UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Quarterly Period Ended March 31, 2019

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the Transition Period from _____ to _____

Commission file number: 001-36019

TONIX PHARMACEUTICALS HOLDING CORP.

(Exact name of registrant as specified in its charter)

Nevada	**26-1434750**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

509 Madison Avenue, Suite 1608
New York, New York 10022
(Address of principal executive offices) (zip code)

(212) 980-9155
(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13 (a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock	TNXP	The NASDAQ Global Market

As of May 9, 2019, there were 6,089,728 shares of registrant's common stock outstanding.

TONIX PHARMACEUTICALS HOLDING CORP.

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PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

TONIX PHARMACEUTICALS HOLDING CORP.
CONDENSED CONSOLIDATED BALANCE SHEETS
(In Thousands, Except Par Value and Share Amounts)

	March 31, 2019 (unaudited)	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 16,448	$ 25,034
Prepaid expenses and other	2,734	1,022
Total current assets	19,182	26,056
Property and equipment, net	41	43
Operating lease right-of-use assets	579	—
Restricted cash	100	100
Intangible asset	120	120
Total assets	$ 20,022	$ 26,319
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 1,133	$ 1,404
Accrued expenses and other current liabilities	498	1,251
Operating lease liabilities, current	380	—
Total current liabilities	2,011	2,655
Operating lease liabilities, noncurrent	200	—
Total liabilities	2,211	2,655
Commitments (See Note 9)		
Stockholders' equity:		
Preferred stock, 5,000,000 shares authorized Series A Convertible Preferred stock, $0.001 par value; 11,984 shares designated; 0 and 9,856 shares issued and outstanding as of March 31, 2019 and December 31, 2018, respectively	—	—
Common stock, $0.001 par value; 15,000,000 shares authorized; 6,089,728 and 3,251,970 shares issued and outstanding as of March 31, 2019 and December 31, 2018, respectively, and 1,758 shares to be issued as of December 31, 2018	6	3
Additional paid in capital	212,529	212,154
Accumulated deficit	(194,685)	(188,452)
Accumulated other comprehensive loss	(39)	(41)
Total stockholders' equity	17,811	23,664
Total liabilities and stockholders' equity	$ 20,022	$ 26,319

See the accompanying notes to the condensed consolidated financial statements

TONIX PHARMACEUTICALS HOLDING CORP.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(In Thousands, Except Share and Per Share Amounts)
(unaudited)

	Three Months Ended March 31,	
	2019	2018
COSTS AND EXPENSES:		
Research and development	$ 3,896	$ 5,170
General and administrative	2,401	1,818
	6,297	6,988
Operating loss	(6,297)	(6,988)
Interest income, net	64	53
Net loss	$ (6,233)	$ (6,935)
Net loss per common share, basic and diluted	$ (1.29)	$ (8.80)
Weighted average common shares outstanding, basic and diluted	4,848,199	787,900

See the accompanying notes to the condensed consolidated financial statements

TONIX PHARMACEUTICALS HOLDING CORP.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(In Thousands)
(unaudited)

	Three Months Ended March 31,	
	2019	2018
Net loss	$ (6,233)	$ (6,935)
Other comprehensive gain (loss):		
Foreign currency translation gain (loss)	2	(1)
Total other comprehensive gain (loss)	2	(1)
Comprehensive loss	$ (6,231)	$ (6,936)

See the accompanying notes to the condensed consolidated financial statements

TONIX PHARMACEUTICALS HOLDING CORP.
CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY
THREE MONTHS ENDED MARCH 31, 2019 AND 2018
(In Thousands, Except Share and Per Share Amounts)
(unaudited)

	Series A Convertible Preferred stock		Common stock		Additional Paid in Capital	Accumulated Other Comprehensive loss	Accumulated Deficit	Total
	Shares	Amount	Shares	Amount				
Balance, December 31, 2018	9,856	$ —	3,251,970	$ 3	$ 212,154	$ (41)	$ (188,452)	$ 23,664
Issuance of common stock upon conversion of Series A Convertible preferred stock	(9,856)	—	2,816,000	3	(3)	—	—	—
Issuance of common stock in exchange for exercise of warrants in March 2019 ($3.50 per share)	—	—	20,000	—	70	—	—	70
Employee stock purchase plan	—	—	1,758	—	3	—	—	3
Stock-based compensation	—	—	—	—	305	—	—	305
Foreign currency transaction gain	—	—	—	—	—	2	—	2
Net loss	—	—	—	—	—	—	(6,233)	(6,233)
Balance, March 31, 2019	—	$ —	6,089,728	$ 6	$ 212,529	$ (39)	$ (194,685)	$ 17,811

	Series A Convertible Preferred stock		Common stock		Additional Paid in Capital	Accumulated Other Comprehensive loss	Accumulated Deficit	Total
	Shares	Amount	Shares	Amount				
Balance, December 31, 2017	—	$ —	785,874	$ 1	186,990	$ (12)	$ (162,363)	$ 24,616
Issuance of common stock related to restricted stock units	—	—	75	—	—	—	—	—
Stock-based compensation	—	—	—	—	399	—	—	399
Issuance of common stock in March ($32.10 per share), net of transaction expenses of $45	—	—	18,000	—	532	—	—	532
Unrealized loss on foreign currency translation	—	—	—	—	—	(1)	—	(1)
Net loss	—	—	—	—	—	—	(6,935)	(6,935)
Balance, March 31, 2018	—	$ —	803,949	$ 1	$ 187,921	$ (13)	$ (169,298)	$ 18,611

See the accompanying notes to the condensed consolidated financial statements

TONIX PHARMACEUTICALS HOLDING CORP.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In Thousands)
(unaudited)

	Three Months Ended March 31,	
	2019	2018
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	$ (6,233)	$ (6,935)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	9	15
Stock-based compensation	305	399
Changes in operating assets and liabilities:		
Prepaid expenses and other	(1,700)	(481)
Accounts payable	(270)	(32)
Accrued expenses and deferred rent	(750)	263
Net cash used in operating activities	(8,639)	(6,771)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of furniture and fixtures	(7)	(2)
Net cash used by investing activities	(7)	(2)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from the exercise of warrants	70	—
Proceeds, net of expenses of $45, from sale of common stock	—	532
Net cash provided by financing activities	70	532
Effect of currency rate change on cash	(10)	(2)
Net decrease in cash, cash equivalents and restricted cash	(8,586)	(6,243)
Cash, cash equivalents and restricted cash beginning of the period	25,134	25,585
Cash, cash equivalents and restricted cash end of period	$ 16,548	$ 19,342
Supplemental disclosures of cash flow information:		
Non-cash financing activities:		
Issuance of common stock under employee benefit plan	$ 3	$ —

See the accompanying notes to the condensed consolidated financial statements

NOTE 1 – BUSINESS

Tonix Pharmaceuticals Holding Corp., through its wholly owned subsidiary Tonix Pharmaceuticals, Inc. ("Tonix Sub"), is a clinical-stage biopharmaceutical company focused on discovering and developing pharmaceutical products to treat serious psychiatric and pain conditions and biological products to improve biodefense through potential medical counter-measures. All drug product candidates are still in development.

The consolidated financial statements include the accounts of Tonix Pharmaceuticals Holding Corp. and its wholly owned subsidiaries, Tonix Sub, Krele LLC, Tonix Pharmaceuticals (Canada), Inc., Tonix Medicines, Inc., Tonix Pharma Holdings Limited and Tonix Pharma Limited (collectively hereafter referred to as the "Company" or "Tonix").

Going concern

The accompanying financial statements have been prepared on a basis which assumes that the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the normal course of business. The Company has suffered recurring losses from operations and negative cash flows from operating activities. At March 31, 2019, the Company had working capital of approximately $17.2 million. At March 31, 2019, the Company had an accumulated deficit of approximately $194.7 million. The Company held cash and cash equivalents of approximately $16.4 million as of March 31, 2019. The Company believes that these resources will be sufficient to meet its projected operating requirements through the end of 2019 but it does not have enough resources to meet its operating requirements for the one-year period from the date of filing of this report. These factors raise substantial doubt about the Company's ability to continue as a going concern.

The Company continues to face significant challenges and uncertainties and, as a result, the Company's available capital resources may be consumed more rapidly than currently expected due to changes the Company may make in its research and development spending plans. The Company has the ability to obtain additional funding through public or private financing or collaborative arrangements with strategic partners to increase the funds available to fund operations. However, the Company may not be able to raise capital with terms acceptable to the company. Without additional funds, the Company may be forced to delay, scale back or eliminate some of its research and development activities, or other operations and potentially delay product development in an effort to provide sufficient funds to continue its operations. If any of these events occurs, the Company's ability to achieve its development and commercialization goals would be adversely affected. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

NOTE 2 – SIGNIFICANT ACCOUNTING POLICIES

Interim financial statements

The unaudited condensed consolidated interim financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP") for interim financial information and the instructions to Form 10-Q and Article 8 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary for a fair presentation have been included.

The condensed consolidated balance sheet as of December 31, 2018 contained herein has been derived from audited financial statements.

Operating results for the three months ended March 31, 2019 are not necessarily indicative of results that may be expected for the year ending December 31, 2019. These condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2018 included in the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission ("SEC") on March 18, 2019.

Recent accounting pronouncements

In February 2016, the FASB established ASC Topic 842, Leases (Topic 842), by issuing ASU No. 2016-02, which requires lessees to recognize leases on-balance sheet and disclose key information about leasing arrangements. The new standard establishes a right-of-use (ROU) model that requires a lessee to recognize a ROU asset and lease liability on the balance sheet. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the statement of operations. The Company adopted the new standard on January 1, 2019.

The new standard provides a number of optional practical expedients in transition. The Company has elected the 'package of practical expedients', which permit it not to reassess under the new standard its prior conclusions about lease identification, lease classification and initial direct costs. The Company did not elect the use-of-hindsight or the practical expedient pertaining to land easements; the latter is not applicable to the Company.

The new standard has had a material effect on the Company's financial statements. The most significant effects of adoption relate to (1) the recognition of new ROU assets and lease liabilities on its balance sheet for operating leases; and (2) providing new disclosures about its leasing activities.

The new standard also provides practical expedients for an entity's ongoing accounting. The Company elected the short-term lease recognition exemption for all leases that qualify. This means, for those leases that qualify, the Company will not recognize ROU assets or lease liabilities, and this includes not recognizing ROU assets or lease liabilities for existing short-term leases of those assets in transition. In connection with the adoption of this standard, the Company made changes to its disclosed lease recognition policies and practices, as well as to other related financial statement disclosures due to the adoption of this standard. The standard did not have a material impact on the Company's results of operations or liquidity.

Upon adoption, the Company recognized operating lease liabilities of approximately $0.3 million based on the present value of the remaining minimum rental payments under current leasing standards for existing operating leases. The Company recognized corresponding ROU assets of approximately $0.3 million.

Risks and uncertainties

The Company's primary efforts are devoted to conducting research and development of innovative pharmaceutical and biological products to address public health challenges. The Company has experienced net losses and negative cash flows from operations since inception and expects these conditions to continue for the foreseeable future. Further, the Company does not have any commercial products available for sale and has not generated revenues, and there is no assurance that if its products are approved for sale, that the Company will be able to generate cash flow to fund operations. In addition, there can be no assurance that the Company's research and development will be successfully completed or that any product will be approved or commercially viable.

Use of estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosures of contingent assets and liabilities at the date of the financial statements, and the reported amounts of expenses during the reporting period. Actual results could differ from those estimates. Significant estimates include the useful life of fixed assets, assumptions used in the fair value of stock-based compensation and other equity instruments, and the percent of completion of research and development contracts.

Cash equivalents and restricted cash

The Company considers cash equivalents to be those investments which are highly liquid, readily convertible to cash and have an original maturity of three months or less when purchased. At both March 31, 2019 and December 31, 2018, cash equivalents, which consisted of money market funds, amounted to $10.1 million. Restricted cash at both March 31, 2019 and December 31, 2018 of approximately $100,000 collateralizes a letter of credit issued in connection with the lease of office space in New York City (see Note 8).

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the condensed consolidated balance sheets that sum to the total of the same amounts shown in the condensed consolidated statement of cash flow:

	March 31, 2019	December 31, 2018
	(in thousands)	
Cash and cash equivalents	$ 16,448	$ 25,034
Restricted cash	100	100
Total	$ 16,548	$ 25,134

Property and equipment

Property and equipment are stated at cost, less accumulated depreciation. Depreciation is calculated using the straight-line method over the asset's estimated useful life, which is three years for computer assets, five years for furniture and all other equipment and term of lease for leasehold improvements. Expenditures for maintenance and repairs are expensed as incurred. Depreciation and amortization expense for the quarters ended March 31, 2019 and 2018 was $9,000 and $15,000, respectively. All property and equipment is located in the United States and Ireland.

Intangible asset with indefinite lives

During the year ended December 31, 2015, the Company purchased certain internet domain rights, which were determined to have an indefinite life. Identifiable intangibles with indefinite lives are not amortized but are tested for impairment annually or whenever events or changes in circumstances indicate that its carrying amount may be less than fair value. As of March 31, 2019, the Company believed that no impairment existed.

Leases

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, operating lease liabilities, current and operating lease liabilities, noncurrent in the Company's condensed consolidated balance sheets. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As the Company's leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at the transition date and commencement date in determining the present value of lease payments. This is the rate the Company would have to pay if borrowing on a collateralized basis over a similar term to each lease. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Upon adoption, the Company recognized operating lease liabilities of approximately $0.3 million based on the present value of the remaining minimum rental payments under current leasing standards for existing operating leases. The Company also recognized corresponding ROU assets of approximately $0.3 million. In January 2019, the Company entered into a new operating lease, resulting in the Company recognizing an operating lease liability of approximately $0.4 million based on the present value of the minimum rental payments. The Company also recognized corresponding ROU assets of approximately $0.4 million.

Research and development costs

The Company outsources certain of its research and development efforts and expenses these costs as incurred, including the cost of manufacturing products for testing, as well as licensing fees and costs associated with planning and conducting clinical trials. The value ascribed to patents and other intellectual property acquired has been expensed as research and development costs, as such property related to particular research and development projects and had no alternative future uses.

The Company estimates its expenses resulting from its obligations under contracts with vendors, clinical research organizations and consultants and under clinical site agreements in connection with conducting clinical trials. The financial terms of these contracts are subject to negotiations, which vary from contract to contract and may result in payment flows that do not match the periods over which materials or services are provided under such contracts. The Company accounts for trial expenses according to the timing of various aspects of the trial. The Company determines accrual estimates taking into account discussion with applicable personnel and outside service providers as to the progress or state of consummation of trials, or the services completed.

During the course of a clinical trial, the Company adjusts its clinical expense recognition if actual results differ from its estimates. The Company makes estimates of its accrued expenses as of each balance sheet date based on the facts and circumstances known to it at that time. The Company's clinical trial accruals are dependent upon the timely and accurate reporting of contract research organizations and other third-party vendors.

Stock-based compensation

All stock-based payments to employees and to nonemployee directors for their services as directors, including grants of restricted stock units ("RSUs"), and stock options, are measured at fair value on the grant date and recognized in the condensed consolidated statements of operations as compensation or other expense over the relevant service period.

Stock-based payments to nonemployees are recognized as an expense over the period of performance. Such payments are measured at fair value at the earlier of the date a performance commitment is reached, or the date performance is completed. In addition, for awards that vest immediately and are non-forfeitable, the measurement date is the date the award is issued.

Foreign currency translation

Operations of the Canadian subsidiary are conducted in local currency, which represents its functional currency. The U.S. dollar is the functional currency of the other foreign subsidiaries. Balance sheet accounts of the Canadian subsidiary were translated from foreign currency into U.S. dollars at the exchange rate in effect at the balance sheet date and income statement accounts were translated at the average rate of exchange prevailing during the period. Translation adjustments resulting from this process were included in accumulated other comprehensive income (loss) on the condensed consolidated balance sheets.

Comprehensive income (loss)

Comprehensive income (loss) is defined as the change in equity of a business during a period from transactions and other events and circumstances from non-owner's sources. It includes all changes in equity during a period except those resulting from investments by owners and distributions to owners. Other comprehensive income (loss) represents foreign currency translation adjustments. All other comprehensive represents foreign currency translation adjustments.

Income taxes

Deferred income tax assets and liabilities are determined based on the estimated future tax effects of net operating loss and credit carryforwards and temporary differences between the tax basis of assets and liabilities and their respective financial reporting amounts measured at the current enacted tax rates. The Company records a valuation allowance on its deferred income tax assets if it is not more likely than not that these deferred income tax assets will be realized.

The Company recognizes a tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by taxing authorities, based on the technical merits of the position. The tax benefits recognized in the consolidated financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate settlement. As of March 31, 2019, the Company has not recorded any unrecognized tax benefits.

Per share data

Basic and diluted net loss per common share is calculated by dividing net loss, by the weighted average number of outstanding shares of common stock, adjusted to give effect to the 1-for-10 reverse stock split, which was effected on November 28, 2018 (see Note 4).

As of March 31, 2019, and 2018, there were outstanding warrants to purchase an aggregate of 4,964,846 and 68,561 shares, respectively, of the Company's common stock. In addition, the Company has issued to employees, directors and consultants, options to acquire shares of the Company's common stock, of which 248,344 and 123,636 were outstanding at March 31, 2019 and 2018, respectively (see Note 6). In computing diluted net loss per share for the three months ended March 31, 2019 and 2018, no effect has been given to such options and warrants as their effect would be anti-dilutive.

NOTE 3 – FAIR VALUE MEASUREMENTS

Fair value measurements affect the Company's accounting for certain of its financial assets. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date and is measured according to a hierarchy that includes:

Level 1: Observable inputs, such as quoted prices in active markets.

Level 2: Inputs, other than quoted prices in active markets, that are observable either directly or indirectly. Level 2 assets and liabilities include debt securities with quoted market prices that are traded less frequently than exchange-traded instruments. This category includes U.S. government agency-backed debt securities and corporate-debt securities.

Level 3: Unobservable inputs in which there is little or no market data.

As of both March 31, 2019, and December 31, 2018, the Company had Level 1 quoted prices in active markets of $10.1 million, consisting entirely of cash equivalents.

NOTE 4 – STOCKHOLDERS' EQUITY

On November 26, 2018, the Company filed a Certificate of Change with the Nevada Secretary of State, which was effective November 28, 2018. Pursuant to the Certificate of Change, the Company effected a 1-for-10 reverse stock split of its issued and outstanding shares of common stock, $0.001 par value, whereby 15,293,782 outstanding shares of the Company's common stock were exchanged for 1,529,427 shares of the Company's common stock. In connection with the reverse stock split, the Company issued an additional 2,833 shares of the Company's common stock due to rounding. Furthermore, pursuant to the Certificate of Change, the number of authorized shares of common stock was reduced from 150 million to 15 million. All per share amounts and number of shares in the condensed consolidated financial statements and related notes have been retroactively restated to reflect the reverse stock split. On May 3, 2019, the Company filed a Certificate of Amendment to its Articles of Incorporation with the Nevada Secretary of State increasing its authorized shares of common stock from 15 million to 150 million.

NOTE 5 – SALE OF COMMON STOCK

December 2018 Financing

On December 7, 2018, the Company entered into an underwriting agreement with Alliance Global Partners ("AGP") and Dawson James Securities, Inc. ("Dawson") (collectively "the Underwriters") pursuant to which the Company sold securities consisting of 861,710 Class A Units at a public offering price of $3.50 per unit, with each unit consisting of one share of Common Stock and a Warrant to purchase one share of Common Stock, and 11,984 Class B Units at a public offering price of $1,000 per unit, with each unit consisting of one share of Series A Convertible Preferred Stock, with a conversion price of $3.50 per share, and Warrants to purchase 285.7143 shares of Common Stock. The Warrants have an exercise price of $3.50, are exercisable and expire five years from the date of issuance.

The Company also granted the underwriters a 45-day option to purchase up to 642,856 shares of common stock and/or additional Warrants to purchase up to 642,856 additional shares of common stock.

The December 2018 Financing closed on December 11, 2018. The Underwriters purchased the Units at a seven-percent discount to the public offering price, for an aggregate discount of approximately $1.1 million (or $0.24 per share). The Company received net proceeds from the December 2018 Financing of approximately $13.6 million, after deducting the underwriting discount and other offering expenses of approximately $0.4 million. Additionally, the Underwriters fully exercised the over-allotment option related to the warrants and purchased additional warrants to acquire 640,000 shares of common stock for net proceeds of approximately $6,000.

On December 13, 2018, the 2018 Underwriters partially exercised the over-allotment option and purchased 250,000 shares of common stock for net proceeds of approximately $0.8 million, net of an aggregate discount of $0.1 million (or $0.24 per share).

During the quarter ended March 31, 2019, the remaining 9,856 shares of Series A convertible preferred stock were converted into 2,816,000 shares of common stock. As of March 11, 2019, all Series A convertible preferred stock has been converted into common stock.

2018 Lincoln Park Transaction

On October 18, 2018, the Company entered into a purchase agreement (the "2018 Purchase Agreement") and a registration rights agreement (the "2018 Registration Rights Agreement") with Lincoln Park Capital Fund, LLC ("Lincoln Park"). Pursuant to the terms of the 2018 Purchase Agreement, Lincoln Park has agreed to purchase from us up to $15,000,000 of the Company's common stock (subject to certain limitations) from time to time during the term of the 2018 Purchase Agreement. Pursuant to the terms of the 2018 Registration Rights Agreement, the Company filed with the SEC a registration statement to register for resale under the Securities Act the shares that have been or may be issued to Lincoln Park under the 2018 Purchase Agreement.

Pursuant to the terms of the 2018 Purchase Agreement, at the time the Company signed the 2018 Purchase Agreement and the 2018 Registration Rights Agreement, the Company issued 35,000 shares of common stock to Lincoln Park as consideration for its commitment to purchase shares of our common stock under the 2018 Purchase Agreement. The commitment shares were valued at $245,000 and recorded as an addition to equity for the issuance of the common stock and treated as a reduction to equity as a cost of capital to be raised under the 2018 Purchase Agreement.

No shares of common stock were sold under the 2018 Purchase Agreement during the quarter ended March 31, 2019.

2018 At-the-Market Offering

On May 1, 2018, the Company entered into a sales agreement (the "Sales Agreement"), with Cowen and Company, LLC., ("Cowen"), pursuant to which the Company may issue and sell, from time to time, shares of its common stock having an aggregate offering price of up to $9.5 million in at-the-market offerings ("ATM") sales. On the same day, the Company filed a prospectus supplement under its existing shelf registration relating to the Sales Agreement. Cowen acted as sales agent and was paid a 3% commission on each sale under the Sales Agreement. The Company's common stock was sold at prevailing market prices at the time of the sale, and, as a result, prices varied.

No shares of common stock were sold under the ATM during the quarter ended March 31, 2019.

2017 Lincoln Park Transaction

On September 28, 2017, the Company entered into a purchase agreement (the "Purchase Agreement") and a registration rights agreement (the "Registration Rights Agreement") with Lincoln Park Capital Fund, LLC ("Lincoln Park"). Pursuant to the terms of the Purchase Agreement, Lincoln Park has agreed to purchase from the Company up to $15,000,000 of its common stock (subject to certain limitations) from time to time during the term of the Purchase Agreement. Pursuant to the terms of the Registration Rights Agreement, the Company filed with the SEC a registration statement to register for resale under the Securities Act the shares that have been or may be issued to Lincoln Park under the Purchase Agreement.

Pursuant to the terms of the Purchase Agreement, at the time the Company signed the Purchase Agreement and the Registration Rights Agreement, the Company issued 7,304 shares of common stock to Lincoln Park as consideration for its commitment to purchase shares of its common stock under the Purchase Agreement. The commitment shares were valued at $300,000, recorded as an addition to equity for the issuance of the common stock and treated as a reduction to equity as a cost of capital to be raised under the Purchase Agreement.

During the quarter ended March 31, 2018, the Company sold an aggregate of 18,000 shares of common stock under the Purchase Agreement, for gross proceeds of approximately $0.6 million.

Under applicable rules of the NASDAQ Global Market, the Company could not issue or sell more than 19.99% of the shares of its common stock outstanding immediately prior to the execution of the 2017 Purchase Agreement (approximately 150,000 shares) to Lincoln Park under the 2017 Purchase Agreement without stockholder approval, unless the average price of all applicable sales of its common stock to Lincoln Park under the 2017 Purchase Agreement equals or exceeds a threshold amount. As the Company has issued approximately 150,000 shares to Lincoln Park, by December 31, 2018, under the 2017 Purchase Agreement at less than the threshold amount, the Company will not sell any additional shares under the 2017 Purchase Agreement without shareholder approval.

NOTE 6 – STOCK-BASED COMPENSATION

2018 Stock Incentive Plan

On June 8, 2018, the Company's stockholders approved the Tonix Pharmaceuticals Holding Corp. 2018 Stock Incentive Plan (the "2018 Plan"). The 2018 Plan provided for the issuance of up to 132,000 shares of common stock. With the adoption of the 2019 Plan (as defined below), no further grants may be made under the 2018 Plan.

2019 Stock Incentive Plan

On May 3, 2019, the Company's stockholders approved the Tonix Pharmaceuticals Holding Corp. 2019 Stock Incentive Plan (the "2019 Plan").

Under the terms of the 2019 Plan, the Company may issue (1) stock options (incentive and nonstatutory), (2) restricted stock, (3) SARs, (4) RSUs, (5) other stock-based awards, and (6) cash-based awards. The 2019 Plan provides for the issuance of up to 1,400,000 shares of common stock, which amount will be increased to the extent that awards granted under the 2019 Plan and the Plans are forfeited, expire or are settled for cash (except as otherwise provided in the 2019 Plan). The Board of Directors determines the exercise price, vesting and expiration period of the grants under the 2019 Plan. However, the exercise price of an incentive stock option may not be less than 110% of fair value of the common stock at the date of the grant for a 10% or more shareholder and 100% of fair value for a grantee who is not a 10% shareholder. The fair value of the common stock is determined based on quoted market price or in absence of such quoted market price, by the Board of Directors in good faith. Additionally, the expiration period of grants under the 2019 Plan may not more than ten years. As of May 9, 2019, after giving effect to the options granted on May 6, 2019 (see Note 10), 568,300 shares were available for future grants under the 2019 Plan.

General

A summary of the stock option activity and related information for the Plans for the three months ended March 31, 2019 is as follows:

	Shares	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term	Aggregate Intrinsic Value
Outstanding at January 1, 2019	137,145	$ 143.09	8.14	$ —
Grants	113,400	$ 2.06		
Exercised	—			
Forfeitures or expirations	(2,201)	$ 35.42		
Outstanding at March 31, 2019	248,344	$ 79.65	8.69	$ 39,829
Vested and expected to vest at March 31, 2019	248,344	$ 79.65	8.69	$ 39,829
Exercisable at March 31, 2019	70,581	$ 229.28	6.54	$ —

The weighted average fair value of options granted for the three-month periods ended March 31, 2019 and 2018 was $1.55 and $27.07 per share, respectively.

The Company measures the fair value of stock options on the date of grant, based on the Black Scholes option pricing model using certain assumptions discussed below, and the closing market price of the Company's common stock on the date of the grant. For employees and directors, the fair value of the award is measured on the grant date and for non-employees, the fair value of the award is generally re-measured on vesting dates and interim financial reporting dates until the service period is complete. Most stock options granted pursuant to the Plans typically vest 1/3rd 12 months from the date of grant and 1/36th each month thereafter for 24 months and expire ten years from the date of grant. In addition, the Company issues options to directors which vest over a one-year period. In addition, the Company also issues performance-based options to executive officers, which options vest when the target parameters are met, and premium options which have an exercise price greater than the grant date fair value, subject in each case to a one year minimum service period prior to vesting. Stock-based compensation expense related to awards is amortized over the applicable vesting period using the straight-line method.

The assumptions used in the valuation of stock options granted during the three months ended March 31, 2019 and 2018 were as follows:

	Three Months Ended March 31, 2019	Three Months Ended March 31, 2018
Risk-free interest rate	2.48% to 2.54%	2.54% to 2.79%
Expected term of option	3.00 to 6.00 years	4.50 to 7.00 years
Expected stock price volatility	109.71%	101.74% to 102.00%
Expected dividend yield	0.0	0.0

The risk-free interest rate is based on the yield of Daily U.S. Treasury Yield Curve Rates with terms equal to the expected term of the options as of the grant date. The expected term of options is determined using the simplified method, as provided in an SEC Staff Accounting Bulletin, and the expected stock price volatility is based on the Company' historical stock price volatility.

Stock-based compensation expense relating to options granted of $0.3 million and $0.4 million was recognized for the three-month periods ended March 31, 2019 and 2018, respectively.

As of March 31, 2019, the Company had approximately $1.6 million of total unrecognized compensation cost related to non-vested awards granted under the Plans, which the Company expects to recognize over a weighted average period of 1.86 years.

2018 Employee Stock Purchase Plan

On June 8, 2018, the Company's stockholders approved the Tonix Pharmaceuticals Holdings Corp. 2018 Employee Stock Purchase Plan (the "2018 ESPP"). As a result of adoption of the 2019 ESPP, as defined below, by the stockholders, no further grants may be made under the 2018 ESPP Plan.

2019 Employee Stock Purchase Plan

On May 3, 2019, the Company's stockholders approved the Tonix Pharmaceuticals Holdings Corp. 2019 Employee Stock Purchase Plan (the "2019 ESPP").

The 2019 ESPP allows eligible employees to purchase up to an aggregate of 150,000 shares of the Company's common stock. Under the 2019 ESPP, on the first day of each offering period, each eligible employee for that offering period has the option to enroll for that offering period, which allows the eligible employees to purchase shares of the Company's common stock at the end of the offering period. Each offering period under the 2019 ESPP is for six months, which can be modified from time-to-time. Subject to limitations, each participant will be permitted to purchase a number of shares determined by dividing the employee's accumulated payroll deductions for the offering period by the applicable purchase price, which is equal to 85 percent of the fair market value of our common stock at the beginning or end of each offering period, whichever is less. A participant must designate in his or her enrollment package the percentage (if any) of compensation to be deducted during that offering period for the purchase of stock under the 2019 ESPP, subject to the statutory limit under the Code.

The 2019 and 2018 ESPP are considered compensatory plans with the related compensation cost written off over the six-month offering period. The compensation expense related to the 2018 ESPP for the quarters ended March 31, 2019 and 2018 was $24,000 and $0, respectively. As of December 31, 2018, approximately $38,000 of employee payroll deductions, which have been withheld since July 1, 2018, the commencement of the offering period ending December 31, 2018, are included in accrued expenses in the accompanying balance sheet. In January 2019, 1,758 shares that were purchased as of December 31, 2018, were issued under the 2018 ESPP, and approximately $3,000 of employee payroll deductions accumulated at December 31, 2018, related to acquiring such shares, was transferred from accrued expenses to additional paid in capital. The remaining $35,000 was returned to the employees. As of March 31, 2019, approximately $22,000 of employee payroll deductions, which have been withheld since January 1, 2019, the commencement of the offering period ending June 30, 2019, are included in accrued expenses in the accompanying balance sheet.

Restricted stock units

In May 2017, a total of 563 RSUs vested that were granted to the Company's non-employee directors for board services in 2016, in lieu of cash, with a one-year vesting from the grant date and a fair value of $229 at the date of grant. 488 shares of the Company's common stock were issued upon the vesting of such RSU's during the year ended December 31, 2017. The remaining 75 shares of common stock were issued during the three months ended March 31, 2018.

During the three months ended March 31, 2019 and 2018, no stock-based compensation expense related to RSU grants was expensed.

NOTE 7 – STOCK WARRANTS

The following table summarizes information with respect to outstanding warrants to purchase common stock of the Company at March 31, 2019:

Exercise Price	Number Outstanding	Expiration Date
$ 3.50	4,905,710	December 2023
$ 63.00	54,400	October 2021
$ 69.00	4,736	October 2021
	4,964,846	

During the quarter ended March 31, 2019, 20,000 warrants with an exercise price of $3.50 were exercised for proceeds of approximately $70,000.

During the quarter ended March 31, 2019 and March 31, 2018, 233 and 108 warrants with an exercise price of $2,500 and $1,200, respectively, expired.

NOTE 8 – LEASES

The Company has various operating lease agreements, which are primarily for office space. These agreements frequently include one or more renewal options and require the Company to pay for utilities, taxes, insurance and maintenance expense. No lease agreement imposes a restriction on the Company's ability to engage in financing transactions or enter into further lease agreements. At March 31, 2019, the Company has right-of-use assets of $0.6 million and a total lease liability for operating leases of $0.6 million of which $0.2 million is included in long-term lease liabilities and $0.4 million is included in current lease liabilities.

At March 31, 2019, future minimum lease payments for operating leases with non-cancelable terms of more than one year were as follows (in thousands):

Year Ending December 31,	
Remainder of 2019	$ 306
2020	284
2021	6
	$ 596

In January 2019, the Company entered into a new operating lease, resulting in the Company recognizing an operating lease liability of approximately $0.4 million based on the present value of the minimum rental payments. The Company also recognized corresponding ROU assets of approximately $0.4 million. As the Company's leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at the transition date and commencement date in determining the present value of lease payments. Operating lease expense was $0.1 million for the three months ended March 31, 2019. Amortization expense was $0.1 million for the three months ended March 31, 2019.

Other information related to leases was as follows:

Cash paid for amounts included in the measurement of lease liabilities:	Three Months Ended March 31, 2019
Operating cash flow from operating leases (in thousands)	$ 108
Weighted Average Remaining Lease Term	
Operating leases	1.77 years
Weighted Average Discount Rate	
Operating leases	3.36%

NOTE 9 – COMMITMENTS

Research and development contracts

The Company has entered into contracts with various contract research organizations with outstanding commitments aggregating approximately $8.7 million at March 31, 2019 for future work to be performed.

Defined contribution plan

The Company established a qualified defined contribution plan (the "401(k) Plan") pursuant to Section 401(k) of the Code, whereby all eligible employees may participate. Participants may elect to defer a percentage of their annual pretax compensation to the 401(k) Plan, subject to defined limitations. The Company is required to make contributions to the 401(k) Plan equal to 100 percent of each participant's pretax contributions of up to six percent of his or her eligible compensation, and the Company is also required to make a contribution equal to three percent of each participant's salary, on an annual basis, subject to limitations under the Code. For the three months ended March 31, 2019 and 2018, the Company charged operations $46,000 and $31,000, respectively, for contributions under the 401(k) Plan.

NOTE 10 – SUBSEQUENT EVENTS

On May 6, 2019, the Company granted options to purchase an aggregate of 255,000 shares of the Company's common stock to the non-executive members of its Board of Directors with an exercise price of $2.05, with a term of ten years, vesting on the on the one year anniversary of the date of issuance.

On May 6, 2019, the Company granted options to purchase an aggregate of 346,021 shares of the Company's common stock to employees with an exercise price of $2.05, with a term of ten years, vesting 1/3 on the first anniversary and 1/36th each month thereafter for 24 months. Additionally, the Company granted options to purchase 230,679 shares of the Company's common stock to employees with an exercise price of $2.56, with a term of ten years, vesting 1/3 on the first anniversary and 1/36th each month thereafter for 24 months.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

This Management's Discussion and Analysis of Financial Condition and Results of Operations includes a number of forward-looking statements that reflect Management's current views with respect to future events and financial performance. You can identify these statements by forward-looking words such as "may" "will," "expect," "anticipate," "believe," "estimate" and "continue," or similar words. Those statements include statements regarding the intent, belief or current expectations of us and members of its management team as well as the assumptions on which such statements are based. Prospective investors are cautioned that any such forward-looking statements are not guarantees of future performance and involve risk and uncertainties, and that actual results may differ materially from those contemplated by such forward-looking statements.

Readers are urged to carefully review and consider the various disclosures made by us in this report and in our other reports filed with the Securities and Exchange Commission. Important factors known to us could cause actual results to differ materially from those in forward-looking statements. We undertake no obligation to update or revise forward-looking statements to reflect changed assumptions, the occurrence of unanticipated events or changes in the future operating results over time. We believe that its assumptions are based upon reasonable data derived from and known about our business and operations. No assurances are made that actual results of operations or the results of our future activities will not differ materially from its assumptions. Factors that could cause differences include, but are not limited to: substantial competition; our possible need for additional financing; uncertainties of patent protection and litigation; uncertainties of government or third party payor reimbursement; limited research and development efforts and dependence upon third parties; and risks related to failure to obtain clearances or approvals from the United States Food and Drug Administration, or FDA, and noncompliance with FDA regulations.

Business Overview

Tonix is a clinical-stage biopharmaceutical company focused on discovering and developing pharmaceutical products to treat psychiatric and pain conditions, and biological products to improve biodefense through potential medical counter-measures. Our most advanced drug development program is focused on delivering a safe and effective long-term treatment for PTSD. PTSD is characterized by chronic disability, inadequate treatment options, high utilization of healthcare services, and significant economic burden. We have assembled a management team with significant industry experience to lead the development of our product candidates. We complement our management team with a network of scientific, clinical, and regulatory advisors that includes recognized experts in the fields of PTSD, other central nervous system disorders and biodefense.

In June 2017, the U.S. Food and Drug Administration, or FDA, conditionally accepted the proposed trade name Tonmya for TNX-102 SL, for the treatment of PTSD. The FDA's final approval of Tonmya as a name for TNX-102 SL for the treatment of PTSD is subject to New Drug Application, or NDA, approval. The U.S. Patent and Trademark Office, or PTO, has granted the federal registration of the Tonmya mark.

Our lead product candidate, Tonmya, or TNX-102 SL, a proprietary low-dose cyclobenzaprine, or CBP, sublingual tablet, designed for bedtime administration, is in Phase 3 development as a potential treatment for PTSD. Tonix is also developing TNX-102 SL as a bedtime treatment for fibromyalgia and agitation in Alzheimer's disease under separate INDs to support potential pivotal efficacy studies. The fibromyalgia program is in Phase 3 development and the agitation in Alzheimer's program is Phase 2 ready. The agitation in Alzheimer's disease IND has been designated a Fast Track development program by the FDA. TNX-601 (tianeptine oxalate) is in the pre-IND application stage, also for the treatment of PTSD but by a different mechanism from TNX-102 SL and designed for daytime dosing. TNX-601 is also in development for a potential indication - neurocognitive dysfunction associated with corticosteroid use. A Phase 1 clinical formulation selection pharmacokinetic study of TNX-601 will be conducted outside of the U.S. in 2019. Tonix's lead biologic candidate, TNX-801, is a potential smallpox-preventing vaccine based on a live synthetic version of horsepox virus, currently in the pre-IND application stage.

Current Operating Trends

Our current research and development efforts are focused on developing Tonmya for the treatment of PTSD and TNX-102 SL for Fibromyalgia and agitation in Alzheimer's, but we also expend effort on our other pipeline programs, including TNX-601, and TNX-801. Our research and development expenses consist of manufacturing work and the cost of drug ingredients used in such work, fees paid to consultants for work related to clinical trial design and regulatory activities, fees paid to providers for conducting various clinical studies as well as for the analysis of the results of such studies, and for other medical research addressing the potential efficacy and safety of our drugs. We believe that significant investment in product development is a competitive necessity, and we plan to continue these investments in order to be in a position to realize the potential of our product candidates and proprietary technologies.

We expect that all of our research and development expenses in the near-term future will be incurred in support of our current and future preclinical and clinical development programs rather than technology development. These expenditures are subject to numerous uncertainties relating to timing and cost to completion. We test compounds in numerous preclinical studies for safety, toxicology and efficacy. At the appropriate time, subject to the approval of regulatory authorities, we expect to conduct early-stage clinical trials for each drug candidate. We anticipate funding these trials ourselves, and possibly with the assistance of federal grants, contracts or other agreements. As we obtain results from trials, we may elect to discontinue or delay clinical trials for certain products in order to focus our resources on more promising products. Completion of clinical trials may take several years, and the length of time generally varies substantially according to the type, complexity, novelty and intended use of a product candidate.

The commencement and completion of clinical trials for our products may be delayed by many factors, including lack of efficacy during clinical trials, unforeseen safety issues, slower than expected participant recruitment, lack of funding or government delays. In addition, we may encounter regulatory delays or rejections as a result of many factors, including results that do not support the intended safety or efficacy of our product candidates, perceived defects in the design of clinical trials and changes in regulatory policy during the period of product development. As a result of these risks and uncertainties, we are unable to accurately estimate the specific timing and costs of our clinical development programs or the timing of material cash inflows, if any, from our product candidates. Our business, financial condition and results of operations may be materially adversely affected by any delays in, or termination of, our clinical trials or a determination by the FDA that the results of our trials are inadequate to justify regulatory approval, insofar as cash in-flows from the relevant drug or program would be delayed or would not occur.

Results of Operations

We anticipate that our results of operations will fluctuate for the foreseeable future due to several factors, such as the progress of our research and development efforts and the timing and outcome of regulatory submissions. Due to these uncertainties, accurate predictions of future operations are difficult or impossible to make.

Three Months Ended March 31, 2019 Compared to Three Months Ended March 31, 2018

Research and Development Expenses. Research and development expenses for the three months ended March 31, 2019 were $3.9 million, a decrease of $1.3 million, or 25%, from $5.2 million for the three months ended March 31, 2018. This decrease is primarily due to a pharmacokinetic bridging study of TNX-102 SL that was conducted in the first quarter of 2018. Offsetting the decrease is an increase in manufacturing expenses of $0.3 million, period over period, due to TNX-601 formulation work.

General and Administrative Expenses. General and administrative expenses for the three months ended March 31, 2019 were $2.4 million, an increase of $0.6 million, or 33%, from $1.8 million incurred in the three months ended March 31, 2018. This increase is primarily due to an increase in investor and public relations expenses of $0.1 million due to increased investor meetings and in increase in insurance expenses of $0.2 million due to higher premiums in 2019.

Net Loss. As a result of the forgoing, the net loss for the three months ended March 31, 2019 was $6.2 million, compared to a net loss of $6.9 million for the three months ended March 31, 2018, a decrease of $0.7 million or 10%.

Liquidity and Capital Resources

As of March 31, 2019, we had working capital of $17.2 million, comprised primarily of cash and cash equivalents of $16.4 million and prepaid expenses and other of $2.7 million, which was offset by $1.1 million of accounts payable, $0.5 million of accrued expenses and other current liabilities and $0.4 million of current operating lease liabilities. Our cash and cash equivalents consisted of bank deposit accounts and money market funds. A significant portion of the accounts payable and accrued expenses are due to work performed in relation to our Phase 3 RECOVERY study of TNX-102 SL for the treatment of PTSD. For the three months ended March 31, 2019 and 2018, we used approximately $8.6 million and $6.8 million of cash in operating activities, respectively, which represents cash outlays for research and development and general and administrative expenses in such periods. The increase in cash used in operations during the first quarter of 2019 is due primarily to non-recurring items including close-out costs for the Phase 3 HONOR study and start-up costs related to the current Phase 3 RECOVERY study. Additionally, the Company's annual insurance premiums also increased over the prior year, the payments for which all occur in the first quarter. For the three months ended March 31, 2019, we raised approximately $70,000 through the exercise of warrants into common stock. For the three months ended March 31, 2018, we raised $0.5 million through the sale of shares of common stock.

Cash used by investing activities for the three months ended March 31, 2019 and 2018, was $7,000 and $2,000 respectively, related to the purchase of property and equipment.

December 2018 Financing

On December 7, 2018, we entered into an underwriting agreement with Alliance Global Partners ("AGP") and Dawson James Securities, Inc. ("Dawson") (collectively "the Underwriters") pursuant to which we sold securities consisting of 861,710 Class A Units at a public offering price of $3.50 per unit, with each unit consisting of one share of Common Stock and a Warrant to purchase one share of Common Stock, and 11,984 Class B Units at a public offering price of $1,000 per unit, with each unit consisting of one share of Series A Convertible Preferred Stock, with a conversion price of $3.50 per share, and Warrants to purchase 285.7143 shares of Common Stock. The Warrants have an exercise price of $3.50, are exercisable upon issuance and expire five years from the date of issuance.

We also granted the underwriters a 45-day option to purchase up to 642,856 shares of common stock and/or additional Warrants to purchase up to 642,856 additional shares of common stock.

The December 2018 Financing closed on December 11, 2018. The Underwriters purchased the Units at a seven-percent discount to the public offering price, for an aggregate discount of approximately $1.1 million. We received net proceeds from the December 2018 Financing of approximately $13.6 million, after deducting the underwriting discount and other offering expenses of approximately $0.4 million. Additionally, the Underwriters fully exercised the over-allotment option related to the warrants and purchased additional warrants to acquire 640,000 shares of common stock for net proceeds of approximately $6,000.

On December 13, 2018, the 2018 Underwriters partially exercised the over-allotment option and purchased 250,000 shares of common stock for net proceeds of approximately $0.8 million, net of an aggregate discount of $0.1 million (or $0.24 per share).

During the quarter ended March 31, 2019, the remaining 9,856 shares of Series A convertible preferred stock were converted into 2,816,000 shares of common stock. As of March 11, 2019, all Series A convertible preferred stock has been converted into common stock.

2018 At-the-Market Offering

On May 1, 2018, we entered into a sales agreement (the "Sales Agreement"), with Cowen and Company, LLC., ("Cowen"), pursuant to which we may issue and sell, from time to time, shares of our common stock having an aggregate offering price of up to $9.5 million in at-the-market offerings ("ATM") sales. On the same day, we filed a prospectus supplement under its existing shelf registration relating to the Sales Agreement. Cowen acted as sales agent and was paid a 3% commission on each sale under the Sales Agreement. Our common stock was sold at prevailing market prices at the time of the sale, and, as a result, prices varied.

No shares of common stock were sold under the ATM during the quarter ended March 31, 2019.

2018 Lincoln Park Transaction

On October 18, 2018, we entered into a purchase agreement (the "2018 Purchase Agreement") and a registration rights agreement (the "2018 Registration Rights Agreement") with Lincoln Park Capital Fund, LLC ("Lincoln Park"). Pursuant to the terms of the 2018 Purchase Agreement, Lincoln Park has agreed to purchase from us up to $15,000,000 of our common stock (subject to certain limitations) from time to time during the term of the 2018 Purchase Agreement. Pursuant to the terms of the 2018 Registration Rights Agreement, we filed with the SEC a registration statement to register for resale under the Securities Act the shares that have been or may be issued to Lincoln Park under the 2018 Purchase Agreement.

Pursuant to the terms of the 2018 Purchase Agreement, at the time we signed the 2018 Purchase Agreement and the 2018 Registration Rights Agreement, we issued 35,000 shares of common stock to Lincoln Park as consideration for its commitment to purchase shares of our common stock under the 2018 Purchase Agreement. The commitment shares were valued at $245,000 and recorded as an addition to equity for the issuance of the common stock and treated as a reduction to equity as a cost of capital to be raised under the 2018 Purchase Agreement.

Regular Purchases

Under the 2018 Purchase Agreement, on any business day selected by us, we may direct Lincoln Park to purchase up to 7,500 shares of our common stock on any such business day (a "Regular Purchase"), provided, however, that (i) the Regular Purchase may be increased to up to 10,000 shares, provided that the closing sale price is not below $7.50 on the purchase date, (ii) the Regular Purchase may be increased to up to 12,500 shares, provided that the closing sale price is not below $10.00 on the purchase date, (iii) the Regular Purchase may be increased to up to 15,000 shares, provided that the closing sale price is not below $12.50 on the purchase date, (iv) the Regular Purchase may be increased to up to 17,500 shares, provided that the closing sale price is not below $20.00 on the purchase date. In each case, the maximum amount of any single Regular Purchase may not exceed $1,000,000 per purchase.

Accelerated Purchases

In addition to Regular Purchases described above, we may also direct Lincoln Park, on any business day on which we have properly submitted a Regular Purchase notice and the closing sale price of our common stock is not below $7.50 (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the 2018 Purchase Agreement), to purchase an additional amount of our common stock on the next business day (an "Accelerated Purchase"), not to exceed the lesser of:

- 30% of the aggregate shares of our common stock traded during normal trading hours on the purchase date; and
- Three (3) times the number of purchase shares purchased pursuant to the corresponding Regular Purchase.

Additional Purchases

In addition to the Regular Purchases and Accelerated Purchases described above, from time to time we may also direct Lincoln Park, on any business day that the closing price of our common stock is not below $7.50 (subject to adjustment for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as provided in the 2018 Purchase Agreement), to purchase additional amounts of our common stock (an "Additional Accelerated Purchase"), not to exceed the lesser of:

- 96% of the volume weighted average price of our common stock during the applicable Additional Accelerated Purchase Measurement Period on the applicable Additional Accelerated Purchase date; and
- the closing sale price of our common stock on the applicable Additional Accelerated Purchase date.

Tranche Purchases

In addition to the Regular Purchases, Accelerated Purchases and the Additional Accelerated Purchases described above, from time to time we may also direct Lincoln Park, on any business day that the closing price of ours common stock is not below $1.00, to purchase additional amounts of its common stock (a "Tranche Purchase"), provided, however, that any single Tranche Purchase shall not exceed $400,000, and shall not exceed $2,000,000 in the aggregate, not to exceed the lesser of:

- $55.00 and
- 96% of the lower of (i) the lowest sale price of our common stock on the Tranche Purchase date and (ii) the arithmetic average of the three (3) lowest closing sale prices for our common stock during the ten consecutive business days ending on the day immediately preceding the Tranche Purchase date (in each case, to be appropriately adjusted for any reorganization, recapitalization, non-cash dividend, stock split or other similar transaction that occurs on or after the date of this Agreement).

No shares of common stock were sold under the 2018 Purchase Agreement during the quarter ended March 31, 2019.

2017 Lincoln Park Transaction

On September 28, 2017, we entered into a purchase agreement (the "2017 Purchase Agreement") and a registration rights agreement (the "2017 Registration Rights Agreement") with Lincoln Park Capital Fund, LLC ("Lincoln Park"). Pursuant to the terms of the 2017 Purchase Agreement, Lincoln Park has agreed to purchase from us up to $15,000,000 of our common stock (subject to certain limitations) from time to time during the term of the 2017 Purchase Agreement. Pursuant to the terms of the 2017 Registration Rights Agreement, we filed with the SEC a registration statement to register for resale under the Securities Act the shares that have been or may be issued to Lincoln Park under the 2017 Purchase Agreement.

Pursuant to the terms of the 2017 Purchase Agreement, at the time we signed the 2017 Purchase Agreement and the 2017 Registration Rights Agreement, we issued 7,304 shares of common stock to Lincoln Park as consideration for its commitment to purchase shares of our common stock under the 2017 Purchase Agreement. The commitment shares were valued at $300,000, recorded as an addition to equity for the issuance of the common stock and treated as a reduction to equity as a cost of capital to be raised under the 2017 Purchase Agreement.

During the quarter ended March 31, 2018, we sold an aggregate of 18,000 shares of common stock under the 2017 Purchase Agreement, for gross proceeds of approximately $0.6 million.

Under applicable rules of the NASDAQ Global Market, we could not issue or sell more than 19.99% of the shares of its common stock outstanding immediately prior to the execution of the 2017 Purchase Agreement (approximately 150,000 shares) to Lincoln Park under the 2017 Purchase Agreement without stockholder approval, unless the average price of all applicable sales of our common stock to Lincoln Park under the 2017 Purchase Agreement equals or exceeds a threshold amount. As we had issued approximately 150,000 shares to Lincoln Park through December 31, 2018, under the 2017 Purchase Agreement at less than the threshold amount, we will not sell any additional shares under the 2017 Purchase Agreement without shareholder approval.

Future Liquidity Requirements

We expect to incur losses from operations for the near future. We expect to incur increasing research and development expenses, including expenses related to additional clinical trials. We we will not have enough resources to meet our operating requirements for the one-year period from filing date of this report.

Our future capital requirements will depend on a number of factors, including the progress of our research and development of product candidates, the timing and outcome of regulatory approvals, the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims and other intellectual property rights, the status of competitive products, the availability of financing and our success in developing markets for our product candidates.

We will need to obtain additional capital in order to fund future research and development activities. Future financing may include the issuance of equity or debt securities, obtaining credit facilities, or other financing mechanisms. Even if we are able to raise the funds required, it is possible that we could incur unexpected costs and expenses, fail to collect significant amounts owed to us, or experience unexpected cash requirements that would force us to seek alternative financing. Furthermore, if we issue additional equity or debt securities, shareholders may experience additional dilution or the new equity securities may have rights, preferences or privileges senior to those of existing holders of our common stock.

If additional financing is not available or is not available on acceptable terms, we may be required to delay, reduce the scope of or eliminate our research and development programs, reduce our commercialization efforts or obtain funds through arrangements with collaborative partners or others that may require us to relinquish rights to certain product candidates that we might otherwise seek to develop or commercialize independently.

Stock Compensation

Stock Options

On May 3, 2019, our stockholders approved the Tonix Pharmaceuticals Holding Corp. 2019 Stock Incentive Plan (the "2019 Plan"). As a result of adoption of the 2019 Plan by the stockholders, no further grants may be made under any previously adopted equity incentive plans of the Company.

Under the terms of the 2019 Plan, we may issue (1) stock options (incentive and nonstatutory), (2) restricted stock, (3) SARs, (4) RSUs, (5) other stock-based awards, and (6) cash-based awards. The 2018 Plan provides for the issuance of up to 1,400,000 shares of common stock, which amount will be increased to the extent that awards granted under the 2019 Plan and the Plans are forfeited, expire or are settled for cash (except as otherwise provided in the 2019 Plan). The Board of Directors determines the exercise price, vesting and expiration period of the grants under the 2019 Plan. However, the exercise price of an incentive stock option may not be less than 110% of fair value of the common stock at the date of the grant for a 10% or more shareholder and 100% of fair value for a grantee who is not a 10% shareholder. The fair value of the common stock is determined based on quoted market price or in absence of such quoted market price, by the Board of Directors in good faith. Additionally, the expiration period of grants under the 2019 Plan may not more than ten years. As of May 9, 2019, after giving effect to the options granted on May 6, 2019, 568,300 shares were available for future grants under the 2019 Plan.

We measure the fair value of stock options on the date of grant, based on the Black Scholes option pricing model using certain assumptions discussed in the following paragraph, and the closing market price of our common stock on the date of the grant. For employees and directors, the fair value of the award is measured on the grant date and for non-employees, the fair value of the award is generally re-measured on vesting dates and interim financial reporting dates until the service period is complete. Most stock options granted pursuant to the Plans typically vest 1/3rd 12 months from the date of grant and 1/36th each month thereafter for 24 months and expire ten years from the date of grant. In addition, we issue options to directors which vest over a one-year period. In addition, we also issue performance-based options to executive officers, which options vest when the target parameters are met, subject to a one year minimum service period prior to vesting. Stock-based compensation expense related to awards is amortized over the applicable vesting period using the straight-line method.

The weighted average fair value of options granted for the three-month periods ended March 31, 2019 and 2018 was $1.55 and $27.07 per share, respectively.

Stock-based compensation expense relating to options granted of $0.3 million and $0.4 million was recognized for the three-month periods ended March 31, 2019 and 2018, respectively.

As of March 31, 2019, we had approximately $1.6 million of total unrecognized compensation cost related to non-vested awards granted under the Plans, which the Company expects to recognize over a weighted average period of 1.86 years.

Employee Stock Purchase Plan

On May 3, 2019, the Company's stockholders approved the Tonix Pharmaceuticals Holdings Corp. 2019 Employee Stock Purchase Plan (the "2019 ESPP"). As a result of adoption of the 2019 ESPP by the stockholders, no further grants may be made under the Tonix Pharmaceuticals Holdings Corp. 2018 Employee Stock Purchase Plan ("2018 ESPP").

The 2019 ESPP and 2018 ESPP are considered compensatory plans with the related compensation cost written off over the six-month offering period. The compensation expense related to the 2018 ESPP for the quarters ended March 31, 2019 and 2018 was $24,000 and $0, respectively. As of December 31, 2018, approximately $38,000 of employee payroll deductions, which have been withheld since July 1, 2018, the commencement of the offering period ending December 31, 2018, are included in accrued expenses in the accompanying balance sheet. In January 2019, 1,758 shares that were purchased as of December 31, 2018, were issued under the 2018 ESPP, and approximately $3,000 of employee payroll deductions accumulated at December 31, 2018, related to acquiring such shares, was transferred from accrued expenses to additional paid in capital. The remaining $35,000 was returned to the employees. As of March 31, 2019, approximately $22,000 of employee payroll deductions, which have been withheld since January 1, 2019, the commencement of the offering period ending June 30, 2019, are included in accrued expenses in the accompanying balance sheet.

Restricted Stock Units

Restricted stock units

In May 2017, a total of 563 RSUs vested that were granted to our non-employee directors for board services in 2016, in lieu of cash, with a one-year vesting from the grant date and a fair value of $229 at the date of grant. 488 shares of the Company's common stock were issued upon the vesting of such RSU's during the year ended December 31, 2017. The remaining 75 shares of common stock were issued during the three months ended March 31, 2018.

During the three months ended March 31, 2019 and 2018, no stock-based compensation expense related to RSU grants was expensed.

Commitments

Research and development contracts

We have entered into contracts with various contract research organizations with outstanding commitments aggregating approximately $8.7 million at March 31, 2019 for future work to be performed.

Operating leases

As of March 31, 2019, future minimum lease payments are as follows (in thousands):

Year Ending December 31,		
2019	$	306
2020		284
2021		6
	$	596

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities and expenses. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

We believe the following critical accounting policies affect our more significant judgments and estimates used in the preparation of our consolidated financial statements.

Leases. The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, other current liabilities and operating lease liabilities in the Company's consolidated balance sheets. ROU assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent its obligation to make lease payments arising from the lease. Operating lease ROU assets and liabilities are recognized at commencement date based on the present value of lease payments over the lease term. As the Company's leases do not provide an implicit rate, the Company uses an incremental borrowing rate based on the information available at commencement date in determining the present value of lease payments. This is the rate the Company would have to pay if borrowing on a collateralized basis over a similar term to each lease. The operating lease ROU asset also includes any lease payments made and excludes lease incentives. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

Research and Development. We outsource our research and development efforts and expense the related costs as incurred, including the cost of manufacturing product for testing, licensing fees and costs associated with planning and conducting clinical trials. The value ascribed to patents and other intellectual property acquired was expensed as research and development costs, as it related to particular research and development projects and had no alternative future uses.

We estimate our accrued expenses. Our clinical trial accrual process is designed to account for expenses resulting from our obligations under contracts with vendors, consultants and clinical research organizations and clinical site agreements in connection with conducting clinical trials. The financial terms of these contracts are subject to negotiations, which vary from contract to contract and may result in payment flows that do not match the periods over which materials or services are provided to us under such contracts. We account for trial expenses according to the progress of the trial as measured by participant progression and the timing of various aspects of the trial. We determine accrual estimates that take into account discussions with applicable personnel and outside service providers as to the progress or state of completion of trials, or the services completed. During the course of a clinical trial, we adjust our clinical expense recognition if actual results differ from our estimates. We make estimates of our accrued expenses as of each balance sheet date based on the facts and circumstances known to us at that time. Our clinical trial accruals and prepaid assets are dependent upon the timely and accurate reporting of contract research organizations and other third-party vendors.

Stock-Based Compensation. All stock-based payments to employees and to nonemployee directors for their services as directors consisted of grants of restricted stock and stock options, which are measured at fair value on the grant date and recognized in the condensed consolidated statements of operations as compensation expense over the relevant vesting period. Restricted stock payments to nonemployees are recognized as an expense over the period of performance. Such payments are measured at fair value at the earlier of the date a performance commitment is reached or the date performance is completed. In addition, for awards that vest immediately and are nonforfeitable, the measurement date is the date the award is issued.

Recent Accounting Pronouncements

In February 2016, the FASB established ASC Topic 842, Leases (Topic 842), by issuing ASU No. 2016-02, which requires lessees to recognize leases on-balance sheet and disclose key information about leasing arrangements. The new standard establishes a right-of-use (ROU) model that requires a lessee to recognize a ROU asset and lease liability on the balance sheet. Leases will be classified as finance or operating, with classification affecting the pattern and classification of expense recognition in the statement of operations. We adopted the new standard on January 1, 2019.

The new standard provides a number of optional practical expedients in transition. We have elected the ‘package of practical expedients’, which permit us not to reassess under the new standard its prior conclusions about lease identification, lease classification and initial direct costs. We did not elect the use-of-hindsight or the practical expedient pertaining to land easements; the latter is not applicable to us.

The new standard has had a material effect on our financial statements. The most significant effects of adoption relate to (1) the recognition of new ROU assets and lease liabilities on its balance sheet for real estate operating leases; and (2) providing significant new disclosures about its leasing activities.

The new standard also provides practical expedients for an entity’s ongoing accounting. We elected the short-term lease recognition exemption for all leases that qualify. This means, for those leases that qualify, we will not recognize ROU assets or lease liabilities, and this includes not recognizing ROU assets or lease liabilities for existing short-term leases of those assets in transition. Beginning in 2019, we expect changes to our disclosed lease recognition policies and practices, as well as to other related financial statement disclosures due to the adoption of this standard.
The standard did not have a material impact on the Company’s results of operations or liquidity.

Upon adoption, we recognized operating lease liabilities of approximately $0.3 million based on the present value of the remaining minimum rental payments under current leasing standards for existing operating leases. We recognized corresponding ROU assets of approximately $0.3 million.

Off-Balance Sheet Arrangements

Other than contractual obligations incurred in the normal course of business, we do not have any off-balance sheet financing arrangements or liabilities, guarantee contracts, retain or contingent interests in transferred assets or any obligation arising out of a material variable interest in an unconsolidated entity.

ITEM 3 – QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Not required under Regulation S-K for "smaller reporting companies."

ITEM 4 – CONTROLS AND PROCEDURES

Evaluation of disclosure controls and procedures.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15 under the Securities Exchange Act of 1934 as of the end of the period covered by this Quarterly Report on Form 10-Q. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that management is required to apply its judgment in evaluating the benefits of possible controls and procedures relative to their costs.

Based on our evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of March 31, 2019, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in internal control over financial reporting.

There were no changes in our internal control over financial reporting that occurred during the quarter ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1. Legal Proceedings

We are currently not a party to any material legal proceedings or claims.

Item 1A. Risk Factors

Not required under Regulation S-K for "smaller reporting companies."

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

None.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

None.

Item 5. Other Information

None.

Item 6. Exhibits

31.01	Certification of Chief Executive Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.02	Certification of Chief Financial Officer pursuant to Exchange Act Rules 13a-14(a) and 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.01	Certifications of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
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

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

TONIX PHARMACEUTICALS HOLDING CORP.

Date: May 13, 2019

By: /s/ SETH LEDERMAN
Seth Lederman
Chief Executive Officer (Principal Executive Officer)

Date: May 13, 2019

By: /s/ BRADLEY SAENGER
Bradley Saenger
Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 31.01

CERTIFICATION

I, Seth Lederman, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Tonix Pharmaceuticals Holding Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonable likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: May 13, 2019

/s/ SETH LEDERMAN
Seth Lederman
Chief Executive Officer

EXHIBIT 31.02

CERTIFICATION

I, Bradley Saenger, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Tonix Pharmaceuticals Holding Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonable likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal controls over financial reporting.

Date: May 13, 2019

/s/ BRADLEY SAENGER
Bradley Saenger
Chief Financial Officer

EXHIBIT 32.01

CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

I, Seth Lederman, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Tonix Pharmaceuticals Holding Corp. on Form 10-Q for the fiscal quarter ended March 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of Tonix Pharmaceuticals Holding Corp.

Date: May 13, 2019

By: /s/ SETH LEDERMAN
Name: Seth Lederman
Title: *Chief Executive Officer*

I, Bradley Saenger, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Tonix Pharmaceuticals Holding Corp. on Form 10-Q for the fiscal quarter ended March 31, 2019 fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in this Quarterly Report on Form 10-Q fairly presents in all material respects the financial condition and results of operations of Tonix Pharmaceuticals Holding Corp.

Date: May 13, 2019

By: /s/ BRADLEY SAENGER
Name: Bradley Saenger
Title: *Chief Financial Officer*