

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON D.C. 20549

FORM S-1/A  
(Amendment No. 2)

REGISTRATION STATEMENT  
UNDER  
THE SECURITIES ACT OF 1933

**TONIX PHARMACEUTICALS HOLDING CORP.**

(Name of registrant in its charter)

**Nevada**

(State or other Jurisdiction  
of Incorporation or Organization)

**1000**

(Primary Standard Industrial  
Classification Code Number)

**26-1434750**

(I.R.S. Employer  
Identification No.)

**509 Madison Avenue, Suite 306  
New York, New York  
(212) 980-9155**

(Address and telephone number of principal executive offices and principal place of business)

**Seth Lederman, Chief Executive Officer  
Tonix Pharmaceuticals Holding Corp.  
509 Madison Avenue, Suite 306  
New York, New York  
(212) 980-9155**

(Name, address and telephone number of agent for service)

Copies to:

**Marc J. Ross, Esq.  
James M. Turner, Esq.  
Sichenzia Ross Friedman Ference LLP  
61 Broadway, 32nd Flr.  
New York, New York 10006  
(212) 930-9700  
(212) 930-9725 (fax)**

**APPROXIMATE DATE OF PROPOSED SALE TO THE PUBLIC:**

From time to time after this Registration Statement becomes effective.

If any securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \_\_\_\_\_

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \_\_\_\_\_

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. \_\_\_\_\_

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a small reporting company. See definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

### CALCULATION OF REGISTRATION FEE

Title of Each Class Of Securities To Be Registered	Amount To Be Registered (1)	Proposed Maximum Offering Price Per Security (2)	Proposed Maximum Aggregate Offering Price	Amount Of Registration Fee
Common Stock, \$.001 par value	8,904,167	\$ 0.50	\$ 4,452,083.50	\$ 607.26
Common Stock, \$.001 par value issuable upon exercise of warrants exercisable at \$0.60 per share	8,904,167	\$ 0.60	\$ 5,342,500.20	\$ 728.72
<b>Total</b>	<b>17,808,334</b>		<b>\$ 9,794,583.70</b>	<b>\$ 1,335.98 (3)</b>

- (1) Includes shares of our common stock, par value \$0.001 per share, which may be offered pursuant to this registration statement, which shares are issuable upon exercise of warrants held by the selling stockholders. In addition to the shares set forth in the table, the amount to be registered includes an indeterminate number of shares issuable upon exercise of the warrants, as such number may be adjusted as a result of stock splits, stock dividends and similar transactions in accordance with Rule 416. The number of shares of common stock registered hereunder represents a good faith estimate by us of the number of shares of common stock issuable upon exercise of the warrants. For purposes of estimating the number of shares of common stock to be included in this registration statement, we calculated a good faith estimate of the number of shares of our common stock that we believe will be issuable upon exercise of the warrants to account for market fluctuations, and antidilution and price protection adjustments, respectively. Should the conversion ratio result in our having insufficient shares, we will not rely upon Rule 416, but will file a new registration statement to cover the resale of such additional shares should that become necessary. In addition, should a decrease in the exercise price as a result of an issuance or sale of shares below the then current market price, result in our having insufficient shares, we will not rely upon Rule 416, but will file a new registration statement to cover the resale of such additional shares should that become necessary.
- (2) Estimated solely for purposes of calculating the registration fee in accordance with Rule 457(c) and Rule 457(g) under the Securities Act of 1933, using the average of the high and low price as reported on the OTCQB on January 24, 2013, which was \$0.50 per share.
- (3) Fee previously paid.

**The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.**

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### **Explanatory Note**

This Amendment No. 2 to the Registration Statement on Form S-1, as amended (Registration No. 333-186223), of Tonix Pharmaceuticals Holding Corp. is filed for the sole purpose of filing the XBRL files as exhibits to such Registration Statement. This Amendment No. 2 does not modify any provision of the prospectus constituting Part I or the other Items of Part II of the Registration Statement. Accordingly, the prospectus has not been included in this Amendment No. 2.

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## PART II

### INFORMATION NOT REQUIRED IN PROSPECTUS

#### ITEM 13. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION.

The following table sets forth the estimated costs and expenses to be incurred in connection with the issuance and distribution of the securities registered under this Registration Statement. All amounts are estimates except the Securities and Exchange Commission registration fee. The total expenses for this offering, borne solely by the registrant, are estimated to be approximately \$106,336, including:

SEC registration fee	\$ 1,336
Legal fees and expenses	\$ 60,000
Accounting fees and expenses	\$ 40,000
Miscellaneous expenses	\$ 5,000
Total	\$ 106,336

#### ITEM 14. INDEMNIFICATION OF DIRECTORS AND OFFICERS.

Our bylaws, as amended, provide to the fullest extent permitted by Nevada law, our directors or officers shall not be personally liable to us or our shareholders for damages for breach of such director's or officer's fiduciary duty. The effect of this provision of our bylaws, as amended, is to eliminate our right and our shareholders (through shareholders' derivative suits on behalf of our company) to recover damages against a director or officer for breach of the fiduciary duty of care as a director or officer (including breaches resulting from negligent or grossly negligent behavior), except under certain situations defined by statute. We believe that the indemnification provisions in our bylaws, as amended, are necessary to attract and retain qualified persons as directors and officers.

Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

#### ITEM 15. RECENT SALES OF UNREGISTERED SECURITIES.

During the past three years, the registrant has sold the following securities which were not registered under the Securities Act of 1933, as amended.

On October 7, 2011, we issued 22,666,667 shares of our common stock to the shareholders of Tonix Sub in exchange for 100% of the issued and outstanding shares of common stock of Tonix Sub. The shares were issued to accredited investors pursuant to Rule 506 of Regulation D or non-U.S. Persons pursuant to Rule 903 of Regulation S of the Securities Act of 1933, as amended.

On October 7, 2011, we issued 400,000 shares of our common stock to a placement agent in connection with an amendment to a placement agent agreement. The shares were issued to an accredited investor pursuant to Rule 506 of Regulation D or Section 4(2) of the Securities Act of 1933, as amended.

Between October and November 2011, we sold to certain investors (the "Purchasers") for aggregate cash proceeds of \$1,575,000, secured convertible debentures (the "Debentures") in the principal face amount of \$1,575,000 and the exchange of \$500,000 in previously issued notes of Tonix Sub that were converted into Debentures in the principal face amount of \$500,000 (the "2011 Financing"). The Debentures were sold to accredited investors pursuant to Rule 506 of Regulation D or non-U.S. Persons pursuant to Rule 903 of Regulation S of the Securities Act of 1933, as amended.

The Debentures mature on the earlier of (i) one year from the date of issuance or (ii) the date of closing of a private placement of equity, equity equivalent, convertible debt or debt financing in which we receive gross proceeds, in one or more transactions, of at least \$3,425,000 (a "Subsequent Financing"). The Debentures bear interest at 8% per annum and are convertible at the holder's option into a Subsequent Financing. In the event that a Subsequent Financing has not occurred within 12 months from the date of issuance of the Debenture, the holder has the option to convert the Debenture into a number of shares of our common stock equal to 1% of our shares of common stock on a fully diluted basis for every \$125,000 of Debentures (the "Conversion Shares").

In addition, upon conversion or repayment of the Debenture, the holder is entitled to receive, at the holder's option, either (i) a warrant (the "Warrant") to purchase such number of shares of common stock equal to the principal amount of the Debenture divided by the offering price in a Subsequent Financing (the "Warrant Shares") or (ii) shares of our common stock equal to 33% of the principal amount of the Debenture divided by the offering price in a Subsequent Financing (the "Incentive Shares").

In connection with the 2011 Financing, placement agents earned warrants to purchase shares of our common stock equal to 3% or 9% of the gross proceeds delivered by Purchasers introduced by such placement agents in the 2011 Financing divided by the purchase price per share in the Subsequent Financing (collectively, the "2011 Agent Warrants"). In the event that the Subsequent Financing has not occurred within 12 months from the date of issuance of the Debentures, the placement agents will receive, in lieu of the 2011 Agent Warrants, shares of common stock equal to 3% or 9% of the number of shares of our common stock such Purchasers introduced by such placement agent in the 2011 Financing are entitled to receive upon conversion of their Debentures.

Between January and March, 2012, we consummated the 2012 Financing pursuant to which we issued an aggregate of 264,7106 Units to certain investors for aggregate cash proceeds of \$4,692,765 and the exchange of \$1,925,000 in previously issued debentures that were converted into Units.

Each Unit had a purchase price of \$25,000 per Unit and consisted of twenty five thousand (25,000) shares of our Common Stock, 25,000 Class A Warrants and 25,000 Class B Warrants.

The Class A Warrants have an exercise price of \$1.25 per share of Common Stock and will be exercisable for a period of five years from the date of issuance. The Class B Warrants were not exercisable by the Purchasers and would be exercised automatically on their expiration date by cashless exercise or expire without exercise. Effective April 24, 2012, the Class B Warrants expired unexercised.

In connection with the Financing, we issued Dawson James 466,777 2012 Agent Warrants.

Between October and November 2012, we issued promissory notes in the amount of \$320,000 (the "Notes") in exchange for \$320,000 borrowed from six affiliated investors. The Notes bear no interest and were payable on demand.

On November 14, 2012, we sold to accredited investors for aggregate cash proceeds of \$390,000, convertible debentures (the "Debentures") in the principal face amount of \$390,000 and the exchange of the Notes for Debentures in the principal face amount of \$320,000.

The Debentures mature on the earlier of (i) November 14, 2013 or (ii) the date of closing of a private placement of equity, equity equivalent, convertible debt or debt financing in which we receive gross proceeds, in one or more transactions, of at least \$100,000 (a "Subsequent Financing"). The Debentures bear interest at 8% per annum and are convertible at the holder's option into either (i) a Subsequent Financing at a price equal to a 25% discount to the price of securities sold in the Subsequent Financing or (ii) shares of our common stock at a conversion price per share equal to \$1.00.

In December 2012, the Company issued an aggregate of 8,904,167 units (“Units”) to certain accredited investors (the “Purchasers”) for aggregate cash proceeds of \$2,615,000, at a price per Unit of \$0.40, and the exchange of \$710,000 in previously issued convertible debentures (the “Prior Debentures”) of the Company that were converted into Units at a price of \$0.30 per Unit.

Each Unit consisted of one share of the Company’s common stock, \$0.001 par value (the “Common Stock”), a Class A Warrant to purchase one share of Common Stock (the “Class A Warrants”), and a Class B Warrant to purchase one share of Common Stock (the “Class B Warrants” and together with the Class A Warrants, the “Warrants”). The Class A Warrants have an exercise price of \$0.60 per share of Common Stock and will be exercisable for a period of five years from the date of issuance. The Class A Warrants may be exercised on a cashless basis under certain circumstances. The Class B Warrants have an exercise price of \$0.40 per share of Common Stock and will be exercisable for a period of one year from the date of issuance.

#### **ITEM 16. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES.**

The following exhibits are included as part of this Form S-1. References to “the Company” in this Exhibit List mean Tonix Pharmaceuticals Holding Corp., a Nevada corporation.

- 2.01 Share Exchange Agreement, dated as of October 7, 2011 by and among Tamandare Explorations Inc., David J. Moss, Tonix Pharmaceuticals, Inc. and the shareholders of Tonix Pharmaceuticals, Inc. filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 3.01 Articles of Incorporation, filed as an exhibit to the Registration Statement on Form S-1, filed with the Securities and Exchange Commission (the “Commission”) on April 9, 2008 and incorporated herein by reference.
- 3.02 Articles of Merger between Tamandare Explorations Inc. and Tonix Pharmaceuticals Holding Corp., effective October 11, 2011, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 17, 2011 and incorporated herein by reference.
- 3.03 Amended and Restated Bylaws, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on February 23, 2012 and incorporated herein by reference.
- 5.01 Opinion of Sichenzia Ross Friedman Ference LLP, filed as an exhibit to the Registration Statement on Form S-1, filed with the Commission on January 25, 2013 and incorporated herein by reference.
- 10.01 Feasibility and Option Agreement, dated as of June 20, 2007, by and between Krele Pharmaceuticals, Inc. (now, Tonix Pharmaceuticals, Inc.) and Lipocine, Inc., filed as an exhibit to the amended Current Report on Form 8-K/A, filed with the Commission on April 3, 2012 and incorporated herein by reference. †
- 10.02 Consulting Agreement, dated as of June 4, 2010, by and between Krele Pharmaceuticals, Inc. (now, Tonix Pharmaceuticals, Inc.) and Lederman & Co., LLC, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.03 Technology Transfer and Assignment Agreement, dated as of June 4, 2010, by and between Krele Pharmaceuticals, Inc. (now, Tonix Pharmaceuticals, Inc.) and Lederman & Co., LLC, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.04 Lease Agreement, dated as of September 28, 2010, by and between 509 Madison Avenue Associates, L.P. and Tonix Pharmaceuticals, Inc., filed as an exhibit to the amended Current Report on Form 8-K/A, filed with the Commission on February 3, 2012 and incorporated herein by reference.

- 10.05 Amendment to Feasibility and Option Agreement, dated as of October 4, 2010, by and between Tonix Pharmaceuticals, Inc. and Lipocine, Inc., filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference. †
- 10.06 Engagement Agreement, dated as of October 6, 2010, by and between Tonix Pharmaceuticals, Inc. and Frost and Sullivan, filed as an exhibit to the amended Current Report on Form 8-K/A, filed with the Commission on April 3, 2012 and incorporated herein by reference.
- 10.07 Amendment to Consulting Agreement, dated as of December 9, 2010, by and between Tonix Pharmaceuticals, Inc. and Lederman & Co., LLC, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.08 Employment Agreement, dated as of April 1, 2011, by and between Tonix Pharmaceuticals, Inc. and Rhonda Rosen, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.09 Employment Agreement, dated as of April 1, 2011, by and between Tonix Pharmaceuticals, Inc. and Benjamin A. Selzer, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.10 Employment Agreement, dated as of April 1, 2011, by and between Tonix Pharmaceuticals, Inc. and Susan Oliver (now, Susan Kerridge), filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.11 API Supply and Development Agreement, dated as of April 7, 2011, by and between Tonix Pharmaceuticals, Inc. and JFC Technologies, Inc., filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.12 Consulting Agreement, dated as of June 2, 2011, by and between Tonix Pharmaceuticals, Inc. and Pharmanet Canada, Inc., filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.13 Amendment to Employment Agreement, dated as of July 27, 2011, by and between Tonix Pharmaceuticals, Inc. and Rhonda Rosen, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.14 Amendment to Employment Agreement, dated as of July 27, 2011, by and between Tonix Pharmaceuticals, Inc. and Benjamin A. Selzer, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.15 Amendment to Employment Agreement, dated as of July 27, 2011, by and between Tonix Pharmaceuticals, Inc. and Susan Oliver (now, Susan Kerridge), filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.16 Financial Public Relations Agreement, dated as of August 1, 2011, by and between Tonix Pharmaceuticals, Inc. and Porter, LeVay & Rose, Inc., filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.17 Form of 8% Secured Convertible Debenture, issued October 7, 2011, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.18 Form of Subscription Agreement, dated October 7, 2011, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.

- 10.19 Form of Pledge and Security Agreement, dated as of October 7, 2011, by and among Tamandare Explorations Inc., Tonix Pharmaceuticals, Inc., Krele LLC and the investors, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.20 Form of Subsidiary Guaranty, dated as of October 7, 2011, by and among Tonix Pharmaceuticals, Inc., Krele LLC and Sandor Capital Master Fund L.P., on behalf of the investors, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
- 10.21 Form of Subscription Agreement, dated January 20, 2012, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on January 23, 2012 and incorporated herein by reference.
- 10.22 Form of Class A Warrant, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on January 23, 2012 and incorporated herein by reference.
- 10.23 Form of Class B Warrant, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on January 23, 2012 and incorporated herein by reference.
- 10.24 Form of Registration Rights Agreement, dated January 20, 2012, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on January 23, 2012 and incorporated herein by reference.
- 10.25 Amendment to Consulting Agreement, dated as of March 30, 2012 but effective as of July 27, 2011, by and between Tonix Pharmaceuticals, Inc. and Lederman & Co., LLC, filed as an exhibit to the Annual Report on Form 10-K filed with the Commission on March 30, 2012 and incorporated herein by reference.
- 10.26 Employment Agreement, between Tonix Pharmaceuticals Holding Corp. and Leland Gershell, dated April 1, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on April 5, 2012 and incorporated herein by reference.
- 10.27 Employment Agreement, between Tonix Pharmaceuticals Holding Corp. and Benjamin Selzer, dated April 2, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on April 5, 2012 and incorporated herein by reference.
- 10.28 Amendment to Employment Agreement, between Tonix Pharmaceuticals Holding Corp. and Benjamin Selzer, dated October 5, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on October 10, 2012 and incorporated herein by reference.
- 10.29 Form of Subscription Agreement, dated November 13, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on November 14, 2012 and incorporated herein by reference.
- 10.30 Form of Convertible Debenture, dated November 13, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on November 14, 2012 and incorporated herein by reference.
- 10.31 Form of Subscription Agreement, dated December 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on December 5, 2012 and incorporated herein by reference.
- 10.32 Form of Class A Warrant, dated December 4, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on December 5, 2012 and incorporated herein by reference.
- 10.33 Form of Class B Warrant, dated December 4, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on December 5, 2012 and incorporated herein by reference.

10.34	Form of Registration Rights Agreement, dated December 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on December 5, 2012 and incorporated herein by reference.
10.35	Form of Class A Warrant, dated December 21, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on December 27, 2012 and incorporated herein by reference.
10.36	Form of Class B Warrant, dated December 21, 2012, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on December 27, 2012 and incorporated herein by reference.
10.37	Form of Amendment No. 1 to the Purchase Agreement, Registration Rights Agreement and Escrow Agreement, filed as an exhibit to the Current Report on Form 8-K filed with the Commission on December 27, 2012 and incorporated herein by reference.
21.01	List of Subsidiaries, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
23.01	Consent of EisnerAmper LLP filed as an exhibit to the Registration Statement on Form S-1/A, filed with the Commission on March 22, 2013 and incorporated herein by reference.
24.01	Power of Attorney (included in signature page to the Registration Statement filed on March 22, 2013 and incorporated herein by reference).
99.01	Frost & Sullivan Fibromyalgia Market Study, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
99.02	Lipocine Cyclobenzaprine Study Results, filed as an exhibit to the Current Report on Form 8-K, filed with the Commission on October 14, 2011 and incorporated herein by reference.
101 INS	XBRL Instance Document
101 SCH	XBRL Taxonomy Extension Schema Document
101 CAL	XBRL Taxonomy Calculation Linkbase Document
101 LAB	XBRL Taxonomy Labels Linkbase Document
101 PRE	XBRL Taxonomy Presentation Linkbase Document
101 DEF	XBRL Taxonomy Extension Definition Linkbase Document

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† Confidential treatment granted for certain confidential portions of this exhibit pursuant to Rule 24b-2 under the Exchange Act. In accordance with Rule 24b-2, these confidential portions have been omitted from this exhibit and filed separately with the Commission.

## ITEM 17. UNDERTAKINGS.

The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended (the "Securities Act");

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement, and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) For determining liability of the undersigned registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable.

In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

**SIGNATURES**

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Amendment No. 2 to the Registration Statement on Form S-1 to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of New York, State of New York, on this 2nd day of April, 2013.

**TONIX PHARMACEUTICALS HOLDING CORP.**

Date: April 2, 2013

By: /s/ SETH LEDERMAN

Seth Lederman  
Chief Executive Officer (Principal Executive  
Officer)

Date: April 2, 2013

By: /s/ LELAND GERSHELL

Leland Gershell  
Chief Financial Officer (Principal Accounting  
Officer)

Pursuant to the requirements of the Securities Act of 1933, this Amendment No. 2 to the Registration Statement on Form S-1 has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ SETH LEDERMAN</u> Seth Lederman	Chief Executive Officer (Principal Executive Officer) and Director	April 2, 2013
<u>/s/ LELAND GERSHELL</u> Leland Gershell	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	April 2, 2013
<u>*</u> Stuart Davidson	Director	April 2, 2013
<u>*</u> Patrick Grace	Director	April 2, 2013
<u>*</u> Donald W. Landry	Director	April 2, 2013
<u>*</u> Ernest Mario	Director	April 2, 2013
<u>*</u> Charles Mather IV	Director	April 2, 2013
<u>*</u> John Rhodes	Director	April 2, 2013
<u>*</u> Samuel Saks	Director	April 2, 2013

\*By: /s/ SETH LEDERMAN  
Seth Lederman  
*Attorney-in-fact*