

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 12b-25

Commission File Number: 001-36019

NOTIFICATION OF LATE FILING

- Form 10-K Form 20-F Form 11-K Form 10-Q
 Form 10-D Form N-SAR Form N-CSR

For Period Ended: December 31, 2016

- Transition Report on Form 10-K Transition Report on Form 10-Q
 Transition Report on Form 20-F Transition Report on Form N-SAR
 Transition Report on Form 11-K

For the Transition Period Ended: _____

Nothing in this form shall be construed to imply that the Commission has verified any information contained herein.

If the notification relates to a portion of the filing checked above, identify the Item(s) to which the notification relates:

**PART I
REGISTRANT INFORMATION**

Full name of registrant Tonix Pharmaceuticals Holding Corp.
Former name if applicable
Address of principal executive office 509 Madison Avenue, Suite 306
City, state and zip code New York, NY 10022

**PART II
RULE 12b-25 (b) AND (c)**

If the subject report could not be filed without unreasonable effort or expense and the registrant seeks relief pursuant to Rule 12b-25 (b), the following should be completed. (Check box if appropriate.)

- (a) The reasons described in reasonable detail in Part III of this form could not be eliminated without unreasonable effort or expense;
- (b) The subject annual report, semi-annual report, transition report on Form 10-K, 20-F, 11-K or Form N-SAR or Form N-CSR, or portion thereof will be filed on or before the 15th calendar day following the prescribed due date; or the subject quarterly report or transition report on Form 10-Q or subject distribution report on Form 10-D, or portion thereof, will be filed on or before the fifth calendar day following the prescribed due date; and
- (c) The accountant's statement or other exhibit required by Rule 12b-25(c) has been attached if applicable.

**PART III
NARRATIVE**

State below in reasonable detail the reasons why Form 10-K, 11-K, 20-F, 10-Q, N-SAR, N-CSR, or the transition report portion thereof, could not be filed within the prescribed time period.

Tonix Pharmaceuticals Holding Corp. (the "Company") was unable to complete its Annual Report on Form 10-K for the fiscal year ended December 31, 2016 (the "Annual Report") prior to the filing deadline for the Annual Report on March 31, 2017 as the result of the need to complete final year-end closing procedures, financial statement preparation and disclosures in light of its pending public offering of common stock, which is expected to close on April 4, 2017. As a consequence of the efforts dedicated to the public offering, the Company could not finalize its financial statement preparation and disclosures for the fiscal year ended December 31, 2016 without unreasonable effort and expense.

The Company expects to file its Annual Report within the extension period of 15 calendar days as provided under Rule 12b-25 under the Securities Exchange Act of 1934, as amended.

**PART IV
OTHER INFORMATION**

(1) Name and telephone number of person to contact in regard to this notification

Bradley Saenger
(Name)

(212) 980-9155
(Area Code) (Telephone Number)

(2) Have all other periodic reports required under Section 13 or 15(d) of the Securities Exchange Act of 1934 or Section 30 of the Investment Company Act of 1940 during the preceding 12 months or for such shorter period that the registrant was required to file such report(s) been filed? If the answer is no, identify report(s).

Yes No

(3) Is it anticipated that any significant change in results of operations from the corresponding period for the last fiscal year will be reflected by the earnings statements to be included in the subject report or portion thereof?

Yes No

If so: attach an explanation of the anticipated change, both narratively and quantitatively, and, if appropriate, state the reasons why a reasonable estimate of the results cannot be made.

The Company expects to report in the Annual Report the following operating results for the fiscal year ended December 31, 2016, compared to the fiscal year ended December 31, 2015:

Research and Development Expenses. Research and development expenses for the fiscal year ended December 31, 2016 are expected to be \$28.5 million, an expected decrease of \$7.0 million, or 20%, from \$35.5 million for the fiscal year ended December 31, 2015. This decrease is primarily due to decreased development work related to TNX-201 (dexisometheptene mucate) for episodic tension-type headache, including formulation development, manufacturing, human safety and efficacy trials as well as pharmacokinetic studies. This decrease is also due to decreased development work on TNX-102 SL for fibromyalgia. In 2016, we expect to incur \$16.4 million, \$1.4 million and \$3.3 million in clinical, non-clinical, and manufacturing, respectively, as compared to \$16.8 million, \$5.3 million and \$4.4 million in 2015, respectively. Costs related to product development are expected to decrease to \$0.3 million for the fiscal year ended December 31, 2016 from \$0.9 million for the fiscal year ended December 31, 2015, an expected decrease of \$0.6 million, or 67%. The decrease is primarily due to the reduction in active trials.

Compensation-related expenses are expected to increase to \$4.5 million for the fiscal year ended December 31, 2016, from \$4.1 million for the fiscal year ended December 31, 2015, an expected increase of \$0.4 million, or 10%. Cash compensation-related expenses are expected to be \$3.6 million for the fiscal year ended December 31, 2016, an expected increase of \$0.7 million, or 24%, from \$2.9 million for the fiscal year ended December 31, 2015. The increase was primarily a result of annual salary increases and increased personnel during parts of 2016. We expect to incur \$0.9 million in stock-based compensation in connection with the vesting of stock options in 2016, which were previously issued to officers and consultants, as compared to \$1.2 million in stock-based compensation in 2015. Regulatory and legal costs are expected to decrease to \$1.3 million for the fiscal year ended December 31, 2016, from \$1.8 million for the fiscal year ended December 31, 2015, an expected decrease of \$0.5 million, or 28%. The decrease in regulatory and legal costs is primarily due to a shift in personnel related to then ongoing trials.

Travel, meals and entertainment costs are expected to decrease to \$0.5 million for the fiscal year ended December 31, 2016, from \$1.4 million for the fiscal year ended December 31, 2015, an expected decrease of \$0.9 million, or 64%. Travel, meals and entertainment costs include travel related to clinical development, including investigator meetings and medical-related conferences, whereas such activities decreased from 2015. Other research and development costs are expected to be \$0.8 million for both reporting periods. Other research and development costs include rent, insurance and other office-related expenses.

General and Administrative Expenses. General and administrative expenses for the fiscal year ended December 31, 2016 are expected to be \$10.4 million, an expected decrease of \$2.3 million, or 18%, from \$12.7 million incurred in the fiscal year ended December 31, 2015. This decrease is primarily due to a reduction in activities related to compensation-related expenses and professional services.

Compensation-related expenses are expected to decrease to \$5.2 million for the fiscal year ended December 31, 2016, from \$5.8 million for the fiscal year ended December 31, 2015, an expected decrease of \$0.6 million, or 10%. We are expected to incur \$2.3 million in stock-based compensation in connection with the employee stock purchase plan and the vesting of restricted stock units and stock options in 2016, which were previously issued to board members, officers, employees and a consultant, as compared to \$3.2 million in stock-based compensation in 2015. Cash compensation-related expenses are expected to be \$2.9 million for the fiscal year ended December 31, 2016, an expected increase of \$0.3 million, or 12%, from \$2.6 million for the fiscal year ended December 31, 2015. The increase was primarily a result of annual salary increases and increased personnel during parts of 2016.

Professional services for the fiscal year ended December 31, 2016 are expected to total \$3.2 million, an expected decrease of \$1.1 million, or 26%, over the \$4.3 million incurred for the fiscal year ended December 31, 2015. Of professional services, legal fees are expected to total \$1.0 million for the fiscal year ended December 31, 2016, an expected decrease of \$0.8 million, or 44%, from \$1.8 million incurred for the fiscal year ended December 31, 2015. The decrease was mainly due to a reduction in international legal work and legal fees related to patent activity. Audit and accounting fees incurred in the fiscal years ended December 31, 2016 and 2015 are expected to amount to \$0.6 million and \$0.5 million, respectively, an expected increase of \$0.1 million, or 20%. Investor and public relations fees are expected to total \$1.0 million for the fiscal year ended December 31, 2016, an expected decrease of \$0.3 million, or 23%, from \$1.3 million incurred in the fiscal year ended December 31, 2015. The decrease is due to a reduction in non-deal roadshows and attending less investor-related conferences. Other consulting fees and other professional fees are expected to total \$0.6 million for the fiscal year ended December 31, 2016, an expected decrease of \$0.1 million, or 14%, from \$0.7 million incurred in the fiscal year ended December 31, 2015. Other professional fees include human resources, finance and corporate consultants.

Travel, meals and entertainment costs for the fiscal year ended December 31, 2016 are expected to be \$0.3 million, an expected decrease of \$0.6 million, or 67%, from \$0.9 million incurred in the fiscal year ended December 31, 2015. Travel, meals and entertainment costs include travel related to business development and investor relations activities, which were significantly reduced from 2015. Office and other administrative expenses are expected to total \$1.7 million for both reporting periods. Office and other administrative expenses include rent, depreciation, insurance, business taxes, dues and subscriptions and other office related expenses.

Net Loss. As a result of the foregoing, the net loss for the year ended December 31, 2016 is expected to be \$38.8 million, compared to a net loss of \$48.1 million for the year ended December 31, 2015.

Forward-Looking Statements

Except for the historical statements contained herein, this notification includes forward-looking statements within the meaning of Section 21E of the Exchange Act, including statements regarding the Company's expectation regarding the timing of the anticipated closing of the pending public offering, the timing of the filing of its Annual Report and the description of anticipated material changes from the results of operation from the corresponding period of the last fiscal year. Actual results could differ materially from these forward-looking statements as a result of certain factors, including, without limitation: the Company's inability to complete the work required to file the Annual Report in the timeframe that is anticipated or due to unanticipated changes being required in its reported operating results; risks related to the Company's ability to finalize the financial statements to be included in the Annual Report, including those related to the need to complete the Company's internal review and the performance of the requisite procedures by our independent registered public accounting firm; as well as other risks detailed in the Company's filings with the Securities and Exchange Commission, including under the heading "Risk Factors" in the Company's filings with the Securities and Exchange Commission, including the Company's most recent Annual Report on Form 10-K for the year ended December 31, 2015. The Company disclaims any obligation or undertaking to update or revise any forward-looking statements contained in this notification.

Tonix Pharmaceuticals Holding Corp.
(Name of Registrant as Specified in Charter)

Has caused this notification to be signed on its behalf by the undersigned thereunto duly authorized.

Dated: March 31, 2017

/s/ BRADLEY SAENGER

By: Bradley Saenger

Title: Chief Financial Officer