RespireRx Pharmaceuticals Inc.
Form 10-Q
August 12, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2016

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

Commission file number: 1-16467

RESPIRERX PHARMACEUTICALS INC.

(Exact name of registrant as specified in its charter)

Delaware	**33-0303583**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

126 Valley Road, Suite C

Glen Rock, New Jersey 07452

(Address of principal executive offices)

(201) 444-4947

(Registrant's telephone number, including area code)

Not applicable

(Former name, former address and former fiscal year, if changed since last report)

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 [X] No [ ]

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes [X] No [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer (as defined in Rule 12b-2 of the Exchange Act).

Large accelerated filer [ ] Accelerated filer [ ]
Non-accelerated filer [ ] Smaller reporting company [X]

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes [ ] No [X]

As of August 5, 2016, the Company had 656,159,420 shares of common stock, $0.001 par value, issued and outstanding.

RESPIRERX PHARMACEUTICALS INC.
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Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q of RespireRx Pharmaceuticals Inc. (the "Company") contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 and we intend that such forward-looking statements be subject to the safe harbor created thereby. These might include statements regarding the Company's financial position, business strategy and other plans and objectives for future operations, and assumptions and predictions about research and development efforts, including, but not limited to, preclinical and clinical research design, execution, timing, costs and results, future product demand, supply, manufacturing, costs, marketing and pricing factors are all forward-looking statements.

In some cases, forward-looking statements may be identified by words including "anticipates," "believes," "intends," "estimates," "expects," "plans," and similar expressions include, but are not limited to, statements regarding (i) future research plans, expenditures and results, (ii) potential collaborative arrangements, (iii) the potential utility of our proposed products, and (iv) the need for, and availability of, additional financing.

The forward-looking statements included herein are based on current expectations that involve a number of risks and uncertainties. These forward-looking statements are based on assumptions regarding our business and technology, which involve judgments with respect to, among other things, future scientific, economic and competitive conditions, and future business decisions, all of which are difficult or impossible to predict accurately and many of which are beyond our control. Although we believe that the assumptions underlying the forward-looking statements are reasonable, actual results may differ materially from those set forth in the forward-looking statements. In light of the significant uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be regarded as a representation by us or any other person that our objectives or plans will be achieved.

Factors that could cause or contribute to such differences include, but are not limited to, regulatory policies or changes thereto, available cash, research and development results, competition from other similar businesses, and market and general economic factors. This discussion should be read in conjunction with the condensed consolidated financial statements (unaudited) and notes thereto included in Item 1 of this Quarterly Report on Form 10-Q and the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, including the section entitled "Item 1A. Risk Factors." The Company does not intend to update or revise any forward-looking statements to reflect new information, future events or otherwise.

PART I - FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

RESPIRERX PHARMACEUTICALS INC.

AND SUBSIDIARY

CONDENSED CONSOLIDATED BALANCE SHEETS

	June 30, 2016 (Unaudited)	December 31, 2015
ASSETS		
Current assets:		
Cash and cash equivalents	$347,256	$53,199
Advance on research contract	111,654	-
Deferred financing costs	-	3,429
Prepaid expenses, including current portion of long-term prepaid insurance of $14,945 at June 30, 2016 and December 31, 2015	69,749	29,144
Total current assets	528,659	85,772
Equipment, net of accumulated depreciation of $12,253 and $8,776 at June 30, 2016 and December 31, 2015, respectively	8,644	12,121
Long-term prepaid insurance, net of current portion of $14,945 at June 30, 2016 and December 31, 2015	40,476	47,949
Total assets	$577,779	$145,842
LIABILITIES AND STOCKHOLDERS' DEFICIENCY		
Current liabilities:		
Accounts payable and accrued expenses, including $136,990 and $111,688 payable to related parties at June 30, 2016 and December 31, 2015, respectively	$1,941,821	$1,434,429
Accrued compensation and related expenses	1,321,859	710,409
10% convertible notes payable, including accrued interest of $46,757 and $61,388, net of unamortized discounts of $48,557 and $342,932 at June 30, 2016 and December 31, 2015, respectively	274,200	297,956
	596,908	561,568

Note payable to SY Corporation, including accrued interest of $195,178 and $171,257 at June 30, 2016 and December 31, 2015, respectively		
Notes payable to officers, including accrued interest of $4,352	109,552	-
Other short-term notes payable	28,227	3,689
Total current liabilities	4,272,567	3,008,051
Commitments and contingencies (Note 8)		
Stockholders' deficiency:		
Series B convertible preferred stock, $0.001 par value; $0.6667 per share liquidation preference; aggregate liquidation preference $25,001; shares authorized: 37,500; shares issued and outstanding: 37,500; common shares issuable upon conversion at 0.09812 per share: 3,679	21,703	21,703
Series G 1.5% cumulative mandatorily convertible preferred stock, $0.001 par value, $1,000 per share stated value and liquidation preference; aggregate liquidation preference (including dividends) $258,566 at December 31, 2015; shares authorized: 1,700; shares issued and outstanding: 258.6 at December 31, 2015; common shares issuable upon conversion at 303,030.3 common shares per Series G share: 78,353,485 shares, including 2,074,698 shares issuable for dividends of $6,847 at December 31, 2015	-	258,566
Common stock, $0.001 par value; shares authorized: 1,400,000,000; shares issued and outstanding: 656,159,420 and 489,846,883 at June 30, 2016 and December 31, 2015, respectively	656,159	489,847
Additional paid-in capital	149,320,569	144,647,529
Accumulated deficit	(153,693,219)	(148,279,854)
Total stockholders' deficiency	(3,694,788)	(2,862,209)
Total liabilities and stockholders' deficiency	$577,779	$145,842

See accompanying notes to condensed consolidated financial statements (unaudited).

RESPIRERX PHARMACEUTICALS INC.

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CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Grant revenues	$-	$12,382	$-	$86,916
Operating expenses:				
General and administrative, including $1,173,955 and $657,600 to related parties for the three months ended June 30, 2016 and 2015, respectively, and $2,337,366 and $667,600 to related parties for the six months ended June 30, 2016 and 2015, respectively	1,422,605	800,393	2,922,245	1,030,293
Research and development, including $425,473 and $96,200 to related parties for the three months ended June 30, 2016 and 2015, respectively, and $843,433 and $172,489 to related parties for the six months ended June 30, 2016 and 2015, respectively	926,920	272,340	1,844,056	713,132
Total operating expenses	2,349,525	1,072,733	4,766,301	1,743,425
Loss from operations	(2,349,525)	(1,060,351)	(4,766,301)	(1,656,509)
Gain (loss) from settlements with former management	-	(840)	-	91,710
Gain from settlements with service providers	-	75,375	-	75,375
Fair value of inducement to effect exchange of 10% convertible notes payable for common stock	(188,274)	-	(188,274)	-
Interest expense, including $2,623 and $164 to related parties for the three months ended June 30, 2016 and 2015, respectively, and $100,989 and $164 to related parties for the six months ended June 30, 2016 and 2015, respectively	(199,441)	(269,433)	(446,206)	(497,968)
Foreign currency transaction gain (loss)	5,991	5,617	(11,419)	9,808
Net loss	(2,731,249)	(1,249,632)	(5,412,200)	(1,977,584)
Adjustments related to Series G 1.5% Convertible Preferred Stock:				
Dividend on Series G 1.5% Convertible Preferred Stock	(184)	(1,574)	(1,165)	(4,772)

Net loss attributable to common stockholders	$(2,731,433)	$(1,251,206)	$(5,413,365)	$(1,982,356)
Net loss per common share - basic and diluted	$(0.00)	$(0.00)	$(0.01)	$(0.01)
Weighted average common shares outstanding - basic and diluted	612,737,935	375,150,770	554,335,252	307,305,205

See accompanying notes to condensed consolidated financial statements (unaudited).

RESPIRERX PHARMACEUTICALS INC.

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CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIENCY

(Unaudited)

Six Months Ended June 30, 2016

	Series B Convertible Preferred Stock		Series G 1.5% Convertible Preferred Stock		Common Stock		Additional Paid-in	Accumulated	Total Stockhol
	Shares	Amount	Shares	Amount	Shares	Par Value	Capital	Deficit	Deficienc
Balance, December 31, 2015	37,500	$21,703	258.6	$258,566	489,846,883	$489,847	$144,647,529	$(148,279,854)	$(2,862,2
Sale of common stock units in private placement	-	-	-	-	13,975,883	13,976	296,009	-	309,985
Costs incurred in connection with sale of common stock units	-	-	-	-	-	-	(3,429)	-	(3,429
Common stock issued in connection with 10% convertible notes payable exchanges	-	-	-	-	32,990,233	32,990	544,339	-	577,329
Common stock issued in connection with unit exchanges	-	-	-	-	35,292,916	35,293	494,101	-	529,394
	-	-	-	-	5,347,223	5,347	90,903	-	96,250

Common stock issued to service providers									
Fair value of common stock options issued as compensation	-	-	-	-	-	-	2,785,182	-	2,785,18
Fair value of common stock warrants issued as additional consideration in connection with loans from officers	-	-	-	-	-	-	96,636	-	96,636
Fair value of inducement to effect conversion of 10% convertible notes payable into common stock	-	-	-	-	-	-	188,274	-	188,274
Dividends on Series G 1.5% Convertible Preferred Stock	-	-	1.1	1,165	-	-	-	(1,165)	-
Mandatory conversion of Series G 1.5% Convertible Preferred Stock	-	-	(259.7)	(259,731)	78,706,282	78,706	181,025	-	-
Net loss	-	-	-	-	-	-	-	(5,412,200)	(5,412,2
Balance, June 30, 2016	37,500	$21,703	-	$-	656,159,420	$656,159	$149,320,569	$(153,693,219)	$(3,694,7

See accompanying notes to condensed consolidated financial statements (unaudited).

RESPIRERX PHARMACEUTICALS INC.

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CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited)

	Six Months Ended June 30,	
	2016	2015
Cash flows from operating activities:		
Net loss	$(5,412,200)	$(1,977,584)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	3,477	3,641
Amortization of debt discounts (including beneficial conversion feature) related to convertible notes payable	177,876	364,981
Write-off of unamortized debt discounts (including beneficial conversion feature) related to exchange of 10% convertible notes payable for common stock	116,499	-
Fair value of inducement to effect exchange of 10% convertible notes payable for common stock	188,274	-
Amortization of capitalized financing costs	-	78,822
Fair value of warrants issued as additional consideration in connection with loans from officers	96,636	-
Gains from settlement(s) -		
With former management	-	(91,710)
With service providers	-	(75,375)
Stock-based compensation expense included in -		
General and administrative expenses	1,984,118	438,600
Research and development expenses	801,064	145,400
Foreign currency transaction gain (loss)	11,419	(9,808)
Changes in operating assets and liabilities:		
(Increase) decrease in -		
Grant receivable	-	48,000
Advance on research contract	(111,654)	-
Prepaid expenses	(33,132)	9,371
Increase (decrease) in -		
Accounts payable and accrued expenses	643,658	519,798
Accrued compensation and related expenses	611,450	204,500
Accrued interest payable	54,617	53,002
Unearned grant revenues	-	(34,333)
Net cash used in operating activities	(867,898)	(322,695)

Cash flows from investing activities:		
Purchases of equipment	-	(2,497)
Net cash used in investing activities	-	(2,497)
Cash flows from financing activities:		
Proceeds from sale of common stock units	309,985	-
Proceeds from warrant exchange transactions	762,240	-
Proceeds from convertible note and warrant financing	-	210,000
Proceeds from issuance of notes payable to officers	105,200	40,000
Principal paid on other short-term notes payable	(15,470)	(10,678)
Cash payments made for deferred costs incurred in connection with proposed private placement	-	(8,000)
Cash payments made for deferred costs incurred in connection with convertible note and warrant financing	-	(15,700)
Net cash provided by financing activities	1,161,955	215,622
Cash and cash equivalents:		
Net increase (decrease)	294,057	(109,570)
Balance at beginning of period	53,199	162,752
Balance at end of period	$347,256	$53,182

(Continued)

RESPIRERX PHARMACEUTICALS INC.

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CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

(Unaudited)

	Six Months Ended June 30,	
	2016	2015
Supplemental disclosures of cash flow information:		
Cash paid for -		
Interest	$562	$1,164
Income taxes	$-	$-
Non-cash financing activities:		
Dividends on Series G 1.5% Convertible Preferred Stock	$1,165	$4,772
Deferred financing costs charged to additional paid-in capital	$3,429	$-
Short-term note payable issued in connection with the procurement of directors and officers insurance	$40,016	$36,125
Stated value of Series G 1.5% Convertible Preferred Stock converted into common stock	$259,731	$563,532
Fair value of common stock options issued in connection with settlements with former management	$-	$26,290
Fair value of common stock options issued in connection with settlements with service providers	$-	$608,064
Fair value of common stock issued to service providers	$96,250	$-
Fair value of common stock warrants issued to investors in connection with the convertible note and warrant financing	$-	$112,557
Fair value of common stock warrants issued to placement agents in connection with the convertible note and warrant financing	$-	$12,726
Fair value of beneficial conversion feature of convertible notes payable issued to investors in connection with the convertible note and warrant financing	$-	$97,443
10% convertible notes payable, including accrued interest of $40,983, exchanged for common stock	$344,483	$-

See accompanying notes to condensed consolidated financial statements (unaudited).

RESPIRERX PHARMACEUTICALS INC.

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NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited)

Three Months and Six Months Ended June 30, 2016 and 2015

1. Organization and Basis of Presentation

The condensed consolidated financial statements of RespireRx Pharmaceuticals Inc. ("RespireRx") and its wholly-owned subsidiary, Pier Pharmaceuticals, Inc. ("Pier") (collectively referred to herein as the "Company," unless the context indicates otherwise), at June 30, 2016 and for the three months and six months ended June 30, 2016 and 2015, are unaudited. In the opinion of management, all adjustments (including normal recurring adjustments) have been made that are necessary to present fairly the consolidated financial position of the Company as of June 30, 2016, the results of its consolidated operations for the three months and six months ended June 30, 2016 and 2015, and its consolidated cash flows for the six months ended June 30, 2016 and 2015. Consolidated operating results for the interim periods presented are not necessarily indicative of the results to be expected for a full fiscal year. The consolidated balance sheet at December 31, 2015 has been derived from the Company's audited consolidated financial statements at such date.

The condensed consolidated financial statements and related notes have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the "SEC"). Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been omitted pursuant to such rules and regulations. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and other information included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as filed with the SEC.

2. Business

RespireRx was formed in 1987 under the name Cortex Pharmaceuticals, Inc. to engage in the discovery, development and commercialization of innovative pharmaceuticals for the treatment of neurological and psychiatric disorders. On December 16, 2015, the Company filed a Certificate of Amendment to its Second Restated Certificate of Incorporation with the Secretary of State of the State of Delaware to amend the Company's Second Restated Certificate of Incorporation to change the name of the Company from Cortex Pharmaceuticals, Inc. to RespireRx Pharmaceuticals Inc.

In 2011, RespireRx conducted a re-evaluation of its strategic focus and determined that clinical development in the area of respiratory disorders, particularly sleep apnea and drug-induced respiratory depression, provided the most cost-effective opportunities for potential rapid development and commercialization of RespireRx's compounds. Accordingly, RespireRx narrowed its clinical focus at that time and sidelined other avenues of scientific inquiry. This re-evaluation provided the impetus for RespireRx's acquisition of Pier in August 2012.

The Company has continued to implement this strategic focus, notwithstanding a change in management in March 2013, including seeking the capital to fund such efforts. As a result of the Company's scientific discoveries and the acquisition of strategic, exclusive license agreements, management believes that the Company is now a leader in developing drugs for respiratory disorders, particularly sleep apneas and drug-induced respiratory depression.

Since its formation in 1987, RespireRx has been engaged in the research and clinical development of a class of proprietary compounds known as ampakines, which act to enhance the actions of the excitatory neurotransmitter glutamate at AMPA glutamate receptors. Several ampakines, in both oral and injectable form, are being developed by the Company for the treatment of a variety of breathing disorders. In clinical studies, select ampakines have shown preliminary efficacy in central sleep apnea and in the control of respiratory depression produced by opioids, without altering their analgesic effects. In animal models of orphan disorders, such as Pompe Disease, spinal cord damage and perinatal respiratory distress, it has been demonstrated that certain ampakines improve breathing function. The Company's compounds belong to a new class of ampakines that do not display the undesirable side effects previously reported in animal models of earlier generations.

The Company owns patents and patent applications for certain families of chemical compounds, including ampakines, which claim the chemical structures and their use in the treatment of various disorders. These patents cover, among other compounds, the Company's lead ampakines CX1739 and CX1942, and extend through at least 2028.

On May 8, 2007, RespireRx entered into a license agreement, as subsequently amended, with the University of Alberta granting RespireRx exclusive rights to method of treatment patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. These patents, along with RespireRx's own patents claiming chemical structures, comprise RespireRx's principal intellectual property supporting RespireRx's research and clinical development program in the use of ampakines for the treatment of respiratory disorders. RespireRx has completed pre-clinical studies indicating that several of its ampakines, including CX717, CX1739 and CX1942, were efficacious in treating drug induced respiratory depression caused by opioids or certain anesthetics without offsetting the analgesic effects of the opioids or the anesthetic effects of the anesthetics. In two clinical Phase 2 studies, one of which was published in a peer-reviewed journal, CX717, a predecessor compound to CX1739 and

CX1942, antagonized the respiratory depression produced by fentanyl, a potent narcotic, without affecting the analgesia produced by this drug. In addition, RespireRx has conducted a Phase 2A clinical study in which patients with sleep apnea were administered CX1739, RespireRx's lead clinical compound. The results suggested that CX1739 might have use as a treatment for central sleep apnea ("CSA") and mixed sleep apnea, but not obstructive sleep apnea ("OSA").

In order to expand RespireRx's respiratory disorders program, RespireRx acquired 100% of the issued and outstanding equity securities of Pier effective August 10, 2012 pursuant to an Agreement and Plan of Merger. Pier was formed in June 2007 (under the name SteadySleep Rx Co.) as a clinical stage pharmaceutical company to develop a pharmacologic treatment for OSA and had been engaged in research and clinical development activities since formation.

Through the merger, RespireRx gained access to an Exclusive License Agreement (as amended, the "2007 License Agreement") that Pier had entered into with the University of Illinois on October 10, 2007. The 2007 License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids, of which dronabinol is a specific example, for the treatment of sleep-related breathing disorders (including sleep apnea). Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as Δ9-THC (Δ9-tetrahydrocannabinol). Pier's business plan was to determine whether dronabinol would significantly improve subjective and objective clinical measures in patients with OSA. In addition, Pier intended to evaluate the feasibility and comparative efficacy of a proprietary formulation of dronabinol.

The 2007 License Agreement granted Pier, among other provisions, exclusive rights: (i) to practice certain patents and patent applications, as defined in the 2007 License Agreement, that were then held by the University of Illinois; (ii) to identify, develop, make, have made, import, export, lease, sell, have sold or offer for sale any related licensed products; and (iii) to grant sub-licenses of the rights granted in the 2007 License Agreement, subject to the provisions of the 2007 License Agreement. Pier was required under the 2007 License Agreement, among other terms and conditions, to pay the University of Illinois a license fee, royalties, patent costs and certain milestone payments.

Prior to the merger, Pier conducted a 21 day, randomized, double-blind, placebo-controlled, dose escalation Phase 2 clinical study in 22 patients with OSA, in which dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index, the primary therapeutic end-point, and was observed to be safe and well tolerated. The University of Illinois and three other research centers are currently investigating dronabinol in a potentially pivotal, six week, double-blind, placebo-controlled Phase 2B clinical trial in 120 patients with OSA. The University of Illinois has indicated that recruitment for this clinical trial was completed during the second quarter of 2016. Final research results are expected to be published in the fourth quarter of 2016. This clinical trial is fully funded by the National Heart, Lung and Blood Institute of the National Institutes of Health. The Company is not managing or funding this clinical trial.

Dronabinol is a Schedule III, controlled generic drug with a relatively low abuse potential that is approved by the U.S. Food and Drug Administration (the "FDA") for the treatment of AIDS-related anorexia and chemotherapy-induced emesis. The use of dronabinol for the treatment of OSA is a novel indication for an already approved drug and, as such, the Company believes that it would only require approval by the FDA of a supplemental new drug application, as opposed to the submission and approval of a full new drug application.

The 2007 License Agreement was terminated effective March 21, 2013, due to the Company's failure to make a required payment. Subsequently, current management opened negotiations with the University of Illinois, and as a result, the Company entered into a new license agreement (the "2014 License Agreement") with the University of Illinois on June 27, 2014, the material terms of which were similar to the 2007 License Agreement that was terminated on March 21, 2013.

The Company filed an Investigational New Drug ("IND") application with the FDA in September 2015 to conduct a double-blind, placebo-controlled, dose-ascending Phase 2A clinical trial in approximately 18 subjects to determine the ability of orally administered CX1739, the Company's proprietary lead ampakine, to prevent the respiratory depression produced by remifentanil, a potent opioid, without altering remifentanil's analgesic properties. The clinical protocol was designed to evaluate the safety and efficacy of three escalating doses of CX1739 versus placebo when administered prior to remifentanil, with respiration, analgesia and a number of other clinical measures being taken after administration of both drugs. The commencement of this clinical trial was subject to resolution of two deficiencies raised by the FDA in its clinical hold letter issued in November 2015. These issues were satisfactorily resolved in early 2016, and the FDA removed the clinical hold on the Company's IND for CX1739 on February 25, 2016, thus allowing for the initiation of the clinical trial. During March 2016, upon receiving unconditional approval from the Institutional Review Board of the Duke Clinical Research Unit, this Phase 2A clinical trial at Duke University School of Medicine was initiated, with the dosing portion of the clinical trial completed in June 2016 and the clinical trial formally completed on July 11, 2016. The Company currently expects to incur a total of approximately $978,000 of direct and indirect costs in 2016 with respect to this clinical trial (including approximately $678,000 to Duke University), of which a total of approximately $310,000 and $488,000 was incurred during the three months and six months ended June 30, 2016, respectively. The Company is currently working with the Duke University clinical research team to analyze the data collected. The Company expects to complete a preliminary top-line analysis of the respiratory data by the end of September 2016 and to issue a final report on the results of the clinical trial by the end of December 2016.

Going Concern

The Company's condensed consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred net losses of $5,412,200 for the six months ended June 30, 2016 and $5,961,892 for the fiscal year ended December 31, 2015, and negative operating cash flows of $867,898 for the six months ended June 30, 2016 and $1,296,100 for the fiscal year ended December 31, 2015. The Company also had a stockholders' deficiency of $3,694,788 at June 30, 2016, and expects to continue to incur net losses and negative operating cash flows for at least the next few years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern. In addition, the Company's independent registered public accounting firm, in their report on the Company's consolidated financial statements for the year ended December 31, 2015, has expressed substantial doubt about the Company's ability to continue as a going concern.

The Company is currently, and has for some time, been in significant financial distress. It has limited cash resources and current assets and has no ongoing source of sustainable revenue. Management is continuing to address various aspects of the Company's operations and obligations, including, without limitation, debt obligations, financing requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has continued to raise new debt and equity capital to fund the Company's business activities from both related and unrelated parties, as described at Notes 4 and 6.

The Company is continuing efforts to raise additional capital in order to pay its liabilities, fund its business activities and underwrite its research and development programs. The Company regularly evaluates various measures to satisfy the Company's liquidity needs, including the development of agreements with collaborative partners and, when necessary, the exchange or restructuring of the Company's outstanding securities. As a result of the Company's current financial situation, the Company has limited access to external sources of debt and equity financing. Accordingly, there can be no assurances that the Company will be able to secure additional financing in the amounts necessary to fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources on a timely basis, the Company may be forced to reduce operations indefinitely or to discontinue operations entirely and liquidate.

3. Summary of Significant Accounting Policies

Principles of Consolidation

The accompanying condensed consolidated financial statements are prepared in accordance with United States generally accepted accounting principles ("GAAP") and include the financial statements of RespireRx and its wholly-owned subsidiary, Pier. Intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates include, among other things, accounting for potential liabilities and the assumptions utilized in valuing stock-based compensation issued for services. Actual amounts may differ from those estimates.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company limits its exposure to credit risk by investing its cash with high quality financial institutions. The Company's cash balances may periodically exceed federally insured limits. The Company has not experienced a loss in such accounts to date.

Cash Equivalents

The Company considers all highly liquid short-term investments with maturities of less than three months when acquired to be cash equivalents.

Fair Value of Financial Instruments

The authoritative guidance with respect to fair value established a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three levels, and requires that assets and liabilities carried at fair value be classified and disclosed in one of three categories, as presented below. Disclosure as to transfers into and out of Levels 1 and 2, and activity in Level 3 fair value measurements, is also required.

Level 1. Observable inputs such as quoted prices in active markets for an identical asset or liability that the Company has the ability to access as of the measurement date. Financial assets and liabilities utilizing Level 1 inputs include active-exchange traded securities and exchange-based derivatives.

Level 2. Inputs, other than quoted prices included within Level 1, which are directly observable for the asset or liability or indirectly observable through corroboration with observable market data. Financial assets and liabilities utilizing Level 2 inputs include fixed income securities, non-exchange based derivatives, mutual funds, and fair-value hedges.

Level 3. Unobservable inputs in which there is little or no market data for the asset or liability which requires the reporting entity to develop its own assumptions. Financial assets and liabilities utilizing Level 3 inputs include infrequently-traded, non-exchange-based derivatives and commingled investment funds, and are measured using present value pricing models.

The Company determines the level in the fair value hierarchy within which each fair value measurement falls in its entirety, based on the lowest level input that is significant to the fair value measurement in its entirety. In determining the appropriate levels, the Company performs an analysis of the assets and liabilities at each reporting period end.

The carrying amount of financial instruments (consisting of cash, cash equivalents, advances on research grant and accounts payable and accrued expenses) is considered by the Company to be representative of the respective fair values of these instruments due to the short-term nature of those instruments. With respect to the note payable to SY Corporation and the convertible notes payable, management does not believe that the credit markets have materially changed for these types of borrowings since the original borrowing date.

Deferred Financing Costs

Costs incurred in connection with ongoing debt and equity financings, including legal fees, are deferred until the related financing is either completed or abandoned.

Costs related to abandoned debt or equity financings are charged to operations in the period of abandonment. Costs related to completed debt financings are presented as a direct deduction from the carrying amount of the related debt liability (see “Capitalized Financing Costs” below). Costs related to completed equity financings are charged directly to additional paid-in capital.

Capitalized Financing Costs

Through December 31, 2015, costs related to completed debt financings were capitalized on the balance sheet and amortized over the term of the related debt agreements. Amortization of these costs was calculated on the straight-line basis, which approximated the effective interest method, and was charged to interest expense in the consolidated statements of operations.

Pursuant to Accounting Standards Update No. 2015-03 (ASU 2015-03), Interest – Imputation of Interest (Subtopic 835-30), effective January 1, 2016, the Company is required to present debt issuance costs related to a debt liability in its consolidated balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with the presentation for debt discounts. The Company is required to apply the new accounting guidance on a retrospective basis, wherein the balance sheet of each individual period presented is adjusted to reflect the period-specific effects of applying the new guidance, and is required to comply with the applicable disclosures for a change in an accounting principle. These disclosures include the nature of and reason for the change in accounting principle, the transition method, a description of the prior-period information that has been retrospectively adjusted, and the effect of the change on the financial statement line items (i.e., the debt issuance cost asset and the debt liability).

As the Company did not have any capitalized financing costs on its consolidated balance sheet at December 31, 2015 or at June 30, 2016, the implementation of ASU 2015-03 did not have any impact on the Company's financial statements as presented herein.

Series G 1.5% Convertible Preferred Stock

The shares of Series G 1.5% Convertible Preferred Stock (including accrued dividends) issued in 2014 were mandatorily convertible into common stock at a fixed conversion rate on April 17, 2016 (if not converted earlier) and provided no right to receive a cash payment. Additionally, the Series G 1.5% Convertible Preferred Stock included no participatory or reset rights, or other protections (other than normal anti-dilution rights) based on subsequent events, including equity transactions. Accordingly, the Company has determined that the Series G 1.5% Convertible Preferred Stock should be categorized in stockholders' equity (deficiency), and that there are no derivatives embedded in such security that would require identification, bifurcation and valuation. The Company did not issue any warrants to investors in conjunction with the Series G 1.5% Convertible Preferred Stock financing.

On March 18, 2014 and April 17, 2014, the Company issued 753.22 shares and 175.28 shares, respectively, of Series G 1.5% Convertible Preferred Stock at a purchase price of $1,000 per share. Each share of Series G 1.5% Convertible Preferred Stock has a stated value of $1,000 per share and was convertible into shares of common stock at a fixed price of $0.0033 per share of common stock. On March 18, 2014 and April 17, 2014, the per share fair value of the common stock into which the Series G 1.5% Convertible Preferred Stock was convertible, determined by reference to the closing market prices of the Company's common stock on such closing dates, was $0.04 per share and $0.0348 per share, respectively, which was greater than the effective purchase price of such common shares of $0.0033 per share.

The Company accounted for the beneficial conversion features in accordance with Accounting Standards Codification ("ASC") 470-20, Accounting for Debt with Conversion and Other Options. The Company calculated a deemed dividend on the Series G 1.5% Convertible Preferred Stock of $8,376,719 in March 2014 and $1,673,127 in April 2014, which equals the amount by which the estimated fair value of the common stock issuable upon conversion of the issued

Series G 1.5% Convertible Preferred Stock exceeded the proceeds from such issuances. The deemed dividend on the Series G 1.5% Convertible Preferred Stock was amortized on the straight-line basis from the respective issuance dates through the earliest conversion date of June 16, 2014, in accordance with ASC 470-20. The difference between the amortization of the deemed dividend calculated based on the straight-line method and the effective yield method was not material.

Dr. Arnold S. Lippa, Ph.D., the Chairman of the Company's Board of Directors and Chief Executive Officer at that time, purchased 250 shares of Series G 1.5% Convertible Preferred Stock for $250,000, representing 33.2% of the 753.22 shares of Series G 1.5% Convertible Preferred Stock sold in the initial closing of such financing on March 18, 2014. The second and final closing of the financing consisted entirely of Series G 1.5% Convertible Preferred Stock sold to unaffiliated investors. Accordingly, Dr. Lippa purchased 26.9% of the entire amount of Series G 1.5% Convertible Preferred Stock sold in the financing. Dr. Lippa had been an officer and director of the Company for approximately one year when he purchased the 250 shares of Series G 1.5% Convertible Preferred Stock, and his investment, which was only a portion of the first closing, was made on the same terms and conditions as those provided to the other unaffiliated investors who made up the majority of the financing. Dr. Lippa did not control, directly or indirectly, 10% or more of the Company's voting equity securities at the time of his investment. The proportionate share of the deemed dividend attributable to Dr. Lippa's investment in the Series G 1.5% Convertible Preferred Stock in March 2014 was $2,780,303. On April 18, 2014, the shares of Series G 1.5% Convertible Preferred Stock originally purchased by Dr. Lippa were transferred to the Arnold Lippa Family Trust of 2007. On April 15, 2015, these shares of Series G 1.5% Convertible Preferred Stock, plus accrued dividends of $4,120, were converted into 77,006,072 shares of common stock.

10% Convertible Notes Payable

Original Issuance of Notes and Warrants

The convertible notes sold to investors in 2014 and 2015 bear interest at a rate of 10% per annum and are convertible into common stock at a fixed price of $0.035 per share. The convertible notes have no reset rights or other protections based on subsequent equity transactions, equity-linked transactions or other events. The warrants issued in connection with the sale of the convertible notes are exercisable at a fixed price of $0.035 per share, provide no right to receive a cash payment, and include no reset rights or other protections based on subsequent equity transactions, equity-linked transactions or other events. The Company has determined that there are no embedded derivatives to be identified, bifurcated and valued in connection with this financing.

On November 5, 2014, the Company sold an aggregate principal amount of $238,500 of its 10% convertible notes payable due September 15, 2015, which were subject to extension to September 15, 2016, at the option of the Company, subject to the issuance of additional warrants, and warrants to purchase shares of common stock exercisable into a fixed number of shares of common stock of the Company calculated as the principal amount of each convertible note divided by $0.035 (reflecting 100% warrant coverage). The warrants do not have any cashless exercise provisions and, when issued, were exercisable through September 30, 2015 at a fixed price of $0.035 per share. The shares of common stock issuable upon conversion of the notes payable and the exercise of the warrants are

not subject to any registration rights.

On December 9, 2014, December 31, 2014, and February 2, 2015, the Company sold an additional $46,000, $85,000 and $210,000, respectively, of principal amount of the convertible notes and warrants to various accredited investors. The Company terminated this financing, which had generated aggregate gross proceeds of $579,500, and in connection with which the Company had issued 16,557,142 warrants, effective February 18, 2015.

The closing market prices of the Company's common stock on the transaction closing dates of November 5, 2014, December 9, 2014, December 31, 2014 and February 2, 2015 were $0.0524 per share, $0.0411 per share, $0.0451 per share and $0.043 per share, respectively, as compared to the fixed conversion price of the convertible notes and the fixed exercise price of the warrants of $0.035 per share. Accordingly, the Company has accounted for the beneficial conversion features with respect to the sale of the convertible notes and the issuance of the warrants in accordance with ASC 470-20, Accounting for Debt with Conversion and Other Options.

The Company considered the face value of the convertible notes to be representative of their fair value. The Company determined the fair value of the warrants based on the Black-Scholes option-pricing model. The relative fair value method generated respective fair values for each of the convertible notes and the warrants of approximately 50% for the convertible notes and approximately 50% for the warrants sold with the convertible notes. Once these values were determined, the fair value of the warrants of $289,106 and the fair value of the beneficial conversion feature of $290,394 (which were calculated based on the effective conversion price) were recorded as a reduction to the face value of the promissory note obligation. As a result, this aggregate debt discount reduced the carrying value of the convertible notes to zero at each issuance date. The excess amount generated from this calculation was not recorded, as the carrying value of a promissory note cannot be reduced below zero. The aggregate debt discount was amortized as interest expense over the original term of the promissory notes. The difference between the amortization of the debt discount calculated based on the straight-line method and the effective yield method was not material.

The cash fees paid to placement agents and for legal costs incurred from November 5, 2014 through February 2, 2015 with respect to this financing were deferred and capitalized as deferred offering costs and were amortized to interest expense over the original term of the convertible notes through September 15, 2015 on the straight-line method. The placement agent warrants were considered as an additional cost of the offering and were included in deferred offering costs at fair value. The difference between the amortization of the deferred offering costs calculated based on the straight-line method and the effective yield method was not material.

Extension of Notes and Original Warrants, and Issuance of New Warrants

On August 13, 2015, pursuant to the terms of the convertible notes, the Company elected to extend the maturity date of the convertible notes to September 15, 2016. As a consequence of this election, under the terms of the convertible notes, the Company was required to issue to note holders 8,903,684 additional warrants (the “New Warrants”) that are exercisable through September 15, 2016. As set forth in the convertible notes, the New Warrants are exercisable for that number of shares of common stock of the Company calculated as the principal amount of the convertible notes (an aggregate amount of $579,500), plus any accrued and unpaid interest (an aggregate amount of $43,758), multiplied by 50%, and then divided by $0.035. The New Warrants otherwise have terms substantially similar to the 16,557,142 original warrants issued to the investors. In connection with the extension of the maturity date of the convertible notes, the Board of Directors of the Company also determined to extend the termination date of the 16,557,142 original warrants to September 15, 2016, so that they were coterminous with the new maturity date of the convertible notes.

The Company reviewed the guidance in ASC 405-20, Extinguishment of Liabilities, and determined that the convertible notes had not been extinguished. The Company therefore concluded that the guidance in ASC 470-50, Modifications and Extinguishments, should be applied, which states that if the exchange or modification is not to be accounted for in the same manner as a debt extinguishment, then the fees shall be associated with the replacement or modified debt instrument and, along with any existing unamortized premium or discount, amortized as an adjustment of interest expense over the remaining term of the replacement or modified debt instrument using the interest method.

The Company deferred the debt modification costs related to the modification of the convertible notes and the issuance of the New Warrants (consisting of the fair value of the New Warrants) over the remaining term of the extended notes. The Company accounted for such costs as a discount to the convertible notes and amortized such costs to interest expense over the extended term of the convertible notes on the straight-line method. The difference between the amortization of these costs calculated based on the straight-line method and the effective yield method was not material.

The Company deferred the debt modification costs related to the extension of the original warrants (consisting of the fair value of the extension of the original warrants) over the remaining term of the extended convertible notes. The Company accounted for such costs as a discount to the convertible notes and amortized such costs to interest expense over the extended term of the convertible notes on the straight-line method. The difference between the amortization of these costs calculated based on the straight-line method and the effective yield method was not material.

The closing market price of the Company’s common stock on the extension date of September 15, 2015 was $0.031 per share, as compared to the fixed conversion price of the convertible notes and the fixed exercise price of both the original warrants and the New Warrants of $0.035 per share. The Company has accounted for the beneficial conversion features with respect to the extension of the convertible notes and the extension of the original warrants and the issuance of the New Warrants in accordance with ASC 470-20, Accounting for Debt with Conversion and Other Options.

The Company considered the face value of the convertible notes, plus the accrued interest thereon, to be representative of their fair value. The Company determined the fair value of the 8,903,684 New Warrants and the fair value of extending the 16,557,142 original warrants based on the Black-Scholes option-pricing model. The relative fair value method generated respective fair values for each of the convertible notes, including accrued interest, and the New Warrants and extension of the original warrants, of approximately 55% for the convertible notes, including accrued interest, and approximately 45% for the New Warrants and extension of the original warrants. Once these values were determined, the fair value of the New Warrants and extension of the original warrants of $277,918 and the fair value of the beneficial conversion feature of $206,689 (which were calculated based on the effective conversion price) were recorded as a reduction to the face value of the promissory note obligation. The aggregate debt discount was amortized as interest expense over the extended term of the promissory notes. The difference between the amortization of the debt discount calculated based on the straight-line method and the effective yield method was not material.

Note Exchange Agreements

During April and May 2016, the Company entered into Note Exchange Agreements with certain note holders, including one non-officer/director affiliate, as described below, representing an aggregate of $303,500 of principal amount of the convertible notes (out of a total of $579,500 of original principal amount of the 10% convertible notes payable). The Note Exchange Agreements were substantially similar, and provided for the note holders to exchange their notes, original warrants and New Warrants (collectively, the "Exchanged Securities"), plus cash, in exchange for shares of the Company's common stock. In the aggregate, $344,483 of principal amount (including accrued interest of $40,983) of the convertible notes, original warrants to purchase 8,671,428 shares of the Company's common stock and New Warrants to purchase 4,634,042 shares of the Company's common stock, plus an aggregate of $232,846 in cash, were exchanged for 32,990,233 shares of the Company's common stock, with a total market value of $631,023 (average $0.0191 per share), which resulted in a credit to total stockholders' deficiency of $577,329. All of the Exchanged Securities were cancelled as a result of the respective exchange transactions.

Among the executed Note Exchange Agreements, the Company entered into one Note Exchange Agreement with a non-officer/director affiliate effective May 4, 2016 (the financial information with respect thereto is included in the summary paragraph presented above), pursuant to which this affiliate exchanged $28,498 of principal amount (including accrued interest of $3,498) of the 10% convertible notes, original warrants to purchase 714,286 shares of the Company's common stock and New Warrants to purchase 382,837 shares of the Company's common stock, plus $19,200 in cash, in return for 2,725,579 shares of the Company's common stock.

This transaction was treated as though the exchanging note holders agreed to exchange their convertible notes (including accrued interest) into common stock at a 50% discount to the conversion rate ($0.035 per share) provided for by the terms of the convertible notes, if they also exchanged all of their warrants associated with the convertible notes, plus paid cash equal to a 50% discount to the exercise price ($0.035 per share). For accounting purposes, the transactions have been treated as if (i) the participants had converted the convertible notes (including accrued but unpaid interest of $40,993) at a conversion price reduced from $0.035 to $0.0175 per share, and that such conversions in the aggregate resulted in the issuance of an aggregate of 19,684,762 shares of common stock, and (ii) the participants had exercised their original warrants to purchase an aggregate of 8,671,428 shares of common stock and the New Warrants to purchase an aggregate of 4,634,042 shares of common stock, all at an exercise price reduced from $0.035 to $0.175 per share, and that such exercise of the warrants generated an aggregate cash payment to the Company of $232,846 and resulted in the issuance of an aggregate of 13,305,470 shares of common stock. In connection with the exchange of the convertible notes, original warrants, New Warrants and the payment of cash, a total of 32,990,233 shares of common stock in the aggregate were issued. The closing market price of the Company's common stock during the period that these exchange transactions were entered into ranged from $0.018 to $0.0239 per share.

The Company reviewed the guidance in ASC 470-20-40-13 through 17, Recognition of Expense Upon Conversion, and in ASC 470-20-40-26, Induced Conversions. Consistent with this accounting guidance, for those convertible note

holders accepting the Company's exchange offer, the Company evaluated the fair value of the incremental consideration paid to induce the convertible note holders to exchange their convertible notes for equity (i.e., 9,842,381 shares of common stock), based on the closing market price of the Company's common stock on the date of each transaction, and recorded a charge to operations of $188,274.

The Company evaluated the warrants exchanged in conjunction with the Note Exchange Agreements. The Company calculated the fair value of the warrants exchanged (consisting of the warrants issued in conjunction with the original issuance of the convertible notes) as if the warrants were modified immediately before the theoretical warrant modification and immediately after such warrant modification. As the fair value of the warrants immediately after the modifications was less than the fair value of the warrants immediately before the modifications (both amounts calculated pursuant to the Black-Scholes option-pricing model), the Company did not record any accounting entry with respect to the warrant exchange transactions.

The fair value of the warrants subject to the Note Exchange Agreements was estimated using the Black-Scholes option-pricing model utilizing the following assumptions:

	Before Warrant Modifications		After Warrant Modifications	
Exercise price per warrant	$0.03500		$0.01750	
Stock price	$0.018 to $0.0232		$0.018 to $0.0232	
Risk-free interest rate	0.23	%	0.23	%
Expected dividend yield	0	%	0	%
Expected volatility	201.59	%	201.59	%
Expected life	4.4 to 4.5 months		0 months	

Unit Exchange Agreements

During April and May 2016, the Company entered into Unit Exchange Agreements with certain warrant holders, including two affiliates, one of whom was Dr. Manuso, and the other of whom was a non-officer/director affiliate, both as described below. The Unit Exchange Agreements were substantially similar, and provided for the warrant holders to exchange (i) existing warrants to purchase an aggregate of 70,585,832 shares of the Company's common stock (each of which was cancelled as a result of the respective exchange transactions), plus (ii) an aggregate of $529,394 in cash, in return for (i) an aggregate of 35,292,916 shares of the Company's common stock, and (ii) new warrants to purchase an aggregate of 35,292,916 shares of the Company's common stock. The new warrants have the same expiration date as the original warrants (September 30, 2020) and may be exercised for cash or on a cashless basis at $0.015 per share.

Among the executed Unit Exchange Agreements, the Company entered into a Unit Exchange Agreement with Dr. Manuso effective April 6, 2016 (the financial information with respect thereto is included in the summary paragraph presented above), pursuant to which Dr. Manuso exchanged a warrant to purchase 23,775,558 shares of the Company's

common stock that was originally issued to him in the Company's August 28, 2015 unit offering (which was cancelled as a result of the exchange transaction), plus $178,317 in cash, in return for 11,887,779 shares of the Company's common stock and the issuance of a new warrant to purchase 11,887,779 shares of the Company's common stock. The new warrant has the same expiration date as the original warrant (September 30, 2020) and may be exercised for cash or on a cashless basis at $0.015 per share. The closing market price of the Company's common stock on April 6, 2016 was $0.0239 per share.

Among the executed Unit Exchange Agreements, the Company also entered into Unit Exchange Agreements (which are included in the summary paragraph above) with a non-officer/director affiliate (and his affiliate) effective May 4, 2016 (the financial information with respect thereto is included in the summary paragraph presented above), pursuant to which this affiliate exchanged warrants to purchase 28,642,892 shares of the Company's common stock that were originally issued to the affiliate in the Company's August 28, 2015 unit offering (which were cancelled as a result of the exchange transaction), plus $214,822 in cash, in return for 14,321,446 shares of the Company's common stock and the issuance of new warrants to purchase 14,321,446 shares of the Company's common stock. The new warrants have the same expiration date as the original warrants (September 30, 2020) and may be exercised for cash or on a cashless basis at $0.015 per share. The closing market price of the Company's common stock on May 4, 2016 was $0.018 per share.

This transaction was treated as though the exchanging warrant holders in the three closings of the Company's 2015 unit offering agreed to exchange their warrants associated with such financing, plus paid cash equal to a reduced exercise price per share ($0.015 per share) for 50% of such warrants, with 50% of the warrants replaced with similar warrants with the same term at a reduced exercise price. For accounting purposes, the transactions have been treated as if (i) participants exercised one-half of the existing warrants entitling them to purchase an aggregate of 70,585,8326 shares of the Company's common stock that were originally issued to them in the Company's unit offering, with closings on August 28, 2015, September 28, 2015 and November 2, 2015 (i.e., warrants to purchase 35,292,916 shares of common stock), at an exercise price reduced from $0.02103 to $0.015 per share, and (ii) the other one-half of the original warrants were cancelled. The Unit Exchange Agreements also provided for the Company to issue new warrants to the participants to purchase an aggregate of 35,292,916 shares of common stock. The new warrants have the same expiration date as the original warrants (September 30, 2020) and may be exercised for cash or on a cashless basis at $0.015 per share. For accounting purposes, the transaction is treated as if the warrant exercise price for all of the warrants was reduced from $0.02103 to $0.015 per share, in exchange for which 50% of the warrants were exercised for cash at the reduced exercise price, and the remaining 50% of the warrants continued to remain outstanding through September 30, 2020 and gained a cashless exercise provision. The closing market price of the Company's common stock during the period that these exchange transactions were entered into ranged from $0.018 to $0.0239 per share.

The Company evaluated the warrants exchanged in conjunction with the Unit Exchange Agreements. The Company calculated the fair value of the warrants exchanged as if the warrants were modified immediately before the theoretical warrant modification and immediately after such warrant modification. As the fair value of the warrants immediately after the modifications was less than the fair value of the warrants immediately before the modifications (both amounts calculated pursuant to the Black-Scholes option-pricing model), the Company did not record any accounting entry with respect to the warrant exchange transactions.

The fair value of the warrants subject to the Unit Exchange Agreements was estimated using the Black-Scholes option-pricing model utilizing the following assumptions:

	Before Warrant Modifications		After Warrant Modifications	
Exercise price per warrant	$0.02103		$0.01500	
Stock price	$0.018 to $0.0239		$0.018 to $0.0239	
Risk-free interest rate	1.12	%	0.23 % and 1.12 %	
Expected dividend yield	0	%	0	%
Expected volatility	201.59	%	201.59	%
Expected life	4.4 to 4.5 years		0 years to 4.5 years	

Equipment

Equipment is recorded at cost and depreciated on a straight-line basis over their estimated useful lives, which range from three to five years.

Long-Term Prepaid Insurance

Long-term prepaid insurance represents the premium paid in March 2014 for directors and officers insurance tail coverage, which is being amortized on a straight-line basis over the policy period of six years. The amount amortizable in the ensuing twelve month period is recorded as a current asset in the Company’s consolidated balance sheet at each reporting date.

Impairment of Long-Lived Assets

The Company reviews its long-lived assets, including long-term prepaid insurance, for impairment whenever events or changes in circumstances indicate that the total amount of an asset may not be recoverable, but at least annually. An impairment loss is recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition is less than the asset’s carrying amount. The Company has not deemed any long-lived assets as impaired at June 30, 2016.

Stock-Based Compensation

The Company periodically issues common stock and stock options to officers, directors, Scientific Advisory Board members and consultants for services rendered. Such issuances vest and expire according to terms established at the issuance date of each grant.

The Company accounts for stock-based payments to officers and directors by measuring the cost of services received in exchange for equity awards based on the grant date fair value of the awards, with the cost recognized as compensation expense on the straight-line basis in the Company's financial statements over the vesting period of the awards. The Company accounts for stock-based payments to Scientific Advisory Board members and consultants by determining the value of the stock compensation based upon the measurement date at either (a) the date at which a performance commitment is reached, or (b) at the date at which the necessary performance to earn the equity instruments is complete.

Stock grants, which are generally subject to time-based vesting, are measured at the grant date fair value and charged to operations ratably over the vesting period.

Stock options granted to members of the Company's Scientific Advisory Board and to outside consultants are revalued each reporting period until vested to determine the amount to be recorded as an expense in the respective period. As the stock options vest, they are valued on each vesting date and an adjustment is recorded for the difference between the value already recorded and the value on the date of vesting.

The fair value of stock options granted as stock-based compensation is determined utilizing the Black-Scholes option-pricing model, and is affected by several variables, the most significant of which are the life of the equity award, the exercise price of the stock option as compared to the fair market value of the common stock on the grant date, and the estimated volatility of the common stock over the term of the equity award. Estimated volatility is based on the historical volatility of the Company's common stock. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The fair market value of common stock is determined by reference to the quoted market price of the Company's common stock.

Stock options and warrants issued to non-employees as compensation for services to be provided to the Company or in settlement of debt are accounted for based upon the fair value of the services provided or the estimated fair value of the stock option or warrant, whichever can be more clearly determined. Management utilizes the Black-Scholes option-pricing model to determine the fair value of the stock options and warrants issued by the Company. The Company recognizes this expense over the period in which the services are provided.

For stock options requiring an assessment of value during the six months ended June 30, 2016, the fair value of each stock option award was estimated using the Black-Scholes option-pricing model utilizing the following assumptions:

Risk-free interest rate	1.01% to 1.23	%
Expected dividend yield	0	%
Expected volatility	201% to 203	%
Expected life	4.1 to 5 years	

For stock options requiring an assessment of value during the six months ended June 30, 2015, the fair value of each stock option award was estimated using the Black-Scholes option-pricing model utilizing the following assumptions:

Risk-free interest rate	1.30% to 1.70	%
Expected dividend yield	0	%
Expected volatility	184% to 249	%
Expected life	5 to 7 years	

The Company recognizes the fair value of stock-based compensation in general and administrative costs and in research and development costs, as appropriate, in the Company's consolidated statements of operations. The Company issues new shares of common stock to satisfy stock option and warrant exercises. There were no stock options exercised during the six months ended June 30, 2016 and 2015.

Income Taxes

The Company accounts for income taxes under an asset and liability approach for financial accounting and reporting for income taxes. Accordingly, the Company recognizes deferred tax assets and liabilities for the expected impact of differences between the financial statements and the tax basis of assets and liabilities.

The Company records a valuation allowance to reduce its deferred tax assets to the amount that is more likely than not to be realized. In the event the Company was to determine that it would be able to realize its deferred tax assets in the future in excess of its recorded amount, an adjustment to the deferred tax assets would be credited to operations in the period such determination was made. Likewise, should the Company determine that it would not be able to realize all or part of its deferred tax assets in the future, an adjustment to the deferred tax assets would be charged to operations in the period such determination was made.

Pursuant to Internal Revenue Code Sections 382 and 383, use of the Company's net operating loss and credit carryforwards may be limited if a cumulative change in ownership of more than 50% occurs within any three-year period since the last ownership change. The Company may have had a change in control under these Sections. However, the Company does not anticipate performing a complete analysis of the limitation on the annual use of the net operating loss and tax credit carryforwards until the time that it anticipates it will be able to utilize these tax attributes.

As of June 30, 2016, the Company did not have any unrecognized tax benefits related to various federal and state income tax matters and does not anticipate any material amount of unrecognized tax benefits within the next 12 months.

The Company is subject to U.S. federal income taxes and income taxes of various state tax jurisdictions. As the Company's net operating losses have yet to be utilized, all previous tax years remain open to examination by Federal authorities and other jurisdictions in which the Company currently operates or has operated in the past.

The Company accounts for uncertainties in income tax law under a comprehensive model for the financial statement recognition, measurement, presentation and disclosure of uncertain tax positions taken or expected to be taken in income tax returns as prescribed by GAAP. The tax effects of a position are recognized only if it is "more-likely-than-not" to be sustained by the taxing authority as of the reporting date. If the tax position is not considered "more-likely-than-not" to be sustained, then no benefits of the position are recognized. As of June 30, 2016, the Company had not recorded any liability for uncertain tax positions. In subsequent periods, any interest and penalties related to uncertain tax positions will be recognized as a component of income tax expense.

Foreign Currency Transactions

The note payable to SY Corporation, which is denominated in a foreign currency (the South Korean Won), is translated into the Company's functional currency (the United States Dollar) at the exchange rate on the balance sheet date. The foreign currency exchange gain or loss resulting from translation is recognized in the related consolidated statements of operations.

Research Grants

The Company recognizes revenues from research grants as earned based on the percentage-of-completion method of accounting and issues invoices for contract amounts billed based on the terms of the grant agreement. Amounts recorded under research grants in excess of amounts earned are classified as unearned grant revenue liability in the Company's consolidated balance sheet. Grant receivable reflects contractual amounts due and payable under the grant agreement. The payment of grants receivable are based on progress reports provided to the grant provider by the Company. The research grant from the National Institute of Drug Abuse was completed in April 2015. The Company has filed all required progress reports.

Research grants are generally funded and paid through government or institutional programs. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research project, to the extent that such amounts are expended in accordance with the approved grant project. The Company had no research grant revenue during the three months and six months ended June 30, 2016. During the three months and six months ended June 30, 2015, the Company had research grant revenues of $12,382 and $86,916, respectively. At June 30, 2016 and December 31, 2015, the Company did not have any grants receivable or unearned grant revenues.

Research and Development

Research and development costs include compensation paid to management directing the Company's research and development activities, and fees paid to consultants and outside service providers and organizations (including research institutes at universities), patent fees and costs, and other expenses relating to the acquisition, design, development and clinical testing of the Company's treatments and product candidates.

Research and development costs incurred by the Company under research grants are expensed as incurred over the life of the underlying contracts, unless the terms of the contract indicate that a different expensing schedule is more appropriate.

The Company reviews the status of its research and development contracts on a quarterly basis.

At June 30, 2016, the Company had made an advance payment of $111,654 to Duke University with respect to the Phase 2A clinical trial of CX1739.

License Agreements

Obligations incurred with respect to mandatory payments provided for in license agreements are recognized ratably over the appropriate period, as specified in the underlying license agreement, and are recorded as liabilities in the Company's condensed consolidated balance sheet, with a corresponding charge to research and development costs in the Company's condensed consolidated statement of operations. Obligations incurred with respect to milestone payments provided for in license agreements are recognized when it is probable that such milestone will be reached, and are recorded as liabilities in the Company's condensed consolidated balance sheet, with a corresponding charge to research and development costs in the Company's condensed consolidated statement of operations. Payments of such liabilities are made in the ordinary course of business.

Patent Costs

Due to the significant uncertainty associated with the successful development of one or more commercially viable products based on the Company's research efforts and any related patent applications, all patent costs, including patent-related legal and filing fees, are expensed as incurred.

Comprehensive Income (Loss)

Components of comprehensive income or loss, including net income or loss, are reported in the financial statements in the period in which they are recognized. Comprehensive income or loss is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Net income (loss) and other comprehensive income (loss) are reported net of any related tax effect to arrive at comprehensive income (loss). The Company did not have any items of comprehensive income (loss) for the three months and six months ended June 30, 2016 and 2015.

Earnings per Share

The Company's computation of earnings per share ("EPS") includes basic and diluted EPS. Basic EPS is measured as the income (loss) attributable to common stockholders divided by the weighted average common shares outstanding for the period. Diluted EPS is similar to basic EPS but presents the dilutive effect on a per share basis of potential common shares (e.g., warrants and options) as if they had been converted at the beginning of the periods presented, or issuance date, if later. Potential common shares that have an anti-dilutive effect (i.e., those that increase income per share or decrease loss per share) are excluded from the calculation of diluted EPS.

Net income (loss) attributable to common stockholders consists of net income or loss, as adjusted for actual and deemed preferred stock dividends declared, amortized or accumulated.

Loss per common share is computed by dividing net loss by the weighted average number of shares of common stock outstanding during the respective periods. Basic and diluted loss per common share is the same for all periods presented because all warrants and stock options outstanding are anti-dilutive.

At June 30, 2016 and 2015, the Company excluded the outstanding securities summarized below, which entitle the holders thereof to acquire shares of common stock, from its calculation of earnings per share, as their effect would have been anti-dilutive.

	June 30, 2016	2015
Series B convertible preferred stock	3,679	3,679
Series G 1.5% convertible preferred stock	-	95,144,652
10% convertible notes payable	9,221,633	17,453,230
Common stock warrants	142,077,305	32,106,094
Common stock options	421,823,581	112,885,138
Total	573,126,198	257,592,793

Reclassifications

Certain comparative figures in 2015 have been reclassified to conform to the current year's presentation. These reclassifications were immaterial, both individually and in the aggregate.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2014-09 (ASU 2014-09), Revenue from Contracts with Customers. ASU 2014-09 will eliminate transaction- and industry-specific revenue recognition guidance under current GAAP and replace it with a principle based approach for determining revenue recognition. ASU 2014-09 will require that companies recognize revenue based on the value of transferred goods or services as they occur in the contract. ASU 2014-09 also will require additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. Based on the FASB's Exposure Draft Update issued on April 29, 2015, and approved in July 2015, Revenue from Contracts With Customers (Topic 606): Deferral of the Effective Date, ASU 2014-09 is now effective for reporting periods beginning after December 15, 2017, with early adoption permitted only as of annual reporting periods beginning after December 15, 2016, including interim reporting periods within that reporting period. Entities will be able to transition to the standard either retrospectively or as a cumulative-effect adjustment as of the date of adoption. The adoption of ASU 2014-09 is not expected to have any impact on the Company's financial statement presentation or disclosures.

In August 2014, the FASB issued Accounting Standards Update No. 2014-15 (ASU 2014-15), Presentation of Financial Statements - Going Concern (Subtopic 205-10). ASU 2014-15 provides guidance as to management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. In connection with preparing financial statements for each annual and interim reporting period, an entity's management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). Management's evaluation should be based on relevant conditions and events that are known and reasonably knowable at the date that the financial statements are issued (or at the date that the financial statements are available to be issued when applicable). Substantial doubt about an entity's ability to continue as a going concern exists when relevant conditions and events, considered in the aggregate, indicate that it is probable that the entity will be unable to meet its obligations as they become due within one year after the date that the financial statements are issued (or available to be issued). ASU 2014-15 is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The adoption of ASU 2014-15 is not expected to have any impact on the Company's financial statement presentation and disclosures.

In February 2016, the FASB issued Accounting Standards Update No. 2016-02 (ASU 2016-02), Leases (Topic 842). ASU 2016-02 requires a lessee to record a right-of-use asset and a corresponding lease liability, initially measured at the present value of the lease payments, on the balance sheet for all leases with terms longer than 12 months, as well as the disclosure of key information about leasing arrangements. ASU 2016-02 requires recognition in the statement of operations of a single lease cost, calculated so that the cost of the lease is allocated over the lease term. ASU 2016-02 requires classification of all cash payments within operating activities in the statement of cash flows. Disclosures are required to provide the amount, timing and uncertainty of cash flows arising from leases. A modified retrospective transition approach is required for lessees for capital and operating leases existing at, or entered into after, the beginning of the earliest comparative period presented in the financial statements, with certain practical expedients available. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early application is permitted. The Company has not yet evaluated the impact of the adoption of ASU 2016-02 on the Company's financial statement presentation or disclosures.

Management does not believe that any other recently issued, but not yet effective, authoritative guidance, if currently adopted, would have a material impact on the Company's financial statement presentation or disclosures.

4. Notes Payable

10% Convertible Notes Payable

On November 5, 2014, the Company entered into a Convertible Note and Warrant Purchase Agreement (the "Purchase Agreement") with various accredited, non-affiliated investors (each, a "Purchaser"), pursuant to which the Company sold an aggregate principal amount of $238,500 of its (i) 10% Convertible Notes due September 15, 2015 (each a "Note", and together, the "Notes") and (ii) Warrants to purchase shares of common stock (the "Warrants") as described below. On December 9, 2014, December 31, 2014, and February 2, 2015, the Company sold an additional $46,000, $85,000 and $210,000, respectively, of principal amount of the Notes and Warrants to various accredited investors. This private placement, which generated aggregate gross proceeds of $579,500, was terminated effective February 18, 2015. Unless otherwise provided for in the Notes, the outstanding principal balance of each Note and all accrued and unpaid interest, compounded annually at 10%, when issued, was due and payable in full on September 15, 2015.

At any time, each Purchaser could elect, at its option and in its sole discretion, to convert the outstanding principal amount into a fixed number of shares of the Company's common stock equal to the quotient obtained by dividing the outstanding principal amount, plus any accrued and unpaid interest, by $0.035. In the case of a Qualified Financing (as defined in the Purchase Agreement), the outstanding principal amount and accrued and unpaid interest under the Notes would automatically convert into common stock at a common stock equivalent price of $0.035. In the case of an Acquisition (as defined in the Purchase Agreement), the Company could elect to either: (i) convert the outstanding principal amount and all accrued and unpaid interest under the Notes into shares of common stock or (ii) accelerate the maturity date of the Notes to the date of closing of the Acquisition. Each Warrant to purchase shares of common stock was exercisable into a fixed number of shares of common stock of the Company calculated as each Purchaser's investment amount divided by $0.035. The Warrants were originally exercisable through September 15, 2015 at a fixed price of $0.035 per share and did not have any cashless exercise provisions. The shares of common stock

issuable upon conversion of the Notes and exercise of the Warrants were not subject to any registration rights.

Placement agent fees, brokerage commissions, and similar payments were made in the form of cash and warrants to qualified referral sources in connection with the sale of the Notes and Warrants. In connection with the initial closing on November 5, 2014, fees of $16,695 were paid in cash, based on 7% of the aggregate principal amount of the Notes issued to such referral sources, and the fees paid in warrants (the "Placement Agent Warrants") consisted of 477,000 warrants, reflecting warrants for that number of shares equal to 7% of the number of shares of common stock into which the corresponding Notes are convertible. In connection with the second closing, fees of $700 were paid in cash and 20,000 Placement Agent Warrants were issued. In connection with the third closing, fees of $3,500 were paid in cash and 100,000 Placement Agent Warrants were issued. In connection with the fourth closing, fees of $14,700 were paid in cash and 420,000 Placement Agent Warrants were issued. The Placement Agent Warrants have cashless exercise provisions and were exercisable through September 15, 2015 at a fixed price of $0.035 per share. The warrants issued to the placement agent and/or its designees or affiliates in connection with the 2014 closings of the Purchase Agreement, to purchase 597,000 shares of the Company's common stock, were valued pursuant to the Black-Scholes option-pricing model at $19,986, $614 and $3,340, respectively. The warrants issued to the placement agent and/or its designees or affiliates in connection with the February 2, 2015 closing of the Purchase Agreement, to purchase 420,000 shares of the Company's common stock, were valued pursuant to the Black-Scholes option-pricing model at $12,726. Total financing costs relating to all closings of the Notes aggregated $129,776, consisting of $93,110 paid in cash and $36,666 paid in the form of Placement Agent Warrants, and were being amortized as additional interest expense over the original term of the Notes through September 15, 2015. During the three months ended June 30, 2016 and 2015, $0 and $41,725, respectively, was charged to interest expense with respect to the amortization of capitalized financing costs. During the six months ended June 30, 2016 and 2015, $0 and $78,823, respectively, was charged to interest expense with respect to the amortization of capitalized financing costs.

Aurora Capital LLC, a related party as described at Note 7, was the placement agent for this financing, and Aurora and its designees and/or affiliates received aggregate fees in connection with this financing in the form of $33,425 in cash and Placement Agent Warrants to purchase 955,000 shares of common stock in connection with the four closings.

The Notes and Warrants were offered and sold without registration under the Securities Act of 1933, as amended (the "Securities Act"), in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as provided in Rule 506 of Regulation D promulgated thereunder. The Notes and Warrants and the shares of common stock issuable upon conversion of the Notes and exercise of the Warrants were not registered under the Securities Act or any other applicable securities laws, and unless so registered, may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act.

The Company used the Black-Scholes option-pricing model to estimate the fair value of the Warrants to purchase 16,557,142 shares of the Company's common stock sold to investors in connection with the four closings at a fixed exercise price of $0.035 per share. The Company considered the face value of the Notes to be representative of their fair value. The Company applied the relative fair value method to allocate the proceeds from the borrowing to the Notes and the Warrants. Consequently, approximately 50% of the proceeds of the borrowing of $290,394 were attributed to the debt instrument. The 50% value attributed to the Warrants of $289,106 was amortized as additional interest expense over the original term of the Notes. During the three months ended June 30, 2016 and 2015, $0 and $100,287, respectively, was charged to interest expense from the amortization of debt discount related to the value

attributed to the Warrants. During the six months ended June 30, 2016 and 2015, $0 and $182,964, respectively, was charged to interest expense from the amortization of debt discount related to the value attributed to the Warrants. The carrying value of the Notes was further reduced by a discount for a beneficial conversion feature of $290,394. The value attributed to the beneficial conversion feature was amortized as additional interest expense over the original term of the Notes. During the three months ended June 30, 2016 and 2015, $0 and $98,697, respectively, was charged to interest expense from the amortization of debt discount related to the value attributed to the beneficial conversion feature. During the six months ended June 30, 2016 and 2015, $0 and $182,017, respectively, was charged to interest expense from the amortization of debt discount related to the value attributed to the beneficial conversion feature.

On August 13, 2015, the Company, pursuant to the terms of the Notes, gave the Note holders written notice, thirty days in advance of the September 15, 2015 maturity date of the Notes, of the Company's election to extend the maturity date of the Notes to September 15, 2016. As a consequence of this election, under the terms of the Notes, the Company was required to issue to Note holders 8,903,684 additional warrants (the "New Warrants") that are exercisable through September 15, 2016. As set forth in the Notes, the New Warrants are exercisable for that number of shares of common stock of the Company calculated as the principal amount of the Notes (an aggregate amount of $579,500), plus accrued and unpaid interest (an aggregate amount of $43,758), multiplied by 50%, and then divided by $0.035. The New Warrants otherwise have terms substantially similar to the 16,557,142 Warrants originally sold to investors. In connection with the extension of the maturity date of the Notes, the Board of Directors of the Company also determined to extend the termination date of the 16,557,142 original Warrants to September 15, 2016, so that they were coterminous with the new maturity date of the Notes.

The Company used the Black-Scholes option-pricing model to estimate the fair value of the New Warrants to purchase 8,903,684 shares of the Company's common stock and the fair value of extending the termination date of the 16,557,142 original Warrants sold to investors. The Company considered the face value of the Notes, plus the accrued interest thereon, to be representative of their fair value. The relative fair value method generated respective fair values for each of the Notes, including accrued interest, and the New Warrants and extension of the original Warrants, of approximately 55% for the Notes, including accrued interest, and approximately 45% for the New Warrants and extension of the original Warrants. The 45% value attributed to the New Warrants and extension of the original Warrants of $277,918 was amortized as additional interest expense over the extended term of the Notes.

During the three months ended June 30, 2016 and 2015, $32,910 and $0, respectively, was charged to interest expense from the amortization of debt discount related to the value attributed to the New Warrants and extension of the original Warrants. During the six months ended June 30, 2016 and 2015, $102,010 and $0, respectively, was charged to interest expense from the amortization of debt discount related to the value attributed to the New Warrants and extension of the original Warrants. The carrying value of the Notes was further reduced by a discount for a beneficial conversion feature of $206,689. The value attributed to the beneficial conversion feature was amortized as additional interest expense over the extended term of the Notes. During the three months ended June 30, 2016 and 2015, $24,476 and $0, respectively, was charged to interest expense from the amortization of debt discount related to the value attributed to the beneficial conversion feature. During the six months ended June 30, 2016 and 2015, $75,866 and $0, respectively, was charged to interest expense from the amortization of debt discount related to the value attributed to the beneficial conversion feature.

Effective September 14, 2015, placement agent warrants previously issued in connection with the four closings of the Note and Warrant financing in December 2014 through February 2015, representing the right to acquire a total of 1,017,000 shares of common stock, were exercised on a cashless basis, resulting in the net issuance of 47,109 shares of common stock. The gross exercise price of the placement agent warrants that were exercised on a cashless basis was $35,595.

During April and May 2016, the Company entered into Note Exchange Agreements with certain note holders representing an aggregate of $303,500 of principal amount of the Notes (out of a total of $579,500 of original principal amount of the Notes). Pursuant to the Note Exchange Agreements, an aggregate of $344,483, including accrued interest of $40,983, of the Notes were exchanged (together with original warrants to purchase 8,671,428 shares of the Company's common stock, New Warrants to purchase 4,634,042 shares of the Company's common stock, and the payment of an aggregate of $232,846 in cash) into a total of 32,990,233 shares of the Company's common stock. None of the Notes had previously been converted into shares of the Company's common stock. For accounting purposes, for those convertible note holders accepting the Company's exchange offer, the Company evaluated the fair value of the incremental consideration paid to induce the convertible note holders to exchange their convertible notes for equity (i.e., 9,842,381 shares of common stock), based on the closing market price of the Company's common stock on the date of each transaction, and recorded a charge to operations of $188,274. During the three months and six months ended June 30, 2016, in connection with the Note Exchange Agreements, the Company wrote off and charged to interest expense the unamortized discount related to the value attributed to the New Warrants and the extension of the original Warrants of $66,811, and the unamortized discount related to the value attributed to the related beneficial conversion feature of $49,688.

The Notes consist of the following at June 30, 2016 and December 31, 2015:

	June 30, 2016	**December 31, 2015**
Principal amount of notes payable	$276,000	$579,500
Add accrued interest payable	46,757	61,388
	322,757	640,888
Less unamortized costs:		
Stock warrant discounts	(27,847)	(196,669)
Beneficial conversion feature discounts	(20,710)	(146,263)
Capitalized financing costs	-	-
	$274,200	$297,956

As of June 30, 2016, the remaining outstanding Notes were convertible into 9,221,633 shares of the Company's common stock, including 1,335,918 shares attributable to accrued interest of $46,757 payable as of such date. As of December 31, 2015, the Notes were convertible into 18,311,079 shares of the Company's common stock, including 1,753,936 shares attributable to accrued interest of $61,388 payable as of such date.

Note Payable to SY Corporation Co., Ltd.

On June 25, 2012, the Company borrowed 465,000,000 Won (the currency of South Korea, equivalent to approximately $400,000 United States Dollars) from and executed a secured note payable to SY Corporation Co., Ltd., formerly known as Samyang Optics Co. Ltd. ("SY Corporation"), an approximately 20% common stockholder of the Company at that time. SY Corporation was a significant stockholder and a related party at the time of the transaction, but has not been a significant stockholder or related party of the Company subsequent to December 31, 2015. The note accrues simple interest at the rate of 12% per annum and had a maturity date of June 25, 2013. The Company has not made any payments on the promissory note. At June 30, 2013 and subsequently, the promissory note was outstanding and in technical default, although SY Corporation has not issued a notice of default or a demand for repayment. The Company believes that SY Corporation is in default of its obligations under its January 2012 license agreement, as amended, with the Company, but the Company has not yet issued a notice of default. The Company is continuing efforts towards a comprehensive resolution of the aforementioned matters involving SY Corporation.

The promissory note is secured by collateral that represents a lien on certain patents owned by the Company, including composition of matter patents for certain of the Company's high impact ampakine compounds and the low impact ampakine compounds CX2007 and CX2076, and other related compounds. The security interest does not extend to the Company's patents for its ampakine compounds CX1739 and CX1942, or to the patent for the use of ampakine compounds for the treatment of respiratory depression.

Note payable to SY Corporation consists of the following at June 30, 2016 and December 31, 2015:

	June 30, 2016	**December 31, 2015**
Principal amount of note payable	$399,774	$399,774
Accrued interest payable	195,178	171,257
Foreign currency transaction adjustment	1,956	(9,463)
	$596,908	$561,568

Interest expense with respect to this promissory note was $12,126 and $11,993 for the three months ended June 30, 2016 and 2015, respectively, and $23,921 and $24,119 for the six months ended June 30, 2016 and 2015, respectively.

Advances and Notes Payable to Officers

On June 16, 2015, Dr. Arnold S. Lippa, the Chairman of the Company's Board of Directors and Chief Executive Officer at that time, advanced $40,000 to the Company for working capital purposes. Such advance was due on demand with interest at 10% per annum. On September 3, 2015, the Company repaid the working capital advance, including accrued interest of $877, from the proceeds from the August and September 2015 closings of the private placement of its units of common stock and warrants.

On January 29, 2016, Dr. Lippa, the Chairman of the Company's Board of Directors and Chief Scientific Officer at that time, advanced $52,600 to the Company for working capital purposes under a demand promissory note with interest at 10% per annum. The note was secured by the assets of the Company. During the three months and six months ended June 30, 2016, $1,311 and $2,205, respectively, was charged to interest expense with respect to the note. In connection with the loan, Dr. Lippa was issued a fully vested warrant to purchase 3,350,319 shares of the Company's common stock at an exercise price of $0.0157 per share, which was the closing market price of the Company's common stock on the date of grant. The warrant expires on January 29, 2019 and may be exercised on a cashless basis. The aggregate grant date fair value of the warrant, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be $48,245, and was charged to interest expense as additional consideration for the loan during the six months ended June 30, 2016.

On February 2, 2016, Dr. James S. Manuso, the Company's Chief Executive Officer, advanced $52,600 to the Company for working capital purposes under a demand promissory note with interest at 10% per annum. The note was secured by the assets of the Company. During the three months and six months ended June 30, 2016, $1,311 and $2,147, respectively, was charged to interest expense with respect to the note. In connection with the loan, Dr. Manuso was issued a fully vested warrant to purchase 2,630,000 shares of the Company's common stock at an exercise price of $0.02 per share, which was the closing market price of the Company's common stock on the date of grant. The warrant expires on February 2, 2019 and may be exercised on a cashless basis. The aggregate grant date fair value of the warrant, as calculated pursuant to the Black-Scholes option pricing model, was determined to be $48,392, and was charged to interest expense as additional consideration for the loan during the six months ended June 30, 2016.

Other Short-Term Notes Payable

Other short-term notes payable at June 30, 2016 and December 31, 2015 consisted of premium financing agreements with respect to various insurance policies. At June 30, 2016, a premium financing agreement was payable, with interest at 6.21% per annum, in ten monthly installments of $4,116 through January 14, 2017. At December 31, 2015, a premium financing agreement was payable, with interest at 5.08% per annum, in ten monthly installments of $3,697 through January 14, 2016.

5. Settlements

Effective January 29, 2015, the Company executed a settlement agreement with its former Vice President and Chief Financial Officer, as amended on February 4, 2015, that resulted in the settlement of potential claims for a total cash payment of $26,000 to be paid on or before June 30, 2015 (of which $6,000 was paid on execution and $1,500 was paid in March 2015), plus the issuance of a stock option to purchase 500,000 shares of common stock exercisable at $0.0512 (the closing market price on the date of grant) per share for a period of five years, and valued pursuant to the Black-Scholes option-pricing model at $25,450. In addition to other provisions, the settlement agreement included mutual releases. The Company owed $18,500 at March 31, 2015 for the remaining balance of the cash portion of the settlement. On June 29, 2015, the settlement agreement was further amended, resulting in a cash payment of $3,000 against the outstanding balance, an extension of the $15,500 remaining balance due through December 31, 2015, subject to a further partial cash payment of $3,000, which was paid on September 28, 2015, plus the issuance of a stock option to purchase 50,000 shares of common stock exercisable at $0.018 per share (the closing market price on the date of grant) for a period of five years, and valued pursuant to the Black-Scholes option-pricing model at $840. Accordingly, during the three months and six months ended June 30, 2015, the Company recorded a net loss of $840 and a net gain of $91,710, respectively, with respect to the settlement, as amended, with its former Vice President and Chief Financial Officer. In December 2015, the remaining balance due of $12,500, plus accrued interest of $775, was paid as scheduled.

On April 8, 2015, the Company entered into a Settlement Agreement with one of its patent law firms to settle amounts due to such firm for services rendered and costs incurred with respect to foreign associates and outside vendors aggregating $194,736. Pursuant to the terms of the Settlement Agreement, the law firm received a cash payment of $15,000, non-qualified stock options to purchase 2,520,442 shares of common stock exercisable at $0.0476 per share for a period of five years, and a short-term unsecured note payable in the principal amount of $59,763. The stock options were valued pursuant to the Black-Scholes option-pricing model at $119,217, based on the closing price of the Company’s common stock on April 8, 2015 of $0.0476 per share. The note payable bears interest at 10% per annum, which accrues and is payable at maturity, and is due at the earlier of (i) the closing of a transaction for the sale of the Company’s capital stock that results in net proceeds to the Company of at least $2,000,000, or (ii) December 31, 2015. In addition to various other provisions, the Settlement Agreement provides that the Company will have the option to pay for one-half of invoices for future legal services (excluding costs with respect to foreign associates and outside vendors) in the form of stock options. The Settlement Agreement also includes a release of the lien previously filed by the law firm against certain of the Company’s patents and patent applications relating to its ampakine technology in the United States Patent and Trademark Office, as well as for mutual releases. The Company paid the note payable in December 2015 as scheduled.

During the three months ended December 31, 2015, the Company executed agreements with four current professional service providers (including the Company’s patent law firm referred to above) that resulted in the partial settlement of amounts owed to them by the Company. Obligations aggregating $916,827 were settled for $15,000 in cash, the issuance of a short-term note payable of $59,763 as described above, the issuance of 9,064,286 shares of common stock valued at $158,625 ($0.0175 per share), which was the then closing market price of the Company’s common stock, and the issuance of stock options to purchase an aggregate of 31,618,470 shares of common stock exercisable, in each case, at the closing market price of the Company’s common stock on the date of issuance of the stock options. Options for 2,520,442 shares were exercisable at $0.0476 per share for a period of five years, and valued pursuant to the Black-Scholes option-pricing model at an aggregate of $119,217 ($0.0473 per share). Options for 29,098,028 shares were exercisable at $0.0175 per share for a period of five years, and valued pursuant to the Black-Scholes

option-pricing model at an aggregate of $488,847 ($0.0168 per share). The negotiated agreements resulted in the Company recognizing a gain of $75,375 during the three months and six months ended June 30, 2015.

On June 27, 2016, the Company issued 5,347,223 of its common stock valued at $96,250 ($0.0180 per share), which was the then closing market price of the Company's common stock, in payment of legal fees to one of its patent law firms.

The Company continues to explore ways to reduce its indebtedness, and might in the future enter additional settlements of potential claims, including, without limitation, those by other former executives or third party creditors.

6. Stockholders' Deficiency

Preferred Stock

The Company has authorized a total of 5,000,000 shares of preferred stock, par value $0.001 per share. As of June 30, 2016 and December 31, 2015, 1,250,000 shares were designated as 9% Cumulative Convertible Preferred Stock (non-voting, "9% Preferred Stock"); 37,500 shares were designated as Series B Convertible Preferred Stock (non-voting, "Series B Preferred Stock"); 205,000 shares were designated as Series A Junior Participating Preferred Stock (non-voting, "Series A Junior Participating Preferred Stock"); and 1,700 shares were designated as Series G 1.5% Convertible Preferred Stock. Accordingly, as of June 30, 2016, 3,505,800 shares of preferred stock were undesignated and may be issued with such rights and powers as the Board of Directors may designate.

There were no shares of 9% Preferred Stock or Series A Junior Participating Preferred Stock outstanding as of June 30, 2016 and December 31, 2015.

Series B Preferred Stock outstanding as of June 30, 2016 and December 31, 2015 consisted of 37,500 shares issued in a May 1991 private placement. Each share of Series B Preferred Stock is convertible into approximately 0.09812 shares of common stock at an effective conversion price of $6.795 per share of common stock, which is subject to adjustment under certain circumstances. As of June 30, 2016 and December 31, 2015, the shares of Series B Preferred Stock outstanding are convertible into 3,679 shares of common stock. The Company may redeem the Series B Preferred Stock for $25,001, equivalent to $0.6667 per share, an amount equal to its liquidation preference, at any time upon 30 days prior notice.

Series G 1.5% Convertible Preferred Stock

On March 18, 2014, the Company entered into Securities Purchase Agreements with various accredited investors (the "Initial Purchasers"), pursuant to which the Company sold an aggregate of 753.22 shares of its Series G 1.5% Convertible Preferred Stock for a purchase price of $1,000 per share, or an aggregate purchase price of $753,220. This financing represented the initial closing on the private placement (the "Series G Private Placement"). The Initial Purchasers in this tranche of the Series G Private Placement consisted of (i) Dr. Arnold S. Lippa, the Chairman of the Company's Board of Directors and Chief Executive Officer at that time, who invested $250,000 for 250 shares of Series G 1.5% Convertible Preferred Stock, and (ii) new, non-affiliated, accredited investors. Neither the Series G 1.5% Convertible Preferred Stock nor the underlying shares of common stock had any registration rights.

The placement agents and selected dealers in connection with the initial tranche of the Series G Private Placement received cash fees totaling $3,955 as compensation and an obligation of the Company to issue warrants to acquire 12,865,151 shares of common stock, totaling approximately 5.6365% of the shares of common stock into which the Series G 1.5% Convertible Preferred Stock may convert, issuable upon completion of all closings of the Series G Private Placement and exercisable for five years, at a fixed price of $0.00396, which is 120% of the conversion price at which the Series G 1.5% Convertible Preferred Stock may convert into the Company's common stock. The warrants issuable to the placement agents and selected dealers in connection with the initial tranche of the Series G Private Placement were valued pursuant to the Black-Scholes option-pricing model at $443,848.

On April 17, 2014, the Company entered into Securities Purchase Agreements with various accredited investors (together with the Initial Purchasers as defined above, the "Purchasers"), pursuant to which the Company sold an aggregate of an additional 175.28 shares of its Series G 1.5% Convertible Preferred Stock, for a purchase price of $1,000 per share, or an aggregate purchase price of $175,280. This was the second and final closing on the Series G Private Placement, in which a total of 928.5 shares of Series G 1.5% Convertible Preferred Stock were sold for an aggregate purchase price of $928,500. The Purchasers in the second and final tranche of the Series G Private Placement consisted of new, non-affiliated, accredited investors and non-management investors who had also invested in the first closing of the Series G Private Placement. One of the investors in this second and final closing of the Series G Private Placement was an affiliate of an associated person of Aurora, a related party (see Note 7). Neither the Series G 1.5% Convertible Preferred Stock nor the underlying shares of common stock had any registration rights.

The placement agents and selected dealers in connection with the second tranche of the Series G Private Placement received cash fees of $3,465 as compensation and an obligation of the Company to issue warrants to acquire 6,386,120 shares of common stock, totaling approximately 12% of the shares of common stock into which the Series G 1.5% Convertible Preferred Stock may convert, issuable upon completion of all closings of the Series G Private Placement and exercisable for five years, at a fixed price of $0.00396, which is 120% of the conversion price at which the Series G 1.5% Convertible Preferred Stock may convert into the Company's common stock. The warrants issuable to the placement agents and selected dealers in connection with the second closing of the Series G Private Placement were valued pursuant to the Black-Scholes option-pricing model at $220,321.

The Series G 1.5% Convertible Preferred Stock had a stated value of $1,000 per share and a stated dividend at the rate per share (as a percentage of the Stated Value per share) of 1.5% per annum, compounded quarterly, payable quarterly within 15 calendar days of the end of each fiscal quarter of the Company, in duly authorized, validly issued, fully paid and non-assessable shares of Series G 1.5% Convertible Preferred Stock, which may include fractional shares of Series G 1.5% Convertible Preferred Stock. As the stated value of the Series G 1.5% Convertible Preferred Stock was $1,000 per share, and the fixed conversion price was $0.0033, each share of Series G 1.5% Convertible Preferred Stock was convertible into 303,030.3 shares of common stock. The aggregate of 928.5 shares of Series G 1.5% Convertible Preferred Stock sold in all of the closings of the Series G Private Placement were initially convertible into a total of 281,363,634 shares of common stock.

The Series G 1.5% Convertible Preferred Stock became convertible, beginning 60 days after the last share of Series G 1.5% Convertible Preferred Stock was issued in the Series G Private Placement, at the option of the holder, into common stock at the applicable conversion price, at a rate determined by dividing the Stated Value of the shares of Series G 1.5% Convertible Preferred Stock to be converted by the conversion price, subject to adjustments for stock

dividends, splits, combinations and similar events as described in the form of Certificate of Designation. In addition, the Company has the right to require the holders of the Series G 1.5% Convertible Preferred Stock to convert such shares into common stock under certain enumerated circumstances as set forth in the Certificate of Designation.

Upon either (i) a Qualified Public Offering (as defined in the Certificate of Designation) or (ii) the affirmative vote of the holders of a majority of the Stated Value of the Series G 1.5% Convertible Preferred Stock issued and outstanding, all outstanding shares of Series G 1.5% Convertible Preferred Stock, plus all accrued or declared, but unpaid, dividends thereon, would have been mandatorily converted into such number of shares of common stock determined by dividing the Stated Value of such Series G 1.5% Convertible Preferred Stock (together with the amount of any accrued or declared, but unpaid, dividends thereon) by the Conversion Price (as defined in the Certificate of Designation).

Except as described in the Certificate of Designation, holders of the Series G 1.5% Convertible Preferred Stock voted together with holders of the Company common stock on all matters, on an as-converted to common stock basis, and not as a separate class or series (subject to limited exceptions).

In the event of any liquidation or winding up of the Company prior to and in preference to any Junior Securities (including common stock), the holders of the Series G 1.5% Convertible Preferred Stock would have been entitled to receive in preference to the holders of the Company common stock a per share amount equal to the Stated Value, plus any accrued and unpaid dividends thereon.

Purchasers in the Series G Private Placement of the Series G 1.5% Convertible Preferred Stock executed written consents in favor of (i) approving and adopting an amendment to the Company’s certificate of incorporation that increases the number of authorized shares of the Company to 1,405,000,000, 1,400,000,000 of which are shares of common stock and 5,000,000 of which are shares of preferred stock, and (ii) approving and adopting the Cortex Pharmaceuticals, Inc. 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

The shares of Series G 1.5% Convertible Preferred Stock were offered and sold without registration under the Securities Act in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as provided in Rule 506(b) of Regulation D promulgated thereunder. The shares of Series G 1.5% Convertible Preferred Stock and the Company’s common stock issuable upon conversion of the shares of Series G 1.5% Convertible Preferred Stock have not been registered under the Securities Act or any other applicable securities laws, and unless so registered, may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act.

The Company recorded a dividend on the Series G 1.5% Convertible Preferred Stock of $183 and $1,574 for the three months ended June 30, 2016 and 2015, respectively, which was paid through the issuance of an additional 0.2 shares and 1.6 shares, respectively, of Series G 1.5% Convertible Preferred Stock. The Company recorded a dividend on the Series G 1.5% Convertible Preferred Stock of $1,165 and $4,772 for the six months ended June 30, 2016 and 2015, respectively, which was paid through the issuance of an additional 1.1 shares and 4.8 shares, respectively, of Series G 1.5% Convertible Preferred Stock.

The warrants that the placement agents and selected dealers received in connection with all closings of the Series G Private Placement, which were issued effective April 17, 2014, represent the right to acquire 19,251,271 shares of common stock exercisable for five years at a fixed price of $0.00396, which is 120% of the conversion price at which the Series G 1.5% Convertible Preferred Stock may convert into the Company's common stock.

Aurora, a related party (see Note 7), was one of the placement agents for this financing, and Aurora and its designees and/or affiliates received fees in connection with this financing in the form of cash of $2,800 and warrants to purchase 10,427,029 shares of common stock during the year ended December 31, 2014. Both Dr. Arnold S. Lippa and Jeff E. Margolis, officers and directors of the Company since March 22, 2013, have indirect ownership interests in Aurora through interests held in its members, and Jeff E. Margolis is also an officer of Aurora.

Effective August 25, 2015, a placement agent warrant issued on April 17, 2014 in conjunction with the Series G Private Placement of the Series G 1.5% Convertible Preferred Stock, representing the right to acquire a total of 2,412,878 shares of common stock, was exercised in part (50%, or 1,206,439 shares) on a cashless basis, resulting in the net issuance of 1,087,001 shares of common stock. The gross exercise price of the placement agent warrant that was exercised on a cashless basis was $4,778.

During the three months ended March 31, 2015, 25.323705 shares of Series G 1.5% Convertible Preferred Stock, including 0.323705 dividend shares, were converted into 7,673,850 shares of common stock on a cashless basis. During the three months ended June 30, 2015, an aggregate of 538.208190 shares of Series G 1.5% Convertible Preferred Stock, including 8.728190 dividend shares, were converted into 163,093,392 shares of common stock on a cashless basis. During the three months ended September 30, 2015, an aggregate of 57.506190 shares of Series G 1.5% Convertible Preferred Stock, including 1.206190 dividend shares, were converted into 17,426,119 shares of common stock on a cashless basis. There were no conversions of Series G 1.5% Convertible Preferred Stock into shares of common stock during the three months ended December 31, 2015. Accordingly, during the year ended December 31, 2015, 621.038085 shares of Series G 1.5% Convertible Preferred Stock, including 10.258085 dividend shares, were converted into 188,193,359 shares of common stock on a cashless basis.

As of December 31, 2015, the remaining outstanding shares of Series G 1.5% Convertible Preferred Stock were convertible into 78,353,485 shares of the Company's common stock, including 2,074,698 shares attributable to the 1.5% dividend on such shares of $6,847 accrued as of such date.

On April 17, 2016, the remaining unconverted 259.7 shares of Series G 1.5% Convertible Preferred Stock outstanding (including accrued but unpaid dividends) were automatically and mandatorily redeemed by conversion into 78,706,282 newly issued shares of common stock at a conversion price of $0.0033 per share.

Common Stock

As discussed above, the holders of the Series G 1.5% Convertible Preferred Stock approved and adopted an amendment to increase the number of authorized shares of the Company to 1,405,000,000, 1,400,000,000 of which are shares of common stock and 5,000,000 of which are shares of preferred stock. The Company also sought, and on April 17, 2014 obtained by written consent, sufficient votes of the holders of its common stock, voting as a separate class, to effect this amendment. A certificate of Amendment to the Company's Certificate of Incorporation to effect the increase in the authorized shares was filed with the Secretary of State of the State of Delaware on April 17, 2014.

On September 18, 2014, Dr. John Greer, Ph.D., was appointed to the position of Chairman of the Company's Scientific Advisory Board. Dr. Greer is Professor of Physiology and former Director of the Neuroscience and Mental Health Institute at the University of Alberta, holds multiple grants regarding research into neuromuscular control of breathing, and is the inventor on the method of treatment patents licensed by the Company with respect to ampakines. In connection with the appointment of Dr. Greer as Chairman of the Company's Scientific Advisory Board on September 18, 2014, the Board of Directors awarded 2,000,000 shares of common stock of the Company to Dr. Greer (through his wholly-owned consulting company, Progress Scientific, Inc.), vesting 25% upon appointment, 25% on September 30, 2014, 25% on December 31, 2014, and 25% on March 31, 2015. The stock award was valued at $0.066 per share, which was the closing price of the Company's common stock on September 18, 2014. This stock award was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan. During the period September 18, 2014 through December 31, 2014, the Company recorded a charge to operations of $99,000 with respect to this stock award. During the six months ended June 30, 2015, the Company recorded a final charge to operations of $33,000 with respect to this stock award.

Effective October 15, 2014, Richard Purcell was appointed as the Company's Senior Vice President of Research and Development. In conjunction with his appointment, the Company agreed to issue to Mr. Purcell 2,000,000 shares of the Company's common stock, with 25% of such stock grant vesting and issuable every three months after the date of his appointment (i.e., on January 15, 2015, April 15, 2015, July 15, 2015 and October 15, 2015), subject to Mr. Purcell's continued relationship with the Company on each of the vesting dates. The stock grant was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan. Based on the Company's closing stock price on October 15, 2014 of $0.078 per share, during the three months and six months ended June 30, 2015, the Company recorded a charge to operations of $39,000 and $78,000, respectively, with respect to this stock award.

On August 28, 2015, the Company entered into a Second Amended and Restated Common Stock and Warrant Purchase Agreement (the "Purchase Agreement") with various accredited investors (each, a "Purchaser", and together with purchasers in subsequent closings in the private placement, the "Purchasers"), pursuant to which the Company sold units for aggregate cash consideration of $721,180, with each unit consisting of (i) one share of the Company's common stock, representing an aggregate of 34,292,917 shares of common stock, and (ii) one warrant to purchase two additional shares of common stock, representing an aggregate of 68,585,834 warrants. This financing represented the initial closing of a private placement of up to $3,000,000. On September 28, 2015, the Company completed a second closing of the Purchase Agreement with various additional Purchasers, pursuant to which the Company sold units for aggregate cash consideration of $218,530, with each unit consisting of (i) one share of the Company's common stock, representing an aggregate of 10,391,349 shares of common stock, and (ii) one warrant to purchase two additional shares of common stock, representing an aggregate of 20,782,698 Warrants. On November 2, 2015, the Company completed a third closing of the Purchase Agreement with various Purchasers, pursuant to which the Company sold units for aggregate cash consideration of $255,000, with each unit consisting of (i) one share of the Company's common stock, representing an aggregate of 12,125,536 shares of common stock, and (ii) one warrant to purchase two additional shares of common stock, representing an aggregate of 24,251,072 warrants. This third closing brought the aggregate amount raised under this private placement as of November 2, 2015 to $1,194,710.

The unit price in each closing of the private placement was $0.02103 (the "Per Unit Price"). The Warrants are exercisable through September 30, 2020 and may be exercised at a price of $0.02103 for each share of Common Stock

to be acquired upon exercise. The Purchasers consisted of non-affiliated investors, other than Dr. James S. Manuso, the current President and Chief Executive Officer of the Company, who invested $250,000 in the initial closing of the private placement, and one other investor who invested $301,180 in the private placement and became an affiliate of the Company by virtue of his aggregate stock holdings in the Company. The Warrants do not contain any cashless exercise provisions or reset rights.

No registration rights were granted to any Purchaser in this private placement with respect to (i) the shares of common stock issued as part of the units, (ii) the warrants, or (iii) the shares of common stock issuable upon exercise of the warrants.

Placement agent fees, brokerage commissions, and similar payments were made in the form of cash and warrants to qualified referral sources in connection with certain sales of the shares of common stock and warrants, while other sales, including the sale to Dr. James S. Manuso, did not result in any fees or commissions. Accordingly, the amount of such fees, on a percentage basis, varies in each closing. The fees paid to such referral sources for the initial closing in cash totaled $47,118, or 6.5% of the aggregate amount paid for the units sold. The fees paid in warrants for the initial closing to such referral sources (the warrants paid to qualified referral sources are referred to herein as the "Placement Agent Warrants") consist of warrants for 2,240,517 shares of common stock, or that number of shares equal to 6.5% of the number of shares of common stock issued as part of the units, but not the shares underlying the warrants. In connection with the second closing, fees paid to referral sources in cash totaled $18,603, or 8.5% of the aggregate amount paid for the units sold, and 884,594 Placement Agent Warrants were issued, or warrants for that number of shares equal to 8.5% of the number of shares of common stock issued as part of the units, but not the shares underlying the Warrants. In connection with the third closing, fees paid to referral sources in cash totaled $25,500, or 10% of the aggregate amount paid for the units sold, and 1,212,553 Placement Agent Warrants were issued, or warrants for that number of shares equal to 10% of the number of shares of common stock issued as part of the units, but not the shares underlying the Warrants. Placement Agent Warrants are exercisable until September 30, 2020 at the Per Unit Price. The Placement Agent Warrants have cashless exercise provisions. One of the placement agents that received Placement Agent Warrants is Aurora. Both Arnold S. Lippa and Jeff E. Margolis, officers and directors of the Company, have indirect ownership interests in Aurora through interests held in its members, and Jeff E. Margolis is also an officer of Aurora. As a result, both Arnold S. Lippa and Jeff E. Margolis, or entities in which they have interests, will receive a portion of the Placement Agent Warrants awarded in this private placement.

In addition to the above described placement agent fees, brokerage commissions, and similar payments that were made in the form of cash and warrants to qualified referral sources, the Company also paid $10,164 in cash to other professionals for services related to the three closings.

The shares of common stock and warrants were offered and sold without registration under the Securities Act in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as provided in Rule 506(b) of Regulation D promulgated thereunder. None of the shares of common stock issued as part of the units, the warrants, the common stock issuable upon exercise of the warrants, the Placement Agent Warrants or the shares of common stock issuable upon exercise of the Placement Agent Warrants have been registered under the Securities Act or any other applicable securities laws, and unless so registered, may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act.

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During April and May 2016, the Company entered into Unit Exchange Agreements with certain warrant holders who had acquired units in connection with the Second Amended and Restated Common Stock and Warrant Purchase Agreement. The Unit Exchange Agreements provided for the warrant holders to exchange (i) existing warrants to purchase an aggregate of 70,585,832 shares of the Company's common stock, plus (ii) an aggregate of $529,394 in cash, in return for (i) an aggregate of 35,292,916 shares of the Company's common stock with a total market price of $728,859 (average $0.0207 per share), and (ii) new warrants to purchase an aggregate of 35,292,916 shares of the Company's common stock with an exercise price of $0.015 per share, exercisable for cash or on a cashless basis through the original expiration date of September 30, 2020.

On January 8, 2016, the Company initiated a new equity private placement, consisting of units of common stock and warrants, up to an aggregate of $2,500,000, with each unit consisting of (i) one share of common stock, and (ii) one warrant to purchase two additional shares of common stock. During the three months ended March 31, 2016, the Company entered into purchase agreements with five accredited and three non-accredited, non-affiliated investors, pursuant to which an aggregate of 8,775,250 shares of common stock and an aggregate of 17,550,500 warrants were sold, generating gross proceeds of $194,635. During the three months ended June 30, 2016, the Company entered into purchase agreements with four accredited and one non-accredited, non-affiliated investors, pursuant to which an aggregate of 5,200,633 shares of common stock and an aggregate of 10,401,263 warrants were sold, generating gross proceeds of $115,350. During the six months ended June 30, 2016, the Company entered into purchase agreements with nine accredited and four non-accredited, non-affiliated investors, pursuant to which an aggregate of 13,975,883 shares of common stock and an aggregate of 27,951,763 warrants were sold, generating gross proceeds of $309,985.

The unit price in the private placement closings was $0.02218. The warrants are exercisable at $0.0244, for each share of common stock to be acquired, and expire on February 28, 2021. The warrants have cashless exercise provisions and contain certain "blocker" provisions limiting the percentage of shares of the Company's common stock that the purchaser can beneficially own upon conversion to not more than 4.99% of the issued and outstanding shares immediately after giving effect to the warrant exercise.

In the case of an acquisition in which the Company is not the surviving entity, the holder of the warrant would receive from any surviving entity or successor to the Company, in exchange for the warrant, a new warrant from the surviving entity or successor to the Company, substantially in the form of the existing warrant and with an exercise price adjusted to reflect the nearest equivalent exercise price of common stock (or other applicable equity interest) of the surviving entity that would reflect the economic value of the warrant, but in the surviving entity.

No registration rights were granted to the purchasers in the private placement with respect to (i) the shares of common stock issued as part of the units, (ii) the warrants, or (iii) the shares of common stock issuable upon exercise of the warrants.

No placement agent fees, brokerage commissions, finder's fees or similar payments were made in the form of cash or warrants to qualified referral sources in connection with the sale of the shares of common stock and warrants. The Company paid $3,429 in cash to other professionals for services related to the seven closings.

Information with respect to the issuance of common stock in connection with the settlement of debt obligations is provided at Note 5.

Information with respect to the issuance of common stock upon the exercise of common stock purchase warrants issued to placement agents in connection with the Series G Private Placement of the Series G 1.5% Convertible Preferred Stock is provided above at "Series G 1.5% Convertible Preferred Stock."

Common Stock Warrants

Information with respect to the issuance and exercise of common stock purchase warrants with respect to placement agents in connection with the Series G Private Placement of the Series G 1.5% Convertible Preferred Stock is provided above at "Series G 1.5% Convertible Preferred Stock." Information with respect to the issuance and exercise of common stock purchase warrants in connection with the 10% Convertible Note Payable and Warrant Purchase Agreement is provided at Note 4.

A summary of warrant activity for the six months ended June 30, 2016 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Warrants outstanding at December 31, 2015	156,743,609	$0.02185	
Issued	33,932,082	0.02320	
Reduction through transactions in conjunction with -			
Note Exchange Agreements	(13,305,470)	0.01750	
Unit Exchange Agreements	(35,292,916)	0.01500	
Expired	-	-	
Warrants outstanding at June 30, 2016	142,077,305	$0.01964	3.78
Warrants exercisable at December 31, 2015	156,743,609	$0.02185	
Warrants exercisable at June 30, 2016	142,077,305	$0.01964	4.30

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The exercise prices of common stock warrants outstanding and exercisable are as follows at June 30, 2016:

Exercise Price	Warrants Outstanding (Shares)	Warrants Exercisable (Shares)	Expiration Date
$0.00396	13,325,514	13,325,514	April 17, 2019
$0.01500	35,292,916	35,292,916	September 30, 2020
$0.01570	3,350,319	3,350,319	January 29, 2019
$0.20000	2,630,000	2,630,000	February 4, 2019
$0.02103	47,371,436	47,371,436	September 30, 2020
$0.02440	27,951,763	27,951,763	February 28, 2021
$0.03500	12,155,357	12,155,357	September 15, 2016
	142,077,305	142,077,305	

Based on a fair market value of $0.0179 per share on June 30, 2016, the intrinsic value of exercisable in-the-money common stock warrants was $295,478 as of June 30, 2016.

A summary of warrant activity for the six months ended June 30, 2015 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Warrants outstanding at December 31, 2014	25,686,096	$0.01744	
Issued	6,419,998	0.03500	
Exercised	-	-	
Expired	-	-	
Warrants outstanding at June 30, 2015	32,106,094	$0.02095	1.84
Warrants exercisable at December 31, 2014	25,686,096	$0.01744	
Warrants exercisable at June 30, 2015	32,106,094	$0.02095	1.84

The exercise prices of common stock warrants outstanding and exercisable are as follows at June 30, 2015:

Exercise Price	**Warrants Outstanding**	**Warrants Exercisable**	**Expiration Date**

	(Shares)	(Shares)	
$0.00396	14,531,953	14,531,953	April 17, 2019
$0.03500	17,574,141	17,574,141	September 15, 2016
	32,106,094	32,106,094	

Based on a fair market value of $0.0175 per share on June 30, 2015, the intrinsic value of exercisable in-the-money common stock warrants was $196,763 as of June 30, 2015.

Stock Options

In connection with the initial closing of the Series G Private Placement completed on March 18, 2014, the stockholders of the Company holding a majority of the votes to be cast on the issue approved the adoption of the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan (the "2014 Plan"), which had been previously adopted by the Board of Directors of the Company, subject to stockholder approval. The Plan permits the grant of options and restricted stock with respect to up to 105,633,002 shares of common stock, in addition to stock appreciation rights and phantom stock, to directors, officers, employees, consultants and other service providers of the Company.

On June 30, 2015, the Board of Directors adopted the 2015 Stock and Stock Option Plan (the "2015 Plan"). The 2015 Plan initially provided for, among other things, the issuance of either or any combination of restricted shares of common stock and non-qualified stock options to purchase up to 150,000,000 shares of the Company's common stock for periods up to ten years to management, members of the Board of Directors, consultants and advisors. The Company has not and does not intend to present the 2015 Plan to stockholders for approval. On August 18, 2015, the Board of Directors increased the number of shares that may be issued under the 2015 Plan to 250,000,000 shares of the Company's common stock. On March 31, 2016, the Board of Directors further increased the number of shares that may be issued under the 2015 Plan to 500,000,000 shares of the Company's common stock.

On June 30, 2015, the Board of Directors of the Company awarded stock options to purchase a total of 55,000,000 shares of common stock, consisting of options for 15,000,000 shares to each of the Company's then three executive officers, Dr. Arnold S. Lippa, Jeff E. Margolis and Robert N. Weingarten, and options for 2,000,000 shares to each of five other individuals who are members of management, the Company's Scientific Advisory Board, or independent members of the Board of Directors. The stock options were awarded as partial compensation for those individuals through December 31, 2015. The stock options vested 50% on June 30, 2015 (at issuance), 25% on September 30, 2015 and 25% on December 31, 2015, and will expire on June 30, 2022. The exercise price of the stock options was established on the grant date at $0.025 per share, as compared to the closing market price of the Company's common stock on such date of $0.0175 per share, reflecting an exercise price premium of $0.0075 per share or 42.9%. These awards were made under the Company's 2015 Plan. The aggregate grant date fair value of these stock options calculated pursuant to the Black-Scholes option-pricing model was $946,000.

On August 18, 2015, the Company entered into an employment agreement with Dr. James S. Manuso to be its new President and Chief Executive Officer. In connection therewith, and in addition to other provisions, the Board of Directors of the Company awarded Dr. Manuso stock options to purchase a total of 85,081,300 shares of common stock, of which options for 80,000,000 shares were granted pursuant to the Company's 2015 Plan and options for 5,081,300 shares were granted pursuant to the Company's 2014 Plan. The stock options vested 50% on August 18, 2015 (at issuance), 25% on February 18, 2016, and will vest 25% on August 18, 2016, and will expire on August 18, 2025. The exercise price of the stock options was established on the grant date at $0.0197 per share, which is equal to the simple average of the most recent four full trading weeks, weekly Volume Weighted Average Prices ("VWAPs") of the Company's common stock price immediately preceding the date of grant as reported by OTC IQ, as compared to the closing market price of the Company's common stock on August 18, 2015 of $0.0216 per share. The aggregate grant date fair value of these stock options calculated pursuant to the Black-Scholes option-pricing model was $1,786,707. During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $222,727 and $445,454, respectively, with respect to these stock options. Additional information with respect to other provisions of the employment agreement is provided at Note 8.

On August 18, 2015, the Company also entered into employment agreements with Dr. Arnold S. Lippa, its new Chief Scientific Officer, Robert N. Weingarten, its Vice President and Chief Financial Officer, and Jeff E. Margolis, its Vice President, Treasurer and Secretary. In connection therewith, and in addition to other provisions, the Board of Directors of the Company awarded to each of those officers stock options to purchase a total of 10,000,000 shares of common stock pursuant to the Company's 2015 Plan. The stock options vested 25% on December 31, 2015, 25% on March 31, 2016, and 25% on June 30, 2016, and will vest 25% on September 30, 2016, and will expire on August 18, 2022. The exercise price of the stock options was established on the grant date at $0.0197 per share, which is equal to the simple average of the most recent four full trading weeks, weekly VWAPs of the Company's common stock price immediately preceding the date of grant as reported by OTC IQ, as compared to the closing market price of the Company's common stock on August 18, 2015 of $0.0216 per share. The aggregate grant date fair value of these stock options calculated pursuant to the Black-Scholes option-pricing model was $609,000. During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $135,831 and $271,662, respectively, with respect to these stock options. Additional information with respect to other provisions of the employment agreements is provided at Note 8.

Additionally, on August 18, 2015, the Board of Directors of the Company awarded stock options for 3,000,000 shares of common stock to each of seven other individuals who are members of management, the Company's Scientific Advisory Board, independent members of the Board of Directors, or outside service providers pursuant to the Company's 2015 Plan, representing stock options for a total of 21,000,000 shares of common stock. The stock options vested 25% on December 31, 2015, 25% on March 31, 2016, and 25% on June 30, 2016, and will vest 25% on September 30, 2016, and will expire on August 18, 2020 as to stock options for 9,000,000 shares of common stock and August 18, 2022 as to stock options for 12,000,000 shares of common stock. The exercise price of the stock options was established on the grant date at $0.0197 per share, which is equal to the simple average of the most recent four full trading weeks, weekly VWAPs of the Company's common stock price immediately preceding the date of grant as reported by OTC IQ, as compared to the closing market price of the Company's common stock on August 18, 2015 of $0.0216 per share. The aggregate grant date fair value of these stock options calculated pursuant to the Black-Scholes option-pricing model was $430,800. During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $64,928 and $175,630, respectively, with respect to these stock options.

On December 11, 2015, the Company entered into a consulting agreement for investor relations services, which provided for the payment of a fee for such services through the granting of non-qualified stock options to purchase a total of 2,857,143 shares of common stock pursuant to the Company's 2015 Plan. The stock options vested in equal installments on the last day of each month during the term of the consulting agreement, ranging from December 11, 2015 through March 31, 2016, and will expire on December 11, 2020. The exercise price of the stock options was established on the grant date at $0.021 per share, which was the closing market price of the Company's common stock on the date of grant. The aggregate grant date fair value of these stock options calculated pursuant to the Black-Scholes option-pricing model was $58,286. During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $0 and $50,286, respectively, with respect to these stock options.

On March 31, 2016, the Board of Directors of the Company awarded stock options for a total of 170,000,000 shares of common stock in various quantities to twelve individuals who are members of management, the Company's Scientific Advisory Board, independent members of the Board of Directors, or outside service providers pursuant to the Company's 2015 Plan. The stock options vested 25% on March 31, 2016 and 25% on June 30, 2016, and will vest 25% on September 30, 2016 and 25% on December 31, 2016, and will expire on March 31, 2021. The exercise price of the stock options was established on the grant date at $0.0227 per share, which was the closing market price of the Company's common stock on such date. The aggregate grant date fair value of these stock options, as calculated pursuant to the Black-Scholes option-pricing model, was $3,774,000. During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $890,325 and $1,842,150, respectively, with respect to these stock options.

Information with respect to the issuance of common stock options in connection with the settlement of debt obligations is provided at Note 5.

Information with respect to common stock awards issued to officers and directors as compensation is provided above under "Common Stock."

A summary of stock option activity for the six months ended June 30, 2016 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Options outstanding at December 31, 2015	251,823,581	$ 0.0241	
Granted	170,000,000	0.0227	
Expired	-	-	
Forfeited	-	-	

Options outstanding at June 30, 2016	421,823,581	$ 0.0235	5.82
Options exercisable at December 31, 2015	168,890,074	$ 0.0262	
Options exercisable at June 30, 2016	303,053,256	$ 0.0242	5.88

Total deferred compensation expense for the outstanding value of 118,770,325 unvested stock options was approximately $2,178,000 at June 30, 2016, which is being recognized subsequent to June 30, 2016 over a weighted-average period of approximately 5.4 months.

The exercise prices of common stock options outstanding and exercisable were as follows at June 30, 2016:

Exercise Price	Options Outstanding (Shares)	Options Exercisable (Shares)	Expiration Date
$0.0175	29,148,028	29,148,028	June 30, 2020
$0.0197	9,000,000	6,750,000	August 18, 2020
$0.0197	42,000,000	31,500,000	August 18, 2022
$0.0197	85,081,300	63,810,975	August 18, 2025
$0.0210	2,857,143	2,857,143	December 11, 2020
$0.0227	170,000,000	85,250,000	March 31, 2021
$0.0250	55,000,000	55,000,000	June 30, 2022
$0.0400	2,400,000	2,400,000	March 13, 2019
$0.0400	1,250,000	1,250,000	April 14, 2019
$0.0430	1,100,000	1,100,000	March 14, 2024
$0.0476	2,520,442	2,520,442	April 8, 2020
$0.0490	800,000	800,000	February 28, 2024
$0.0500	15,000,000	15,000,000	July 17, 2019
$0.0512	500,000	500,000	January 29, 2020
$0.0600	3,083,334	3,083,334	July 17, 2022
$0.0600	2,083,334	2,083,334	August 10, 2022
	421,823,581	303,053,256	

Based on a fair market value of $0.0179 per share on June 30, 2016, the intrinsic value of exercisable in-the-money common stock options was $11,659 as of June 30, 2016.

A summary of stock option activity for the six months ended June 30, 2015 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Options outstanding at December 31, 2014	25,716,668	$ 0.0500	

Granted	87,168,470	0.0233	
Expired	-	-	
Forfeited	-	-	
Options outstanding at June 30, 2015	112,885,138	$ 0.0294	5.96
Options exercisable at December 31, 2014	25,716,668	$ 0.0500	
Options exercisable at June 30, 2015	85,385,138	$ 0.0309	5.63

The exercise prices of common stock options outstanding and exercisable were as follows at June 30, 2015:

Exercise Price	Options Outstanding (Shares)	Options Exercisable (Shares)	Expiration Date
$0.0175	29,148,028	29,148,028	June 30, 2020
$0.0250	55,000,000	27,500,000	June 30, 2022
$0.0400	2,400,000	2,400,000	March 13, 2019
$0.0400	1,250,000	1,250,000	April 14, 2019
$0.0430	1,100,000	1,100,000	March 14, 2024
$0.0476	2,520,442	2,520,442	April 8, 2020
$0.0490	800,000	800,000	February 28, 2024
$0.0500	15,000,000	15,000,000	July 17, 2019
$0.0510	500,000	500,000	January 29, 2020
$0.0600	3,083,334	3,083,334	July 17, 2022
$0.0600	2,083,334	2,083,334	August 10, 2022
	112,885,138	85,385,138	

Based on a fair market value of $0.0175 per share on June 30, 2015, there were no exercisable in-the-money common stock options as of June 30, 2015.

For the three months ended June 30, 2016 and 2015, stock-based compensation costs included in the condensed consolidated statements of operations consisted of general and administrative expenses of $953,287 and $438,600, respectively, and research and development expenses of $360,521 and $73,400, respectively. For the six months ended June 30, 2016 and 2015, stock-based compensation costs included in the condensed consolidated statements of operations consisted of general and administrative expenses of $1,984,118 and $438,600, respectively, and research and development expenses of $801,064 and $145,400, respectively.

Pier Contingent Stock Consideration

In connection with the merger transaction with Pier effective August 10, 2012, RespireRx issued 58,417,893 newly issued shares of its common stock with an aggregate fair value of $3,271,402 ($0.056 per share), based upon the closing price of RespireRx's common stock on August 10, 2012. The shares of common stock were distributed to stockholders, convertible note holders, warrant holders, option holders, and certain employees and vendors of Pier in satisfaction of their interests and claims. The common stock issued by RespireRx represented approximately 41% of the 144,041,556 common shares outstanding immediately following the closing of the transaction.

Pursuant to the terms of the transaction, RespireRx agreed to issue additional contingent consideration, consisting of up to 18,314,077 shares of common stock, to Pier's former security holders and certain other creditors and service providers (the "Pier Stock Recipients") that received RespireRx's common stock as part of the Pier transaction if certain of RespireRx's stock options and warrants outstanding immediately prior to the closing of the merger were subsequently exercised. In the event that such contingent shares were issued, the ownership percentage of the Pier Stock Recipients, following their receipt of such additional shares, could not exceed their ownership percentage as of the initial transaction date.

The stock options and warrants outstanding at June 30, 2012 were all out-of-the-money on August 10, 2012. During late July and early August 2012, shortly before completion of the merger, the Company issued options to officers and directors at that time to purchase a total of 7,361,668 shares of common stock exercisable for ten years at $0.06 per share. By October 1, 2012, these options, as well as the options and warrants outstanding at June 30, 2012, were also out-of-the-money and continued to be out-of-the-money through June 30, 2016.

There were no stock options or warrants exercised subsequent to August 10, 2012 that triggered additional contingent consideration, and the only remaining stock options outstanding that could still trigger the additional contingent consideration generally remained out-of-the-money through June 30, 2016. As of June 30, 2016, due to the expirations and forfeitures of RespireRx stock options and warrants occurring since August 10, 2012, 2,111,445 contingent shares of common stock remained issuable under the Pier merger agreement.

The Company concluded that the issuance of any of the contingent shares to the Pier Stock Recipients was remote, as a result of the large spread between the exercise prices of these stock options and warrants as compared to the common stock trading range, the subsequent expiration or forfeiture of most of the options and warrants, the Company's distressed financial condition and capital requirements, and that these stock options and warrants have generally remained significantly out-of-the-money through June 30, 2016. Accordingly, the Company considered the fair value of the contingent consideration to be immaterial and therefore did not ascribe any value to such contingent consideration. If any such shares are ultimately issued to the former Pier stockholders, the Company will recognize the fair value of such shares as a charge to operations at that time.

Reserved and Unreserved Shares of Common Stock

At June 30, 2016, the Company had 1,400,000,000 shares of common stock authorized and 656,159,420 shares of common stock issued and outstanding. Furthermore, as of June 30, 2016, the Company had reserved an aggregate of 3,679 shares for issuance upon conversion of the Series B Preferred Stock; 142,077,305 shares for issuance upon exercise of warrants; 421,823,581 shares for issuance upon exercise of outstanding stock options; 20,551,702 shares to cover equity grants available for future issuance pursuant to the 2014 Plan; 98,159,919 shares to cover equity grants available for future issuance pursuant to the 2015 Plan; 9,221,633 shares for issuance upon conversion of the 10% Convertible Notes; and 2,111,445 shares issuable as contingent shares pursuant to the Pier merger. Accordingly, as of June 30, 2016, the Company had an aggregate of 693,949,264 shares of common stock reserved for issuance and 49,891,316 shares of common stock unreserved and available for future issuance. The Company expects to satisfy its future common stock commitments through the issuance of authorized but unissued shares of common stock.

7. Related Party Transactions

Dr. Arnold S. Lippa and Jeff E. Margolis, officers and directors of the Company since March 22, 2013, have indirect ownership interests and managing memberships in Aurora Capital LLC (“Aurora”) through interests held in its members, and Jeff. E. Margolis is also an officer of Aurora. Aurora is a boutique investment banking firm specializing in the life sciences sector that is also a full service brokerage firm.

On March 31, 2013, the Company accrued $85,000 as reimbursement for legal fees incurred by Aurora in conjunction with the removal of the Company’s prior Board of Directors on March 22, 2013, which amount has been included in accounts payable and accrued expenses at June 30, 2016 and December 31, 2015.

On June 30, 2015, the Board of Directors of the Company awarded cash bonuses totaling $215,000, including an aggregate of $195,000 to certain of the Company’s executive officers and an aggregate of $20,000 to the independent members of the Company’s Board of Directors. The cash bonuses awarded to executive officers were as follows: Dr. Arnold S. Lippa - $75,000; Jeff E. Margolis - $60,000; and Robert N. Weingarten - $60,000. The cash bonuses awarded to the two independent members of the Company’s Board of Directors were as follows: James E. Sapirstein - $10,000; and Kathryn MacFarlane - $10,000. The cash bonuses totaling $215,000 were awarded as partial compensation for services rendered by such persons from January 1, 2015 through June 30, 2015, and are included in accrued compensation and related expenses in the Company’s condensed consolidated balance sheet at June 30, 2016 and December 31, 2015.

On June 30, 2015, the Board of Directors also established cash compensation arrangements for certain of the Company’s executive officers at the following monthly rates: Dr. Arnold S. Lippa - $12,500; Jeff E. Margolis - $10,000; and Robert N. Weingarten - $10,000. In addition, the Company established quarterly cash board fees for the

two independent members of the Company’s Board of Directors as follows: James E. Sapirstein - $5,000; and Kathryn MacFarlane - $5,000. This compensation was payable in arrears and commenced on July 1, 2015. These compensation arrangements have been extended through December 31, 2016. On August 18, 2015, the cash compensation arrangements for these executive officers were further revised as described below.

Both the cash bonuses and the cash monthly compensation have been accrued and will not paid until such time as the Board of Directors of the Company determines that sufficient capital has been raised by the Company or is otherwise available to fund the Company's operations on an ongoing basis.

Effective August 18, 2015, Company entered into employment agreements with Dr. Arnold S. Lippa, Robert N. Weingarten and Jeff E. Margolis, which superseded the compensation arrangements previously established for those officers on June 30, 2015, excluding the cash bonuses referred to above. Additional information with respect to the employment agreements entered into on August 18, 2015 is provided at Note 8.

During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $18,000 for consulting services rendered by an entity controlled by family members of Dr. Arnold S. Lippa. During the three months and six months ended June 30, 2015, such similar charges amounted to $4,000 and $14,000, respectively.

A description of other transactions between the Company and Aurora is provided at Notes 4 and 6.

A description of advances and notes payable to officers is provided at Note 4.

8. Commitments and Contingencies

Pending or Threatened Legal Actions and Claims

By letter dated November 11, 2014, a former director of the Company, who joined the Company's Board of Directors on August 10, 2012 in conjunction with the Pier transaction and who resigned from the Company's Board of Directors on September 28, 2012, asserted a claim for unpaid consulting compensation of $24,000. The Company has not received any further communications from the former director with respect to this matter.

By letter dated February 5, 2016, the Company received a demand from a law firm representing a professional services vendor of the Company alleging that approximately $146,000 is due and owing for unpaid services rendered and requesting arbitration of the claim. The Company has engaged in settlement discussions with the vendor's legal counsel with respect to these claims.

By e-mail dated July 21, 2016, the Company received a demand from an investment banking consulting firm that represented the Company in 2012 in conjunction with the Pier transaction alleging that $225,000 is due and owing for unpaid investment banking services rendered.

The Company is periodically the subject of various pending and threatened legal actions and claims. In the opinion of management of the Company, adequate provision has been made in the Company's condensed consolidated financial statements at June 30, 2016 and December 31, 2015 with respect to such matters, including, specifically, the matters noted above. The Company intends to vigorously defend itself in the event that any of the matters described above results in the filing of a lawsuit or formal claim.

Significant Agreements and Contracts

Consulting Agreement

Richard Purcell was appointed as the Company's Senior Vice President of Research and Development effective October 15, 2014. Mr. Purcell provides his services to the Company on a month-to-month basis through his consulting firm, DNA Healthlink, Inc., through which the Company has contracted for his services, for a monthly cash fee of $12,500. Additional information with respect to shares of common stock issued to Mr. Purcell is provided at Note 6. Cash compensation expense pursuant to this agreement totaled $37,500 for the three months ended June 30, 2016 and 2015, and $75,000 for the six months ended June 30, 2016 and 2015, which is included in research and development expenses in the Company's condensed consolidated statements of operations for such periods.

Employment Agreements

On August 18, 2015, the Company entered into an employment agreement with Dr. James S. Manuso, Ph.D., to be its new President and Chief Executive Officer. Pursuant to the agreement, which is for an initial term through September 30, 2018 (and which shall be deemed to be automatically extended, upon the same terms and conditions, for successive periods of one year, unless either party provides written notice of its intention not to extend the term of the agreement at least 90 days prior to the applicable renewal date), Dr. Manuso is to receive an initial annual base salary of $375,000, subject to certain conditions, which will increase to $450,000 annually upon the first anniversary of his contract, again subject to certain conditions being met. Dr. Manuso will also be eligible to receive bonuses ranging from $100,000 to $300,000, once certain conditions have been met or at the discretion of the Board of Directors. Additionally, Dr. Manuso was granted stock options to acquire 85,081,300 shares of common stock of the Company and is eligible to receive additional awards under the Company's Plans in the discretion of the Board of Directors. Dr. Manuso had also agreed to purchase newly issued securities of the Company in an amount of $250,000, which was accomplished by Dr. Manuso's participation in the first closing of the unit offering of common stock and warrants on August 28, 2015, as described at Note 6. Dr. Manuso will also receive, beginning on the first anniversary of the

agreement, additional compensation to cover automobile lease expenses (up to a maximum of $16,000 annually, on a tax-equalized basis) if certain conditions are met, and, until such time as the Company establishes a group health plan for its employees, $1,200 per month, on a tax-equalized basis, to cover the cost of health coverage and up to $1,000 per month, on a tax-equalized basis, for a term life insurance policy and disability insurance policy. He will also be reimbursed for business expenses. Additional information with respect to the stock options granted to Dr. Manuso is provided at Note 6. The payment obligation associated with the first year base salary is to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time scheduled payments are to commence. Cash compensation accrued pursuant to this agreement totaled $360,110 for the period August 18, 2015 through June 30, 2016, including $103,650 and $214,050 for the three months and six months ended June 30, 2016, respectively, and is included in accrued compensation and related expenses in the Company’s condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company’s condensed consolidated statement of operations. Dr. Manuso was also appointed to the Company’s Board of Directors and elected as Vice Chairman of the Board of Directors. Dr. Manuso does not receive any additional compensation for serving as Vice Chairman and on the Board of Directors.

On August 18, 2015, concurrently with the hiring of Dr. James S. Manuso as its new President and Chief Executive Officer, the Company accepted the resignation of Dr. Arnold S. Lippa, as President and Chief Executive Officer. Dr. Lippa continues to serve as the Company's Executive Chairman and a member of the Board of Directors. Also on August 18, 2015, Dr. Lippa was named Chief Scientific Officer of the Company, and the Company entered into an employment agreement with Dr. Lippa in that capacity. Pursuant to the agreement, which is for an initial term through September 30, 2018 (and which shall be deemed to be automatically extended, upon the same terms and conditions, for successive periods of one year, unless either party provides written notice of its intention not to extend the term of the agreement at least 90 days prior to the applicable renewal date), Dr. Lippa is to receive an initial annual base salary of $300,000, subject to certain conditions, which will increase to $375,000 annually upon the first anniversary of his contract, again subject to certain conditions being met. Dr. Lippa will also be eligible to receive bonuses ranging from $75,000 to $150,000, once certain conditions have been met or at the discretion of the Board of Directors. Additionally, Dr. Lippa was granted stock options to acquire 10,000,000 shares of common stock of the Company and is eligible to receive additional awards under the Company's Plans at the discretion of the Board of Directors. Dr. Lippa will also receive, beginning on the first anniversary of the agreement, additional compensation to cover automobile lease expenses (up to a maximum of $12,000 annually, on a tax-equalized basis) if certain conditions are met, and, until such time as the Company establishes a group health plan for its employees, $1,200 per month, on a tax-equalized basis, to cover the cost of health coverage and up to $1,000 per month, on a tax-equalized basis, for a term life insurance policy and disability insurance policy. He will also be reimbursed for business expenses. Additional information with respect to the stock options granted to Dr. Lippa is provided at Note 6. The payment obligation associated with the first year base salary is to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time scheduled payments are to commence. Cash compensation accrued pursuant to this agreement totaled $279,239 for the period August 18, 2015 through June 30, 2016, including $80,400 and $160,800 for the three months and six months ended June 30, 2016, respectively, and is included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in research and development expenses in the Company's condensed consolidated statement of operations. Cash compensation accrued to Dr. Lippa for bonuses and under a prior superseded arrangement, while still serving as the Company's President and Chief Executive Officer, totaled $94,758 and is included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company's condensed consolidated statement of operations. Dr. Lippa does not receive any additional compensation for serving as Executive Chairman and on the Board of Directors.

On August 18, 2015, the Company also entered into employment agreements with Jeff E. Margolis, in his continuing role as Vice President, Secretary and Treasurer, and Robert N. Weingarten, in his continuing role as Vice President and Chief Financial Officer. Pursuant to the agreements, which are for initial terms through September 30, 2016 (and which shall be deemed to be automatically extended, upon the same terms and conditions, for successive periods of one year, unless either party provides written notice of its intention not to extend the term of the agreement at least 90 days prior to the applicable renewal date), Mr. Margolis and Mr. Weingarten are each to receive an initial annual base salary of $195,000, subject to certain conditions, and each will also be eligible to receive bonuses ranging from $65,000 to $125,000, once certain conditions have been met or at the discretion of the Board of Directors. Additionally, Mr. Margolis and Mr. Weingarten each were granted stock options to acquire 10,000,000 shares of common stock of the Company and both are eligible to receive additional awards under the Company's Plans at the discretion of the Board of Directors. Mr. Margolis and Mr. Weingarten will also each receive, beginning on the first anniversary of the agreement, additional compensation to cover automobile lease expenses (up to a maximum of $9,000 annually, on a tax-equalized basis) if certain conditions are met, and, until such time as the Company establishes a group health plan for its employees, $1,200 per month, on a tax-equalized basis, to cover the cost of

health coverage and up to $1,000 per month, on a tax-equalized basis, for a term life insurance policy and disability insurance policy. Both will also be reimbursed for business expenses. Additional information with respect to the stock options granted to Mr. Margolis and Mr. Weingarten is provided at Note 6. The payment obligations associated with both of their first year base salaries is to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time scheduled payments are to commence. Cash compensation accrued pursuant to these agreements totaled $276,140 ($188,070 each) for the period August 18, 2015 through June 30, 2016, including $108,300 ($54,150 each) and $216,600 ($108,300 each) for the three months and six months ended June 30, 2016, respectively, and is included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company's condensed consolidated statement of operations. Cash compensation accrued to Mr. Margolis and Mr. Weingarten for bonuses and under prior superseded arrangements totaled $151,612 ($75,806 each) and is also included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company's condensed consolidated statement of operations. Mr. Margolis and Mr. Weingarten also continue to serve as Directors of the Company, but do not receive any additional compensation for serving on the Board of Directors.

The employment agreements between the Company and Dr. Manuso, Dr. Lippa, Mr. Margolis and Mr. Weingarten, respectively, each provide that the payment obligations associated with the first year base salary are to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time scheduled payments are to commence. Dr. Manuso, Dr. Lippa, Mr. Margolis and Mr. Weingarten (who are each also directors of the Company) have each agreed, effective as of August 11, 2016, to continue to defer the payment of such amounts indefinitely, until such time as the Board of Directors of the Company determines that sufficient capital has been raised by the Company or is otherwise available to fund the Company's operations on an ongoing basis.

University of California, Irvine License Agreements

The Company entered into a series of license agreements in 1993 and 1998 with the University of California, Irvine ("UCI") that granted the Company proprietary rights to certain chemical compounds that acted as ampakines and to their therapeutic uses. These agreements granted the Company, among other provisions, exclusive rights: (i) to practice certain patents and patent applications, as defined in the license agreement, that were then held by UCI; (ii) to identify, develop, make, have made, import, export, lease, sell, have sold or offer for sale any related licensed products; and (iii) to grant sub-licenses of the rights granted in the license agreements, subject to the provisions of the license agreements. The Company was required, among other terms and conditions, to pay UCI a license fee, royalties, patent costs and certain additional payments.

Under such license agreements, the Company was required to make minimum annual royalty payments of approximately $70,000. The Company was also required to spend a minimum of $250,000 per year to advance the ampakine compounds until the Company began to market an ampakine compound. The commercialization provisions in the agreements with UCI required the Company to file for regulatory approval of an ampakine compound before October 2012. In March 2011, UCI agreed to extend the required date for filing regulatory approval of an ampakine compound to October 2015. During December 2012, the Company informed UCI that it would be unable to make the annual payment due to a lack of funds. The Company believes that this notice, along with its subsequent failure to make its minimum annual payment obligation, constituted a default and termination of the license agreements.

On April 15, 2013, the Company received a letter from UCI indicating that the license agreements between UCI and the Company had been terminated due to the Company's failure to make certain payments required to maintain the agreements. Since the patents covered in these license agreements had begun to expire and the therapeutic uses described in these patents were no longer germane to the Company's new focus on respiratory disorders, the loss of these license agreements is not expected to have a material impact on the Company's current drug development programs. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its consolidated financial statements at June 30, 2016 and December 31, 2015.

University of Alberta License Agreement

On May 8, 2007, the Company entered into a license agreement, as amended, with the University of Alberta granting the Company exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. The Company agreed to pay the University of Alberta a licensing fee and a patent issuance fee, which were paid, and prospective payments consisting of a royalty on net sales, sublicense fee payments, maintenance payments and milestone payments. The prospective maintenance payments commence on the enrollment of the first patient into the first Phase 2B clinical trial and increase upon the successful completion of the Phase 2B clinical trial. As the Company does not at this time anticipate scheduling a Phase 2B clinical trial in the near term, no maintenance payments to the University of Alberta are currently due and payable, nor are any maintenance payments expected to be due in the near future in connection with the license agreement.

Transactions with Biovail Laboratories International SRL

In March 2010, the Company entered into an asset purchase agreement with Biovail Laboratories International SRL ("Biovail"). Pursuant to the asset purchase agreement, Biovail acquired the Company's interests in CX717, CX1763, CX1942 and the injectable dosage form of CX1739, as well as certain of its other ampakine compounds and related intellectual property for use in the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. The agreement provided the Company with the right to receive milestone payments in an aggregate amount of up to $15,000,000 plus the reimbursement of certain related expenses, conditioned upon the occurrence of particular events relating to the clinical development of certain assets that Biovail acquired. None of these events occurred.

As part of the transaction, Biovail licensed back to the Company certain exclusive and irrevocable rights to some acquired ampakine compounds, other than CX717, an injectable dosage form of CX1739, CX1763 and CX1942, for use outside of the field of respiratory depression or vaso-occlusive crises associated with sickle cell disease. Accordingly, following the transaction with Biovail, the Company retained its rights to develop and commercialize the non-acquired ampakine compounds as a potential treatment for neurological diseases and psychiatric disorders. Additionally, the Company retained its rights to develop and commercialize the ampakine compounds as a potential treatment for sleep apnea disorders, including an oral dosage form of ampakine CX1739.

In September 2010, Biovail's parent corporation, Biovail Corporation, combined with Valeant Pharmaceuticals International in a merger transaction and the combined company was renamed "Valeant Pharmaceuticals International, Inc." ("Valeant"). Following the merger, Valeant and Biovail conducted a strategic and financial review of their product pipeline and, as a result, in November 2010, Biovail announced its intent to exit from the respiratory depression project acquired from the Company in March 2010.

Following that announcement, the Company entered into discussions with Biovail regarding the future of the respiratory depression project. In March 2011, the Company entered into a new agreement with Biovail to reacquire the ampakine compounds, patents and rights that Biovail had acquired from the Company in March 2010. The new agreement provided for potential future payments of up to $15,150,000 by the Company based upon the achievement of certain developments, including new drug application submissions and approval milestones. Biovail is also eligible to receive additional payments of up to $15,000,000 from the Company based upon the Company's net sales of an intravenous dosage form of the compounds for respiratory depression.

At any time following the completion of Phase 1 clinical studies and prior to the end of Phase 2A clinical studies, Biovail retains an option to co-develop and co-market intravenous dosage forms of an ampakine compound as a treatment for respiratory depression and vaso-occlusive crises associated with sickle cell disease. In such an event, the Company would be reimbursed for certain development expenses to date and Biovail would share in all such future development costs with the Company. If Biovail makes the co-marketing election, the Company would owe no further milestone payments to Biovail and the Company would be eligible to receive a royalty on net sales of the compound by Biovail or its affiliates and licensees.

University of Illinois 2014 Exclusive License Agreement

On June 27, 2014, the Company entered into an Exclusive License Agreement (the "2014 License Agreement") with the University of Illinois, the material terms of which were similar to a License Agreement between the parties that had been previously terminated on March 21, 2013. The 2014 License Agreement became effective on September 18, 2014, upon the completion of certain conditions set forth in the 2014 License Agreement, including: (i) the payment by the Company of a $25,000 licensing fee, (ii) the payment by the Company of outstanding patent costs aggregating $15,840, and (iii) the assignment to the University of Illinois of rights the Company held in certain patent applications, all of which conditions were fulfilled.

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The 2014 License Agreement granted the Company (i) exclusive rights to several issued and pending patents in numerous jurisdictions and (ii) the non-exclusive right to certain technical information that is generated by the University of Illinois in connection with certain clinical trials as specified in the 2014 License Agreement, all of which relate to the use of cannabinoids for the treatment of sleep related breathing disorders. The Company is developing dronabinol (Δ9-tetrahydrocannabinol), a cannabinoid, for the treatment of OSA, the most common form of sleep apnea.

The 2014 License Agreement provides for various commercialization and reporting requirements commencing on June 30, 2015. In addition, the 2014 License Agreement provides for various royalty payments, including a royalty on net sales of 4%, payment on sub-licensee revenues of 12.5%, and a minimum annual royalty beginning in 2015 of $100,000, which is due and payable on December 31 of each year beginning on December 31, 2015. The 2015 minimum annual royalty of $100,000 was paid as scheduled in December 2015. In the year after the first application for market approval is submitted to the FDA and until approval is obtained, the minimum annual royalty will increase to $150,000. In the year after the first market approval is obtained from the FDA and until the first sale of a product, the minimum annual royalty will increase to $200,000. In the year after the first commercial sale of a product, the minimum annual royalty will increase to $250,000. During the three months and six months ended June 30, 2016 and 2015, the Company recorded a charge to operations of $25,000 and $50,000, respectively, with respect to its minimum annual royalty obligation, which is included in research and development expenses in the Company’s condensed consolidated statement of operations for the three months and six months ended June 30, 2016 and 2015.

The 2014 License Agreement also provides for certain one-time milestone payments. A payment of $75,000 is due within five days after any one of the following: (a) dosing of the first patient with a product in a Phase 2 human clinical study anywhere in the world that is not sponsored by the University of Illinois, (b) dosing of the first patient in a Phase 2 human clinical study anywhere in the world with a low dose of dronabinol, or (c) dosing of the first patient in a Phase 1 human clinical study anywhere in the world with a proprietary reformulation of dronabinol. A payment of $350,000 is due within five days after dosing of the first patient with a product in a Phase 3 human clinical trial anywhere in the world. A payment of $500,000 is due within five days after the first new drug application filing with the FDA or a foreign equivalent for a product. A payment of $1,000,000 is due within 12 months after the first commercial sale of a product.

Research Contract with the University of Alberta

On January 12, 2016, the Company entered into a Research Contract with the University of Alberta in order to test the efficacy of ampakines at a variety of dosage and formulation levels in the potential treatment of Pompe Disease, apnea of prematurity and spinal cord injury, as well as to conduct certain electrophysiological studies to explore the ampakine mechanism of action for central respiratory depression. The Company agreed to pay the University of Alberta total consideration of approximately CAD$146,000 (approximately US$111,000), consisting of approximately CAD$85,000 (approximately US$65,000) of personnel funding in cash in four installments during 2016, to provide approximately CAD$21,000 (approximately US$16,000) in equipment, to pay patent costs of CAD$20,000 (approximately US$15,000), and to underwrite additional budgeted costs of CAD$20,000 (approximately US$15,000). As of June 30, 2016, CAD$85,000 (approximately US$65,000) was payable through September 1, 2016

under this agreement. The conversion to US dollars above utilizes an exchange rate of US$0.76 for every CAD$1.00.

The University of Alberta will receive matching funds through a grant from the Canadian Institutes of Health Research in support of the research. The Company will retain the rights to research results and any patentable intellectual property generated by the research. Dr. John Greer, Chairman of the Company's Scientific Advisory Board and faculty member of the Department of Physiology, Perinatal Research Centre and Women & Children's Health Research Institute, and Alberta Innovates - Health Sciences Senior Scientist with the Neuroscience and Mental Health Institute at the University of Alberta, will collaborate on this research. The studies are expected to be completed in 2016.

National Institute of Drug Abuse Agreement

On January 19, 2016, the Company announced that that it has reached an agreement with the Medications Development Program of the National Institute of Drug Abuse ("NIDA") to conduct research on the Company's ampakine compounds CX717 and CX1739. The agreement was entered into as of October 19, 2015, and on January 14, 2016, the Company and NIDA approved the proposed protocols, allowing research activities to commence. NIDA will evaluate the compounds using pharmacologic, pharmacokinetic and toxicologic protocols to determine the potential effectiveness of the ampakines for the treatment of drug abuse and addiction. Initial studies will focus on cocaine and methamphetamine addiction and abuse, and will be contracted to outside testing facilities and/or government laboratories, with all costs to be paid by NIDA. The Company will provide NIDA with supplies of CX717 and CX1739 and will work with the NIDA staff to refine the protocols and dosing parameters. The Company will retain all intellectual property, as well as proprietary and commercialization rights to these compounds.

Duke University Clinical Trial Agreement

On January 27, 2015, the Company entered into a Clinical Study and Research Agreement (the "Agreement") with Duke University to develop and conduct a protocol for a program of clinical study and research at a total cost of $50,579, which was completed in March 2015 and charged to research and development expenses during the three months ended March 31, 2015. On October 30, 2015, the Agreement was amended to provide for a Phase 2A clinical trial of CX1739 at a cost of $558,268. During March 2016, a Phase 2A clinical trial at Duke University School of Medicine was initiated, with the dosing portion of the clinical trial completed in June 2016 and the clinical trial formally completed on July 11, 2016. On July 28, 2016, the Agreement was further amended to reflect additional post-clinical trial costs of $120,059, increasing the total amount payable under the Agreement to $678,327. During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $258,372 and $409,523, respectively, for research and development expenses with respect to work conducted pursuant to the amended Agreement. All of the services under the amended Agreement are expected to be incurred by December 31, 2016.

Sharp Clinical Services, Inc. Agreement

On June 30, 2015 and August 31, 2015, the Company entered into agreements with Sharp Clinical Services, Inc. to provide packaging, labeling, distribution and analytical services for the Company with respect to CX1739 at a total budgeted cost of $118,005, of which the remainder of such services of $26,438 is expected to be provided in 2016.

Summary of Principal Cash Obligations and Commitments

The following table sets forth the Company's principal cash obligations and commitments for the next five fiscal years as of June 30, 2016 aggregating $2,480,863. Amounts included in the 2016 column represent amounts contractually due at June 30, 2016 during the remainder of the 2016 fiscal year ending December 31, 2016.

		Payments Due By Year				
	Total	2016	2017	2018	2019	2020
Research and development contracts	$59,463	$59,463	$—	$—	$—	$—
Clinical trial agreements (1)	157,150	157,150	—	—	—	—
License agreements	450,000	50,000	100,000	100,000	100,000	100,000
Employment and consulting agreements (2)	1,814,250	494,400	754,200	565,650	—	—
Total	$2,480,863	$761,013	$854,200	$665,650	$100,000	$100,000

(1) The amount presented is net of a payment of $111,654 made during the three months ended June 30, 2016, which has been reflected as an advance on research contract in the Company's condensed consolidated balance sheet at June 30, 2016.

(2) The payment of such amounts has been deferred indefinitely, as described above at "Employment Agreements".

10. Subsequent Events

Special Meeting of Stockholders

A special meeting of the stockholders of the Company is scheduled to be held at on August 16, 2016 to approve an amendment to the Company's second restated certificate of incorporation (i) to effect, at the discretion of the Company's Board of Directors, a three hundred twenty five-to-one (325 to 1) reverse stock split of all of the outstanding shares of the Company's common stock, par value $0.001 per share, and (ii) to set the number of the Company's authorized shares of stock at 70,000,000 shares, consisting of 65,000,000 shares designated as common stock, par value $0.001 per share, and 5,000,000 shares designated as preferred stock, par value $0.001 per share. The Company filed with the Securities and Exchange Commission and distributed to its stockholders a definitive proxy statement in connection with such meeting.

Fractional shares will not be issued in connection with the reverse stock split. Any fractional shares resulting from the reverse stock split will not be issued, but will be paid out in cash (without interest or deduction) in an amount equal to the number of shares exchanged into such fractional share multiplied by the average closing trading price of the Company's common stock on the OTCQB for the five trading days immediately before the certificate of amendment effecting the reverse stock split is filed with the Delaware Secretary of State.

The reverse stock split, if approved and effected, would cause holders of less than 325 shares of common stock to be eliminated as stockholders of the Company as a result of the payment of cash in lieu of issuing fractional shares.

If the reverse stock split is approved at the August 16, 2016 special meeting of stockholders and subsequently effected, all share and per share amounts will be restated for all periods presented subsequent to the effective date to reflect the effect of the reverse stock split.

The Company performed an evaluation of subsequent events through the date of filing of these financial statements with the SEC. Other than the above, there were no material subsequent events which affected, or could affect, the amounts or disclosures in the condensed consolidated financial statements.

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

Overview

Since its formation in 1987, RespireRx Pharmaceuticals Inc. ("RespireRx") has been engaged in the research and clinical development of a class of compounds referred to as ampakines, which act to enhance the actions of the excitatory neurotransmitter glutamate at AMPA glutamate receptors. Several ampakines, in both oral and injectable form, are being developed by the Company for the treatment of a variety of breathing disorders. In clinical studies, select ampakines have shown preliminary efficacy in central sleep apnea and in the control of respiratory depression produced by opioids, without altering their analgesic effects. In animal models of orphan disorders, such as Pompe Disease, spinal cord damage and perinatal respiratory distress, it has been demonstrated that certain ampakines improve breathing function. The Company's compounds belong to a new class of ampakines that do not display the undesirable side effects previously reported in animal models of earlier generations

In 2011, RespireRx conducted a re-evaluation of its strategic focus and determined that clinical development in the area of respiratory disorders, particularly sleep apnea and drug-induced respiratory depression, provided the most cost-effective opportunities for potential rapid development and commercialization of RespireRx's compounds. Accordingly, RespireRx narrowed its clinical focus at that time and sidelined other avenues of scientific inquiry. This re-evaluation provided the impetus for RespireRx's acquisition of Pier Pharmaceuticals, Inc. ("Pier") in August 2012. RespireRx and its wholly-owned subsidiary, Pier, are collectively referred to herein as the "Company."

The Company has continued to implement this strategic focus, notwithstanding a change in management in March 2013, including seeking the capital to fund such efforts. As a result of the Company's scientific discoveries and the acquisition of strategic, exclusive license agreements, management believes that the Company is now a leader in developing drugs for respiratory disorders, particularly sleep apneas and drug-induced respiratory depression.

The Company owns patents and patent applications for certain families of chemical compounds, including ampakines, which claim the chemical structures and their use in the treatment of various disorders. These patents cover, among other compounds, the Company's lead ampakines CX1739 and CX1942, and extend through at least 2028.

On May 8, 2007, RespireRx entered into a license agreement, as subsequently amended, with the University of Alberta granting RespireRx exclusive rights to method of treatment patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. These patents, along with RespireRx's own patents claiming chemical structures, comprise RespireRx's principal intellectual property supporting RespireRx's research and clinical development program in the use of ampakines for the treatment of respiratory disorders.

RespireRx has completed preclinical studies indicating that several of its ampakines, including CX717, CX1739 and CX1942, were efficacious in treating drug induced respiratory depression caused by opioids or certain anesthetics without offsetting the analgesic effects of the opioids or the anesthetic effects of the anesthetics. In two clinical Phase 2 studies, one of which was published in a peer-reviewed journal, CX717, a predecessor compound to CX1739 and CX1942, antagonized the respiratory depression produced by fentanyl, a potent narcotic, without affecting the analgesia produced by this drug. In addition, RespireRx has conducted a Phase 2A clinical study in which patients with sleep apnea were administered CX1739, RespireRx's lead clinical compound. The results suggested that CX1739 might have use as a treatment for central sleep apnea ("CSA") and mixed sleep apnea, but not obstructive sleep apnea ("OSA").

In order to expand RespireRx's respiratory disorders program, RespireRx acquired 100% of the issued and outstanding equity securities of Pier effective August 10, 2012 pursuant to an Agreement and Plan of Merger. Pier was formed in June 2007 (under the name SteadySleep Rx Co.) as a clinical stage pharmaceutical company to develop a pharmacologic treatment for the respiratory disorder known as OSA and had been engaged in research and clinical development activities since formation.

Through the merger, RespireRx gained access to an Exclusive License Agreement (as amended, the "2007 License Agreement") that Pier had entered into with the University of Illinois on October 10, 2007. The 2007 License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids, of which dronabinol is a specific example, for the treatment of sleep-related breathing disorders (including sleep apnea). Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as Δ9-THC (Δ9-tetrahydrocannabinol). Pier's business plan was to determine whether dronabinol would significantly improve subjective and objective clinical measures in patients with OSA. In addition, Pier intended to evaluate the feasibility and comparative efficacy of a proprietary formulation of dronabinol.

The 2007 License Agreement granted Pier, among other provisions, exclusive rights: (i) to practice certain patents and patent applications, as defined in the 2007 License Agreement, that were then held by the University of Illinois; (ii) to identify, develop, make, have made, import, export, lease, sell, have sold or offer for sale any related licensed products; and (iii) to grant sub-licenses of the rights granted in the 2007 License Agreement, subject to the provisions of the 2007 License Agreement. Pier was required under the 2007 License Agreement, among other terms and conditions, to pay the University of Illinois a license fee, royalties, patent costs and certain milestone payments.

Prior to the merger, Pier conducted a 21 day, randomized, double-blind, placebo-controlled, dose escalation Phase 2 clinical study in 22 patients with OSA, in which dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index, the primary therapeutic end-point, and was observed to be safe and well tolerated. The University of Illinois and three other research centers are currently investigating dronabinol in a potentially pivotal, six week, double-blind, placebo-controlled Phase 2B clinical trial in 120 patients with OSA. The University of Illinois has indicated that recruitment for this clinical trial was completed during the second quarter of 2016. Final research results are expected to be published in the fourth quarter of 2016. This clinical trial is fully funded by the National Heart, Lung and Blood Institute of the National Institutes of Health. The Company is not managing or funding this clinical trial.

Dronabinol is a Schedule III, controlled generic drug with a relatively low abuse potential that is approved by the U.S. Food and Drug Administration (the “FDA”) for the treatment of AIDS-related anorexia and chemotherapy-induced emesis. The use of dronabinol for the treatment of OSA is a novel indication for an already approved drug and, as such, the Company believes that it would only require approval by the FDA of a supplemental new drug application, as opposed to the submission and approval of a full new drug application.

The 2007 License Agreement was terminated effective March 21, 2013, due to the Company's failure to make a required payment. Subsequently, current management opened negotiations with the University of Illinois, and as a result, the Company ultimately entered into a new license agreement (the "2014 License Agreement") with the University of Illinois on June 27, 2014, the material terms of which were similar to the 2007 License Agreement that was terminated on March 21, 2013.

The Company filed an Investigational New Drug ("IND") application with the FDA in September 2015 to conduct a double-blind, placebo-controlled, dose-ascending Phase 2A clinical trial in approximately 18 subjects to determine the ability of orally administered CX1739, the Company's proprietary lead ampakine, to prevent the respiratory depression produced by remifentanil, a potent opioid, without altering remifentanil's analgesic properties. The clinical protocol was designed to evaluate the safety and efficacy of three escalating doses of CX1739 versus placebo when administered prior to remifentanil, with respiration, analgesia and a number of other clinical measures being taken after administration of both drugs. The commencement of this clinical trial was subject to resolution of two deficiencies raised by the FDA in its clinical hold letter issued in November 2015. These issues were satisfactorily resolved in early 2016, and the FDA removed the clinical hold on the Company's IND for CX1739 on February 25, 2016, thus allowing for the initiation of the clinical trial. During March 2016, upon receiving unconditional approval from the Institutional Review Board of the Duke Clinical Research Unit, this Phase 2A clinical trial at Duke University School of Medicine was initiated, with the dosing portion of the clinical trial completed in June 2016 and the clinical trial formally completed on July 11, 2016. The Company currently expects to incur a total of approximately $978,000 of direct and indirect costs in 2016 with respect to this clinical trial (including approximately $678,000 to Duke University), of which a total of approximately $310,000 and $488,000 was incurred during the three months and six months ended June 30, 2016, respectively. The Company is currently working with the Duke University clinical research team to analyze the data collected. The Company expects to complete a preliminary top-line analysis of the respiratory data by the end of September 2016 and to issue a final report on the results of the clinical trial by the end of December 2016.

Going Concern

The Company's condensed consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred net losses of $5,412,200 for the six months ended June 30, 2016 and $5,961,892 for the fiscal year ended December 31, 2015, and negative operating cash flows of $867,898 for the six months ended June 30, 2016 and $1,296,100 for the fiscal year ended December 31, 2015. The Company also had a stockholders' deficiency of $3,694,788 at June 30, 2016, and expects to continue to incur net losses and negative operating cash flows for at least the next few years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern. In addition, the Company's independent registered public accounting firm, in their report on the Company's consolidated financial statements for the year ended December 31, 2015, has expressed substantial doubt about the Company's ability to continue as a going concern.

The Company is currently, and has for some time, been in significant financial distress. It has limited cash resources and current assets and has no ongoing source of sustainable revenue. Management is continuing to address various

aspects of the Company's operations and obligations, including, without limitation, debt obligations, financing requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has continued to raise new debt and equity capital to fund the Company's business activities from both related and unrelated parties.

The Company is continuing efforts to raise additional capital in order to pay its liabilities, fund its business activities and underwrite its research and development programs. The Company regularly evaluates various measures to satisfy the Company's liquidity needs, including the development of agreements with collaborative partners and, when necessary, the exchange or restructuring of the Company's outstanding securities. As a result of the Company's current financial situation, the Company has limited access to external sources of debt and equity financing. Accordingly, there can be no assurances that the Company will be able to secure additional financing in the amounts necessary to fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources on a timely basis, the Company may be forced to reduce operations indefinitely or to discontinue operations entirely and liquidate.

Recent Accounting Pronouncements

Information with respect to recently issued accounting standards is provided at Note 3 to the Company's condensed consolidated financial statements.

Concentration of Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company limits its exposure to credit risk by investing its cash with high credit quality financial institutions.

The Company's research and development efforts and potential products rely on licenses from research institutions and if the Company loses access to these technologies or applications, its business could be substantially impaired.

Under a patent license agreement with The Governors of the University of Alberta, the Company has exclusive rights to the use of certain ampakine compounds to prevent and treat respiratory depression induced by opioid analgesics, barbiturates and anesthetic and sedative agents.

On May 8, 2007, the Company entered into a license agreement, as subsequently amended, with the University of Alberta granting the Company exclusive rights to practice patents held by the University of Alberta claiming the use

of ampakines for the treatment of various respiratory disorders. The Company agreed to pay the University of Alberta a licensing fee and a patent issuance fee, which were paid, and prospective payments consisting of a royalty on net sales, sublicense fee payments, maintenance payments and milestone payments. The prospective maintenance payments commence on the enrollment of the first patient into the first Phase 2B clinical trial and increase upon the successful completion of the Phase 2B clinical trial. As the Company does not at this time anticipate scheduling a Phase 2B clinical trial, no maintenance payments are currently due and payable to the University of Alberta. In addition, no other prospective payments are currently due and payable to the University of Alberta.

Through the merger with Pier, the Company gained access to the 2007 License Agreement that Pier had entered into with the University of Illinois on October 10, 2007. The 2007 License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids for the treatment of sleep related breathing disorders (including sleep apnea), of which dronabinol is a specific example of one type of cannabinoid. Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as Δ9-THC (Δ9-tetrahydrocannabinol). Dronabinol is currently approved by the FDA and is sold generically for use in refractory chemotherapy-induced nausea and vomiting, as well as for anorexia in patients with AIDS. Pier's business plan was to determine whether dronabinol would significantly improve subjective and objective clinical measures in patients with OSA. In addition, Pier intended to evaluate the feasibility and comparative efficacy of a proprietary formulation of dronabinol. The 2007 License Agreement was terminated effective March 21, 2013 due to the Company's failure to make a required payment and on June 27, 2014, the Company entered into the 2014 License Agreement with the University of Illinois, the material terms of which were similar to the 2007 License Agreement that had been terminated. If the Company is unable to comply with the terms of the 2014 License Agreement, such as an inability to make the payments required thereunder, the Company would be at risk of the 2014 License Agreement being terminated.

Critical Accounting Policies and Estimates

The Company prepared its condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. The preparation of these condensed consolidated financial statements requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. Management periodically evaluates the estimates and judgments made. Management bases its estimates and judgments on historical experience and on various factors that are believed to be reasonable under the circumstances. Actual results may differ from these estimates as a result of different assumptions or conditions.

The following critical accounting policies affect the more significant judgments and estimates used in the preparation of the Company's consolidated financial statements.

Series G 1.5% Convertible Preferred Stock

The Company accounted for the beneficial conversion features associated with the shares of Series G 1.5% Convertible Preferred Stock issued in 2014 in accordance with Accounting Standards Codification ("ASC") 470-20, Accounting for Debt with Conversion and Other Options. The Company calculated a deemed dividend on the Series G 1.5% Convertible Preferred Stock of $8,376,719 in March 2014 and $1,673,127 in April 2014, which equals the amount by which the estimated fair value of the common stock issuable upon conversion of the issued Series G 1.5% Convertible Preferred Stock exceeded the proceeds from such issuances. The deemed dividend on the Series G 1.5% Convertible Preferred Stock was amortized on the straight-line basis from the respective issuance dates through the

earliest conversion date of June 16, 2014, in accordance with ASC 470-20. The difference between the amortization of the deemed dividend calculated based on the straight-line method and the effective yield method was not material.

On April 17, 2016, the remaining unconverted 259.7 shares of Series G 1.5% Convertible Preferred Stock outstanding (including accrued but unpaid dividends) were automatically and mandatorily redeemed by conversion into 78,706,282 newly issued shares of common stock at a conversion price of $0.0033 per share.

10% Convertible Notes Payable

The Company accounted for the beneficial conversion features with respect to the sale of the convertible notes and the issuance of the warrants in 2014 and 2015 in accordance with ASC 470-20, Accounting for Debt with Conversion and Other Options.

The Company considered the face value of the convertible notes to be representative of their fair value. The Company determined the fair value of the warrants based on the Black-Scholes option-pricing model. The relative fair value method generated respective fair values for each of the convertible notes and the warrants of approximately 50% for the convertible notes and approximately 50% for the warrants sold with the convertible notes. Once these values were determined, the fair value of the warrants and the fair value of the beneficial conversion feature (which were calculated based on the effective conversion price) were recorded as a reduction to the face value of the promissory note obligation. As a result, this aggregate debt discount reduced the carrying value of the convertible notes to zero at each issuance date. The excess amount generated from this calculation was not recorded, as the carrying value of a convertible note cannot be reduced below zero. The aggregate debt discount was amortized as interest expense over the original term of the convertible notes. The difference between the amortization of the debt discount calculated based on the straight-line method and the effective yield method was not material.

The cash fees paid to placement agents and for legal costs incurred from November 5, 2014 through February 2, 2015 with respect to this financing were deferred and capitalized as deferred offering costs and were amortized to interest expense over the original term of the convertible notes through September 15, 2015 on the straight-line method. The placement agent warrants were considered as an additional cost of the offering and were included in deferred offering costs at fair value. The difference between the amortization of the deferred offering costs calculated based on the straight-line method and the effective yield method was not material.

On August 13, 2015, pursuant to the terms of the convertible notes, the Company elected to extend the maturity date of the convertible notes to September 15, 2016. As a consequence of this election, under the terms of the convertible notes, the Company was required to issue to convertible note holders additional warrants (the “New Warrants”). In connection with the extension of the maturity date of the convertible notes, the Board of Directors of the Company determined to extend the termination date of the original warrants, so that they were coterminous with the new maturity date of the convertible notes.

The Company reviewed the guidance in ASC 405-20, Extinguishment of Liabilities, and determined that the notes had not been extinguished. The Company therefore concluded that the guidance in ASC 470-50, Modifications and Extinguishments, should be applied, which states that if the exchange or modification is not to be accounted for in the same manner as a debt extinguishment, then the fees shall be associated with the replacement or modified debt instrument and, along with any existing unamortized premium or discount, amortized as an adjustment of interest expense over the remaining term of the replacement or modified debt instrument using the interest method.

The Company deferred the debt modification costs related to the modification of the convertible notes and the issuance of the New Warrants (consisting of the fair value of the New Warrants) over the remaining term of the extended notes. The Company accounted for such costs as a discount to the convertible notes and amortized such costs to interest expense over the extended term of the convertible notes on the straight-line method. The difference between the amortization of these costs calculated based on the straight-line method and the effective yield method was not material.

The Company deferred the debt modification costs related to the extension of the original warrants (consisting of the fair value of the extension of the original warrants) over the remaining term of the extended convertible notes. The Company accounted for such costs as a discount to the convertible notes and amortized such costs to interest expense over the extended term of the convertible notes on the straight-line method. The difference between the amortization of these costs calculated based on the straight-line method and the effective yield method was not material.

The closing market price of the Company's common stock on the extension date of September 15, 2015 was $0.031 per share, as compared to the fixed conversion price of the convertible notes and the fixed exercise price of both the original warrants and the New Warrants of $0.035 per share. The Company has accounted for the beneficial conversion features with respect to the extension of the convertible notes and the extension of the original warrants and the issuance of the New Warrants in accordance with ASC 470-20, Accounting for Debt with Conversion and Other Options.

The Company considered the face value of the convertible notes, plus the accrued interest thereon, to be representative of their fair value. The relative fair value method generated respective fair values for each of the convertible notes, including accrued interest, and the New Warrants and extension of the original warrants, of approximately 55% for the convertible notes, including accrued interest, and approximately 45% for the New Warrants and extension of the original warrants. Once these values were determined, the fair value of the New Warrants and extension of the original warrants and the fair value of the beneficial conversion feature (which were calculated based on the effective conversion price) were recorded as a reduction to the face value of the promissory note obligation. The aggregate debt discount was amortized as interest expense over the extended term of the promissory notes. The difference between the amortization of the debt discount calculated based on the straight-line method and the effective yield method was not material.

During April and May 2016, the Company entered into Note Exchange Agreements with certain note holders, representing an aggregate of $303,500 of principal amount of the convertible notes (out of a total of $579,500 of original principal amount of the 10% convertible notes payable). The Note Exchange Agreements were substantially similar, and provided for the note holders to exchange their notes, original warrants and New Warrants (collectively, the "Exchanged Securities"), plus cash, in exchange for shares of the Company's common stock. In the aggregate, $344,483 of principal amount (including accrued interest of $40,983) of the convertible notes, original warrants to purchase 8,671,428 shares of the Company's common stock and New Warrants to purchase 4,634,042 shares of the Company's common stock, plus an aggregate of $232,846 in cash, were exchanged for 32,990,233 shares of the Company's common stock, with a total market value of $631,023 (average $0.0191 per share), which resulted in a credit to total stockholders' equity of $577,329. All of the Exchanged Securities were cancelled as a result of the

respective exchange transactions.

The Company reviewed the guidance in ASC 470-20-40-13 through 17, Recognition of Expense Upon Conversion, and in ASC 470-20-40-26, Induced Conversions. Consistent with this accounting guidance, for those convertible note holders accepting the Company's exchange offer, the Company evaluated the fair value of the incremental consideration paid to induce conversion of the convertible notes into equity (i.e., 9,842,381 shares of common stock), based on the closing market price of the Company's common stock on the date of each transaction, and recorded a charge to operations of $188,274.

The Company evaluated the warrants exchanged in conjunction with the Note Exchange Agreements. The Company calculated the fair value of the warrants exchanged (consisting of the warrants issued in conjunction with the original issuance of the convertible notes) as if the warrants were modified immediately before the theoretical warrant modification and immediately after such warrant modification. As the fair value of the warrants immediately after the modifications was less than the fair value of the warrants immediately before the modifications (both amounts calculated pursuant to the Black-Scholes option-pricing model), the Company did not record any accounting entry with respect to the warrant exchange agreements.

Unit Exchange Agreements

During April and May 2016, the Company entered into Unit Exchange Agreements with certain warrant holders. The Unit Exchange Agreements were substantially similar, and provided for the warrant holders to exchange (i) existing warrants to purchase an aggregate of 70,585,832 shares of the Company's common stock (each of which was cancelled as a result of the respective exchange transactions), plus (ii) an aggregate of $529,394 in cash, in return for (i) an aggregate of 35,292,916 shares of the Company's common stock, and (ii) new warrants to purchase an aggregate of 35,292,916 shares of the Company's common stock. The new warrants have the same expiration date as the original warrants (September 30, 2020) and may be exercised for cash or on a cashless basis at $0.015 per share.

The Company evaluated the warrants exchanged in conjunction with the Unit Exchange Agreements. The Company calculated the fair value of the warrants exchanged as if the warrants were modified immediately before the theoretical warrant modification and immediately after such warrant modification. As the fair value of the warrants immediately after the modification was less than the fair value of the warrants immediately before the modification (both amounts calculated pursuant to the Black-Scholes option-pricing model), the Company did not record any accounting entry with respect to the warrant exchange agreements.

Research Grants

The Company recognizes revenues from research grants as earned based on the percentage-of-completion method of accounting and issues invoices for contract amounts billed based on the terms of the grant agreement. Amounts recorded under research grants in excess of amounts earned are classified as unearned grant revenue liability in the Company's consolidated balance sheet. Grant receivable reflects contractual amounts due and payable under the grant agreement. The payment of grants receivable are based on progress reports provided to the grant provider by the Company. The research grant was completed in April 2015. The Company has filed all required progress reports.

Research grants are generally funded and paid through government or institutional programs. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research project, to the extent that such amounts are expended in accordance with the approved grant project.

Stock-Based Compensation

The Company periodically issues common stock and stock options to officers, directors, Scientific Advisory Board members and consultants for services rendered. Such issuances vest and expire according to terms established at the issuance date of each grant.

The Company accounts for stock-based payments to officers and directors by measuring the cost of services received in exchange for equity awards based on the grant date fair value of the awards, with the cost recognized as compensation expense on the straight-line basis in the Company's financial statements over the vesting period of the awards. The Company accounts for stock-based payments to Scientific Advisory Board members and consultants by determining the value of the stock compensation based upon the measurement date at either (a) the date at which a performance commitment is reached, or (b) at the date at which the necessary performance to earn the equity instruments is complete.

Stock grants, which are generally subject to time-based vesting, are measured at the grant date fair value and charged to operations ratably over the vesting period.

Stock options granted to members of the Company's Scientific Advisory Board and to outside consultants are revalued each reporting period until vested to determine the amount to be recorded as an expense in the respective period. As the stock options vest, they are valued on each vesting date and an adjustment is recorded for the difference between the value already recorded and the value on the date of vesting.

The fair value of stock options is determined utilizing the Black-Scholes option-pricing model, and is affected by several variables, the most significant of which are the life of the equity award, the exercise price of the security as compared to the fair market value of the common stock on the grant date, and the estimated volatility of the common stock over the term of the equity award. Estimated volatility is based on the historical volatility of the Company's common stock. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. The fair value of common stock is determined by reference to the quoted market price of the Company's common stock.

Stock options and warrants issued to non-employees as compensation for services to be provided to the Company or in settlement of debt are accounted for based upon the fair value of the services provided or the estimated fair value of the stock option or warrant, whichever can be more clearly determined. Management utilizes the Black-Scholes option-pricing model to determine the fair value of the stock options and warrants issued by the Company. The Company recognizes this expense over the period in which the services are provided.

The Company recognizes the fair value of stock-based compensation in general and administrative costs and in research and development costs, as appropriate, in the Company's condensed consolidated statements of operations. The Company issues new shares of common stock to satisfy stock option exercises.

Research and Development

Research and development costs include compensation paid to management directing the Company's research and development activities, and fees paid to consultants and outside service providers and organizations (including research institutes at universities), patent fees and costs, and other expenses relating to the acquisition, design, development and testing of the Company's treatments and product candidates.

Research and development costs incurred by the Company under research grants are expensed as incurred over the life of the underlying contracts, unless the terms of the contract indicate that a different expensing schedule is more appropriate.

The Company reviews the status of its research and development contracts on a quarterly basis.

License Agreements

Obligations incurred with respect to mandatory payments provided for in license agreements are recognized ratably over the appropriate period, as specified in the underlying license agreement, and are recorded as liabilities in the Company's condensed consolidated balance sheet, with a corresponding charge to research and development costs in the Company's condensed consolidated statement of operations. Obligations incurred with respect to milestone payments provided for in license agreements are recognized when it is probable that such milestone will be reached, and are recorded as liabilities in the Company's condensed consolidated balance sheet, with a corresponding charge to research and development costs in the Company's condensed consolidated statement of operations. Payments of such liabilities are made in the ordinary course of business.

Patent Costs

Due to the significant uncertainty associated with the successful development of one or more commercially viable products based on the Company's research efforts and any related patent applications, all patent costs, including patent-related legal and filing fees, are expensed as incurred.

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Results of Operations

The Company's condensed consolidated statements of operations as discussed herein are presented below.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Grant revenues	$-	$12,382	$-	$86,916
Operating expenses:				
General and administrative	1,422,605	800,393	2,922,245	1,030,293
Research and development	926,920	272,340	1,844,056	713,132
Total operating expenses	2,349,525	1,072,733	4,766,301	1,743,425
Loss from operations	(2,349,525)	(1,060,351)	(4,766,301)	(1,656,509)
Gain (loss) from settlements with former management	-	(840)	-	91,710
Gain from settlements with service providers	-	75,375	-	75,375
Fair value of inducement to effect exchange of 10% convertible notes payable for common stock	(188,274)	-	(188,274)	-
Interest expense	(199,441)	(269,433)	(446,206)	(497,968)
Foreign currency transaction gain (loss)	5,991	5,617	(11,419)	9,808
Net loss	(2,731,249)	(1,249,632)	(5,412,200)	(1,977,584)
Adjustments related to Series G 1.5% Convertible Preferred Stock:				
Dividend on Series G 1.5% Convertible Preferred Stock	(184)	(1,574)	(1,165)	(4,772)
Net loss attributable to common stockholders	$(2,731,433)	$(1,251,206)	$(5,413,365)	$(1,982,356)
Net loss per common share - basic and diluted	$(0.00)	$(0.00)	$(0.01)	$(0.01)
Weighted average common shares outstanding - basic and diluted	612,737,935	375,150,770	554,335,252	307,305,205

Three Months Ended June 30, 2016 and 2015

Revenues. During the three months ended June 30, 2016 and 2015, the Company had research grant revenues of $0 and $12,382, respectively. The research grant revenues during the three months ended June 30, 2015 were related to a contract with the National Institute of Drug Abuse entered into on September 18, 2014 and completed in early 2015.

General and Administrative. For the three months ended June 30, 2016, general and administrative expenses were $1,422,605, an increase of $622,212, as compared to $800,393 for the three months ended June 30, 2015, primarily due to an increase in stock-based compensation of $514,687 and an increase in professional and consulting fees of $89,290.

Stock-based compensation costs included in general and administrative expenses were $953,287 for the three months ended June 30, 2016, as compared to $438,600 for the three months ended June 30, 2015, reflecting an increase of $514,687. The increase in stock-based compensation reflects the amortization of costs relating to stock options granted to members of management, the Company's Board of Directors and to outside consultants. Salaries and employee benefits included in general and administrative expenses were $211,951 for the three months ended June 30, 2016, as compared to $195,000 for the three months ended June 30, 2015, reflecting an increase of $16,950. Professional and other consulting fees included in general and administrative expenses were $202,551 for the three months ended June 30, 2016, as compared to $113,261 for the three months ended June 30, 2015, reflecting an increase of $89,290, due primarily to preparation of the Company's proxy statement and planning for the Company's special meeting of shareholders scheduled for August 16, 2016, and other investor and public relations costs.

Research and Development. For the three months ended June 30, 2016, research and development expenses were $926,920, an increase of $654,580, as compared to $272,340 for the three months ended June 30, 2015. The increase in research and development expenses for the three months ended June 30, 2016, as compared to the three months ended June 30, 2015, is primarily a result of an increase in stock-based compensation of $287,124, an increase in salaries and employee benefits of $74,264, and an increase in contractual clinical research expenditures of $269,883, primarily related to the Company's Phase 2A clinical trial of CX1739.

Stock-based compensation costs included in research and development expenses were $360,524 for the three months ended June 30, 2016, as compared to $73,400 for the three months ended June 30, 2015, reflecting an increase of $287,124. The increase in stock-based compensation reflects the amortization of costs relating to stock options granted to members of management and to outside consultants engaged in research and development activities. Salaries and employee benefits included in research and development expenses were $80,400 for the three months ended June 30, 2016, as compared to $6,136 for the three months ended June 30, 2015, reflecting an increase of $74,264. The net change reflects the Company's shift in compensation philosophy for its officers beginning in mid-2015 from entirely stock-based compensation to a combination of stock-based compensation and compensation payable in cash (subject to certain conditions).

Contractual research expenditures included in research and development expenses were $318,868 for the three months ended June 30, 2016, as compared to $48,985 for the three months ended June 30, 2015, reflecting an increase of $269,883. The net change in contractual clinical research expenditures reflects the Company's accelerating clinical trial program.

Gain (Loss) from Settlement with Former Management. During the three months ended June 30, 2015, the Company recorded a loss of $840 as a result of an amendment made to a settlement agreement with its former Vice President and Chief Financial Officer that resulted in the settlement of potential claims.

Gain from Settlements with Service Providers. During the three months ended June 30, 2015, the Company recorded a gain of $75,375 as a result of agreements with four current professional service providers that resulted in the partial settlement of amounts owed to them by the Company. Obligations aggregating $916,827 were settled for $15,000 in cash, the issuance of a note payable of $59,763, the issuance of 9,064,286 shares of common stock valued at $158,625 ($0.0175 per share), and the issuance of stock options to purchase 31,618,470 shares of common stock (exercisable at the closing market price of the Company's common stock on the date of issuance) valued pursuant to the Black-Scholes option-pricing model at $608,064.

Fair Value of Inducement to Effect Exchange of 10% Convertible Notes Payable for Common Stock. During April and May 2016, the Company entered into Note Exchange Agreements with certain note holders representing an aggregate of $303,500 of principal amount of the 10% convertible notes payable (out of a total of $579,500 of original principal amount of the 10% convertible notes payable. The Note Exchange Agreements provided for the note holders to exchange their notes, original warrants and New Warrants, plus cash, in exchange for shares of the Company's common stock. In the aggregate, $344,483 (including accrued interest of $40,983) of the 10% convertible notes payable, original warrants to purchase 8,671,428 shares of the Company's common stock and New Warrants to purchase 4,634,042 shares of the Company's common stock, plus an aggregate of $232,846 in cash, were exchanged for 32,990,233 shares of the Company's common stock, with a total market value of $631,023 (average $0.0191 per share). Accordingly, during the three months ended June 30, 2016, the Company recorded a cost of $188,274, reflecting the fair value of the inducement to effect the exchange of a portion the 10% convertible notes payable (together with original warrants, New Warrants and cash) for shares of the Company's common stock.

Interest Expense. During the three months ended June 30, 2016, interest expense was $199,441 (including $2,623 to related parties), a decrease of $69,992, as compared to $269,433 (including $164 to related parties) for the three months ended June 30, 2015. The net decrease in interest expense of $69,992 consists of a decrease of $183,322 in the amortization of debt discounts and capitalized financing costs associated with the convertible note financing and subsequent extension, offset by the write-off of unamortized discounts related to the conversion of notes payable aggregating $116,499. The amortization of debt discounts (including the beneficial conversion feature) and capitalized financing costs charged to interest expense during the three months ended June 30, 2016 aggregated $57,387, as compared to $240,709 during the three months ended June 30, 2015.

Foreign Currency Transaction Gain (Loss). Foreign currency transaction gain was $5,991 for the three months ended June 30, 2016, as compared to a foreign currency transaction gain of $5,617 for the three months ended June 30, 2015. The foreign currency transaction gain relates to the $399,774 loan from SY Corporation made in June 2012, which is denominated in the South Korean Won.

Net Loss. For the three months ended June 30, 2016, the Company incurred a net loss of $2,731,249, as compared to a net loss of $1,249,632 for the three months ended June 30, 2015.

Dividends on Series G 1.5% Convertible Preferred Stock. For the three months ended June 30, 2016, dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 and the April 17, 2014 closings were $184. For the three months ended June 30, 2015, dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 and April 17, 2014 closings were $1,574. The decrease in dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock of $1,390 is due to conversions of Series G 1.5% Convertible Preferred Stock into common stock that have occurred since issuance in 2014. On April 17, 2016, the remaining unconverted 259.7 shares of Series G 1.5% Convertible Preferred Stock outstanding (including accrued but unpaid dividends) were automatically and mandatorily redeemed by conversion into 78,706,282 newly issued shares of common stock at a conversion price of $0.0033 per share.

Net Loss Attributable to Common Stockholders. For the three months ended June 30, 2016, the Company incurred a net loss attributable to common stockholders of $2,731,433, as compared to a net loss attributable to common stockholders of $1,251,206 for the three months ended June 30, 2015.

Six Months Ended June 30, 2016 and 2015

Revenues. During the six months ended June 30, 2016 and 2015, the Company had research grant revenues of $0 and $86,916, respectively. The research grant revenues during the six months ended June 30, 2015 were related to a contract with the National Institute of Drug Abuse entered into on September 18, 2014 and completed in early 2015.

General and Administrative. For the six months ended June 30, 2016, general and administrative expenses were $2,922,245, an increase of $1,891,952, as compared to $1,030,293 for the six months ended June 30, 2015, primarily due to an increase in stock-based compensation of $1,545,518, an increase in salaries and employee benefits of $236,356, and an increase in professional and consulting fees of $68,559.

Stock-based compensation costs included in general and administrative expenses were $1,984,118 for the six months ended June 30, 2016, as compared to $438,600 for the six months ended June 30, 2015, reflecting an increase of $1,545,518. The increase in stock-based compensation reflects the amortization of costs relating to stock options granted to members of management, the Company’s Board of Directors and to outside consultants. Salaries and employee benefits included in general and administrative expenses were $431,356 for the six months ended June 30, 2016, as compared to $195,000 for the six months ended June 30, 2015, reflecting an increase of $236,356. The net change reflects the Company’s shift in compensation philosophy for its officers beginning in mid-2015 from entirely stock-based compensation to a combination of stock-based compensation and compensation payable in cash (subject to certain conditions). Professional and other consulting fees included in general and administrative expenses were $378,465 for the six months ended June 30, 2016, as compared to $309,906 for the six months ended June 30, 2015, reflecting an increase of $68,559, due primarily to preparation of the Company’s proxy statement and planning for the Company’s special meeting of shareholders scheduled for August 16, 2016, and other investor and public relations costs.

Research and Development. For the six months ended June 30, 2016, research and development expenses were $1,844,056, an increase of $1,130,924, as compared to $713,132 for the six months ended June 30, 2015. The increase in research and development expenses for the six months ended June 30, 2016, as compared to the six months ended June 30, 2015, is primarily a result of an increase in stock-based compensation of $655,664, an increase in salaries and employee benefits of $125,136, and an increase in contractual clinical research expenditures of $285,453, primarily related to the Company’s Phase 2A clinical trial of CX 1739.

Stock-based compensation costs included in research and development expenses were $801,064 for the six months ended June 30, 2016, as compared to $145,400 for the six months ended June 30, 2015, reflecting an increase of $655,664. The increase in stock-based compensation reflects the amortization of costs relating to stock options

granted to members of management and to outside consultants engaged in research and development activities. Salaries and employee benefits included in research and development expenses were $160,800 for the six months ended June 30, 2016, as compared to $35,664 for the six months ended June 30, 2015, reflecting an increase of $125,136. The net change reflects the Company’s shift in compensation philosophy for its officers beginning in mid-2015 from entirely stock-based compensation to a combination of stock-based compensation and compensation payable in cash (subject to certain conditions).

Contractual research expenditures included in research and development expenses were $551,965 for the six months ended June 30, 2016, as compared to $266,512 for the six months ended June 30, 2015, reflecting an increase of $285,453. The net change in contractual clinical research expenditures reflects the Company's accelerating clinical trial program.

Gain (Loss) from Settlement with Former Management. During the six months ended June 30, 2015, the Company recorded a gain of $91,710 as a result of a settlement agreement with its former Vice President and Chief Financial Officer effective January 29, 2015, as amended on February 4, 2015, that resulted in the settlement of potential claims. In conjunction with such settlement agreement, the Company agreed to a total cash payment of $26,000 to be paid on or before June 30, 2015, and issued stock options to purchase 500,000 shares of common stock exercisable at $0.0512 per share (for the closing market price on the date of grant) for a period of five years. The stock options were valued pursuant to the Black-Scholes option-pricing model at $25,450. Effective January 29, 2015, the Company recorded a gain of $92,550 as a result of the settlement. On June 29, 2015, the agreement was further amended such that $3,000 of the remaining balance due was extended to September 30, 2015, with the remaining balance of $12,500 extended to December 31, 2015. The extended amounts bear interest at 10% per annum. Additionally, the Company issued stock options to purchase 50,000 shares of common stock exercisable at $0.018 per share (the closing market price on the date of grant) for a period of five years. The stock options granted on June 29, 2015 were valued pursuant to the Black-Scholes option-pricing model at $840, which resulted in a loss of $840 being recorded in conjunction with the June 29, 2015 amendment.

Gain from Settlements with Service Providers. During the six months ended June 30, 2015, the Company recorded a gain of $75,375 as a result of agreements with four current professional service providers that resulted in the partial settlement of amounts owed to them by the Company. Obligations aggregating $916,827 were settled for $15,000 in cash, the issuance of a note payable of $59,763, the issuance of 9,064,286 shares of common stock valued at $158,625 ($0.0175 per share), and the issuance of stock options to purchase 31,618,470 shares of common stock (exercisable at the closing market price of the Company's common stock on the date of issuance) valued pursuant to the Black-Scholes option-pricing model at $608,064.

Fair Value of Inducement to Effect Exchange of 10% Convertible Notes Payable for Common Stock. During April and May 2016, the Company entered into Note Exchange Agreements with certain note holders representing an aggregate of $303,500 of principal amount of the 10% convertible notes payable (out of a total of $579,500 of original principal amount of the 10% convertible notes payable. The Note Exchange Agreements provided for the note holders to exchange their notes, original warrants and New Warrants, plus cash, in exchange for shares of the Company's common stock. In the aggregate, $344,483 (including accrued interest of $40,983) of the 10% convertible notes payable, original warrants to purchase 8,671,428 shares of the Company's common stock and New Warrants to purchase 4,634,042 shares of the Company's common stock, plus an aggregate of $232,846 in cash, were exchanged for 32,990,233 shares of the Company's common stock, with a total market value of $631,023 (average $0.0191 per share). Accordingly, during the six months ended June 30, 2016, the Company recorded a cost of $188,274, reflecting the fair value of the inducement to effect the exchange of a portion the 10% convertible notes payable (together with original warrants, New Warrants and cash) for shares of the Company's common stock.

Interest Expense. During the six months ended June 30, 2016, interest expense was $446,206 (including $100,989 to related parties), a decrease of $52,762, as compared to $497,968 (including $164 to related parties) for the six months ended June 30, 2015. The net decrease in interest expense of $52,762 consists of a decrease of $265,926 in the amortization of debt discounts and capitalized financing costs associated with the convertible note financing and subsequent extension, offset by an increase of $96,636 attributable to the fair value of fully vested warrants issued to the Company's Chief Executive Officer and Chief Scientific Officer in connection with working capital loans made by them to the Company during the six months ended June 30, 2016, and the write-off of unamortized discounts related to the conversion of notes payable aggregating $116,499 during the six months ended June 30, 2016. The amortization of debt discounts (including the beneficial conversion feature) and capitalized financing costs charged to interest expense during the six months ended June 30, 2016 aggregated $177,876, as compared to $443,803 during the six months ended June 30, 2015.

Foreign Currency Transaction Gain (Loss). Foreign currency transaction loss was $11,419 for the six months ended June 30, 2016, as compared to a foreign currency transaction gain of $9,808 for the six months ended June 30, 2015. The foreign currency transaction gain relates to the $399,774 loan from SY Corporation made in June 2012, which is denominated in the South Korean Won.

Net Loss. For the six months ended June 30, 2016, the Company incurred a net loss of $5,412,200, as compared to a net loss of $1,977,584 for the six months ended June 30, 2015.

Dividends on Series G 1.5% Convertible Preferred Stock. For the six months ended June 30, 2016, dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 and the April 17, 2014 closings were $1,165. For the six months ended June 30, 2015, dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 and April 17, 2014 closings were $4,772. The decrease in dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock of $3,607 is due to conversions of Series G 1.5% Convertible Preferred Stock into common stock that have occurred since issuance in 2014. On April 17, 2016, the remaining unconverted 259.7 shares of Series G 1.5% Convertible Preferred Stock outstanding (including accrued but unpaid dividends) were automatically and mandatorily redeemed by conversion into 78,706,282 newly issued shares of common stock at a conversion price of $0.0033 per share.

Net Loss Attributable to Common Stockholders. For the six months ended June 30, 2016, the Company incurred a net loss attributable to common stockholders of $5,413,365, as compared to a net loss attributable to common stockholders of $1,982,356 for the six months ended June 30, 2015.

Liquidity and Capital Resources – June 30, 2016

The Company's condensed consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred net losses of $5,412,200 for the six months ended June 30, 2016 and $5,961,892 for the fiscal year ended December 31, 2015, and negative operating cash flows of $867,898 for the six months ended June 30, 2016 and $1,296,100 for the fiscal year ended December 31, 2015, had a stockholders' deficiency of $3,694,788 at June 30, 2016, and expects to continue to incur net losses and negative operating cash flows for at least the next few years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern. In addition, the Company's independent registered public accounting firm, in their report on the Company's consolidated financial statements for the year ended December 31, 2015, has expressed substantial doubt about the Company's ability to continue as a going concern (see "Going Concern" above).

At June 30, 2016, the Company had a working capital deficit of $3,743,908, as compared to a working capital deficit of $2,922,279 at December 31, 2015, reflecting an increase in the working capital deficit of $821,629 for the six months ended June 30, 2016. The increase in the working capital deficit during the six months ended June 30, 2016 is comprised of an increase in total current liabilities of $1,264,516, offset by an increase in current assets of $442,887. The increase in total current liabilities of $1,264,516 consists of a net increase in notes payable of $145,674, including an increase in notes payable to officers of $109,552, and an increase in accounts payable and accrued liabilities of $1,118,842, including an increase in accrued compensation of $611,450.

At June 30, 2016, the Company had cash aggregating $347,256, as compared to $53,199 at December 31, 2015, reflecting an increase in cash of $294,057 during the six months ended June 30, 2016. The increase in cash during the six months ended June 30, 2016 was primarily the result of cash generated from the warrant exchange transactions effected in conjunction with the Note Exchange Agreements and Unit Exchange Agreements during April and May 2016.

The Company is currently, and has for some time, been in significant financial distress. It has limited cash resources and current assets and has no ongoing source of sustainable revenue. Management is continuing to address numerous aspects of the Company's operations and obligations, including, without limitation, debt obligations, financing requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has continued to raise new debt and equity capital to fund the Company's business activities.

At June 30, 2016, the Company had $276,000 principal amount of 10% convertible notes payable outstanding (plus accrued interest of $46,757), which mature and become due and payable in full on September 15, 2016. The Company is continuing efforts to extend and/or satisfy these notes payable through the issuance of the Company's securities prior to the maturity date, although there can be no assurances that the Company will be successful in this regard.

The Company is continuing efforts to raise additional capital in order to pay its liabilities, fund its business activities and underwrite its research and development programs. The Company regularly evaluates various measures to satisfy the Company's liquidity needs, including the development of agreements with collaborative partners and, when necessary, the exchange or restructuring of the Company's outstanding securities. As a result of the Company's current financial situation, the Company has limited access to external sources of debt and equity financing. Accordingly, there can be no assurances that the Company will be able to secure additional financing in the amounts necessary to fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources on a timely basis, the Company may be forced to reduce operations indefinitely or to discontinue operations entirely and liquidate.

Operating Activities. For the six months ended June 30, 2016, operating activities utilized cash of $867,898, as compared to utilizing cash of $322,695 for the six months ended June 30, 2015, to support the Company's ongoing operations and research and development activities.

Investing Activities. For the six months ended June 30, 2016, the Company had no investing activities. For the six months ended June 30, 2015, investing activities utilized cash of $2,497 for the acquisition of equipment.

Financing Activities. For the six months ended June 30, 2016, financing activities generated cash of $1,161,955, consisting of $309,985 in proceeds from the common stock and warrant unit financing, $762,240 from the warrant exchange transactions, and $105,200 in proceeds from officer loans, less $15,470 principal paid on other short-term notes. For the six months ended June 30, 2015, financing activities generated cash of $215,622, consisting of $210,000 in proceeds from the convertible note and warrant financing, $40,000 in proceeds from a note payable issued to the Company's Chairman and Chief Executive Officer at that time, partially offset by principal paid on other notes payable, and the payment of financing costs of $23,700 relating to various financings.

Principal Commitments

Employment Agreements

On August 18, 2015, the Company entered into an employment agreement with Dr. James S. Manuso, Ph.D., to be its new President and Chief Executive Officer. Pursuant to the agreement, which is for an initial term through September 30, 2018 (and which shall be deemed to be automatically extended, upon the same terms and conditions, for successive periods of one year, unless either party provides written notice of its intention not to extend the term of the agreement at least 90 days prior to the applicable renewal date), Dr. Manuso is to receive an initial annual base salary of $375,000, subject to certain conditions, which will increase to $450,000 annually upon the first anniversary of his contract, again subject to certain conditions being met. Dr. Manuso will also be eligible to receive bonuses ranging from $100,000 to $300,000, once certain conditions have been met or at the discretion of the Board of Directors. Additionally, Dr. Manuso was granted stock options to acquire 85,081,300 shares of common stock of the Company and is eligible to receive additional awards under the Company's Plans in the discretion of the Board of Directors. Dr.

Manuso had also agreed to purchase newly issued securities of the Company in an amount of $250,000, which was accomplished by Dr. Manuso's participation in the first closing of the unit offering of common stock and warrants on August 28, 2015, as described at Note 6 to the Company's condensed consolidated financial statements. Dr. Manuso will also receive, beginning on the first anniversary of the agreement, additional compensation to cover automobile lease expenses (up to a maximum of $16,000 annually, on a tax-equalized basis) if certain conditions are met, and, until such time as the Company establishes a group health plan for its employees, $1,200 per month, on a tax-equalized basis, to cover the cost of health coverage and up to $1,000 per month, on a tax-equalized basis, for a term life insurance policy and disability insurance policy. He will also be reimbursed for business expenses. Additional information with respect to the stock options granted to Dr. Manuso is provided at Note 6 to the Company's condensed consolidated financial statements. The payment obligation associated with the first year base salary is to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time, scheduled payments are to commence. Cash compensation accrued pursuant to this agreement totaled $360,110 for the period August 18, 2015 through June 30, 2016, including $103,650 and $214,050 for the three months and six months ended June 30, 2016, respectively, and is included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company's condensed consolidated statement of operations. Dr. Manuso was also appointed to the Company's Board of Directors and elected as Vice Chairman of the Board of Directors. Dr. Manuso does not receive any additional compensation for serving as Vice Chairman and on the Board of Directors.

On August 18, 2015, concurrently with the hiring of Dr. James S. Manuso as its new President and Chief Executive Officer, the Company accepted the resignation of Dr. Arnold S. Lippa, as President and Chief Executive Officer. Dr. Lippa continues to serve as the Company's Executive Chairman and a member of the Board of Directors. Also on August 18, 2015, Dr. Lippa was named Chief Scientific Officer of the Company, and the Company entered into an employment agreement with Dr. Lippa in that capacity. Pursuant to the agreement, which is for an initial term through September 30, 2018 (and which shall be deemed to be automatically extended, upon the same terms and conditions, for successive periods of one year, unless either party provides written notice of its intention not to extend the term of the agreement at least 90 days prior to the applicable renewal date), Dr. Lippa is to receive an initial annual base salary of $300,000, subject to certain conditions, which will increase to $375,000 annually upon the first anniversary of his contract, again subject to certain conditions being met. Dr. Lippa will also be eligible to receive bonuses ranging from $75,000 to $150,000, once certain conditions have been met or at the discretion of the Board of Directors. Additionally, Dr. Lippa was granted stock options to acquire 10,000,000 shares of common stock of the Company and is eligible to receive additional awards under the Company's Plans at the discretion of the Board of Directors. Dr. Lippa will also receive, beginning on the first anniversary of the agreement, additional compensation to cover automobile lease expenses (up to a maximum of $12,000 annually, on a tax-equalized basis) if certain conditions are met, and, until such time as the Company establishes a group health plan for its employees, $1,200 per month, on a tax-equalized basis, to cover the cost of health coverage and up to $1,000 per month, on a tax-equalized basis, for a term life insurance policy and disability insurance policy. He will also be reimbursed for business expenses. Additional information with respect to the stock options granted to Dr. Lippa is provided at Note 6 to the Company's condensed consolidated financial statements. The payment obligation associated with the first year base salary is to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time, scheduled payments are to commence. Cash compensation accrued pursuant to this agreement totaled $279,239 for the period August 18, 2015 through June 30, 2016, including $80,400 and $160,800 for the three months and six months ended June 30, 2016, respectively, and is included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in research and development expenses in the Company's condensed consolidated statement of operations. Cash compensation accrued to Dr. Lippa for bonuses and under a prior superseded arrangement, while still serving as the Company's President and Chief Executive Officer, totaled $94,758 and is included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company's condensed consolidated statement of operations. Dr. Lippa does not receive any additional compensation for serving as Executive Chairman and on the Board of Directors.

On August 18, 2015, the Company also entered into employment agreements with Jeff E. Margolis, in his continuing role as Vice President, Secretary and Treasurer, and Robert N. Weingarten, in his continuing role as Vice President and Chief Financial Officer. Pursuant to the agreements, which are for initial terms through September 30, 2016 (and which shall be deemed to be automatically extended, upon the same terms and conditions, for successive periods of one year, unless either party provides written notice of its intention not to extend the term of the agreement at least 90 days prior to the applicable renewal date), Mr. Margolis and Mr. Weingarten are each to receive an initial annual base salary of $195,000, subject to certain conditions, and each will also be eligible to receive bonuses ranging from $65,000 to $125,000, once certain conditions have been met or at the discretion of the Board of Directors. Additionally, Mr. Margolis and Mr. Weingarten each were granted stock options to acquire 10,000,000 shares of common stock of the Company and both are eligible to receive additional awards under the Company's Plans at the discretion of the Board of Directors. Mr. Margolis and Mr. Weingarten will also each receive, beginning on the first anniversary of the agreement, additional compensation to cover automobile lease expenses (up to a maximum of $9,000 annually, on a tax-equalized basis) if certain conditions are met, and, until such time as the Company establishes a group health plan for its employees, $1,200 per month, on a tax-equalized basis, to cover the cost of

health coverage and up to $1,000 per month, on a tax-equalized basis, for a term life insurance policy and disability insurance policy. Both will also be reimbursed for business expenses. Additional information with respect to the stock options granted to Mr. Margolis and Mr. Weingarten is provided at Note 6 to the Company's condensed consolidated financial statements. The payment obligations associated with both of their first year base salaries is to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time, scheduled payments are to commence. Cash compensation accrued pursuant to these agreements totaled $276,140 ($188,070 each) for the period August 18, 2015 through June 30, 2016, including $108,300 ($54,150 each) and $216,600 ($108,300 each) for the three months and six months ended June 30, 2016, respectively, and is included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company's condensed consolidated statement of operations. Cash compensation accrued to Mr. Margolis and Mr. Weingarten for bonuses and under prior superseded arrangements totaled $151,612 ($75,806 each) and is also included in accrued compensation and related expenses in the Company's condensed consolidated balance sheet at June 30, 2016, and in general and administrative expenses in the Company's condensed consolidated statement of operations. Mr. Margolis and Mr. Weingarten also continue to serve as Directors of the Company, but do not receive any additional compensation for serving on the Board of Directors.

The employment agreements between the Company and Dr. Manuso, Dr. Lippa, Mr. Margolis and Mr. Weingarten, respectively, each provide that the payment obligations associated with the first year base salary are to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time scheduled payments are to commence. Dr. Manuso, Dr. Lippa, Mr. Margolis, and Mr. Weingarten (who are each also directors of the Company) have each agreed, effective as of August 11, 2016, to continue to defer the payment of such amounts indefinitely, until such time as the Board of Directors of the Company determines that sufficient capital has been raised by the Company or is otherwise available to fund the Company's operations on an ongoing basis.

University of Alberta License Agreement

On May 8, 2007, the Company entered into a license agreement, as amended, with the University of Alberta granting the Company exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. The Company agreed to pay the University of Alberta a licensing fee and a patent issuance fee, which were paid, and prospective payments consisting of a royalty on net sales, sublicense fee payments, maintenance payments and milestone payments. The prospective maintenance payments commence on the enrollment of the first patient into the first Phase 2B clinical trial and increase upon the successful completion of the Phase 2B clinical trial. As the Company does not at this time anticipate scheduling a Phase 2B clinical trial in the near term, no maintenance payments to the University of Alberta are currently due and payable, nor are any maintenance payments expected to be due in the near future in connection with the license agreement.

University of Illinois 2014 Exclusive License Agreement

On June 27, 2014, the Company entered into an Exclusive License Agreement (the "2014 License Agreement") with the University of Illinois, the material terms of which were similar to a License Agreement between the parties that had been previously terminated on March 21, 2013. The 2014 License Agreement became effective on September 18, 2014, upon the completion of certain conditions set forth in the 2014 License Agreement, including: (i) the payment by the Company of a $25,000 licensing fee, (ii) the payment by the Company of outstanding patent costs aggregating $15,840, and (iii) the assignment to the University of Illinois of rights the Company held in certain patent applications, all of which conditions were fulfilled.

The 2014 License Agreement granted the Company (i) exclusive rights to several issued and pending patents in numerous jurisdictions and (ii) the non-exclusive right to certain technical information that is generated by the University of Illinois in connection with certain clinical trials as specified in the 2014 License Agreement, all of which relate to the use of cannabinoids for the treatment of sleep related breathing disorders. The Company is developing dronabinol (Δ9-tetrahydrocannabinol), a cannabinoid, for the treatment of OSA, the most common form of sleep apnea.

The 2014 License Agreement provides for various commercialization and reporting requirements commencing on June 30, 2015. In addition, the 2014 License Agreement provides for various royalty payments, including a royalty on net sales of 4%, payment on sub-licensee revenues of 12.5%, and a minimum annual royalty beginning in 2015 of $100,000, which is due and payable on December 31 of each year beginning on December 31, 2015. The 2015 minimum annual royalty of $100,000 was paid as scheduled in December 2015. In the year after the first application for market approval is submitted to the FDA and until approval is obtained, the minimum annual royalty will increase to $150,000. In the year after the first market approval is obtained from the FDA and until the first sale of a product, the minimum annual royalty will increase to $200,000. In the year after the first commercial sale of a product, the minimum annual royalty will increase to $250,000. During the three months and six months ended June 30, 2016 and 2015, the Company recorded a charge to operations of $25,000 and $50,000, respectively, with respect to its minimum annual royalty obligation, which is included in research and development expenses in the Company's condensed

consolidated statement of operations for the three months and six months ended June 30, 2016 and 2015.

The 2014 License Agreement also provides for certain one-time milestone payments. A payment of $75,000 is due within five days after any one of the following: (a) dosing of the first patient with a product in a Phase 2 human clinical study anywhere in the world that is not sponsored by the University of Illinois, (b) dosing of the first patient in a Phase 2 human clinical study anywhere in the world with a low dose of dronabinol, or (c) dosing of the first patient in a Phase 1 human clinical study anywhere in the world with a proprietary reformulation of dronabinol. A payment of $350,000 is due within five days after dosing of the first patient with a product in a Phase 3 human clinical trial anywhere in the world. A payment of $500,000 is due within five days after the first new drug application filing with the FDA or a foreign equivalent for a product. A payment of $1,000,000 is due within 12 months after the first commercial sale of a product.

Research Contract with the University of Alberta

On January 12, 2016, the Company entered into a Research Contract with the University of Alberta in order to test the efficacy of ampakines at a variety of dosage and formulation levels in the potential treatment of Pompe Disease, apnea of prematurity and spinal cord injury, as well as to conduct certain electrophysiological studies to explore the ampakine mechanism of action for central respiratory depression. The Company agreed to pay the University of Alberta total consideration of approximately CAD$146,000 (approximately US$111,000), consisting of approximately CAD$85,000 (approximately US$65,000) of personnel funding in cash in four installments during 2016, to provide approximately CAD$21,000 (approximately US$16,000) in equipment, to pay patent costs of CAD$20,000 (approximately US$15,000), and to underwrite additional budgeted costs of CAD$20,000 (approximately US$15,000). As of June 30, 2016, CAD$85,000 (approximately US$65,000) was payable through September 1, 2016 under this agreement. The conversion to US dollars above utilizes an exchange rate of US$0.76 for every CAD$1.00.

The University of Alberta will receive matching funds through a grant from the Canadian Institutes of Health Research in support of the research. The Company will retain the rights to research results and any patentable intellectual property generated by the research. Dr. John Greer, Chairman of the Company’s Scientific Advisory Board and faculty member of the Department of Physiology, Perinatal Research Centre and Women & Children’s Health Research Institute, and Alberta Innovates - Health Sciences Senior Scientist with the Neuroscience and Mental Health Institute at the University of Alberta, will collaborate on this research. The studies are expected to be completed in 2016.

National Institute of Drug Abuse Agreement

On January 19, 2016, the Company announced that that it has reached an agreement with the Medications Development Program of the National Institute of Drug Abuse (“NIDA”) to conduct research on the Company’s ampakine compounds CX717 and CX1739. The agreement was entered into as of October 19, 2015, and on January 14, 2016, the Company and NIDA approved the proposed protocols, allowing research activities to commence. NIDA

will evaluate the compounds using pharmacologic, pharmacokinetic and toxicologic protocols to determine the potential effectiveness of the ampakines for the treatment of drug abuse and addiction. Initial studies will focus on cocaine and methamphetamine addiction and abuse, and will be contracted to outside testing facilities and/or government laboratories, with all costs to be paid by NIDA. The Company will provide NIDA with supplies of CX717 and CX1739 and will work with the NIDA staff to refine the protocols and dosing parameters. The Company will retain all intellectual property, as well as proprietary and commercialization rights to these compounds.

Duke University Clinical Trial Agreement

On January 27, 2015, the Company entered into a Clinical Study and Research Agreement (the "Agreement") with Duke University to develop and conduct a protocol for a program of clinical study and research at a total cost of $50,579, which was completed in March 2015 and charged to research and development expenses during the three months ended March 31, 2015. On October 30, 2015, the Agreement was amended to provide for a Phase 2A clinical trial of CX1739 at a cost of $558,268. During March 2016, a Phase 2A clinical trial at Duke University School of Medicine was initiated, with the dosing portion of the clinical trial completed in June 2016 and the clinical trial formally completed on July 11, 2016. On July 27, 2016, the Agreement was further amended to reflect additional post-clinical trial costs of $120,059, increasing the total amount payable under the Agreement to $678,327. During the three months and six months ended June 30, 2016, the Company recorded a charge to operations of $258,372 and $409,523, respectively, for research and development expenses with respect to work conducted pursuant to the amended Agreement. All of the services under the amended Agreement are expected to be incurred by December 31, 2016.

Sharp Clinical Services, Inc. Agreement

On August 31, 2015 and June 30, 2015, the Company entered into agreements with Sharp Clinical Services, Inc. to provide packaging, labeling, distribution and analytical services for the Company with respect to CX1739 at a total budgeted cost of $118,005, of which the remainder of such services of $26,438 is expected to be provided in 2016.

Summary of Principal Cash Obligations and Commitments

The following table sets forth the Company's principal cash obligations and commitments for the next five fiscal years as of June 30, 2016 aggregating $2,480,863. Amounts included in the 2016 column represent amounts contractually due at June 30, 2016 during the remainder of the 2016 fiscal year ending December 31, 2016.

	Payments Due By Year					
	Total	2016	2017	2018	2019	2020
Research and development contracts	$59,463	$59,463	$—	$—	$—	$—
Clinical trial agreements (1)	157,150	157,150	—	—	—	—
License agreements	450,000	50,000	100,000	100,000	100,000	100,000
Employment and consulting agreements (2)	1,814,250	494,400	754,200	565,650	—	—
Total	$2,480,863	$761,013	$854,200	$665,650	$100,000	$100,000

(1) The amount presented is net of a payment of $111,654 made during the three months ended June 30, 2016, which has been reflected as an advance on research contract in the Company's condensed consolidated balance sheet at June

30, 2016.

(2) The payment of such amounts has been deferred indefinitely, as described above at “Employment Agreements”.

Off-Balance Sheet Arrangements

At June 30, 2016, the Company did not have any transactions, obligations or relationships that could be considered off-balance sheet arrangements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK

Not applicable.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act") that are designed to ensure that information required to be disclosed in the reports that the Company files with the Securities and Exchange Commission (the "SEC") under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and that such information is accumulated and communicated to the Company's management, including its Chief Executive Officer and Chief Financial Officer, to allow for timely decisions regarding required disclosures.

The Company carried out an evaluation, under the supervision and with the participation of its management, consisting of its principal executive officer and principal financial officer, of the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act). Based upon that evaluation, the Company's principal executive officer and principal financial officer concluded that, as of the end of the period covered in this report, the Company's disclosure controls and procedures were not effective to ensure that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized and reported within the required time periods and is accumulated and communicated to the Company's management, consisting of the Company's principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. The Company failed to complete and file various periodic reports in 2012, 2013 and 2014 in a timely manner because the Company's accounting and financial staff had resigned by October 26, 2012 and its financial and accounting systems had been shut-down at December 31, 2012.

Current management, which joined the Company in March and April 2013, has been focusing on developing replacement controls and procedures that are adequate to ensure that information required to be disclosed in reports filed under the Exchange Act is recorded, processed, summarized and reported within the required time periods and is accumulated and communicated to the Company's management, consisting of the Company's principal executive officer and principal financial officer, to allow timely decisions regarding required disclosure. Current management has instituted a program to reestablish the Company's accounting and financial staff and install new accounting and internal control systems, and has retained accounting personnel, established accounting and internal control systems, addressed the preparation of delinquent financial statements, and worked diligently to bring delinquent SEC filings current as promptly as reasonably possible under the circumstances. The Company is now current in its SEC periodic

reporting obligations, but as of the date of the filing of this Quarterly Report on Form 10-Q, the Company had not yet completed the process to establish adequate internal controls over financial reporting.

The Company's management, consisting of its principal executive officer and principal financial officer, does not expect that its disclosure controls and procedures or its internal controls will prevent all error or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Furthermore, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Management believes that the financial statements included in this report fairly present, in all material respects, the Company's financial condition, results of operations and cash flows for the periods presented.

(b) Changes in Internal Controls over Financial Reporting

The Company's management, consisting of its principal executive officer and principal financial officer, has determined that no change in the Company's internal control over financial reporting (as that term is defined in Rules 13(a)-15(f) and 15(d)-15(f) of the Securities Exchange Act of 1934) occurred during or subsequent to the end of the period covered in this report that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II - OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

By letter dated November 11, 2014, a former director of the Company, who joined the Company's Board of Directors on August 10, 2012 in conjunction with the Pier transaction and who resigned from the Company's Board of Directors on September 28, 2012, asserted a claim for unpaid consulting compensation of $24,000. The Company has not received any further communications from the former director with respect to this matter.

By letter dated February 5, 2016, the Company received a demand from a law firm representing a professional services vendor of the Company alleging that approximately $146,000 is due and owing for unpaid services rendered and requesting arbitration of the claim. The Company has been engaged in settlement discussions with the vendor's legal counsel with respect to these claims.

By e-mail dated July 21, 2016, the Company received a demand from an investment banking consulting firm that represented the Company in 2012 in conjunction with the Pier transaction alleging that $225,000 is due and owing for unpaid investment banking services rendered.

The Company is periodically the subject of various pending and threatened legal actions and claims. In the opinion of management of the Company, adequate provision has been made in the Company's condensed consolidated financial statements at June 30, 2016 and December 31, 2015 with respect to such matters, including, specifically, the matters noted above. The Company intends to vigorously defend itself in the event that any of the matters described above results in the filing of a lawsuit or formal claim.

ITEM 1A. RISK FACTORS

As of the date of this filing, there have been no material changes to the Risk Factors included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as filed with the SEC on March 29, 2016 (the "2015 Form 10-K"). The Risk Factors set forth in the 2015 Form 10-K should be read carefully in connection with evaluating the Company's business and in connection with the forward-looking statements contained in this Quarterly Report on Form 10-Q. Any of the risks described in the 2015 Form 10-K could materially adversely affect the Company's business, financial condition or future results and the actual outcome of matters as to which forward-looking statements are made. These are not the only risks that the Company faces. Additional risks and uncertainties not currently known to the Company or that the Company currently deems to be immaterial also may

materially adversely affect the Company's business, financial condition and/or operating results.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

On January 8, 2016, the Company initiated a new equity private placement, consisting of units of common stock and warrants, up to an aggregate of $2,500,000, with each unit consisting of (i) one share of common stock, and (ii) one warrant to purchase two additional shares of common stock. During the six months ended June 30, 2016, the Company entered into purchase agreements with nine accredited and four non-accredited, non-affiliated investors, pursuant to which an aggregate of 13,975,883 shares of common stock and an aggregate of 27,951,763 warrants were sold, generating gross proceeds of $309,985.

The unit price in the private placement closings was $0.02218. The warrants are exercisable at $0.0244, for each share of common stock to be acquired, and expire on February 28, 2021. The warrants have cashless exercise provisions and contain certain "blocker" provisions limiting the percentage of shares of the Company's common stock that the purchaser can beneficially own upon conversion to not more than 4.99% of the issued and outstanding shares immediately after giving effect to the warrant exercise. The purchasers were accredited, non-affiliated investors.

The offer and sale of the shares of common stock and the warrants in the private placement were made in reliance on the exemption from registration afforded by Section 4(a)(2) of the Securities Act as provided in Rule 506(b) of Regulation D promulgated thereunder.

On March 31, 2016, the Board of Directors of the Company awarded stock options for a total of 170,000,000 shares of common stock in various quantities to twelve individuals who are members of management, the Company's Scientific Advisory Board, independent members of the Board of Directors, or outside service providers pursuant to the Company's 2015 Plan. The stock options vested 25% on March 31, 2016 and 25% on June 30, 2016, and will vest 25% on September 30, 2016 and 25% on December 31, 2016, and will expire on March 31, 2021. The exercise price of the stock options was established on the grant date at $0.0227 per share, which was the closing market price of the Company's common stock on such date. The aggregate grant date fair value of these stock options, as calculated pursuant to the Black-Scholes option-pricing model, was $3,774,000.

On April 17, 2016, the remaining unconverted 259.7 shares of Series G 1.5% Convertible Preferred Stock outstanding (including accrued but unpaid dividends) were automatically and mandatorily redeemed by conversion into 78,706,282 newly issued shares of common stock at a conversion price of $0.0033 per share.

Additional information with respect to the transactions described above is provided in the Notes to the Condensed Consolidated Financial Statements for the three months and six months ended June 30, 2016 and 2015.

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During April and May 2016, the Company entered into Note Exchange Agreements with certain note holders representing an aggregate of $303,500 of principal amount of the Notes (out of a total of $579,500 of original principal amount of the Notes). Pursuant to the Note Exchange Agreements, an aggregate of $344,483, including accrued interest of $40,983, of the Notes (together with cash and warrants) were exchanged for a total of 32,990,233 shares of the Company's common stock. Additional information with respect to Note Exchange Agreements is provided at Note 4 to the Company's condensed consolidated financial statements. The shares of common stock were exchanged without registration under the Securities Act, in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as provided in Rule 506 of Regulation D promulgated thereunder. The shares of common stock issuable upon exchange for the Notes, warrants and cash were not registered under the Securities Act or any other applicable securities laws, and unless so registered, may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act.

During April and May 2016, the Company entered into Unit Exchange Agreements with certain warrant holders who had acquired units in connection with the Second Amended and Restated Common Stock and Warrant Purchase Agreement. The Unit Exchange Agreements provided for the warrant holders to exchange (i) existing warrants to purchase an aggregate of 70,585,832 shares of the Company's common stock, plus (ii) an aggregate of $529,394 in cash, in return for (i) an aggregate of 35,292,916 shares of the Company's common stock with a total market price of $728,859 (average $0.0207 per share), and (ii) new warrants to purchase an aggregate of 35,292,916 shares of the Company's common stock. The new warrants have the same expiration date as the original warrants (September 30, 2020) and may be exercised for cash or on a cashless basis at $0.015 per share. Additional information with respect to the Unit Exchange Agreements is provided at Note 6 to the Company's condensed consolidated financial statements. The shares of common stock and warrants were exchanged without registration under the Securities Act, in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as provided in Rule 506 of Regulation D promulgated thereunder. The shares of common stock and warrants issuable upon exchange for the warrants and cash were not registered under the Securities Act or any other applicable securities laws, and unless so registered, may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act.

The cash generated from the warrant exchange transactions effected in conjunction with the Note Exchange Agreements and Unit Exchange Agreements during April and May 2016 will be utilized to fund the costs related to the Company's Phase 2A clinical trial of CX1739, as well as to fund the Company's ongoing operating expenses.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

On June 25, 2012, the Company borrowed 465,000,000 Won (the currency of South Korea, equivalent to approximately $400,000 United States Dollars) from and executed a secured note payable to SY Corporation Co., Ltd., formerly known as Samyang Optics Co. Ltd. ("SY Corporation"), an approximately 20% common stockholder of the Company at that time. SY Corporation was a significant stockholder and a related party at the time of the transaction, but has not been a significant stockholder or related party of the Company subsequent to December 31, 2015. The note accrues simple interest at the rate of 12% per annum and had a maturity date of June 25, 2013. The Company has not made any payments on the promissory note. At June 30, 2013 and subsequently, the promissory

note was outstanding and in technical default, although SY Corporation has not issued a notice of default or a demand for repayment. The Company believes that SY Corporation is in default of its obligations under its January 2012 license agreement, as amended, with the Company, but the Company has not yet issued a notice of default. The Company is continuing efforts towards a comprehensive resolution of the aforementioned matters involving SY Corporation.

Note payable to SY Corporation consists of the following at June 30, 2016 and December 31, 2015:

	June 30, 2016	December 31, 2015
Principal amount of note payable	$399,774	$399,774
Accrued interest payable	195,178	171,257
Foreign currency transaction adjustment	1,956	(9,463)
	$596,908	$561,568

Interest expense with respect to this promissory note was $12,126 and $11,993 for the three months ended June 30, 2016 and 2015, respectively, and $23,921 and $24,119 for the six months ended June 30, 2016 and 2015, respectively.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

As set forth in more detail at Note 8 to the Company’s condensed consolidated financial statements, the employment agreements between the Company and Dr. Manuso, Dr. Lippa, Mr. Margolis and Mr. Weingarten, respectively, each provide that the payment obligations associated with the first year base salary are to accrue, but no payments are to be made, until at least $2,000,000 of net proceeds from any offering or financing of debt or equity, or a combination thereof, is received by the Company, at which time scheduled payments are to commence. Dr. Manuso, Dr. Lippa, Mr. Margolis and Mr. Weingarten (who are each also directors of the Company) have each agreed, effective as of August 11, 2016, to continue to defer the payment of such amounts indefinitely, until such time as the Board of Directors of the Company determines that sufficient capital has been raised by the Company or is otherwise available to fund the Company’s operations on an ongoing basis.

ITEM 6. EXHIBITS

A list of exhibits required to be filed as part of this report is set forth in the Index to Exhibits, which is presented elsewhere in this document, and is incorporated herein by reference.

SIGNATURES

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

RESPIRERX PHARMACEUTICALS INC.
(Registrant)

Date: August 12, 2016	By:	*/s/ JAMES S. MANUSO* James S. Manuso President and Chief Executive Officer
Date: August 12, 2016	By:	*/s/ ROBERT N. WEINGARTEN* Robert N. Weingarten Vice President and Chief Financial Officer

INDEX TO EXHIBITS

The following documents are filed as part of this report:

Exhibit Number	Description of Document
10.1	Amended and Restated RespireRx Pharmaceuticals Inc. 2015 Stock and Stock Option Plan, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on April 6, 2016.
10.2	Form of Unit Exchange Agreement (including the Form of Warrant), incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on April 11, 2016.
10.3	Form of Note Exchange Agreement, incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on April 11, 2016.
31.1*	Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Officer's Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Officer's Certification 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 Extension Calculation Linkbase Document
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	XBRL Taxonomy Extension Presentation Linkbase Document
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document

* Filed herewith.

** In accordance with Regulation S-T, the XBRL related information on Exhibit No. 101 to this Quarterly Report on Form 10-Q shall be deemed "furnished" herewith not "filed."

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