

**PROSPECTUS SUPPLEMENT**  
**(To Prospectus dated September 30, 2024)**



**Up to \$150,000,000**

**Common Stock**

On June 11, 2025, we entered into a certain sales agreement, or Sales Agreement, with A.G.P. / Alliance Global Partners, or A.G.P., relating to shares of our common stock offered by this prospectus. In accordance with the terms of the Sales Agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$150,000,000 from time to time through A.G.P.

Our common stock is quoted on The NASDAQ Capital Market ("Nasdaq") under the symbol "TNXP." On June 9, 2025, the last reported sale price of our common stock was \$39.20 per share.

Sales of our common stock, if any, under this prospectus may be made in sales deemed to be "at the market offerings" as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act. If authorized by us in writing, A.G.P. may also sell shares of our common stock in negotiated transactions at market prices prevailing at the time of sale or at prices related to such prevailing market prices. A.G.P. is not required to sell any specific number or dollar amount of securities, but will act as a sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between A.G.P. and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to A.G.P. for sales of common stock sold pursuant to the Sales Agreement will be equal to 3.0% of the gross proceeds of any shares of common stock sold under the Sales Agreement. In connection with the sale of the common stock on our behalf, A.G.P. will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of A.G.P. will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to A.G.P. with respect to certain liabilities, including liabilities under the Securities Act or the Exchange Act of 1934, as amended, or the Exchange Act.

*Investing in our common stock involves risks. See "Risk Factors" beginning on page S-4 of this prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus.*

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.

**A.G.P.**

June 11, 2025

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**PROSPECTUS**

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## **ABOUT THIS PROSPECTUS SUPPLEMENT**

This prospectus supplement and the accompanying prospectus are part of a shelf registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, utilizing a “shelf” registration process. This document is in two parts: (i) 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 and (ii) a shelf registration statement on Form S-3 (File No. 333-282270) that the SEC declared effective on September 30, 2024. Generally, when we refer to this prospectus, we are referring to all 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 Agent has 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 our 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 supplement and the accompanying prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus supplement and the accompanying 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.

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 obtain FDA approval for our lead product candidate, TNX-102 SL, and to successfully commercialize this product;
- our ability to successfully commercialize Tosymra and Zembrace;
- 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 ability to obtain FDA approval for any of our other product candidates;
- our current and future capital requirements to support our development efforts and our ability to satisfy our capital needs;
- 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; and
- our ability to adequately support growth.

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 anticipated in our forward-looking statements. Please see “Risk Factors” for additional risks which could adversely impact our business and financial performance.

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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 supplement, the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement or accompanying prospectus are based on information available to us on the date of this prospectus supplement, the accompanying 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 supplement, the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement and the accompanying 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 SUPPLEMENT, THE ACCOMPANYING PROSPECTUS AND THE DOCUMENTS INCORPORATED BY REFERENCE IN THIS PROSPECTUS SUPPLEMENT, POTENTIAL INVESTORS SHOULD KEEP IN MIND THAT THERE MAY BE OTHER POSSIBLE RISKS THAT COULD BE IMPORTANT.

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## PROSPECTUS SUPPLEMENT SUMMARY

*The following summary is qualified in its entirety by, and should be read together with, the more detailed information and financial statements and related notes thereto appearing elsewhere or incorporated by reference in this prospectus. Before you decide to invest in our securities, you should read the entire prospectus carefully, including the risk factors and the financial statements and related notes included or incorporated by reference in this prospectus.*

*Unless otherwise indicated or unless the context requires otherwise, this prospectus includes the accounts of Tonix Pharmaceuticals Holding Corp., a Nevada corporation and its wholly-owned subsidiaries, collectively referred to as “we”, “us”, “Tonix” or the “Company”.*

### Company Overview

Tonix is a fully integrated biotech company focused on transforming therapies for pain management and vaccines for public health challenges. Tonix’s development portfolio is focused on central nervous system disorders. Tonix’s priority is to advance TNX-102 SL, a product candidate for the management of fibromyalgia, for which a New Drug Application was submitted to the U. S. Food and Drug Administration (“FDA”) based on two statistically significant Phase 3 studies for the management of fibromyalgia and for which a Prescription Drug User Fee Act goal date of August 15, 2025 has been assigned for a decision on marketing authorization. The FDA has also granted Fast Track designation to TNX-102 SL for the management of fibromyalgia. TNX-102 SL is also being developed to treat acute stress reaction and acute stress disorder under a Physician-Initiated Investigational New Drug Application at the University of North Carolina in the OASIS study funded by the U.S. Department of Defense (“DoD”). Tonix’s immunology development portfolio consists of biologics to address organ transplant rejection, autoimmunity and cancer, including

TNX-1500, which is an Fc-modified humanized monoclonal antibody targeting CD40-ligand (CD40L or CD154) being developed for the prevention of allograft rejection and for the treatment of autoimmune diseases. Tonix's infectious disease portfolio includes TNX-801, a vaccine in development for mpox and smallpox, as well as TNX-4200 for which Tonix has a contract with the U.S. DoD's Defense Threat Reduction Agency for up to \$34 million over five years. TNX-4200 is a small molecule broad-spectrum antiviral agent targeting CD45 for the prevention or treatment of infections to improve the medical readiness of military personnel in biological threat environments. Tonix owns and operates a state-of-the art infectious disease research facility in Frederick, Maryland. Tonix Medicines, our commercial subsidiary, markets Zembrace<sup>®</sup> SymTouch<sup>®</sup> (sumatriptan injection) 3 mg and Tosymra<sup>®</sup> (sumatriptan nasal spray) 10 mg for the treatment of acute migraine with or without aura in adults.

Tonix's product development candidates are investigational new drugs or biologics; their efficacy and safety have not been established and have not been approved for any indication.

Zembrace SymTouch and Tosymra are registered trademarks of Tonix Medicines. All other marks are property of their respective owners.

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

## 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 Street, Suite 101, Chatham, New Jersey 07928, and our telephone number is (862) 904-8182. Our website addresses is [www.tonixpharma.com](http://www.tonixpharma.com), [tonix.com](http://tonix.com) and [www.krele.com](http://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.

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## THE OFFERING

<b>Issuer:</b>	Tonix Pharmaceuticals Holding Corp.
<b>Securities offered by us pursuant to this prospectus supplement:</b>	Common stock having an aggregate offering price of up to \$150,000,000.
<b>Common Stock outstanding after this offering:</b>	Up to 11,183,728, assuming the sale of 3,826,530 shares in this offering at a price of \$39.20 per share, which was the closing price on Nasdaq on June 9, 2025. The actual number of shares issued will vary depending on the sales price under this offering. In addition, as there is no minimum offering amount required as a condition to close this offering, the actual number of shares that may be sold is not determinable at this time.
<b>Use of proceeds:</b>	We intend to use the net proceeds from this offering, if any, for working capital and general corporate purposes. See <i>"Use of Proceeds"</i> on page S-5.
<b>Risk factors:</b>	Investing in our common stock involves significant risks. See <i>"Risk Factors"</i> beginning on page S-4 of this prospectus and other information included or incorporated by reference into this prospectus for a discussion of factors you should carefully consider before investing in our securities.
<b>Nasdaq Capital Market symbol:</b>	TNXP

The number of our common stock to be outstanding after the offering is based on 7,357,198 of our common stock outstanding as of June 9, 2025 and excludes:

- 1,146,142 shares of our common stock issuable upon the exercise of options outstanding at a weighted average exercise price of \$61,481.49 per share;
- 26,239 shares of our common stock issuable upon the exercise of outstanding warrants, including pre-funded warrants, at a weighted average exercise price of \$1,423.70 per share; and
- 2,730,842 shares of common stock reserved for issuance under our equity incentive plans.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding options or warrants described above.

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## 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, 2024, 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 Relating to this Offering

***You may experience immediate and substantial dilution in the net tangible book value per share of our common stock.***

The offering price per share of our common stock in this offering may exceed the net tangible book value per share of our common stock outstanding prior to this offering. For example, assuming that an aggregate of 3,826,530 shares of our common stock are sold pursuant to this prospectus at the assumed price of \$39.20 per share, which was the closing price on Nasdaq on June 9, 2025, for aggregate gross proceeds of \$150.0 million, and after deducting estimated aggregate offering expenses payable

by us, you would experience immediate dilution of \$8.79 per share, representing the difference between our as adjusted net tangible book value per share after giving effect to this offering and the assumed offering price.

See the section titled “*Dilution*” below for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

***We may allocate the net proceeds from this offering in ways that you or other stockholders may not approve.***

We currently intend to use the net proceeds of this offering, if any, for working capital and general corporate purposes, which may include capital expenditures, expenses associated with commercializing TNX-102 SL, research and development and manufacturing expenditures, regulatory affairs expenditures, clinical trial expenditures, acquisitions of new technologies and investments, and the financing of possible acquisitions or business expansions. This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from clinical trials, as well as any third party intellectual property or other assets that we may opportunistically identify and seek to license or acquire or any collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs. Because the number and variability of factors that will determine our use of the proceeds from this offering, their ultimate use may vary substantially from their currently intended use. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering and could spend the proceeds in ways that do not necessarily improve our operating results or enhance the value of our common stock. See “Use of Proceeds.”

***It is not possible to predict the aggregate proceeds resulting from sales made under the Sales Agreement.***

Subject to certain limitations in the Sales Agreement and compliance with applicable law, we have the discretion to deliver a placement notice to A.G.P. at any time throughout the term of the Sales Agreement. The number of shares that are sold through A.G.P. after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the sales period, the limits we set with A.G.P. in any applicable placement notice, and the demand for our common stock during the sales period. Because the price per share of each share sold will fluctuate during the sales period, it is not currently possible to predict the aggregate proceeds to be raised in connection with those sales.

***The common stock offered hereby will be sold in “at the market” offerings, and investors who buy shares at different times will likely pay different prices.***

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Investors who purchase shares in this offering at different times will likely pay different prices, and so may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and number of shares sold in this offering. In addition, subject to the final determination by our board of directors, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

***Substantial blocks of our common stock may be sold into the market as a result of sales of our common stock offered pursuant to this prospectus supplement.***

The price of our common stock could decline if there are substantial sales of shares of our common stock, if there is a large number of shares of our common stock available for sale, or if there is the perception that these sales could occur.

Any issuances of shares pursuant to this prospectus supplement will dilute the percentage ownership of stockholders and may dilute the per share projected earnings (if any) or book value of our common stock. Sales of a substantial number of such shares in the public market or other issuances of shares of our common stock, or the perception that these sales or issuances could occur, could cause the market price of our common stock to decline and may make it more difficult for you to sell your shares at a time and price that you deem appropriate.

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## USE OF PROCEEDS

We may receive up to \$150.0 million in aggregate gross proceeds under the Sales Agreement after the date of this prospectus supplement. We estimate that the net proceeds to us from the sale of our common stock pursuant to the Sales Agreement will be up to \$145.2 million, assuming that we sell \$150.0 million of our common stock pursuant to the Sales Agreement, and after deducting commissions and other estimated fees and expenses. We may sell fewer than all of the shares offered by this prospectus supplement, in which case our net offering proceeds will be less. Because we are not obligated to sell any shares of our common stock under the Sales Agreement, the actual total offering amount and proceeds to us, if any, are not determinable at this time. See “Plan of Distribution” elsewhere in this prospectus supplement for more information.

We currently intend to use the net proceeds from this offering, if any, for working capital and general corporate purposes.

The timing and amount of our actual expenditures will be based on many factors, including cash flows from operations and the anticipated growth of our business. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering. As a result, our management will have broad discretion regarding the timing and application of the net proceeds from this offering. Pending their ultimate use, we intend to invest the net proceeds in short-term, investment-grade, interest-bearing instruments.

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## DILUTION

The difference between the public offering price per share of our common stock in this offering and the as-adjusted net tangible book value per share after this offering constitutes immediate dilution to investors in this offering. Net tangible book value per share is determined by dividing our net tangible book value, which is our total tangible assets less total liabilities, by the number of outstanding shares of common stock.

As of March 31, 2025, our net tangible book value was approximately \$180.3 million, or approximately \$26.21 per share.

After giving effect to the assumed sale of our common stock in the aggregate amount of \$150,000,000 at an assumed offering price of \$39.20 per share, the closing price of our common stock on Nasdaq on June 9, 2025, and after deducting commissions and estimated offering expenses payable by us, our as-adjusted net tangible book value would have been approximately \$325.5 million, or approximately \$30.41 per share. This would represent an immediate increase in net tangible book value of \$4.20 per share to our existing stockholders and an immediate dilution of approximately \$8.79 per share to new investors participating in this offering.

The following table illustrates the dilution to the new investors on a per-share basis:

Assumed public offering price		\$	39.20
Historic net tangible book value per share as of March 31, 2025	\$	26.21	
Increase in net tangible book value per share attributable to new investors	\$	4.20	
As adjusted net tangible book value per share after this offering		\$	30.41
Dilution in as adjusted net tangible book value per share to new investors		\$	8.79

The table above assumes for illustrative purposes that an aggregate of 3,826,530 shares of our common stock are sold during the term of the Sales Agreement at a price of \$39.20 per share (the closing sale price of our common stock on Nasdaq on June 9, 2025) for aggregate gross proceeds of approximately \$150.0 million. The shares sold in this offering, if any, will be sold from time to time at various prices.

Information in the above table is based on 6,877,816 shares outstanding on March 31, 2025, and excludes:

- 1,146,142 shares of our common stock issuable upon the exercise of options outstanding at a weighted average exercise price of \$61,481.49 per share;
- 26,239 shares of our common stock issuable upon the exercise of outstanding warrants, including pre-funded warrants, at a weighted average exercise price of \$1,423.70 per share;
- 629,382 shares of our common stock sold, since March 31, 2025, pursuant to a Sales Agreement, dated July 30, 2024, between us and A.G.P./Alliance Global Partner; and
- 2,730,842 shares of common stock reserved for issuance under our equity incentive plans.

If any shares are issued in connection with outstanding options or warrants outstanding, investors will experience further dilution. In addition, we may choose to raise additional capital based on market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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#### DIVIDEND POLICY

We have never declared or paid cash dividends on our capital stock. We currently intend to retain our future earnings, if any, for use in our business and therefore do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors after taking into account various factors, including our financial condition, operating results, current and anticipated cash needs and plans for expansion.

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#### PLAN OF DISTRIBUTION

We have entered into the Sales Agreement with A.G.P. under which we may issue and sell shares of our common stock from time to time up to \$150,000,000 to or through A.G.P., acting as our sales agent. The sales of our common stock, if any, under this prospectus supplement will be made at market prices by any method deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act, including sales made directly on Nasdaq, on any other existing trading market for our common stock or to or through a market maker.

Each time that we wish to issue and sell shares of our common stock under the Sales Agreement, we will provide A.G.P. with a placement notice describing the amount of shares to be sold, the time period during which sales are requested to be made, any limitation on the amount of shares of common stock that may be sold in any single day, any minimum price below which sales may not be made or any minimum price requested for sales in a given time period and any other instructions relevant to such requested sales. Upon receipt of a placement notice, A.G.P., acting as our sales agent, will use commercially reasonable efforts, consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of Nasdaq, to sell shares of our common stock under the terms and subject to the conditions of the placement notice and the Sales Agreement. We or A.G.P. may suspend the offering of common stock pursuant to a placement notice upon notice and subject to other conditions.

Settlement for sales of common stock, unless the parties agree otherwise, will occur on the first trading day following the date on which any sales are made in return for payment of the net proceeds to us. There are no arrangements to place any of the proceeds of this offering in an escrow, trust or similar account. Sales of our common stock as contemplated in this prospectus supplement will be settled through the facilities of The Depository Trust Company or by such other means as we and A.G.P. may agree upon.

We will pay A.G.P. commissions for its services in acting as our sales agent in the sale of our common stock pursuant to the Sales Agreement. A.G.P. will be entitled to compensation at a fixed commission rate of 3.0% of the gross proceeds from the sale of our common stock on our behalf pursuant to the Sales Agreement. We have also agreed to reimburse A.G.P. for its reasonable and documented out-of-pocket expenses (including but not limited to the reasonable and documented fees and expenses of its legal counsel) in an amount not to exceed \$40,000.

We estimate that the total expenses for this offering, excluding compensation payable to A.G.P. and certain expenses reimbursable to A.G.P. under the terms of the Sales Agreement, will be approximately \$300,000. The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

Because there are no minimum sale requirements as a condition to this offering, the actual total public offering price, commissions and net proceeds to us, if any, are not determinable at this time. The actual dollar amount and number of shares of common stock we sell through this prospectus supplement will be dependent, among other things, on market conditions and our capital raising requirements.

We will report at least quarterly the number of shares of common stock sold through A.G.P. under the Sales Agreement, the net proceeds to us and the compensation paid by us to A.G.P. in connection with the sales of common stock under the Sales Agreement.

In connection with the sale of the common stock on our behalf, A.G.P. will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of A.G.P. will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to A.G.P. against certain civil liabilities, including liabilities under the Securities Act.

A.G.P. will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement if such activity would be prohibited under Regulation M or other anti-manipulation rules under the Securities Act. As our sales agent, A.G.P. will not engage in any transactions that stabilize our common stock.

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The offering pursuant to the Sales Agreement will terminate upon the earlier of (i) the sale of all shares of common stock subject to the Sales Agreement and (ii) termination of the Sales Agreement as permitted therein. We may terminate the Sales Agreement in our sole discretion at any time by giving 10 days’ prior notice to A.G.P. A.G.P. may terminate the Sales Agreement under the circumstances specified in the Sales Agreement and in its sole discretion at any time by giving 10 days’ prior notice to us.

A.G.P. and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us, for which services they have received and may in the future receive customary fees.

This prospectus supplement in electronic format may be made available on a website maintained by A.G.P. and A.G.P. may distribute this prospectus supplement electronically.

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## LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Brownstein Hyatt Farber Schreck, LLP, Las Vegas, Nevada.. A.G.P./Alliance Global Partners is being represented in connection with this offering 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, 2024 and 2023 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.

## 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 shares of Common Stock being 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 Common Stock 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 or calling us at (862) 904-8182.

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## INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

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

- the Company’s latest annual report on Form 10-K for the year ended December 31, 2024, as filed with the SEC on [March 18, 2025](#);
- the Company’s quarterly reports on Form 10-Q for the quarter ended March 31, 2025, as filed with the SEC on [May 12, 2025](#);
- the Company’s current reports on Form 8-K filed with the SEC on [January 8, 2025](#), [February 3, 2025](#), [February 4, 2025](#), [February 6, 2025](#), [February 21, 2025](#), [March 4, 2025](#), [March 4, 2025](#), [March 10, 2025](#), [March 24, 2025](#), [April 1, 2025](#), [April 9, 2025](#), [April 24, 2025](#), [April 25, 2025](#), [April 29, 2025](#), [May 8, 2025](#), [May 14, 2025](#), [May 21, 2025](#), and [June 11, 2025](#) (other than any portions thereof deemed furnished and not filed);
- the Company’s definitive proxy statement on Schedule 14A filed with the SEC on [March 31, 2025](#); and

- the description of the common stock contained in the Company's Registration Statement on Form 8-A (Registration No. 000-54879) filed with the SEC on [January 14, 2013](#), 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, 2024, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference all additional documents that we file with the SEC under the terms of Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act 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 SEC 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

You also may access these filings on our website at <http://www.tonixpharma.com>. We do not incorporate the information on our website into this prospectus or any supplement to this prospectus and you should not consider any information on, or that can be accessed through, our website as part of this prospectus or any supplement to this prospectus (other than those filings with the SEC that we specifically incorporate by reference into this prospectus or any supplement to this prospectus).

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

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## PROSPECTUS

\$300,000,000



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 \$300,000,000. 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 Capital Market under the symbol "TNXP". On September 19, 2024, the last reported sale price of our common stock was \$0.15. 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 September 30, 2024**

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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 \$300,000,000. 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

Tonix is a fully-integrated biopharmaceutical company focused on transforming therapies for pain management and modernizing solutions for public health challenges. Tonix’s development portfolio is focused on central nervous system (CNS) disorders. Tonix’s priority is to submit a New Drug Application (NDA) to the U.S. Food and Drug Administration (FDA) in October 2024 for TNX-102 SL, a product candidate for which two statistically significant Phase 3 studies have been completed for the management of fibromyalgia. The FDA has granted Fast Track designation to TNX-102 SL for the management of fibromyalgia. TNX-102 SL is also being developed to treat acute stress reaction. Tonix’s CNS portfolio includes TNX-1300 (cocaine esterase), a biologic in Phase 2 development designed to treat cocaine intoxication that has FDA Breakthrough Therapy designation. Tonix’s immunology development portfolio consists of biologics to address organ transplant rejection, autoimmunity and cancer, including TNX-1500, which is a humanized monoclonal antibody targeting CD40-ligand (CD40L or CD154) being developed for the prevention of allograft rejection and for the treatment of autoimmune diseases. Tonix also has product candidates in development in the areas of rare disease, including TNX-2900 for Prader-Willi syndrome, and infectious disease, including a vaccine for mpox, TNX-801 (horsepox, live-virus vaccine). Tonix recently announced the U.S. Department of Defense (DoD), Defense Threat Reduction Agency (DTRA) awarded it a contract for up to \$34 million over five years to develop TNX-4200, small molecule broad-spectrum antiviral agents targeting CD45 for the prevention or treatment of infections to improve the medical readiness of military personnel in biological threat environments. Tonix owns and operates a state-of-the art infectious disease research facility in Frederick, MD, instrumental in progressing the development of TNX-4200. Tonix Medicines, our commercial subsidiary, markets Zembrace<sup>®</sup> SymTouch<sup>®</sup> (sumatriptan injection) 3 mg and Tosymra<sup>®</sup> (sumatriptan nasal spray) 10 mg for the treatment of acute migraine with or without aura in adults.

Tonix Medicines, Inc. owns the Zembrace<sup>®</sup> SymTouch<sup>®</sup> and Tosymra<sup>®</sup> 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.

### 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](http://www.tonixpharma.com), [www.tonix.com](http://www.tonix.com), and [www.krele.com](http://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.

## 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 discussed in the sections entitled “Risk Factors” contained in our annual report on Form 10-K for the fiscal year ended December 31, 2023 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.*

## 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 1,000,000,000 shares of our common stock, par value \$0.001 per share. As of September 19, 2024, there were 137,256,441 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 can 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. The shares of preferred stock may be issued in series, and 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 resolution or resolutions providing for the issuance of such stock adopted from time to time by the board of directors. 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 a new series of preferred stock, we will further amend our articles of incorporation, as amended, designating the stock of that series and the terms of that series. We will file a copy of the certificate of designation that contains the terms of each new series of preferred stock with the Nevada Secretary of State and the SEC each time we issue 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 the applicable certificate of designation as well as our articles of incorporation, as amended, before deciding to buy shares 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.

## 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 subsidiaries as of December 31, 2023 and 2022 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.

## **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:

- our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on [April 1, 2024](#);
- our Definitive Proxy Statement on Schedule 14A filed with the SEC on [April 15, 2024](#);
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2024 and June 30, 2024, filed with the SEC on [May 13, 2024](#) and [August 16, 2024](#);
- our Current Reports on Form 8-K or Form 8-K/A filed with the SEC on [January 2, 2024](#), [January 8, 2024](#), [January 19, 2024](#), [January 25, 2024](#), [January 29, 2024](#), [January 31, 2024](#), [February 12, 2024](#), [February 13, 2024](#), [February 15, 2024](#), [February 27, 2024](#), [February 28, 2024](#), [March 5, 2024](#), [March 6, 2024](#), [March 7, 2024](#), [March 11, 2024](#), [March 19, 2024](#), [March 20, 2024](#), [March 21, 2024](#), [March 25, 2024](#), [March 29, 2024](#), [April 1, 2024](#), [May 13, 2024](#), [May 21, 2024](#), [May 22, 2024](#), [May 22, 2024](#), [May 30, 2024](#), [June 3, 2024](#), [June 6, 2024](#), [June 6, 2024](#), [June 10, 2024](#), [June 13, 2024](#), [June 14, 2024](#), [June 20, 2024](#), [June 26, 2024](#), [June 28, 2024](#), [July 1, 2024](#), [July 8, 2024](#), [July 10, 2024](#), [July 16, 2024](#), [July 24, 2024](#), [July 25, 2024](#), [July 30, 2024](#), [August 9, 2024](#), [August 12, 2024](#), [August 19, 2024](#), [August 20, 2024](#), [August 26, 2024](#), [August 29, 2024](#), [August 30, 2024](#), [September 6, 2024](#), [September 9, 2024](#), [September 10, 2024](#), [September 16, 2024](#) and [September 19, 2024](#); 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, 2023, including any amendment or report filed for the purpose of updating such description.

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



Up to \$150,000,000

Common Stock

PROSPECTUS SUPPLEMENT

A.G.P.

The date of this prospectus supplement is June 11, 2025