

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549
SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 2)***

TONIX PHARMACEUTICALS HOLDING CORP.
(Name of Issuer)

COMMON STOCK, PAR VALUE \$.001 PER SHARE
(Title of Class of Securities)

890260 201
(CUSIP Number)

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(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

February 9, 2015
(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(e), 13d-1(f) or 13d-1(g), check the following box .

Note. Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 13d-7(b) for other parties to whom copies are to be sent.

1 The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, *see the Notes*).

1	NAME OF REPORTING PERSONS Lederman & Co., LLC
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) AF
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER	289,128
	8	SHARED VOTING POWER	0
	9	SOLE DISPOSITIVE POWER	289,128
	10	SHARED DISPOSITIVE POWER	0

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	289,128
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)	<input type="checkbox"/>
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)	1.5% (1)
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	OO

(1) This percentage is calculated based upon 15,705,220 shares of the Issuer's common stock outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015.



1	NAME OF REPORTING PERSONS L&L Technologies, LLC
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) AF
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER	45,124
	8	SHARED VOTING POWER	0
	9	SOLE DISPOSITIVE POWER	45,124
	10	SHARED DISPOSITIVE POWER	0

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	45,124
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)	<input type="checkbox"/>
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)	0.3% (1)
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	OO

(1) This percentage is calculated based upon 15,705,220 shares of the Issuer's common stock outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities

and Exchange Commission on February 5, 2015.

1	NAME OF REPORTING PERSONS Targent Pharmaceuticals, LLC
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) AF
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER	67,222
	8	SHARED VOTING POWER	0
	9	SOLE DISPOSITIVE POWER	67,222
	10	SHARED DISPOSITIVE POWER	0

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	67,222
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS)	<input type="checkbox"/>
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)	0.4% (1)
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	OO

(1) This percentage is calculated based upon 15,705,220 shares of the Issuer's common stock outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015.

1	NAME OF REPORTING PERSONS Leder Laboratories, Inc.
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) AF
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 33,334
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 33,334
	10	SHARED DISPOSITIVE POWER 0

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 33,334
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.2% (1)
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO

- (1) This percentage is calculated based upon 15,705,220 shares of the Issuer's common stock outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015.



1	NAME OF REPORTING PERSONS Starling Pharmaceuticals, Inc.
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input type="checkbox"/>
3	SEC USE ONLY
4	SOURCE OF FUNDS (SEE INSTRUCTIONS) AF
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 33,334
	8	SHARED VOTING POWER 0
	9	SOLE DISPOSITIVE POWER 33,334
	10	SHARED DISPOSITIVE POWER 0

11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 33,334
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (SEE INSTRUCTIONS) <input type="checkbox"/>
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 0.2% (1)
14	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS) CO

- (1) This percentage is calculated based upon 15,705,220 shares of the Issuer's common stock outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015.

Item 1. Security and Issuer.

This Amendment No. 2 to Schedule 13D (this "Amendment") relates to the common stock, par value \$.001 per share (the "Shares") of Tonix Pharmaceuticals Holding Corp., a Nevada Corporation (the "Issuer"). This Statement amends the Schedule 13D, filed on May 23, 2013, as amended on August 15, 2013 (the "Statement") by the Reporting Persons (as defined herein). This Amendment is being filed by the Reporting Persons to report that, as a result of recent transactions in the Shares, the total shares beneficial ownership by the Reporting Persons has increased but the percentage of beneficial ownership by the Reporting Persons has decreased by more than one percent of the outstanding Shares of the Issuer. In addition, the Reporting Persons ceased to be the beneficial owners of more than five percent of the Shares outstanding.

Item 2. Identity and Background.

No material change.

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 of the Statement is hereby amended by adding the following:

February 2015 Purchase

On February 9, 2015, Dr. Lederman purchased 5,000 Shares at a price of \$5.85 per Share in connection with an underwritten public offering by the Issuer.

Item 4. Purpose of Transaction.

No material change.

Item 5. Interest in Securities of the Issuer.

Item 5 of the Statement is hereby replaced in its entirety with the following:

Dr. Lederman beneficially owns 662,519 Shares, comprised of (i) 55,074 Shares owned by Dr. Lederman, (ii) 11,765 Shares issuable to Dr. Lederman upon exercise of warrants that are currently exercisable, (iii) 177,538 Shares issuable to Dr. Lederman upon exercise of options that are vested or will vest within 60 days of this Statement of Beneficial Ownership on Schedule 13D, (iv) 184,628 Shares owned by Lederman & Co, (v) 54,500 Shares issuable to Lederman & Co upon exercise of warrants that are currently exercisable, (vi) 32,457 Shares owned by L&L Technologies, (vii) 12,667 Shares issuable to L&L Technologies upon exercise of warrants that are currently exercisable, (viii) 58,972 Shares owned by Targent Pharmaceuticals, (ix) 8,250 Shares issuable to Targent Pharmaceuticals upon exercise of warrants that are currently exercisable, (x) 29,167 Shares owned by Leder Laboratories, (xi) 4,167 Shares issuable to Leder Laboratories upon exercise of warrants that are currently exercisable, (xii) 29,167 Shares owned by Starling Pharmaceuticals, and (xiii) 4,167 Shares issuable to Starling Pharmaceuticals upon exercise of warrants that are currently exercisable. Dr. Lederman is the Managing Member of Lederman & Co and Targent Pharmaceuticals, the Manager of L&L Technologies and the Chairman of Leder Laboratories and Starling Pharmaceuticals. Based upon 15,705,220 Shares of the Issuer outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015, the Shares beneficially owned by Dr. Lederman constitute approximately 4.2% of the Shares of the Issuer as calculated in accordance with Rule 13d-3(d)(1).

Lederman & Co beneficially owns 239,128 Shares, comprised of (i) 184,628 Shares owned by Lederman & Co and (ii) 54,500 Shares issuable to Lederman & Co upon exercise of warrants that are currently exercisable. Based upon 15,705,220 Shares of the Issuer outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015, the Shares beneficially owned by Lederman and Co constitute approximately 1.5% of the Shares of the Issuer as calculated in accordance with Rule 13d-3(d)(1).

L&L Technologies beneficially owns 34,124 Shares, comprised of (i) 32,457 Shares owned by L&L Technologies and (ii) 24,334 Shares issuable to L&L Technologies upon exercise of warrants that are currently exercisable. Based upon 15,705,220 Shares of the Issuer outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015, the Shares beneficially owned by L&L Technologies constitute approximately 0.3% of the Shares of the Issuer as calculated in accordance with Rule 13d-3(d)(1).

Targent Pharmaceuticals beneficially owns 67,222 Shares, comprised of (i) 58,972 Shares owned by Targent Pharmaceuticals and (ii) 8,250 Shares issuable to Targent Pharmaceuticals upon exercise of warrants that are currently exercisable. Based upon 15,705,220 Shares of the Issuer outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015, the Shares beneficially owned by Targent Pharmaceuticals constitute approximately 0.4% of the Shares of the Issuer as calculated in accordance with Rule 13d-3(d)(1).

Leder Laboratories beneficially owns 33,334 Shares, comprised of (i) 29,167 Shares owned by Leder Laboratories and (ii) 4,167 Shares issuable to Leder Laboratories upon exercise of warrants that are currently exercisable. Based upon 15,705,220 Shares of the Issuer outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015, the Shares beneficially owned by Leder Laboratories constitute approximately 0.2% of the Shares of the Issuer as calculated in accordance with Rule 13d-3(d)(1).

Starling Pharmaceuticals beneficially owns 33,334 Shares, comprised of (i) 29,167 Shares owned by Starling Pharmaceuticals, and (ii) 4,167 Shares issuable to Starling Pharmaceuticals upon exercise of warrants that are currently exercisable. Based upon 15,705,220 Shares of the Issuer outstanding (as of February 9, 2015 upon the closing of an underwritten offering), as set forth in the Issuer's prospectus filed pursuant to Section 424(b)(5) as filed with the Securities and Exchange Commission on February 5, 2015, the Shares beneficially owned by Starling Pharmaceuticals constitute approximately 0.2% of the Shares of the Issuer as calculated in accordance with Rule 13d-3(d)(1).

The following table sets forth the number of shares of common stock as to which the Reporting Persons have (i) the sole power to vote or direct the voting of the shares, (ii) the sole power to dispose or to direct the disposition of the shares or (iii) shared power to vote or direct the vote or dispose or direct disposition of the shares:

<u>Reporting Person</u>	<u>Sole Voting Power</u>	<u>Shared Voting Power</u>	<u>Sole Dispositive Power</u>	<u>Shared Dispositive Power</u>
Dr. Lederman	617,395	45,124	617,395	45,124
Lederman & Co	239,128	0	239,128	0
L&L Technologies	0	45,124	0	45,124
Targent Pharmaceuticals	67,222	0	67,222	0
Leder Laboratories	33,334	0	33,334	0
Starling Pharmaceuticals	33,334	0	33,334	0

The voting power and the dispositive power of the shares beneficially owned by L&L Technologies are shared with Dr. Donald Landry, another director of the Issuer.

Except as set out above, the Reporting Persons have not effected any other transactions in any securities of the Issuer in the past 60 days.

Effective February 9, 2015, the Reporting Persons ceased to be the beneficial owners of more than five percent of the Shares outstanding.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

No material change.

Item 7. Material to be Filed as Exhibits.

No material change.

SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and accurate.

Dated as of February 10, 2015

LEDERMAN & CO., LLC

By: /s/ SETH LEDERMAN

Name: Seth Lederman

Title: Managing Member

L&L TECHNOLOGIES, LLC

By: /s/ SETH LEDERMAN

Name: Seth Lederman

Title: Member

TARGET PHARMACEUTICALS, LLC

By: /s/ SETH LEDERMAN

Name: Seth Lederman

Title: Managing Member

LEDER LABORATORIES, INC.

By: /s/ SETH LEDERMAN

Name: Seth Lederman

Title: Chairman

STARLING PHARMACEUTICALS, INC.

By: /s/ SETH LEDERMAN

Name: Seth Lederman

Title: Chairman

/s/ SETH LEDERMAN

Seth Lederman
