stockholder

Except as otherwise provided in the Series B Warrants or by virtue of such holder's ownership of, the holders of the Series B Warrants do not have the rights or privileges of holders of our Common Stock, including any voting rights, until they exercise their Series B Warrants.

PLAN OF DISTRIBUTION

A.G.P./Alliance Global Partners and Brookline Capital Markets, a division of Arcadia Securities, LLC (the "Placement Agents"), have agreed to act as our placement agents in connection with this offering subject to the terms and conditions of the placement agent agreement dated September 28, 2023. The Placement Agents are not purchasing or selling any of the securities offered by this prospectus supplement, nor are they required to arrange the purchase or sale of any specific number or dollar amount of securities, but has agreed to use its reasonable best efforts to arrange for the sale of all of the securities offered hereby. We will enter into a securities purchase agreement directly with the investors, at the investor's option, who purchase our securities in this offering. Investors who do not enter into a securities purchase agreement shall rely solely on this prospectus in connection with the purchase of our securities in this offering. We may not sell the entire amount of securities offered pursuant to this prospectus.

We will deliver the securities being issued to the investor upon receipt of such investor's funds for the purchase of the securities offered pursuant to this prospectus supplement. We expect to deliver the securities being offered pursuant to this prospectus supplement on or about October 3, 2023.

We have agreed to indemnify the Placement Agents against specified liabilities, including liabilities under the Securities Act, and to contribute to payments the placement agents may be required to make in respect thereof.

Fees and Expenses

We have engaged A.G.P. as our lead placement agent in connection with this offering and Brookline Capital Markets, a division of Arcadia Securities, LLC as our co-placement agent. This offering is being conducted on a "reasonable best efforts" basis and the Placement Agents have no obligation to buy any of the securities from us or to arrange for the purchase or sale of any specific number or dollar amount of securities. We have agreed to pay the Placement Agents a fee based on the aggregate proceeds as set forth in the table below.

	Per Share and Accompanying Warrants	Per Pre-Funded Warrant and Accompanying Warrants	Total
Public offering price	\$ 0.50	\$ 0.4999	\$ 4,499,505
Placement agent fees ⁽¹⁾	\$ 0.035	\$ 0.035	\$ 315,000
Proceeds, before expenses, to us ⁽²⁾	\$ 0.465	\$ 0.463	\$ 4,184,505

- (1) We have agreed to pay the Placement Agents a cash placement commission equal to 7.0% of the aggregate proceeds from the sale of the securities sold in this offering. We have also agreed to reimburse the Placement Agents for certain expenses incurred in connection with this offering.
- (2) The amount of the offering proceeds to us presented in this table does not give effect to any exercise of the Pre-Funded Warrants or Warrants being issued in this offering.

We have also agreed to reimburse the Placement Agents at closing for legal and other expenses incurred by them in connection with the offering in an aggregate amount up to \$100,000. We estimate the total expenses payable by us for this offering, excluding the Placement Agent fees and expenses, will be approximately \$150,000.

Regulation M

The Placement Agents may be deemed to be an underwriter within the meaning of Section 2(a)(11) of the Securities Act, and any commissions received by it and any profit realized on the resale of the shares sold by it while acting as principal might be deemed to be underwriting discounts or commissions under the Securities Act. As an underwriter, the Placement Agents would be required to comply with the requirements of the Securities Act and the Exchange Act, including, without limitation, Rule 415(a)(4) under the Securities Act and Rule 10b-5 and Regulation M under the Exchange Act. These rules and regulations may limit the timing of purchases and sales of shares by the Placement Agents acting as principal. Under these rules and regulations, the Placement Agents:

- may not engage in any stabilization activity in connection with our securities; and

- may not bid for or purchase any of our securities or attempt to induce any person to purchase any of our securities, other than as permitted under the Exchange Act, until it has completed its participation in the distribution.

Listing

Our Common Stock is listed on the Nasdaq Capital Market under the trading symbol “TNXP.” We do not intend to apply for a listing of the Warrants or Pre-Funded Warrants on any national securities exchange or other nationally recognized trading system.

Lock-Up Agreements

Our directors and executive officers have entered into lock-up agreements. Under these agreements, these individuals have agreed, subject to specified exceptions, not to sell or transfer any shares of Common Stock or securities convertible into, or exchangeable or exercisable for, our shares of Common Stock during a period ending 60 days after the date of this prospectus supplement, without first obtaining the written consent of the Placement Agents. Specifically, these individuals have agreed, in part, not to:

- sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open “put equivalent position” within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended;
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our securities, whether any such transaction is to be settled by delivery of our shares of Common Stock, in cash or otherwise;
- make any demand for or exercise any right with respect to the registration of any of our securities;
- publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge;
- or other arrangement relating to any of our securities.

Notwithstanding these limitations, these shares of Common Stock may be transferred under limited circumstances, including, without limitation, by gift, will or intestate succession.

In addition, we have agreed that, subject to certain exceptions, (i) we will not conduct any issuances of our Common Stock for a period of 50 days following closing of this offering and that (ii) we will not enter into a variable rate transaction for a period of 180 days following the closing of this offering.

Discretionary Accounts

The Placement Agents do not intend to confirm sales of the securities offered hereby to any accounts over which they have discretionary authority.

Other Activities and Relationships

The Placement Agents and certain of its affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The Placement Agents and certain of their affiliates have, from time to time, performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Placement Agents and certain of its affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the Placement Agents or their affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The Placement Agents and their affiliates may hedge such exposure by entering into transactions that consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the Common Stock offered hereby. Any such short positions could adversely affect future trading prices of the Common Stock offered hereby. The Placement Agents and certain of their affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

LEGAL MATTERS

The validity of the shares of Common Stock offered hereby will be passed upon for us by Brownstein Hyatt Farber Schreck, LLP, Las Vegas, Nevada. The validity of the other securities offered hereby will be passed upon for us by Lowenstein Sandler LLP, New York, New York. The Placement Agents are being represented by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., New York, New York.

EXPERTS

The consolidated balance sheets of Tonix Pharmaceuticals Holding Corp. and subsidiaries as of December 31, 2022 and 2021 and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years then ended have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements are incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

The abbreviated financial statements of the Tosymra® and Zembrace® Symtouch® Product Lines of Upsher-Smith Laboratories, LLC, which comprise the abbreviated statements of assets acquired as of March 31, 2023 and March 31, 2022 and the abbreviated statements of net product sales net of direct expenses for the years then ended, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing. The audit report covering the March 31, 2023 and 2022 abbreviated financial statements contains an emphasis of matter paragraph that describes that the abbreviated financial statements were prepared for the purpose of complying with the rules and regulations of the Securities and Exchange Commission (for inclusion in the filing of Form 8-K/A of Tonix Pharmaceuticals Holding Corp.) and are not intended to be a complete presentation of the Product Line's revenues and expenses. As a result, the abbreviated financial statements may not be suitable for another purpose.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities offered by this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus do not contain all of the information in the registration statement and its exhibits. For further information with respect to us and the securities offered by this prospectus supplement and the accompanying prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus supplement and the accompanying prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference.

We are subject to the information and periodic reporting requirements of the Exchange Act of 1934, as amended (the “Exchange Act”), and we file periodic reports, proxy statements and other information with the SEC. These periodic reports, proxy statements and other information are available for inspection and copying at the public reference room and website of the SEC referred to above. We maintain a website at <http://www.tonixpharma.com>. You may access our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained in, or that can be accessed through, our website is not incorporated by reference in, and is not part of, this prospectus, and any references to this website or any other website are inactive textual references only. You may also request a copy of these filings, at no cost, by writing us at 26 Main Street, Suite 101, Chatham, New Jersey 07928 or calling us at (862) 799-9155.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus supplement, which means important information may be disclosed to you by referring you to another document filed separately with the SEC. Any information incorporated by reference is deemed to be part of this prospectus supplement.

We incorporate by reference in this prospectus supplement the documents set forth below that have been previously filed with the SEC as well as any filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, on or after the date of this prospectus supplement and before the termination of the applicable offering; provided, however, that, except as specifically provided below, we are not incorporating any documents or information deemed to have been furnished rather than filed in accordance with SEC rules:

- [our Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on March 13, 2023;](#)
- [our Definitive Proxy Statement on Schedule 14A filed with the SEC on March 17, 2023;](#)
- [our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2023, filed with the SEC on May 8, 2023, and June 30, 2023, filed with the SEC on August 10, 2023;](#)
- our Current Reports on Form 8-K or Form 8-K/A filed with the SEC on [January 4, 2023, January 24, 2023, January 25, 2023, January 26, 2023, January 30, 2023, January 31, 2023, February 1, 2023, February 2, 2023, February 6, 2023, February 9, 2023, February 13, 2023, February 23, 2023, March 7, 2023, March 16, 2023, March 23, 2023, March 30, 2023, April 4, 2023, April 5, 2023, April 6, 2023, April 13, 2023, April 17, 2023, April 19, 2023, May 4, 2023, May 5, 2023, May 9, 2023, May 17, 2023, May 22, 2023, May 23, 2023, May 25, 2023, May 25, 2023, May 31, 2023, June 5, 2023, June 7, 2023, June 15, 2023, June 26, 2023, July 3, 2023, July 10, 2023, July 12, 2023, July 17, 2023, July 18, 2023, July 24, 2023, July 26, 2023, July 27, 2023, July 28, 2023, July 31, 2023, August 1, 2023, August 7, 2023, August 10, 2023, August 16, 2023, August 21, 2023, September 5, 2023, September 6, 2023, September 14, 2023, September 18, 2023, September 21, 2023, September 27, 2023 and September 29, 2023;](#) and

- the description of our Common Stock contained in our registration statement on [Form 8-A filed with the SEC on July 23, 2013](#), under the Exchange Act, as supplemented and updated by the description of our Common Stock set forth in [Exhibit 4.06](#) of our Annual Report on Form 10-K for the year ended December 31, 2022, including any amendment or report filed for the purpose of updating such description.

In addition, all documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, prior to the termination of the offering (excluding any information furnished rather than filed) shall be deemed to be incorporated by reference into this prospectus.

Notwithstanding the statements in the preceding paragraphs, no document, report or exhibit (or portion of any of the foregoing) or any other information that we have “furnished” to the SEC pursuant to the Securities Exchange Act of 1934, as amended shall be incorporated by reference into this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to:

Tonix Pharmaceuticals Holding Corp.
26 Mains Street, Suite 101
Chatham, New Jersey 07928
Attention: Investor Relations
Telephone (862) 799-9155

\$500,000,000



**Common Stock
Preferred Stock
Warrants
Units**

We may offer and sell, from time to time in one or more offerings, any combination of common stock, preferred stock, warrants, or units having an aggregate initial offering price not exceeding \$500,000,000. The preferred stock, warrants, and units may be convertible or exercisable or exchangeable for common stock or preferred stock or other securities of ours and have not been approved for listing on any market or exchange, and we have not made any application for such listing.

Each time we sell a particular class or series of securities, we will provide specific terms of the securities offered in a supplement to this prospectus. The prospectus supplement may also add, update or change information in this prospectus. You should read this prospectus and any prospectus supplement, as well as the documents incorporated by reference or deemed to be incorporated by reference into this prospectus, carefully before you invest in any securities.

This prospectus may not be used to offer or sell our securities unless accompanied by a prospectus supplement relating to the offered securities.

Our common stock is presently listed on The NASDAQ Global Market under the symbol "TNXP". On April 22, 2021, the last reported sale price of our common stock was \$1.03. Our common stock has recently experienced extreme volatility in price and trading volume. For example, on February 1, 2021 and February 11, 2021, the closing price of our common stock on The NASDAQ Global Market was \$0.97 and \$2.00, respectively, and daily trading volume on these days was approximately 20.2 million and 128.0 million shares, respectively. During this time, we made announcements regarding the addition of product candidates to our pipeline, and completed a \$70.0 million public offering of our common stock at \$1.20 per share. Investors that purchase shares of our common stock may lose a significant portion of their investments if the price of our common stock declines. Please see the section of this prospectus supplement titled "Risk Factors." Each prospectus supplement will indicate if the securities offered thereby will be listed on any securities exchange.

These securities may be sold directly by us, through dealers or agents designated from time to time, to or through underwriters or dealers or through a combination of these methods on a continuous or delayed basis. See "Plan of Distribution" in this prospectus. We may also describe the plan of distribution for any particular offering of our securities in a prospectus supplement. If any agents, underwriters or dealers are involved in the sale of any securities in respect of which this prospectus is being delivered, we will disclose their names and the nature of our arrangements with them in a prospectus supplement. The net proceeds we expect to receive from any such sale will also be included in a prospectus supplement.

Investing in our securities involves various risks. See "Risk Factors" beginning on page 3 of this prospectus and in the applicable prospectus supplement, and in the risks discussed in the documents incorporated by reference in this prospectus and in the applicable prospectus supplement, as they may be amended, updated or modified periodically in our reports filed with the Securities and Exchange Commission. You should carefully read and consider these risk factors before you invest in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

This prospectus is dated May 5, 2021

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ABOUT THIS PROSPECTUS

This prospectus is part of a shelf registration statement that we filed with the Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, we may sell any combination of the securities described in this prospectus in one or more offerings from time to time having an aggregate initial offering price of \$500,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide you with a prospectus supplement that describes the specific amounts, prices and terms of the securities we offer. The prospectus supplement also may add, update or change information contained in this prospectus. You should read carefully both this prospectus and any prospectus supplement together with additional information described below under the caption “Where You Can Find More Information.”

This prospectus does not contain all the information provided in the registration statement we filed with the SEC. You should read both this prospectus, including the section titled “Risk Factors,” and the accompanying prospectus supplement, together with the additional information described under the heading “Where You Can Find More Information.”

You should rely only on the information contained or incorporated by reference in this prospectus or a prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. This prospectus is not an offer to sell securities, and it is not soliciting an offer to buy securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or any prospectus supplement, as well as information we have previously filed with the SEC and incorporated by reference, is accurate as of the date on the front of those documents only. Our business, financial condition, results of operations and prospects may have changed since those dates.

OUR BUSINESS

Except where the context otherwise requires, the terms, “we,” “us,” “our” or “the Company,” refer to the business of Tonix Pharmaceuticals Holding Corp., a Nevada corporation and its wholly-owned subsidiaries.

Overview

We are a clinical-stage biopharmaceutical company focused on discovering, licensing, acquiring and developing small molecules and biologics to treat and prevent human disease and alleviate suffering. Tonix’s portfolio is primarily composed of central nervous system, or CNS, and immunology product candidates. The CNS portfolio includes both small molecules and biologics to treat pain, neurologic, psychiatric and addiction conditions. The immunology portfolio includes vaccines to prevent infectious diseases and biologics to address organ rejection, cancer, and autoimmune diseases. Our lead programs are TNX-102 SL*, a sublingual tablet for the management of fibromyalgia, or FM, and TNX-1800**, a live replicating virus vaccine to protect against COVID-19.

Our most advanced CNS product candidate is TNX-102 SL*, a proprietary sublingual tablet formulation of cyclobenzaprine, or CBP, designed for bedtime administration. TNX-102 SL has active investigational new drug applications, or INDs, for FM, posttraumatic stress disorder, or PTSD, agitation in Alzheimer’s disease, or AAD, and alcohol use disorder, or AUD. TNX-102 SL is in mid-Phase 3 development for the management of FM which is a pain disorder characterized by chronic widespread pain, non-restorative sleep, fatigue and impaired cognition. We reported positive results from its Phase 3 RELIEF study in December 2020 and expect interim analysis data from a second Phase 3 study, RALLY, in the third quarter of 2021¹, followed by topline data in the fourth quarter of 2021. We completed enrollment of 50% of participants in the RALLY study in March 2021. For TNX-102 SL in PTSD, we completed the Phase 3 RECOVERY trial and reported topline results in the fourth quarter of 2020 in which TNX-102 SL did not meet the primary efficacy endpoint. As a next step, we intend to meet with the U.S. Food and Drug Administration, or FDA, to discuss potential new endpoints for the indication of treatment of PTSD. PTSD is a serious psychiatric condition that develops in response to experiencing a traumatic event. The AAD program is Phase 2 ready with an active IND and FDA Fast Track designation. AAD, which includes emotional lability, restlessness, irritability, and aggression, is one of the most distressing and debilitating of the behavioral complications of Alzheimer’s disease. The AUD program is also Phase 2 ready with an active IND. AUD is a chronic relapsing brain disease characterized by compulsive alcohol use, loss of control over alcohol intake, and a negative emotional state when not using alcohol.

Other CNS candidates in development include TNX-1900* (intranasal potentiated oxytocin), which is in development as a candidate for prophylaxis of chronic migraine and for the treatment of craniofacial pain, insulin resistance and related conditions. TNX-1900 was acquired from Trigemina, Inc. in 2020 and licensed from Stanford University in 2020. We intend to submit an IND to the FDA in the third quarter of 2021 and initiate a Phase 2 study in migraine in the third quarter of 2021. Tonix also licensed technology to use TNX-1900 for the treatment of insulin resistance from the University of Geneva. TNX-2900* is another intranasal oxytocin-based therapeutic in development for the treatment of Prader-Willi syndrome, or PWS. The technology for TNX-2900 was licensed from the French National Institute of Health and Medical Research. PWS, an orphan condition, is a rare genetic disorder of failure to thrive in infancy, associated with uncontrolled appetite later in life.

TNX-601 CR* (tianeptine oxalate and naloxone controlled-release tablets) is another CNS product candidate in development as a treatment for major depressive disorder, or depression, as well as for PTSD and neurocognitive dysfunction associated with corticosteroid use. We completed a Phase 1 trial for formulation development outside of the U.S. Based on official minutes from a pre-IND meeting with the FDA, we expect to be in a position to initiate a Phase 2 study for the treatment of depression in the fourth quarter of 2021, pending results of toxicology studies.

TNX-1300** (double-mutant cocaine esterase) is also in Tonix's CNS portfolio and is in Phase 2 development for the treatment of life-threatening cocaine intoxication. TNX-1300 has been granted Breakthrough Therapy designation, or BT by the FDA. TNX-1300 was licensed from Columbia University in 2019 after a Phase 2 study showed that it rapidly and efficiently disintegrates cocaine in the blood of volunteers who had received intravenous, or *i.v.*, cocaine. We expect to initiate a Phase 2 open-label safety study of TNX-1300 in an emergency room setting in the second quarter of 2021.

Our immunology portfolio includes vaccines to prevent infectious diseases and biologics to address organ rejection, cancer, and autoimmune diseases. Our lead vaccine candidate, TNX-1800**, is a live replicating vaccine based on the horsepox viral vector platform to protect against COVID-19, primarily by eliciting a T cell immune response. We reported positive immune response data in non-human primates in the fourth quarter of 2020 and reported positive efficacy data from animal challenge studies using live SARS-CoV-2 in the first quarter of 2021. TNX-801**, a live horsepox virus vaccine for percutaneous administration, is in the pre-IND stages of development to protect against smallpox and monkeypox. Both TNX-1800 and TNX-801 are based on the proprietary horsepox viral vector platform. We expect to initiate a Phase 1 safety study of TNX-1800 for COVID-19 in the second half of 2021.

TNX-2100** is a skin test we are developing to measure SARS-CoV-2 exposure and T cell immunity. It is an intradermal test to measure delayed-type hypersensitivity (DTH) response to SARS-CoV-2. We have manufactured GMP peptides designed to stimulate SARS-CoV-2 specific T cells and expect to submit an IND to the FDA in the second quarter of 2021 and initiate clinical trials in the second half of 2021.

TNX-3500* (sangivamycin) is an antiviral inhibitor of SARS-CoV-2. It has demonstrated broad-spectrum activity in laboratory-based assays against the coronaviruses SARS-CoV-2 and MERS-CoV. Tonix licensed this compound from OyaGen, Inc. and intends to develop it as a treatment for COVID-19 and potentially other viral disorders. The active ingredient of TNX-3500 has been studied for safety in humans in prior studies on cancer patients at the U.S. National Cancer Institute but has not been approved for marketing in any jurisdiction. Tonix intends to conduct further animal studies and submit an IND in the second half of 2021.

TNX-1500** is monoclonal antibody, or mAb, directed against CD40-ligand, or CD40L, engineered to modulate binding to Fc receptors, that is being developed to prevent and treat organ transplant rejection and autoimmune conditions. We expect to have GMP product ready in the third quarter of 2021 for TNX-1500.

Finally, our preclinical pipeline includes TNX-1600*, TNX-1700**, TNX-701* and TNX-2300**. TNX-1600 is an inhibitor of the reuptake of neurotransmitters serotonin, norepinephrine and dopamine (a triple reuptake inhibitor). TNX-1600 was licensed from Wayne State University in 2019 and is being developed as a treatment for PTSD, depression and attention-deficit/hyperactivity disorder, or ADHD. TNX-1700 is a recombinant modified form of Trefoil Family Factor 2, or rTFF2, that was licensed from Columbia University in 2019, and is a biologic being developed to treat gastric and pancreatic cancers. TNX-701 is an undisclosed small molecule, which is being developed to prevent deleterious effects of radiation exposure which has the potential to be used as a medical countermeasure to improve biodefense. Tonix is also developing TNX-2300** as a second COVID-19 vaccine under an option agreement with Kansas State university. TNX-2300 is a live replicating viral vector based on the bovine parainfluenza virus.

¹Pending agreement from FDA on statistical analysis plan.

*TNX-102 SL, TNX-601 CR, TNX-1600, TNX-1900, TNX-2900, TNX-3500 and TNX-701 are investigational new drugs and have not been approved for any indication.

**TNX-1800, TNX-801, TNX-2300, TNX-2100, TNX-1300, TNX-1500 and TNX-1700 are investigational new biologics and have not been approved for any indication.

Corporate Information

We were incorporated on November 16, 2007 under the laws of the State of Nevada as Tamandare Explorations Inc. On October 11, 2011, we changed our name to Tonix Pharmaceuticals Holding Corp. Our common stock is listed on The NASDAQ Global Market under the symbol “TNXP”. Our principal executive offices are located at 26 Main Street, Suite 101, Chatham, New Jersey 07928, and our telephone number is (862) 904-8182. Our website addresses are www.tonixpharma.com, www.tonix.com, and www.krele.com. The information on our websites is not part of this prospectus. We have included our website addresses as a factual reference and do not intend them to be active links to our websites.

Risks Associated with Our Business and this Offering

Our business and our ability to implement our business strategy are subject to numerous risks, as more fully described in the section of this prospectus entitled “Risk Factors.” You should read these risks before you invest in our securities. We may be unable, for many reasons, including those that are beyond our control, to implement our business strategy. In particular, risks associated with our business include:

- There is substantial doubt about our ability to continue as a going concern, which may affect our ability to obtain future financing and may require us to curtail our operations. We will need to raise additional capital to support our operations.
- We have incurred losses since our inception and anticipate that we will continue to incur significant losses for the foreseeable future, and our future profitability is uncertain.
- Our product candidates must undergo rigorous clinical testing. Such clinical testing may fail to demonstrate safety and efficacy and any of our product candidates could cause undesirable side effects, which would substantially delay or prevent regulatory approval or commercialization.
- We are dependent on patents and proprietary technology. If we fail to adequately protect this intellectual property or if we otherwise do not have exclusivity for the marketing of our products, our ability to commercialize products could suffer.
- If our competitors are able to develop and market products that are more effective, safer or more affordable than ours are, or obtain marketing approval before we do, our commercial opportunities may be limited.
- We may not be able to manufacture, or otherwise secure the manufacture of, sufficient amounts of our product candidates for our preclinical studies and clinical trials.
- We may be unable to achieve and maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act.
- If you purchase our securities in this offering, you may incur dilution.
- We will have broad discretion in the use of the net proceeds from this offering and may not use them effectively.
- Our ability to advance our clinical development programs could be negatively impacted by the COVID-19 pandemic.

RISK FACTORS

Investing in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the risk factors set forth below and specific risk factors discussed in the sections entitled "Risk Factors" contained in our annual report on Form 10-K for the fiscal year ended December 31, 2020 under the heading "Item 1A. Risk Factors," and as described or may be described in any subsequent quarterly report on Form 10-Q under the heading "Item 1A. Risk Factors," as well as in any applicable prospectus supplement and contained or to be contained in our filings with the SEC and incorporated by reference in this prospectus, together with all of the other information contained in this prospectus, or any applicable prospectus supplement. For a description of these reports and documents, and information about where you can find them, see "Where You Can Find More Information" and "Incorporation of Certain Information by Reference." If any of the risks or uncertainties described in our SEC filings or any prospectus supplement or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected.

The market price of our common stock has been extremely volatile and may continue to be volatile due to numerous circumstances beyond our control.

The market price of our common stock has fluctuated, and may continue to fluctuate, widely, due to many factors, some of which may be beyond our control. These factors include, without limitation:

- "short squeezes";
- comments by securities analysts or other third parties, including blogs, articles, message boards and social and other media;
- large stockholders exiting their position in our common stock or an increase or decrease in the short interest in our common stock;
- actual or anticipated fluctuations in our financial and operating results;
- risks and uncertainties associated with the ongoing COVID-19 pandemic;
- the timing and allocations of new product candidates;
- public perception of our product candidates and competitive products; and
- overall general market fluctuations.

Stock markets in general and our stock price in particular have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies and our company. For example, on February 1, 2021 and February 11, 2021, the closing price of our common stock on The NASDAQ Global Market was \$0.97 and \$2.00, respectively, and daily trading volume on these days was approximately 20.2 million and 128.0 million shares, respectively. During this time, we made announcements regarding the addition of product candidates to our pipeline, and completed a \$70.0 million public offering of our common stock at \$1.20 per share. These broad market fluctuations may adversely affect the trading price of our common stock. In particular, a proportion of our common stock has been and may continue to be traded by short sellers which may put pressure on the supply and demand for our common stock, further influencing volatility in its market price. Additionally, these and other external factors have caused and may continue to cause the market price and demand for our common stock to fluctuate, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock.

A "short squeeze" due to a sudden increase in demand for shares of our common stock that largely could lead to extreme price volatility in shares of our common stock.

Investors may purchase shares of our common stock to hedge existing exposure or to speculate on the price of our common stock. Speculation on the price of our common stock may involve long and short exposures. To the extent aggregate short exposure exceeds the number of shares of our common stock available for purchase on the open market, investors with short exposure may have to pay a premium to repurchase shares of our common stock for delivery to lenders of our common stock. Those repurchases may in turn, dramatically increase the price of our common stock until additional shares of our common stock are available for trading or borrowing. This is often referred to as a "short squeeze." A proportion of our common stock has been and may continue to be traded by short sellers which may increase the likelihood that our common stock will be the target of a short squeeze. A short squeeze could lead to volatile price movements in shares of our common stock that are unrelated or disproportionate to our operating performance or prospectus and, once investors purchase the shares of our common stock necessary to cover their short positions, the price of our common stock may rapidly decline. Investors that purchase shares of our common stock during a short squeeze may lose a significant portion of their investment.

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements. Such forward-looking statements include those that express plans, anticipation, intent, contingency, goals, targets or future development and/or otherwise are not statements of historical fact. These forward-looking statements are based on our current expectations and projections about future events and they are subject to risks and uncertainties known and unknown that could cause actual results and developments to differ materially from those expressed or implied in such statements.

In some cases, you can identify forward-looking statements by terminology, such as “expects,” “anticipates,” “intends,” “estimates,” “plans,” “believes,” “seeks,” “may,” “should,” “could” or the negative of such terms or other similar expressions. Accordingly, these statements involve estimates, assumptions and uncertainties that could cause actual results to differ materially from those expressed in them. Any forward-looking statements are qualified in their entirety by reference to the factors discussed throughout this prospectus.

You should read this prospectus and any accompanying prospectus supplement and the documents that we reference herein and therein and have filed as exhibits to the registration statement, of which this prospectus is part, completely and with the understanding that our actual future results may be materially different from what we expect. You should assume that the information appearing in this prospectus and any accompanying prospectus supplement is accurate as of the date on the front cover of this prospectus or such prospectus supplement only. Because the risk factors referred to above, as well as the risk factors referred to on page 3 of this prospectus and incorporated herein by reference, could cause actual results or outcomes to differ materially from those expressed in any forward-looking statements made by us or on our behalf, you should not place undue reliance on any forward-looking statements. Further, any forward-looking statement speaks only as of the date on which it is made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which the statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time, and it is not possible for us to predict which factors will arise. In addition, we cannot assess the impact of each factor on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of the information presented in this prospectus and any accompanying prospectus supplement, and particularly our forward-looking statements, by these cautionary statements.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities offered by this prospectus for working capital and general corporate purposes.

The intended application of proceeds from the sale of any particular offering of securities using this prospectus will be described in the accompanying prospectus supplement relating to such offering. The precise amount and timing of the application of these proceeds will depend on our funding requirements and the availability and costs of other funds.

THE SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize all the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We will also include in the prospectus supplement information, where applicable, about material United States federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed.

We may sell from time to time, in one or more offerings:

- shares of our common stock;
- shares of our preferred stock;
- warrants to purchase any of the securities listed above; and/or
- units consisting of any of the securities listed above.

The terms of any securities we offer will be determined at the time of sale. We may issue securities that are exchangeable for or convertible into common stock or any of the other securities that may be sold under this prospectus. When particular securities are offered, a supplement to this prospectus will be filed with the SEC, which will describe the terms of the offering and sale of the offered securities.

DESCRIPTION OF COMMON STOCK

The following is a summary of all material characteristics of our common stock as set forth in our articles of incorporation and bylaws. The summary does not purport to be complete and is qualified in its entirety by reference to our articles of incorporation and bylaws, each as amended, and to the provisions of Chapters 78 and 92A of the Nevada Revised Statutes, as amended ("NRS").

Common Stock

We are authorized to issue up to 800,000,000 shares of our common stock, par value \$0.001 per share. As of April 22, 2021, there were 326,509,139 shares of our common stock issued and outstanding. The outstanding shares of our common stock are validly issued, fully paid and nonassessable.

Holders of our common stock are entitled to one vote for each share on all matters submitted to a stockholder vote. Holders of our common stock do not have cumulative voting rights. Therefore, holders of a majority of the shares of our common stock voting for the election of directors collectively hold the voting power to elect all of the directors. Holders of our common stock representing a majority of the voting power of our capital stock issued, outstanding and entitled to vote, represented in person or by proxy, are necessary to constitute a quorum at any meeting of stockholders. A vote by the holders of a majority of our outstanding shares is required to effectuate certain fundamental corporate changes such as dissolution, merger or an amendment to our articles of incorporation. However, a two-thirds vote is required for stockholders to amend our bylaws.

Subject to the rights of holders of shares of our preferred stock, if any, the holders of our common stock are entitled to share in all dividends that our board of directors, in its discretion, declares on our common stock from legally available funds. In the event of a liquidation, dissolution or winding up, each outstanding share of our common stock entitles its holder to participate pro rata in all assets that remain after payment of liabilities and after providing for each class of stock, if any, having preference over our common stock. Our common stock has no pre-emptive, subscription or conversion rights and there are no redemption provisions applicable to our common stock.

Transfer Agent and Registrar

The Transfer Agent and Registrar for our common stock is vStock Transfer, LLC, 18 Lafayette Place, Woodmere, NY 11598.

DESCRIPTION OF PREFERRED STOCK

The following is a summary of all material characteristics of our preferred stock as set forth in our articles of incorporation and bylaws. The summary does not purport to be complete and is qualified in its entirety by reference to our articles of incorporation and bylaws, each as amended, and to the provisions of Chapter 78 and 92A of the NRS.

Preferred Stock

We are authorized to issue up to 5,000,000 shares of preferred stock, par value \$0.001 per share, none of which are currently outstanding. Shares of our preferred stock may be issued in series, and each such series shall have such voting powers, full or limited, or no voting powers, and such designations, preferences and relative participating, optional or other special rights, and qualifications, limitations or restrictions thereof, as shall be stated and expressed in the certificate of designation relating to such series, as approved by our board of directors and filed with the Nevada Secretary of State. The board of directors is expressly vested with the authority to determine and fix in the resolution or resolutions providing for the issuances of preferred stock the voting powers, designations, preferences and rights, and the qualifications, limitations or restrictions thereof, of each such series to the full extent now or hereafter permitted by the laws of the State of Nevada.

Terms of the Preferred Stock That We May Offer and Sell to You

We summarize below some of the provisions that will apply to the preferred stock that we may offer to you unless the applicable prospectus supplement provides otherwise. This summary may not contain all information that is important to you. You should read the prospectus supplement, which will contain additional information and which may update or change some of the information below. Prior to the issuance of any new series of preferred stock, we will further amend our articles of incorporation, as amended, by way of a certificate of designation designating such series and setting forth its terms. We will file the certificate of designation that contains the terms of each new series of preferred stock with the Nevada Secretary of State, and we will file a copy of the certificate of designation with the SEC, each time we designate a new series of preferred stock. Each certificate of designation will establish the number of shares included in a designated series and fix the designation, powers, privileges, preferences and rights of the shares of each series as well as any applicable qualifications, limitations or restrictions. You should refer to our articles of incorporation, as amended, including the applicable certificate of designation relating to such series of preferred stock and all other then-effective certificates of designation, before deciding to buy shares of any series of our preferred stock as described in the applicable prospectus supplement.

Our board of directors has the authority, without further action by the stockholders, to issue preferred stock in one or more series and to fix the number of shares, dividend rights, conversion rights, voting rights, redemption rights, liquidation preferences, sinking funds, and any other rights, preferences, privileges and restrictions applicable to each such series of preferred stock.

The issuance of any preferred stock could adversely affect the rights of the holders of common stock and, therefore, reduce the value of the common stock. The ability of our board of directors to issue preferred stock could discourage, delay or prevent a takeover or other corporate action.

The terms of any particular series of preferred stock will be described in the prospectus supplement relating to that particular series of preferred stock, including, where applicable:

- the designation, stated value and liquidation preference of such preferred stock;
- the number of shares within the series;
- the offering price;
- the dividend rate or rates (or method of calculation), the date or dates from which dividends shall accrue, and whether such dividends shall be cumulative or noncumulative and, if cumulative, the dates from which dividends shall commence to cumulate;
- any redemption or sinking fund provisions;
- the amount that shares of such series shall be entitled to receive in the event of our liquidation, dissolution or winding-up;
- the terms and conditions, if any, on which shares of such series shall be convertible or exchangeable for shares of our stock of any other class or classes, or other series of the same class;
- the voting rights, if any, of shares of such series; the status as to reissuance or sale of shares of such series redeemed, purchased or otherwise reacquired, or surrendered to us on conversion or exchange;
- the conditions and restrictions, if any, on the payment of dividends or on the making of other distributions on, or the purchase, redemption or other acquisition by us or any subsidiary, of the common stock or of any other class of our shares ranking junior to the shares of such series as to dividends or upon liquidation;
- the conditions and restrictions, if any, on the creation of indebtedness by us or by any subsidiary, or on the issuance of any additional stock ranking on a parity with or prior to the shares of such series as to dividends or upon liquidation; and
- any additional dividend, liquidation, redemption, sinking or retirement fund and other rights, preferences, privileges, limitations and restrictions of such preferred stock.

The description of the terms of a particular series of preferred stock in the applicable prospectus supplement will not be complete. You should refer to our articles of incorporation, as amended, including the applicable certificate of designation relating to such series of preferred stock and all other then-effective certificates of designation, for complete information regarding a series of our preferred stock.

The preferred stock will, when issued against payment of the consideration payable therefore, be fully paid and nonassessable.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. If there are differences between that prospectus supplement and this prospectus, the prospectus supplement will control. Thus, the statements we make in this section may not apply to a particular series of warrants. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement which includes this prospectus.

General

We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we may issue under a separate agreement. We may enter into the warrant agreement with a warrant agent. Each warrant agent may be a bank that we select which has its principal office in the United States and a combined capital and surplus of at least \$50,000,000. We may also choose to act as our own warrant agent. We will indicate the name and address of any such warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the warrant agreement under which the warrants will be issued;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;
- anti-dilution provisions of the warrants, if any;
- the terms of any rights to redeem or call the warrants;

- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire or, if the warrants are not continuously exercisable during that period, the specific date or dates on which the warrants will be exercisable;
- the manner in which the warrant agreement and warrants may be modified;
- the identities of the warrant agent and any calculation or other agent for the warrants;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants;
- any securities exchange or quotation system on which the warrants or any securities deliverable upon exercise of the warrants may be listed; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 p.m. Eastern Time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate, and in the applicable prospectus supplement, the information that the holder of the warrant will be required to deliver to the warrant agent.

Until the warrant is properly exercised, no holder of any warrant will be entitled to any rights of a holder of the securities purchasable upon exercise of the warrant.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights By Holders of Warrants

Any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants in accordance with their terms.

Calculation Agent

Calculations relating to warrants may be made by a calculation agent, an institution that we appoint as our agent for this purpose. The prospectus supplement for a particular warrant will name the institution that we have appointed to act as the calculation agent for that warrant as of the original issue date for that warrant. We may appoint a different institution to serve as calculation agent from time to time after the original issue date without the consent or notification of the holders.

The calculation agent's determination of any amount of money payable or securities deliverable with respect to a warrant will be final and binding in the absence of manifest error.

DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

The applicable prospectus supplement will describe:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any unit agreement under which the units will be issued;
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

The applicable prospectus supplement will describe the terms of any units. The preceding description and any description of units in the applicable prospectus supplement does not purport to be complete and is subject to and is qualified in its entirety by reference to the unit agreement and, if applicable, collateral arrangements and depositary arrangements relating to such units.

PLAN OF DISTRIBUTION

We may sell the securities being offered pursuant to this prospectus through underwriters or dealers, through agents, or directly to one or more purchasers or through a combination of these methods. The applicable prospectus supplement will describe the terms of the offering of the securities, including:

- the name or names of any underwriters, if any, and if required, any dealers or agents;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any underwriting discounts and other items constituting underwriters' compensation;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

We may distribute the securities from time to time in one or more transactions at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to such prevailing market prices; or
- negotiated prices.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in an offering, we will execute an underwriting agreement with such underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement. The securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more investment banking firms or others, as designated. If an underwriting syndicate is used, the managing underwriter(s) will be specified on the cover of the prospectus supplement. If underwriters are used in the sale, the offered securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent and the underwriters will be obligated to purchase all of the offered securities if any are purchased.

We may grant to the underwriters options to purchase additional securities to cover over-allotments, if any, at the public offering price, with additional underwriting commissions or discounts, as may be set forth in a related prospectus supplement. The terms of any over-allotment option will be set forth in the prospectus supplement for those securities.

If we use a dealer in the sale of the securities being offered pursuant to this prospectus or any prospectus supplement, we will sell the securities to the dealer, as principal. The dealer may then resell the securities to the public at varying prices to be determined by the dealer at the time of resale. The names of the dealers and the terms of the transaction will be specified in a prospectus supplement.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, any agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

In connection with the sale of the securities, underwriters, dealers or agents may receive compensation from us or from purchasers of the securities for whom they act as agents in the form of discounts, concessions or commissions. Underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters or commissions from the purchasers for whom they may act as agents. Underwriters, dealers and agents that participate in the distribution of the securities, and any institutional investors or others that purchase securities directly and then resell the securities, may be deemed to be underwriters, and any discounts or commissions received by them from us and any profit on the resale of the securities by them may be deemed to be underwriting discounts and commissions under the Securities Act.

We may provide agents and underwriters with indemnification against particular civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to such liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

In addition, we may enter into derivative transactions with third parties (including the writing of options), or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with such a transaction, the third parties may, pursuant to this prospectus and the applicable prospectus supplement, sell securities covered by this prospectus and the applicable prospectus supplement. If so, the third party may use securities borrowed from us or others to settle such sales and may use securities received from us to close out any related short positions. We may also loan or pledge securities covered by this prospectus and the applicable prospectus supplement to third parties, who may sell the loaned securities or, in an event of default in the case of a pledge, sell the pledged securities pursuant to this prospectus and the applicable prospectus supplement. The third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement or in a post-effective amendment.

To facilitate an offering of a series of securities, persons participating in the offering may engage in transactions that stabilize, maintain, or otherwise affect the market price of the securities. This may include over-allotments or short sales of the securities, which involves the sale by persons participating in the offering of more securities than have been sold to them by us. In those circumstances, such persons would cover such over-allotments or short positions by purchasing in the open market or by exercising the over-allotment option granted to those persons. In addition, those persons may stabilize or maintain the price of the securities by bidding for or purchasing securities in the open market or by imposing penalty bids, whereby selling concessions allowed to underwriters or dealers participating in any such offering may be reclaimed if securities sold by them are repurchased in connection with stabilization transactions. The effect of these transactions may be to stabilize or maintain the market price of the securities at a level above that which might otherwise prevail in the open market. Such transactions, if commenced, may be discontinued at any time. We make no representation or prediction as to the direction or magnitude of any effect that the transactions described above, if implemented, may have on the price of our securities.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any agents or underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities. There is currently no market for any of the offered securities, other than our common stock which is listed on The NASDAQ Global Market. We have no current plans for listing of the preferred stock, warrants, units or subscription rights on any securities exchange or quotation system; any such listing with respect to any particular preferred stock, warrants, units or subscription rights will be described in the applicable prospectus supplement or other offering materials, as the case may be. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice.

In order to comply with the securities laws of some states, if applicable, the securities offered pursuant to this prospectus will be sold in those states only through registered or licensed brokers or dealers. In addition, in some states securities may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and complied with.

LEGAL MATTERS

The validity of the issuance of the shares of common stock and shares of preferred stock offered hereby will be passed upon for us by Brownstein Hyatt Farber Schreck, LLP, Las Vegas, Nevada. Lowenstein Sandler, LLP, New York, New York, will pass upon certain legal matters relating to the issuance and sale of the securities offered hereby on behalf of Tonix Pharmaceuticals Holding Corp.

EXPERTS

The consolidated balance sheets of Tonix Pharmaceuticals Holding Corp. and its subsidiaries as of December 31, 2020 and 2019 and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the years then ended have been audited by EisnerAmper LLP, independent registered public accounting firm, as stated in their report which is incorporated herein by reference, which report includes an explanatory paragraph about the existence of substantial doubt concerning the Company's ability to continue as a going concern. Such financial statements have been incorporated herein by reference in reliance on the report of such firm given upon their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus constitutes a part of a registration statement on Form S-3 filed under the Securities Act. As permitted by the SEC's rules, this prospectus and any prospectus supplement, which form a part of the registration statement, do not contain all the information that is included in the registration statement. You will find additional information about us in the registration statement. Any statements made in this prospectus or any prospectus supplement concerning legal documents are not necessarily complete and you should read the documents that are filed as exhibits to the registration statement or otherwise filed with the SEC for a more complete understanding of the document or matter.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read, without charge, and copy the documents we file at the SEC's public reference rooms in Washington, D.C. at 100 F Street, NE, Room 1580, Washington, DC 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms. Our SEC filings are also available to the public at no cost from the SEC's website at <http://www.sec.gov>.

INCORPORATION OF DOCUMENTS BY REFERENCE

We have filed a registration statement on Form S-3 with the Securities and Exchange Commission under the Securities Act. This prospectus is part of the registration statement but the registration statement includes and incorporates by reference additional information and exhibits. The Securities and Exchange Commission permits us to "incorporate by reference" the information contained in documents we file with the Securities and Exchange Commission, which means that we can disclose important information to you by referring you to those documents rather than by including them in this prospectus. Information that is incorporated by reference is considered to be part of this prospectus and you should read it with the same care that you read this prospectus. Information that we file later with the Securities and Exchange Commission will automatically update and supersede the information that is either contained, or incorporated by reference, in this prospectus, and will be considered to be a part of this prospectus from the date those documents are filed. We have filed with the Securities and Exchange Commission, and incorporate by reference in this prospectus:

- Annual Report on Form 10-K for the year ended December 31, 2020, filed on March 15, 2021;
- Definitive Proxy Statement on Schedule 14A, filed on March 31, 2021;
- Current Reports on Form 8-K, filed on, March 15, 2021, March 15, 2021, March 17, 2021, March 19, 2021, March 22, 2021, March 26, 2021, April 19, 2021, April 19, 2021 and April 19, 2021 (other than any portions thereof deemed furnished and not filed); and
- The description of our common stock contained in our Form 8-A, filed on July 23, 2013.

We also incorporate by reference all additional documents that we file with the Securities and Exchange Commission under the terms of Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, that are made after the initial filing date of the registration statement of which this prospectus is a part until the offering of the particular securities covered by a prospectus supplement or term sheet has been completed. We are not, however, incorporating, in each case, any documents or information that we are deemed to furnish and not file in accordance with Securities and Exchange Commission rules.

You may request, and we will provide you with, a copy of these filings, at no cost, by contacting us at:

Tonix Pharmaceuticals Holding Corp.
26 Main Street, Suite 101
Chatham, New Jersey 07928
Attention: Investor Relations
Telephone (862) 904-8182

4,050,000 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 4,950,000 Shares of Common Stock
Series A Warrants to Purchase up to 9,000,000 Shares of Common Stock
Series B Warrants to Purchase up to 9,000,000 Shares of Common Stock
Up to 22,950,000 Shares of Common Stock underlying such Pre-Funded Warrants, Series A Warrants and Series B Warrants



PROSPECTUS SUPPLEMENT

Lead Placement Agent

A.G.P.

Co-Placement Agent

Brookline Capital Markets
a division of Arcadia Securities, LLC

The date of this prospectus is September 28, 2023
