

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, 2015

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

Commission file number: 1-16467

CORTEX PHARMACEUTICALS, INC.  
(Exact name of registrant as specified in its charter)

Delaware  
(State or other jurisdiction of  
incorporation or organization)

33-0303583  
(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 July 31, 2015, the Company had 413,976,852 shares of common stock, \$0.001 par value, issued and outstanding.

Documents incorporated by reference: None

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

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## Forward-Looking Statements

This Quarterly Report on Form 10-Q of Cortex 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. 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 future product demand, supply, manufacturing, costs, marketing and pricing factors are all forward-looking statements. These statements are generally accompanied by words such as “intend,” “anticipate,” “believe,” “estimate,” “potential(ly),” “continue,” “forecast,” “predict,” “plan,” “may,” “will,” “could,” “would,” “should,” “expect” or the negative of such terms or other comparable terminology. The Company believes that the assumptions and expectations reflected in such forward-looking statements are reasonable, based on information available to it on the date hereof, but the Company cannot provide assurances that these assumptions and expectations will prove to have been correct or that the Company will take any action that the Company may presently be planning. These forward-looking statements are inherently subject to known and unknown risks and uncertainties. Actual results or experience may differ materially from those expected, anticipated or implied in the forward-looking statements. 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, 2014, 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**

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

**CONDENSED CONSOLIDATED BALANCE SHEETS**

	<b>June 30, 2015</b>	<b>December 31, 2014</b>
	<b>(Unaudited)</b>	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 53,182	\$ 162,752
Grant receivable	-	48,000
Capitalized financing costs	35,306	85,702
Deferred offering costs	8,000	-
Prepaid expenses, including current portion of long-term prepaid insurance of \$14,945 at June 30, 2015 and December 31, 2014	58,445	24,219
	<u>154,933</u>	<u>320,673</u>
Total current assets	154,933	320,673
Equipment, net of accumulated depreciation of \$5,300 and \$1,659 at June 30, 2015 and December 31, 2014, respectively	15,597	16,741
Long-term prepaid insurance, net of current portion of \$14,945 at June 30, 2015 and December 31, 2014	55,422	62,894
	<u>225,952</u>	<u>400,308</u>
Total assets	\$ 225,952	\$ 400,308
<b>LIABILITIES AND STOCKHOLDERS' DEFICIENCY</b>		
Current liabilities:		
Accounts payable and accrued expenses, including \$89,000 and \$108,375 payable to related parties at June 30, 2015 and December 31, 2014, respectively	\$ 1,463,846	\$ 1,845,875
Accrued compensation and related expenses	230,500	144,000
Note payable to Chairman, including accrued interest of \$164	40,164	-
Unearned grant revenues	-	34,333
10% convertible notes payable, including accrued interest of \$31,363 and \$4,093, net of unamortized discount of \$168,370 and \$323,350, at June 30, 2015 and December 31, 2014, respectively	442,493	50,243
Note payable to related party, including accrued interest of \$146,738 and \$122,618 at June 30, 2015 and December 31, 2014, respectively	540,569	526,257
Other short-term notes payable, including accrued interest of \$1,448	86,659	-
	<u>2,804,231</u>	<u>2,600,708</u>
Total current liabilities	2,804,231	2,600,708
Commitments and contingencies (Note 9)		
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) \$313,977 and \$872,737 at June 30, 2015 and December 31, 2014, respectively; shares authorized: 1,700; shares issued and outstanding: 314.0 and 872.7 at June 30, 2015 and December 31, 2014, respectively; common shares issuable upon conversion at 303,030.3 common shares per Series G share: 95,144,652 shares, including 1,805,259 shares issuable for dividends of \$5,957 at June 30, 2015, and 264,465,728 shares, including 3,102,094 shares issuable for dividends of \$10,237 at December 31, 2014	313,977	872,737
Common stock, \$0.001 par value; shares authorized: 1,400,000,000; shares issued and outstanding: 413,476,853 and 232,145,326 at June 30, 2015 and December 31, 2014, respectively	413,476	232,145
Additional paid-in capital	140,966,016	138,984,110
Accumulated deficit	<u>(144,293,451)</u>	<u>(142,311,095)</u>
Total stockholders' deficiency	<u>(2,578,279)</u>	<u>(2,200,400)</u>
Total liabilities and stockholders' deficiency	\$ 225,952	\$ 400,308

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

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

**CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS  
(Unaudited)**

	<b>Three Months Ended June 30,</b>		<b>Six Months Ended June 30,</b>	
	<b>2015</b>	<b>2014</b>	<b>2015</b>	<b>2014</b>
Grant revenues	<u>\$ 12,382</u>	<u>\$ -</u>	<u>\$ 86,916</u>	<u>\$ -</u>
Operating expenses:				
General and administrative, including \$657,600 and \$12,000 to related parties for the three months ended June 30, 2015 and 2014, respectively, and \$667,600 and \$1,972,000 for the six months ended June 30, 2015 and 2014, respectively	800,393	207,256	1,030,293	2,555,363
Research and development, including \$93,700 and \$0 to related parties for the three months ended June 30, 2015 and 2014, respectively, and \$170,200 and \$0 for the six months ended June 30, 2015 and 2014, respectively	272,340	80,433	713,132	144,522
Total operating expenses	<u>1,072,733</u>	<u>287,689</u>	<u>1,743,425</u>	<u>2,669,885</u>
Loss from operations	<u>(1,060,351)</u>	<u>(287,689)</u>	<u>(1,656,509)</u>	<u>(2,669,885)</u>
Gain (loss) on settlements with former management	(840)	-	91,710	1,038,270
Gain on settlements with service providers	75,375	393,590	75,375	393,590
Interest expense, including \$12,291 and \$12,126 to related parties for the three months ended June 30, 2015 and 2014, respectively, and \$24,284 and \$24,173 to related parties for the six months ended June 30, 2015 and 2014, respectively	(269,433)	(13,142)	(497,968)	(26,203)
Foreign currency transaction gain (loss)	5,617	(30,335)	9,808	(24,058)
Net income (loss)	<u>(1,249,632)</u>	<u>62,424</u>	<u>(1,977,584)</u>	<u>(1,318,286)</u>
Adjustments related to Series G 1.5% Convertible Preferred Stock:				
Amortization of deemed dividend on Series G 1.5% Convertible Preferred Stock	-	(8,839,876)	-	(10,049,846)
Dividend on Series G 1.5% Convertible Preferred Stock	<u>(1,574)</u>	<u>(3,396)</u>	<u>(4,772)</u>	<u>(3,804)</u>
Net loss attributable to common stockholders	<u>\$ (1,251,206)</u>	<u>\$ (8,780,848)</u>	<u>\$ (1,982,356)</u>	<u>\$ (11,371,936)</u>
Net loss per common share - basic and diluted	<u>\$ (0.00)</u>	<u>\$ (0.04)</u>	<u>\$ (0.01)</u>	<u>\$ (0.06)</u>
Weighted average common shares outstanding - basic and diluted	<u>375,150,770</u>	<u>201,041,556</u>	<u>307,305,205</u>	<u>176,792,937</u>

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

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

**CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIENCY  
(Unaudited)**

**Six Months Ended June 30, 2015**

	<b>Series B Convertible Preferred Stock</b>		<b>Series G 1.5% Convertible Preferred Stock</b>		<b>Common Stock</b>		<b>Additional Paid-in Capital</b>	<b>Accumulated Deficit</b>	<b>Total Stockholders' Deficiency</b>
	<b>Shares</b>	<b>Amount</b>	<b>Shares</b>	<b>Amount</b>	<b>Shares</b>	<b>Par Value</b>			
Balance, December 31, 2014	37,500	\$21,703	872.7	\$ 872,737	232,145,326	\$ 232,145	\$138,984,110	\$(142,311,095)	\$ (2,200,400)
Conversion of Series G 1.5% Convertible Preferred Stock	-	-	(563.5)	(563,532)	170,767,241	170,767	392,765	-	-
Common stock issued as compensation	-	-	-	-	1,500,000	1,500	109,500	-	111,000
Common stock issued to service providers	-	-	-	-	9,064,286	9,064	149,561	-	158,625
Fair value of common stock options issued as compensation	-	-	-	-	-	-	473,000	-	473,000
Fair value of common stock options issued to service providers	-	-	-	-	-	-	608,064	-	608,064
Fair value of common stock options issued in connection with settlements with former management	-	-	-	-	-	-	26,290	-	26,290
Fair value of common stock warrants issued to investors in connection with the convertible note and warrant financing	-	-	-	-	-	-	112,557	-	112,557
Fair value of common stock warrants issued to finders in connection with the convertible note and warrant financing	-	-	-	-	-	-	12,726	-	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	-	97,443
Dividends on Series G 1.5% Convertible Preferred Stock	-	-	4.8	4,772	-	-	-	(4,772)	-
Net loss	-	-	-	-	-	-	-	(1,977,584)	(1,977,584)
Balance, June 30, 2015	<u>37,500</u>	<u>\$21,703</u>	<u>314.0</u>	<u>\$ 313,977</u>	<u>413,476,853</u>	<u>\$ 413,476</u>	<u>\$140,966,016</u>	<u>\$(144,293,451)</u>	<u>\$ (2,578,279)</u>

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

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS  
(Unaudited)**

	Six Months Ended June 30,	
	2015	2014
Cash flows from operating activities:		
Net loss	\$ (1,977,584)	\$ (1,318,286)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	3,641	177
Amortization of discounts related to convertible notes payable -		
Investor warrants	182,964	-
Beneficial conversion feature	182,017	-
Amortization of capitalized financing costs	78,822	-
Gains on settlements -		
With former management	(91,710)	(1,038,270)
With service providers	(75,375)	(393,590)
Stock-based compensation expense included in -		
General and administrative expenses	438,600	2,280,000
Research and development expenses	145,400	-
Foreign currency transaction (gain) loss	(9,808)	24,058
Changes in operating assets and liabilities:		
(Increase) decrease in -		
Grant receivable	48,000	-
Prepaid expenses	9,371	(135,060)
Increase (decrease) in -		
Accounts payable and accrued expenses	519,798	72,614
Accrued compensation and related expenses	204,500	(118,084)
Accrued interest payable	53,002	26,092
Unearned grant revenues	(34,333)	-
Net cash used in operating activities	(322,695)	(600,349)
Cash flows from investing activities:		
Purchases of equipment	(2,497)	(1,924)
Net cash used in investing activities	(2,497)	(1,924)
Cash flows from financing activities:		
Proceeds from sale of Series G 1.5% Convertible Preferred Stock	-	928,500
Proceeds from convertible note and warrant financing	210,000	-
Proceeds from issuance of notes payable to Chairman	40,000	75,000
Principal paid on other notes payable	(10,678)	-
Repayment of notes payable to Chairman	-	(150,000)
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)	-
Cash payments made for costs incurred in connection with sale of Series G 1.5% Convertible Preferred Stock	-	(92,921)
Net cash provided by financing activities	215,622	760,579
Cash and cash equivalents:		
Net increase (decrease)	(109,570)	158,306
Balance at beginning of period	162,752	14,352
Balance at end of period	\$ 53,182	\$ 172,658

(Continued)

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)**  
**(Unaudited)**

	Six Months Ended June 30,	
	2015	2014
Supplemental disclosures of cash flow information:		
Cash paid for -		
Interest	\$ 1,164	\$ 102
Income taxes	\$ -	\$ -
Non-cash financing activities:		
Amortization of deemed dividend on Series G 1.5% Convertible Preferred Stock	\$ -	\$ 10,049,846
Dividends on Series G 1.5% Convertible Preferred Stock	\$ 4,772	\$ 3,804
Short-term note payable issued in connection with the procurement of director and officer insurance	\$ 36,125	\$ -
Stated value of Series G 1.5% Convertible Preferred Stock converted into common stock	\$ 563,532	\$ -
Fair value of common stock options issued in connection with settlements with former management	\$ 26,290	\$ 179,910
Fair value of common stock options issued in connection with settlements with service providers	\$ 608,064	\$ 42,250
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 finders 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	\$ -
Fair value of common stock warrants issued to placement agents and selected dealers in connection with the sale of Series G 1.5% Convertible Preferred Stock	\$ -	\$ 443,848
Deferred financing costs transferred to additional paid-in capital in connection with sale of Series G 1.5% Convertible Preferred Stock	\$ -	\$ 35,120

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



**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS  
(Unaudited)**

**Three Months and Six Months Ended June 30, 2015 and 2014**

**1. Basis of Presentation**

The condensed consolidated financial statements of Cortex Pharmaceuticals, Inc. (“Cortex”) and its wholly-owned subsidiary, Pier Pharmaceuticals, Inc. (“Pier”) (collectively referred to herein as the “Company,” unless the context indicates otherwise), at June 30, 2015 and for the three months and six months ended June 30, 2015 and 2014, 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, 2015, the results of its consolidated operations for the three months and six months ended June 30, 2015 and 2014, and its consolidated cash flows for the six months ended June 30, 2015 and 2014. 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, 2014 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, 2014, and the amended and restated condensed consolidated financial statements and other information included in the Company’s Quarterly Report on Form 10-Q/A for the quarterly period ended March 31, 2015, as filed with the SEC.

**2. Organization and Business Operations**

***Business***

Cortex was formed in 1987 to engage in the discovery, development and commercialization of innovative pharmaceuticals for the treatment of neurological and psychiatric disorders. In 2011, prior management conducted a re-evaluation of Cortex’s strategic focus and determined that clinical development in the area of respiratory disorders, particularly respiratory depression and sleep apnea, provided the most cost-effective opportunities for potential rapid development and commercialization of Cortex’s compounds. Accordingly, Cortex narrowed its clinical focus at that time and abandoned other avenues of scientific inquiry. This re-evaluation provided the impetus for Cortex’s acquisition of Pier in August 2012.

Current management was appointed in March 2013 and has continued to implement this strategic focus, 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 the discovery and development of innovative pharmaceuticals for the treatment of respiratory disorders.

Since its formation in 1987, Cortex has been engaged in the research and clinical development of a class of compounds referred to as ampakines. By acting as positive allosteric modulators of AMPA glutamate receptors, ampakines increase the excitatory effects of the neurotransmitter glutamate. Preclinical research suggested that these ampakines might have therapeutic potential for the treatment of certain respiratory disorders, as well as cognitive disorders, depression, attention deficit disorder and schizophrenia.

Cortex 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, Cortex’s lead ampakines CX1739 and CX1942, and extend through at least 2028.

On May 8, 2007, Cortex entered into a license agreement, as subsequently amended, with the University of Alberta granting Cortex exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. These patents, along with Cortex’s own patents claiming chemical structures, comprise Cortex’s principal intellectual property supporting Cortex’s research and clinical development program in the use of ampakines for the treatment of respiratory disorders. Cortex 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 opiates or certain anesthetics without offsetting the analgesic effects of the opiates 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, Cortex has conducted a Phase 2A clinical study in which patients with sleep apnea were administered CX1739, Cortex’s lead clinical compound. Preliminary results suggested that CX1739 might have use for the treatment of central and mixed sleep apnea, but not obstructive sleep apnea (“OSA”).

In order to expand Cortex’s respiratory disorders program, the Company 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, the Company gained access to an Exclusive License Agreement (as amended, the “License Agreement”) that Pier had entered into with the University of Illinois on October 10, 2007. The 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 License Agreement granted Pier, among other provisions, exclusive rights: (i) to practice certain patents and patent applications, as defined in the 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 License Agreement, subject to the provisions of the License Agreement. Pier was required under the 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. Dronabinol is currently under investigation, at the University of Illinois and other centers, in a potentially pivotal 120 patient, double-blind, placebo-controlled Phase 2B OSA clinical trial, fully funded by the National Institutes of Health, which the University of Illinois currently expects to be completed during the second quarter of 2016. The Company is not involved in the management or funding of this ongoing 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 (“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.

The License Agreement was terminated effective March 21, 2013 due to the Company’s failure to make a required payment. Current management subsequently opened negotiations with the University of Illinois and as a result, the Company ultimately entered into a new license agreement with the University of Illinois on June 27, 2014, the material terms of which were similar to the License Agreement that had been terminated on March 21, 2013.

***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 \$1,977,584 for the six months ended June 30, 2015 and \$2,707,535 for the fiscal year ended December 31, 2014, negative operating cash flows of \$322,695 for the six months ended June 30, 2015 and \$885,869 for the fiscal year ended December 31, 2014, and expects to continue to incur net losses and negative operating cash flows for several more years. As a result, management has concluded that there is substantial doubt about the Company’s ability to continue as a going concern, and the Company’s independent registered public accounting firm, in their report on the Company’s consolidated financial statements for the year ended December 31, 2014, 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 revenue. Current management, which was appointed during March and April 2013, has evaluated and addressed the status of numerous aspects of the Company’s existing business and obligations, including, without limitation, debt obligations, financial requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has raised new capital to fund the Company’s business activities.

From June 2013 through March 2014, the Company’s Chairman and Chief Executive Officer advanced short-term loans to the Company aggregating \$150,000 in order to meet its minimum operating needs. In March and April 2014, the Company completed a private placement by selling 928.5 shares of its Series G 1.5% Convertible Preferred Stock for gross proceeds of \$928,500 and repaid the aggregate advances. The Company’s Chairman and Chief Executive Officer invested \$250,000 in the Series G 1.5% Convertible Preferred Stock private placement. During November and December 2014, the Company sold short-term convertible notes and warrants in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes and warrants in February 2015. The Company terminated this financing, which generated aggregate gross proceeds of \$579,500, effective February 18, 2015. On June 16, 2015, the Company’s Chairman and Chief Executive Officer advanced \$40,000 to the Company in the form of a short-term loan for working capital purposes. The loan is due upon demand and bears interest at a rate of 10% per annum.

The Company is continuing its efforts to raise additional capital in order to be able to pay its liabilities and fund its business activities on a going forward basis. 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 fully fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources, the Company may be forced to discontinue its 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 Cortex 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. 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 Company believes that the carrying amount of its financial instruments (consisting of cash, cash equivalents, grants receivable and accounts payable) approximates fair value due to the short-term nature of such instruments. With respect to the note payable to a related party and the convertible notes payable, management does not believe that the credit markets have materially changed for these types of speculative borrowings since the original borrowing date.

#### ***Deferred and Capitalized Financing Costs***

Costs incurred in connection with ongoing financing activities, including legal and other professional fees, cash finder's and placement agent fees, and escrow agent fees, are deferred until the related financing is either completed or abandoned.

Costs related to completed debt financings are capitalized on the balance sheet and amortized over the term of the related debt agreements. Amortization of these costs is calculated on the straight-line basis, which approximates the effective interest method, and is charged to interest expense in the consolidated statements of operations. Costs related to completed equity financings are charged directly to additional paid-in capital. Costs related to abandoned financings are charged to operations.

#### ***Series G 1.5% Convertible Preferred Stock***

The Series G 1.5% Convertible Preferred Stock (including accrued dividends) issued in 2014 is mandatorily convertible into common stock at a fixed conversion rate on April 17, 2016 (if not converted earlier) and has no right to cash at any time or for any reason. Additionally, the Series G 1.5% Convertible Preferred Stock has 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 is convertible into shares of common stock at a fixed price of \$0.0033 per share. 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. The amortization of the deemed dividend for the three months and six months ended June 30, 2014 was \$8,839,876 and \$10,489,846, respectively.

Dr. Arnold S. Lippa, Ph.D., the Company’s Chairman, Chief Executive Officer and a member of the Company’s Board of Directors, purchased 250 shares 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 such 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***

The convertible notes sold to investors in 2014 and 2015 have an interest 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 were detachable and are exercisable at a fixed price of \$0.035 per share, have no right to cash at any time or under any circumstances, and have no reset rights or other protections based on subsequent equity transactions, equity-linked transactions or other events. Accordingly, 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 (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 (i.e., 100% warrant coverage). The warrants do not have any cashless exercise provisions and are 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 generated aggregate gross proceeds of \$579,500, 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 52% for the convertible notes and approximately 48% for the warrants. Once these values were determined, the fair value of the warrants of \$176,549 and the fair value of the beneficial conversion feature of \$192,951 (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 is being 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 finders and for legal costs were deferred and capitalized as deferred offering costs and are being amortized to interest expense over the original term of the promissory notes. The finder's 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.

### ***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 for directors and officer's 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, 2015.

### ***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 time vested, are measured at the grant date fair value and charged to operations over the vesting period.

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 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.

All stock-based payments to employees, including grants of employee stock options, are recognized in the financial statements based on their fair values. 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 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 options granted during the six months ended June 30, 2015, the fair value of each option award was estimated using the Black-Scholes option-pricing model with the following assumptions:

Risk-free interest rate	1.3% to 1.7%
Expected dividend yield	0%
Expected volatility	184% to 249%
Expected life	5-7 years

For options granted during the six months ended June 30, 2014, the fair value of each option award was estimated using the Black-Scholes option-pricing model with the following assumptions:

Risk-free interest rate	1.5% to 2.7%
Expected dividend yield	0%
Expected volatility	200% to 249%
Expected life	5-10 years

The Company issues new shares to satisfy stock option and warrant exercises. There were no options exercised during the six months ended June 30, 2015 and 2014.

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.

**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, 2015, 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, 2015, 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 related party, 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. Revenues 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 grant receivables is based on progress reports provided by the Company. As of June 30, 2015, the grant was completed and the Company was current in filing all required progress reports (see Note 9).

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. 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 and December 31, 2014, the Company had grant receivable of \$48,000, and unearned grant revenues of \$34,333, respectively. The Company had no research grant revenues during the three months and six months ended June 30, 2014.

***Research and Development Costs***

Research and development costs consist primarily of 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 consolidated balance sheet, with a corresponding charge to research and development costs in the Company’s 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 consolidated balance sheet, with a corresponding charge to research and development costs in the Company’s 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, 2015 and 2014.



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, 2015 and 2014, 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,	
	2015	2014
Series B convertible preferred stock	3,679	3,679
Series G 1.5% convertible preferred stock	95,144,652	282,516,482
10% convertible notes payable	17,453,230	-
Common stock warrants	32,106,094	19,251,271
Common stock options	112,885,138	10,716,668
Total	257,592,793	312,488,100

Reclassifications

Certain comparative figures in 2014 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. As the Company does not expect to have any operating revenues for the foreseeable future, the Company does not expect the adoption of ASU 2014-09 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 January 2015, the FASB issued Accounting Standards Update No. 2015-01 (ASU 2015-01), *Income Statement – Extraordinary and Unusual Items (Subtopic 225-20)*. ASU 2015-01 eliminates from GAAP the concept of extraordinary items. Subtopic 225-20, Income Statement-Extraordinary and Unusual Items, required that an entity separately classify, present, and disclose extraordinary events and transactions. Presently, an event or transaction is presumed to be an ordinary and usual activity of the reporting entity unless evidence clearly supports its classification as an extraordinary item. Paragraph 225-20-45-2 contains the following criteria that must both be met for extraordinary classification: (1) Unusual nature. The underlying event or transaction should possess a high degree of abnormality and be of a type clearly unrelated to, or only incidentally related to, the ordinary and typical activities of the entity, taking into account the environment in which the entity operates. (2) Infrequency of occurrence. The underlying event or transaction should be of a type that would not reasonably be expected to recur in the foreseeable future, taking into account the environment in which the entity operates. If an event or transaction meets the criteria for extraordinary classification, an entity is required to segregate the extraordinary item from the results of ordinary operations and show the item separately in the income statement, net of tax, after income from continuing operations. The entity also is required to disclose applicable income taxes and either present or disclose earnings-per-share data applicable to the extraordinary item. ASU 2015-01 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. A reporting entity may apply the guidance prospectively. A reporting entity also may apply the guidance retrospectively to all prior periods presented in the financial statements. Early adoption is permitted provided that the guidance is applied from the beginning of the fiscal year of adoption. The adoption of ASU 2015-01 is not expected to have any impact on the Company’s financial statement presentation or disclosures.

In February 2015, the FASB issued Accounting Standards Update No. 2015-02 (ASU 2015-02), *Consolidation (Topic 810)*. ASU 2015-02 changes the guidance with respect to the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. All legal entities are subject to reevaluation under the revised consolidation mode. ASU 2015-02 affects the following areas: (1) Limited partnerships and similar legal entities. (2) Evaluating fees paid to a decision maker or a service provider as a variable interest. (3) The effect of fee arrangements on the primary beneficiary determination. (4) The effect of related parties on the primary beneficiary determination. (5) Certain investment funds. ASU 2015-02 is effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the guidance in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. A reporting entity may apply the amendments in this guidance using a modified retrospective approach by recording a cumulative-effect adjustment to equity as of the beginning of the fiscal year of adoption. A reporting entity also may apply the amendments retrospectively. The adoption of ASU 2015-02 is not expected to have any impact on the Company’s financial statement presentation or disclosures.

In April 2015, the FASB issued Accounting Standards Update No. 2015-03 (ASU 2015-03), *Interest – Imputation of Interest (Subtopic 835-30)*. ASU 2015-03 simplifies the presentation of debt issuance costs and requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the new guidance. ASU 2015-3 is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within that fiscal year. Early adoption is permitted for financial statements that have not been previously issued. An entity is required to apply the new 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. Upon transition, an entity 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., debt issuance cost asset and the debt liability). The adoption of ASU 2015-03 is expected to have an impact on the accounting and presentation of debt issuance costs incurred by the Company beginning in 2016.

In April 2015, the FASB issued Accounting Standards Update No. 2015-05 (ASU 2015-05), *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40)*. ASU 2015-05 addresses the lack of explicit guidance about a customer’s accounting for fees paid in a cloud computing arrangement, including software as a service, platform as a service, infrastructure as a service, and other similar hosting arrangements. ASU 2015-05 provides guidance to customers about whether a cloud computing arrangement includes a software license. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. The guidance will not change GAAP for a customer’s accounting for service contracts. As a result, all software licenses within the scope of Subtopic 350-40 will be accounted for consistent with other licenses of intangible assets. ASU 2015-05 is effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2015. Early adoption is permitted. An entity can elect to adopt the amendments either (1) prospectively to all arrangement entered into or materially modified after the effective date, or (2) retrospectively. For prospective transition, the only disclosure requirements at transition are the nature of and reason for the change in accounting principle, the transition method, and a qualitative description of the financial statement line items affected by the change. For retrospective transition, the disclosure requirements at transition include the requirements for prospective transition and quantitative information about the effects of the accounting change. The Company is currently evaluating the impact of the adoption of ASU 2015-05 on the Company’s financial statement presentation and 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%, is due and payable in full on September 15, 2015.

The Company may elect, at its option and in its sole discretion, to extend the maturity date of the Notes to September 15, 2016 upon thirty days advance written notice to the Note holders delivered prior to the September 15, 2015 maturity date, subject to the issuance by the Company to the Note holders of additional warrants, exercisable for a period of one year from the date of issuance, to purchase the Company’s common stock exercisable at \$0.035 per share of common stock, into that number of shares of common stock calculated as the product of the principal amount of the Note, plus any accrued and unpaid interest (estimated to be approximately \$43,750 at September 15, 2015), multiplied by 50%, and then dividing that product by \$0.035. The additional warrants shall otherwise be substantially similar in form and substance to the Warrants issued in connection with the Notes, and shall be exercisable through September 15, 2016. The extension of the maturity date of the Notes for one year would result in the issuance of an additional approximately 8,900,000 warrants to the Note holders, which the Company would expect to account for at fair value as a reduction to the carrying value of the Notes, with such amount to be amortized over the one year extension period.

At any time, each Purchaser may 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 by \$0.035, plus any accrued and unpaid interest, which is treated in the same manner as the outstanding principal amount. 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 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 may 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 is 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 detachable and are exercisable through September 15, 2015 at a fixed price of \$0.035 per share. The warrants do not have any cashless exercise provisions. The shares of common stock issuable upon conversion of the Notes and exercise of the Warrants are not subject to any registration rights.

Placement agent fees, brokerage commissions, finder's fees 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 are exercisable through September 15, 2015 at a fixed price of \$0.035 per share. The stock 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 stock 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 are being amortized as additional interest expense over the original term of the Notes. During the three months and six months ended June 30, 2015, \$41,725 and \$78,823, respectively, was charged to interest expense with respect to the amortization of capitalized financing costs.

Aurora Capital LLC, a related party (see Note 8), 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 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 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 used the Black-Scholes option-pricing model to estimate the fair value of the warrants to purchase 16,557,141 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 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 were attributed to the debt instrument. The 50% value attributed to the Warrants is being amortized as additional interest expense over the original term of the related Notes. During the three months and six months ended June 30, 2015, \$100,287 and \$182,954 was charged to interest expense from the amortization of debt discount related to the value attributed to the Warrants.

During the three months and six months ended June 30, 2015, \$98,697 and \$182,017 was charged to interest expense from the amortization of debt discount related to the value attributed to the beneficial conversion feature.

The 10% Convertible Notes Payable consist of the following at June 30, 2015 and December 31, 2014:

	June 30, 2015	December 31, 2014
Principal amount of notes payable	\$ 579,500	\$ 369,500
Add accrued interest payable	31,363	4,093
	610,863	373,593
Less unamortized discounts:		
Stock warrants	(84,858)	(155,264)
Beneficial conversion feature	(83,512)	(168,086)
	\$ 442,493	\$ 50,243

As of June 30, 2015, the 10% Convertible Notes Payable were convertible into 17,453,230 shares of the Company's common stock, including 896,087 shares attributable to accrued interest of \$31,363 payable as of such date. As of December 31, 2014, the 10% Convertible Notes Payable were convertible into 10,674,107 shares of the Company's common stock, including 116,964 shares attributable to accrued interest of \$4,093 payable as of such date.

**Note Payable to Related Party**

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. (“SAMYANG”), an approximately 20% common stockholder of the Company at that time. The note accrues simple interest at the rate of 12% per annum and has a maturity date of June 25, 2013, although SAMYANG was permitted to demand early repayment of the promissory note on or after December 25, 2012. SAMYANG did not demand early repayment. 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 SAMYANG has not issued a notice of default or a demand for repayment. The Company believes that SAMYANG 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 to enter into discussions with SAMYANG with a view toward a comprehensive resolution of the aforementioned matters.

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 amphetamine compounds and the low impact amphetamine compounds CX2007 and CX2076, and other related compounds. The security interest does not extend to the Company’s patents for its amphetamine compounds CX1739 and CX1942, or to the patent for the use of amphetamine compounds for the treatment of respiratory depression.

In connection with this financing, the Company issued to SAMYANG two-year detachable warrants to purchase 4,000,000 shares of the Company’s common stock at a fixed exercise price of \$0.056 per share. The warrants had a call right for consideration of \$0.001 per share, in favor of the Company, to the extent that the weighted average closing price of the Company’s common stock exceeds \$0.084 per share for each of ten consecutive trading days, subject to certain circumstances. Additionally, an existing license agreement with SAMYANG was expanded to include rights to amphetamine CX1739 in South Korea for the treatment of sleep apnea and respiratory depression. The warrants expired unexercised on June 25, 2014.

The Company used the Black-Scholes option-pricing model to estimate the fair value of the two-year detachable warrants to purchase 4,000,000 shares of the Company’s common stock at a fixed exercise price of \$0.056 per share. The Company applied the relative fair value method to allocate the proceeds from the borrowing to the note payable and the detachable warrants. The Company did not consider the expansion of the existing license agreement with SAMYANG to have any significant value. Consequently, approximately 64% of the proceeds of the borrowing were attributed to the debt instrument.

The 36% value attributed to the warrant was amortized as additional interest expense over the expected life of the note. Additionally, financing costs aggregating \$21,370 incurred in connection with the transaction were also amortized over the expected life of the note. In that repayment could be demanded after six months, that period was used as the expected life of the note payable for amortization purposes.

Note payable to SAMYANG consists of the following at June 30, 2015 and December 31, 2014:

	June 30, 2015	December 31, 2014
Principal amount of note payable	\$ 399,774	\$ 399,774
Accrued interest payable	146,738	122,618
Foreign currency transaction adjustment	(5,943)	3,865
	<u>\$ 540,569</u>	<u>\$ 526,257</u>

### ***Notes Payable to Chairman***

On June 25, 2013, the Arnold Lipka Family Trust, an affiliate of Dr. Arnold S. Lipka, the Company's Chairman and Chief Executive Officer, began advancing funds to the Company in order to meet minimum operating needs. At December 31, 2013, Dr. Lipka had advanced a total of \$75,000 to the Company. Such advances reached a maximum of \$150,000 on March 3, 2014 and were due on demand with interest at a rate per annum equal to the "Blended Annual Rate", as published by the U.S. Internal Revenue Service of approximately 0.22% for the period outstanding. In March 2014, the Company repaid the working capital advances, including accrued interest of \$102, with the proceeds from the private placement of its Series G 1.5% Convertible Preferred Stock.

On June 16, 2015, Dr. Lipka advanced \$40,000 to the Company in order to meet working capital requirements. The advance is due on demand with interest at 10% per annum. As of June 30, 2015, accrued interest was \$164.

### ***Other Short-Term Notes Payable***

Other short-term notes payable at June 30, 2015 consisted of a promissory note issued to a service provider in connection with a debt settlement (see Note 6) and a premium financing agreement with respect to an insurance policy. The promissory note is due with 10% interest per annum 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. At June 30, 2015, the balance due on the note payable was \$61,158, including accrued interest of \$1,395. The premium financing agreement dated March 14, 2015 is payable, with interest at 5.08% per annum, in ten monthly installments of \$3,697 through February 14, 2016.

## **5. Project Advance**

In June 2000, the Company received \$247,300 from the Institute for the Study of Aging (the "Institute") pursuant to a note (the "Note") and Agreement to Accept Conditions of Loan Support (the "Loan Support Agreement") to fund testing of CX516, one of the Company's ampakine compounds, in patients with mild cognitive impairment ("MCI"). Patients with MCI represent the earliest clinically-defined group with memory impairment beyond that expected for normal individuals of the same age and education, but such patients do not meet the clinical criteria for Alzheimer's disease. During 2002 and 2003, the Company conducted a double-blind, placebo-controlled clinical study with 175 elderly patients displaying MCI and issued a final report on June 21, 2004. CX516 did not improve the memory impairments observed in these patients.

Pursuant to the Note and Loan Support Agreement, if the Company complied with certain conditions, including the completion of the MCI clinical trial, the Company would not be required to make any repayments unless and until the Company enters one of its ampakine compounds into a Phase 3 clinical trials for Alzheimer's disease. Upon initiation of such clinical trials, repayment would include the principal amount plus accrued interest computed at a rate equal to one-half of the prime lending rate. In the event of repayment, the Institute could elect to receive the outstanding principal balance and any accrued interest thereon in shares of the Company's common stock. The conversion price for such form of repayment was fixed at \$4.50 per share and was subject to adjustment if the Company paid a dividend or distribution in shares of common stock, effected a stock split or reverse stock split, effected a reorganization or reclassification of its capital stock, or effected a consolidation or merger with or into another corporation or entity.

On September 2, 2014, the Company entered into a Release Agreement (the "Release Agreement") with the Institute to settle this outstanding obligation, which had an outstanding balance of \$336,809, including accrued interest of \$89,509, on such date. Pursuant to the terms of the Release Agreement, the Institute received 1,000,000 shares of the Company's common stock as settlement of all obligations of the Company under the Note and the Loan Support Agreement. Such common shares are "restricted securities" as defined under Rule 144 promulgated under the Securities Act of 1933, as amended, and are not subject to any registration rights. The Release Agreement also includes a mutual release between the Company and the Institute, releasing each party from all claims up until the date of the Release Agreement. The 1,000,000 common shares issued were valued at \$49,000, based on the closing price of the Company's common stock on September 2, 2014 of \$0.049 per share. The settlement resulted in the Company recognizing a gain of \$287,809 during the year ended December 31, 2014.

## **6. Settlements**

During the six months ended June 30, 2014, the Company executed settlement agreements with four former executives that resulted in the settlement of potential claims totaling \$1,336,264 that had been previously accrued in 2012 and 2013. The Company made cash payments of \$118,084 and issued stock options to purchase 4,300,000 shares of common stock exercisable at \$0.04 per share for periods ranging from five to ten years. The stock options were valued pursuant to the Black-Scholes option-pricing model at \$179,910. In addition to other provisions, the settlement agreements included mutual releases. The settlements resulted in the Company recognizing a gain of \$1,038,270 during the six months ended June 30, 2014.

During the three months and six months ended June 30, 2014, the Company executed settlement agreements with two former professional service providers that resulted in the settlement of potential claims totaling \$496,514 for a cost of \$60,675 in cash, plus the issuance of stock options to purchase 1,250,000 shares of common stock exercisable at \$0.04 per share for a period of five years, and valued pursuant to the Black-Scholes option-pricing model at \$42,250 in the aggregate. In addition to other provisions, the settlement agreements included mutual releases. The settlements resulted in the Company recognizing a gain of \$393,590 during the three months and six months ended June 30, 2014.

On September 2, 2014, the Company recognized a gain of \$287,809 resulting from the settlement of an obligation to the Institute for the Study of Aging. Additional information with respect to this settlement is provided at Note 5.

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 settlement resulted in the Company recognizing a gain of \$92,550 on January 29, 2015. On June 29, 2015, the settlement agreement was further amended, resulting in a cash payment of \$3,000, an extension of the \$15,500 remaining balance due through December 31, 2015, subject to a further partial cash payment of \$3,000 on September 30, 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. During the three months and six months ended June 30, 2015, the Company recorded a loss of \$840, and a gain of \$91,710, respectively, with respect to the settlement, as amended, with its former Vice President and Chief Financial Officer.

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.

During the three months and six months ended June 30, 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 in the amount of \$916,827 were settled for \$15,000 in cash, the issuance of a note payable in the amount of \$59,763 (see Note 4), 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 31,618,470 shares of common stock exercisable at the closing market price of the Company's common stock on the date of issuance. 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.

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.

## 7. 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, 2014 and December 31, 2014, 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, 2015, 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, 2015 or December 31, 2014.

Series B Preferred Stock outstanding as of June 30, 2015 and December 31, 2014 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, 2015 and December 31, 2014, 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 "Private Placement"). The Initial Purchasers in this tranche of the Private Placement consisted of (i) Dr. Arnold S. Lippa, the Company's Chairman, Chief Executive Officer and a member of the Company's Board of Directors, 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 have any registration rights.

The placement agents and selected dealers in connection with the initial tranche of the 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 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 stock warrants issuable to the placement agents and selected dealers in connection with the initial tranche of the Private Placement were valued pursuant to the Black-Scholes option-pricing model at \$443,848.

The Series G 1.5% Convertible Preferred Stock has 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.

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 is issued in the 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. As the stated value of the Series G 1.5% Convertible Preferred Stock is \$1,000 per share, and the fixed conversion price is \$0.0033, each share of Series G 1.5% Convertible Preferred Stock is convertible into 303,030.3 shares of common stock. 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, shall be 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).

If not earlier converted, the Series G 1.5% Convertible Preferred Stock shall be redeemed by conversion on the two year anniversary of the date the last share of Series G 1.5% Convertible Preferred Stock is issued in the Private Placement at the Conversion Price.

Except as described in the Certificate of Designation, holders of the Series G 1.5% Convertible Preferred Stock will vote 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 will be 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 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 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(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.

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 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 Private Placement consisted of new, non-affiliated, accredited investors and non-management investors who had also invested in the first closing. One of the investors in this second and final closing was an affiliate of an associated person of Aurora Capital LLC, a related party (see Note 8). Neither the Series G 1.5% Convertible Preferred Stock nor the underlying shares of common stock have any registration rights.

The placement agents and selected dealers in connection with the second tranche of the 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 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 stock warrants issuable to the placement agents and selected dealers in connection with the second closing of the Private Placement were valued pursuant to the Black-Scholes option-pricing model at \$220,321.

As the stated value of the Series G 1.5% Convertible Preferred Stock is \$1,000 per share, and the fixed conversion price is \$0.0033, each share of Series G 1.5% Convertible Preferred Stock is 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 Private Placement were initially convertible into a total of 281,363,634 shares of common stock.

The Company recorded a dividend on the Series G 1.5% Convertible Preferred Stock of \$1,574 and \$3,396 for the three months ended June 30, 2015 and 2014, respectively, which was paid through the issuance of an additional 1.6 shares and 3.4 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 \$4,772 and \$3,804 for the six months ended June 30, 2015 and 2014, respectively, which was paid through the issuance of an additional 4.8 shares and 3.8 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 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 Capital LLC, a related party (see Note 8), 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 Capital LLC through interests held in its members, and Jeff E. Margolis is also an officer of Aurora Capital LLC.

Effective August 25, 2014, a finder's warrant issued on April 17, 2014 in conjunction with the Private Placement of the Series G 1.5% Convertible Preferred Stock, representing the right to acquire a total of 2,112,879 shares of common stock, was exercised in full on a cashless basis, resulting in the net issuance of 1,942,124 shares of common stock.

Effective September 5, 2014, a finder's warrant issued on April 17, 2014 in conjunction with the 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 1,126,814 shares of common stock.

Effective September 26, 2014, a finder's warrant issued on April 17, 2014 in conjunction with the Private Placement of the Series G 1.5% Convertible Preferred Stock, representing the right to acquire a total of 1,400,000 shares of common stock, was exercised in full on a cashless basis, resulting in the net issuance of 1,326,080 shares of common stock.

Effective December 16, 2014, 66.68888 shares of Series G 1.5% Convertible Preferred Stock, including 0.68888 dividend shares, were converted into 20,208,752 shares of common stock on a cashless basis.

During the six months ended June 30, 2015, 563.531895 shares of Series G 1.5% Convertible Preferred Stock, including 9.051895 dividend shares, were converted into 170,767,241 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.

There have been no conversions of Series G 1.5% Convertible Preferred Stock into common stock subsequent to June 30, 2015.

As of June 30, 2015, the Series G 1.5% Convertible Preferred Stock was convertible into 95,144,652 shares of the Company's common stock, including 1,805,259 shares attributable to the 1.5% dividend on such shares of \$5,957 accrued as of such date. As of December 31, 2014, the Series G 1.5% Convertible Preferred Stock was convertible into 264,465,728 shares of the Company's common stock, including 3,102,094 shares attributable to the 1.5% dividend on such shares of \$10,237 accrued as of such date.

### ***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 April 14, 2014, the Board of Directors of the Company awarded a total of 57,000,000 shares of common stock of the Company, including awards of 15,000,000 shares to each of the Company's three executive officers, who were also all of the directors of the Company at that time, and 4,000,000 shares and 8,000,000 shares to two other individuals. The individual who received the 8,000,000 shares was an associated person of Aurora Capital LLC, a related party (see Note 8). These awards were made to those individuals on that date as compensation for services rendered through March 31, 2014. Prior to these awards, none of the officers or directors of the Company at that time had earned or received any cash compensation from the Company since joining the Company in March and April 2013, and there were no prior compensation arrangements or agreements with such individuals. As the initial closing of the Series G 1.5% Convertible Preferred Stock was completed on March 18, 2014, and such closing represented approximately 81% of the total amount of such financing, the Company's Board of Directors determined that it was appropriate at that time to compensate such officers for the period since they joined the Company in March and April 2013 through March 31, 2014. Such compensation was concluded on April 14, 2014 with the issuance of the aforementioned stock awards. Accordingly, as a result of these factors, the fair value of these stock awards of \$2,280,000 was charged to operations effective as of March 18, 2014. The stock awards were valued at \$0.04 per share, which was the closing price of the Company's common stock on March 18, 2014. These stock awards were made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

On September 3, 2014, James Sapirstein and Kathryn MacFarlane were appointed to the Board of Directors of the Company, and in connection therewith, they were awarded an aggregate of 4,000,000 shares of common stock of the Company under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan, consisting of 2,000,000 shares to each new director, vesting 50% upon appointment to the Board of Directors, 25% on September 30, 2014 and 25% on December 31, 2014. The stock awards were valued at \$0.049 per share, which was the closing price of the Company's common stock on September 3, 2014. During the period September 3, 2014 through December 31, 2014, the Company recorded charges to operations of \$196,000 with respect to these stock awards.

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 the Director of the Neuroscience and Mental Health Institute at the University of Alberta, holds two grants regarding research into neuromuscular control of breathing, and is the inventor on the use 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 charges to operations of \$99,000 with respect to this stock award. During the three months ended March 31, 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 charges to operations of \$39,000 and \$78,000, respectively, with respect to this stock award. At June 30, 2015, total unrecognized compensation expense for the outstanding unvested stock awards was \$78,000, which will be recognized by the Company as charges to operations of \$39,000 on each of July 15, 2015 and October 15, 2015, respectively.

See Note 6 for information with respect to the issuance of common stock in connection with the settlement of debt obligations.

Information with respect to the issuance of common stock upon the exercise of common stock purchase warrants issued to finders and placement agents in connection with the 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

In connection with a private placement of debt on June 25, 2012, the Company issued to Samyang two-year detachable warrants to purchase 4,000,000 shares of the Company’s common stock at a fixed exercise price of \$0.056 per share. The warrants had a call right for consideration of \$0.001 per share, in favor of the Company, to the extent that the weighted average closing price of the Company’s common stock exceeded \$0.084 per share for each of ten consecutive trading days, subject to certain circumstances. The warrants expired unexercised in June 2014.

Information with respect to the issuance and exercise of common stock purchase warrants with respect to finders and placement agents in connection with the 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 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, 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 (Shares)	Warrants Exercisable (Shares)	Expiration Date
\$ 0.00396	14,531,953	14,531,953	April 17, 2019
\$ 0.03500	17,574,141	17,574,141	September 15, 2015
	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 stock warrants was \$196,763 as of June 30, 2015.

A summary of warrant activity for the six months ended June 30, 2014 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Warrants outstanding at December 31, 2013	4,000,000	\$ 0.05600	
Issued	19,251,271	0.00396	
Exercised	-	-	
Expired	(4,000,000)	0.05600	
Warrants outstanding at June 30, 2014	19,251,271	\$ 0.00396	4.80
Warrants exercisable at December 31, 2013	4,000,000	\$ 0.05600	
Warrants exercisable at June 30, 2014	19,251,271	\$ 0.05600	4.80

The exercise prices of common stock warrants outstanding and exercisable are as follows at June 30, 2014:

Exercise Price	Warrants Outstanding (Shares)	Warrants Exercisable (Shares)	Expiration Date
\$ 0.00396	19,251,271	19,251,271	April 17, 2019

Based on a fair market value of \$0.0295 per share on June 30, 2014, the intrinsic value of exercisable in-the-money stock warrants was \$491,697 as of June 30, 2014.

Stock Options

In connection with the initial closing of the 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 July 17, 2014, the Board of Directors of the Company awarded stock options to purchase a total of 15,000,000 shares of common stock of the Company, consisting of options for 5,000,000 shares to each of the Company’s three executive officers, who were also all of the directors of the Company at that time. The stock options were awarded as compensation for those individuals through December 31, 2014. The stock options vested in three equal installments on July 17, 2014 (at issuance), September 30, 2014, and December 31, 2014, and expire on July 17, 2019. The exercise price of the stock options was established on the grant date at \$0.05 per share, as compared to the closing market price of the Company’s common stock on such date of \$0.044 per share, reflecting an exercise price premium of \$0.006 per share or 13.6%. These awards were made under the Company’s 2014 Plan. During the period July 17, 2014 through December 31, 2014, the Company recorded charges to operations of \$655,500 with respect to these stock options, reflecting the grant date fair value of the stock options calculated pursuant to the Black-Scholes option-pricing model.

On June 30, 2015, the Board of Directors adopted the 2015 Stock and Stock Option Plan (the “2015 Plan”). The 2015 Plan provides 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 does not intend to present the 2015 Plan to shareholders for approval.

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 three of the Company’s 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), will vest 25% on September 30, 2015 and 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. During the three months and six months ended June 30, 2015, the Company recorded charges to operations of \$473,000 with respect to these stock options, reflecting the vested portion of the grant date fair value of these stock options at June 30, 2015 calculated pursuant to the Black-Scholes option-pricing model.

See Note 6 for information with respect to the issuance of common stock options in connection with the settlement of debt obligations.

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, 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	\$ 0.0503	
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	\$ 0.0503	
Options exercisable at June 30, 2015	85,385,138	\$ 0.0309	5.63

Total deferred compensation expense for the outstanding value of 27,500,000 unvested stock options was approximately \$551,000 at June 30, 2015, which is being recognized subsequent to June 30, 2015 over a weighted-average period of approximately 5.7 months.

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
\$ 0.0512	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
	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.

A summary of stock option activity for the six months ended June 30, 2014 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Options outstanding at December 31, 2013	5,166,668	\$ 0.0600	
Granted	5,550,000	0.0419	
Expired	-	-	
Forfeited	-	-	
Options outstanding at June 30, 2014	10,716,668	\$ 0.0506	7.23
Options exercisable at December 31, 2013	5,166,668	\$ 0.0600	
Options exercisable at June 30, 2014	10,716,668	\$ 0.0506	7.23

The exercise prices of common stock options outstanding and exercisable were as follows at June 30, 2014:

Exercise Price	Options Outstanding (Shares)	Options Exercisable (Shares)	Expiration Date
\$ 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
\$ 0.0490	800,000	800,000	February 28, 2024
\$ 0.0600	3,083,334	3,083,334	July 17, 2022
\$ 0.0060	2,083,334	2,083,334	August 10, 2022
	10,716,668	10,716,668	

Based on a fair market value of \$0.0295 per share on June 30, 2014, there were no exercisable in-the-money common stock options as of June 30, 2014.

For the three months ended June 30, 2015 and 2014, stock-based compensation costs included in the condensed consolidated statements of operations consisted of general and administrative expenses of \$438,600 and \$0, respectively, and research and development expenses of \$73,400 and \$0, respectively. For the six months ended June 30, 2015 and 2014, stock-based compensation costs included in the condensed consolidated statements of operations consisted of general and administrative expenses of \$438,600 and \$2,280,000, respectively, and research and development expenses of \$145,400 and \$0, respectively.

### ***Pier Contingent Stock Consideration***

In connection with the merger transaction with Pier effective August 10, 2012, Cortex 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 Cortex's common stock on August 10, 2012. The shares of common stock were issued 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 Cortex 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, Cortex 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 the Company's common stock as part of the Pier transaction if certain of the Company'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, 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, 2015.

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, 2015. As of June 30, 2015, 2,111,445 contingent shares of common stock remained issuable under the Pier merger agreement due to expirations and forfeitures of stock options and warrants occurring since August 10, 2012.

The Company concluded that the issuance of any of the contingent shares to the Pier Stock Recipients was remote, given 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 out-of-the-money through June 30, 2015. 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, 2015, the Company had 1,400,000,000 shares of common stock authorized and 413,476,853 shares of common stock issued and outstanding. Furthermore, as of June 30, 2015, the Company had reserved an aggregate of 3,679 shares for issuance upon conversion of the Series B Preferred Stock; 32,106,094 shares for issuance upon exercise of warrants; 112,885,138 shares for issuance upon exercise of outstanding stock options; 25,633,002 shares to cover equity grants available for future issuance pursuant to the 2014 Plan; 57,364,285 shares to cover equity grants available for future issuance pursuant to the 2015 Plan; 95,144,652 shares for issuance upon conversion of the Series G 1.5% Convertible Preferred Stock; 17,453,230 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, 2015, the Company had an aggregate of 342,701,525 shares of common stock reserved for issuance and 643,821,622 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.

## 8. 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 in Aurora Capital LLC through interests held in its members, and Jeff E. Margolis is also an officer of Aurora Capital LLC. Aurora Capital LLC 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 Capital LLC 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, 2015 and 2014.

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, 2015, and in general and administrative expenses in the Company's condensed consolidated statement of operations for the three months and six months ended June 30, 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 - \$10,000; and Kathryn MacFarlane - \$10,000. This compensation is payable in arrears and will commence on July 1, 2015 and continue through December 31, 2015, unless further revised as a result of new developments. Both the cash bonuses and the cash monthly compensation will be accrued but 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.

During the three months and six months ended June 30, 2015, the Company charged \$4,000 and \$14,000 to operations 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, 2014, such similar charges amounted to \$12,000 and \$12,000, respectively.

See Note 7 for a description of other transactions between the Company and Aurora Capital LLC.

See Notes 4 and 7 for a description of transactions with Samyang, a significant stockholder of and lender to the Company.

## 9. Commitments and Contingencies

### *Pending or Threatened Legal Actions and Claims*

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 financial statements with respect to such matters.

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, has asserted certain claims for consulting compensation against the Company. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its condensed consolidated financial statements at June 30, 2015 and its consolidated financial statements at December 31, 2014.



### ***University of California, Irvine License Agreements***

The Company entered into a series of license agreements in 1993 and 1998 with UCI that granted the Company proprietary rights to certain chemical compounds that acted as ampakines and 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, 2015 and December 31, 2014.

### ***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, 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.

### ***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 the 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 ( $\Delta^9$ -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. In the year after the first application is submitted for market approval 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, 2015, the Company recorded charges to operations of \$25,000 and \$50,000, respectively, with respect to its 2015 minimum annual royalty obligation, which was included in research and development expenses, with a corresponding credit to accounts payable and accrued liabilities.

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.

#### ***National Institute on Drug Abuse Grant***

On September 18, 2014, the Company entered into a contract with the National Institute on Drug Abuse, a division of the National Institutes of Health. The funding under the contract was a Phase 1 award granted under the Small Business Innovation Research Funding Award Program. The purpose of the project was to determine the most useful route of administration for injecting CX1942, the Company's proprietary, soluble ampakine molecule, a potential rescue medication for drug-induced respiratory depression and lethality. The grant was entitled "Novel Treatment of Drug-Induced Respiratory Depression" and was valued at \$148,583, which was paid in increments over the duration of the study which commenced in October 2014 and was completed in April 2015.

The study was conducted in rats and measured the ability of CX1942, when injected by various routes of administration, to antagonize the respiratory depression produced by opiates and various combinations of respiratory depressant drugs. The primary measures were potency, latency to onset and duration of action of CX1942. The Company anticipates that the data obtained from this study will be used to determine the design parameters of preclinical studies necessary for initiating Phase 1 clinical studies. The preclinical studies were performed in collaboration with Dr. David Fuller of the University of Florida and Dr. John Greer of the University of Alberta, Chairman of the Company's Scientific Advisory Board.

#### ***Partnership with the Knowledge Translation Strategy Unit of the Canadian Institutes of Health Research***

On June 30, 2015, the Company announced a partnership with the Knowledge Translation Strategy Unit of the Canadian Institutes of Health Research. Through collaboration with John Greer, Ph.D., Chairman of the Company's Scientific Advisory Board and Professor of Physiology and Alberta Innovates – Health Solutions Senior Scientist with the Neuroscience and Mental Health Institute at the University of Alberta, a research grant has been awarded by the Canadian Institutes of Health Research in the approximate amount of CAD\$145,000 (approximately US\$110,000) to partially fund the development of CX1942 and related compounds for the alleviation of various forms of respiratory depression. As the Principal Investigator, Dr. Greer will be heading the research and development effort. The Company intends to provide approximately CAD\$85,000 (approximately US\$65,000) of funding ratably over a period of approximately one year beginning in October 2015 to underwrite additional costs budgeted under this research grant. The data generated by this research grant will belong to the Company.

#### **10. Subsequent Events**

The Company performed an evaluation of subsequent events through the date of filing of these financial statements with the SEC. There were no material subsequent events which affected 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, Cortex Pharmaceuticals, Inc. (“Cortex”) has been engaged in the research and clinical development of a class of compounds referred to as ampakines. By acting as positive allosteric modulators of AMPA glutamate receptors, ampakines increase the excitatory effects of the neurotransmitter glutamate. Preclinical research suggested that these ampakines might have therapeutic potential for the treatment of certain respiratory disorders, as well as cognitive disorders, depression, attention deficit disorder and schizophrenia

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

Current management was appointed in March 2013 and has continued to implement this strategic focus, 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 the discovery and development of innovative pharmaceuticals for the treatment of respiratory disorders.

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, Cortex entered into a license agreement, as subsequently amended, with the University of Alberta granting Cortex exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. These patents, along with Cortex’s own patents claiming chemical structures, comprise Cortex’s principal intellectual property supporting Cortex’s research and clinical development program in the use of ampakines for the treatment of respiratory disorders. Cortex 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 opiates or certain anesthetics without offsetting the analgesic effects of the opiates 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, Cortex has conducted a Phase 2A clinical study in which patients with sleep apnea were administered CX1739, Cortex’s lead clinical compound. Preliminary results suggested that CX1739 might have use for the treatment of central and mixed sleep apnea, but not obstructive sleep apnea (“OSA”).

In order to expand the Company’s respiratory disorders program, the Company 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, Cortex gained access to an Exclusive License Agreement (as amended, the “License Agreement”) that Pier had entered into with the University of Illinois on October 10, 2007. The 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 License Agreement granted Pier, among other provisions, exclusive rights: (i) to practice certain patents and patent applications, as defined in the 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 License Agreement, subject to the provisions of the License Agreement. Pier was required under the 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. Dronabinol is currently under investigation, at the University of Illinois and other centers, in a potentially pivotal 120 patient, double-blind, placebo-controlled Phase 2B OSA clinical trial, fully funded by the National Institutes of Health, which the University of Illinois currently expects to be completed during the second quarter of 2016. The Company is not involved in the management or funding of this ongoing 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 ("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.

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

### ***Anticipated Clinical Study***

The Company has taken steps to conduct a double blind, placebo controlled, dose ascending Phase 2A clinical study in approximately 18 subjects to determine the ability of orally administered CX1739, the Company's lead ampakine, to prevent the respiratory depression produced by remi-fentanyl, a strong opiate. Clinical supplies have been prepared, a clinical site has been chosen, a protocol has been finalized, and an investigational new drug application has been written and is ready for submission to the FDA. In this clinical study, subjects will be administered, once a week, either placebo or one of two doses of CX1739 prior to the administration of remi-fentanyl and respiration, analgesia and a number of other measures will be taken. The initiation of this clinical study is subject to the Company raising additional capital.

### ***Recent Developments***

#### ***Partnership with the Knowledge Translation Strategy Unit of the Canadian Institutes of Health Research***

On June 30, 2015, the Company announced a partnership with the Knowledge Translation Strategy Unit of the Canadian Institutes of Health Research. Through collaboration with John Greer, Ph.D., Chairman of the Company's Scientific Advisory Board and Professor of Physiology and Alberta Innovates – Health Solutions Senior Scientist with the Neuroscience and Mental Health Institute at the University of Alberta, a research grant has been awarded by the Canadian Institutes of Health Research in the approximate amount of CAD\$145,000 (approximately US\$110,000) to partially fund the development of CX1942 and related compounds for the alleviation of various forms of respiratory depression. As the Principal Investigator, Dr. Greer will be heading the research and development effort. The Company intends to provide approximately CAD\$85,000 (approximately US\$65,000) of funding ratably in advance over a period of approximately one year beginning in October 2015 to underwrite additional costs budgeted under this research grant. The data generated by this research grant will belong to the Company.

Dr. Greer's research on respiratory depression has been utilized by the Company in its research and development of drugs to treat respiratory disorders. Based on this research, the Company has a pipeline of oral and injectable drugs, including CX1739 and CX1942, which have shown the ability to alleviate respiratory depression. The compounds in development potentially offer the medical community and patients novel therapies to treat the breathing problems associated with disease, brain and spinal cord injuries, as well as pain relief treatments.

Preclinical and clinical research results have demonstrated the effectiveness of the Company's ampakines in the treatment of respiratory depression associated with opiate overdose, anesthesia, apnea, spinal injury, and genetic disorders such as Pompe Disease. The Company owns patents and patent applications for certain families of chemical compounds that 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.

The Company believes that this funding from the Canadian Institutes of Health Research is an important step in advancing the Company's translational pre-clinical laboratory research, and could widen the scope of potential clinical applications.

### ***Recent Publications***

The Chairman of the Company's Scientific Advisory Board, Dr. John Greer, Ph.D., is the co-author of two recently published key scientific papers that show the positive effects of the Company's ampakines CX1739 and CX717 in treating respiratory distress in a rat pup model of perinatal apnea and a genetic mouse model of Pompe Disease. Dr. Greer is the Head of the Neuroscience and Mental Health Institute at the University of Alberta and has dedicated his research to understanding the basic mechanisms of breathing and discovering the use of ampakines to promote respiration. Dr. Greer is the inventor of the patents licensed by the Company claiming the use of ampakines for the treatment of various forms of respiratory depression.

Premature infants exhibit frequent apneic events and have weak endogenous respiratory drive, which are some of the most persistent and troubling problems in neonatal intensive care. Apnea of prematurity occurs in varying degrees in more than 85% of infants who are born at less than 34 weeks of gestation. In a paper entitled "Ampakines Enhance Weak Endogenous Respiratory Drive and Alleviate Apnea in Perinatal Rats" in the American Journal of Respiratory and Critical Care Medicine, Volume 191, Number 6, March 15, 2015 (<http://www.atsjournals.org/doi/abs/10.1164/rccm.201410-1898OC#.VUT7oPIVhBc>), Ren, Ding and Greer describe experiments in perinatal rats that demonstrate increased inspiratory drive in response to Cortex's ampakine CX1739. The authors report that CX1739 reduces apneas and improves ventilation in perinatal rats, providing pharmacologic evidence that CX1739 should be considered for development to treat this indication, which is currently a poorly met clinical need.

In an editorial review in the same journal, Dr. Christopher G. Wilson, Ph.D., Department of Pediatrics and Center for Perinatal Biology, Loma Linda University, writes of the results, "according to these data, the ampakine CX1739 is a promising candidate for replacing or enhancing caffeine therapy in neonates. Further preclinical and clinical trials focused on the use of CX1739 in the neonatal intensive care unit are the next logical benchmark."

In another publication entitled "Ampakines Stimulate Respiratory Motor Output and Ventilation in a Murine Model of Pompe Disease," in the American Journal of Respiratory Cell and Molecular Biology, January 8, 2015 (<http://www.ncbi.nlm.nih.gov/pubmed/?term=greer+pompe+CX717>), ElMallah, Greer, Fuller, et al, describe experiments in which CX717, another of the Company's ampakines, stimulates respiratory neuromotor output and breathing in a genetic mouse model of Pompe Disease, suggesting that ampakines may have potential as an adjunctive therapy in Pompe Disease.

### ***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 \$1,977,584 for the six months ended June 30, 2015 and \$2,707,535 for the fiscal year ended December 31, 2014, negative operating cash flows of \$322,695 for the six months ended June 30, 2015 and \$885,869 for the fiscal year ended December 31, 2014, and expects to continue to incur net losses and negative operating cash flows for several more years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern, and the Company's independent registered public accounting firm, in their report on the Company's consolidated financial statements for the year ended December 31, 2014, 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 revenue. Current management, which was appointed during March and April 2013, has evaluated and addressed the status of numerous aspects of the Company's existing business and obligations, including, without limitation, debt obligations, financial requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has raised new capital to fund the Company's business activities.

From June 2013 through March 2014, the Company’s Chairman and Chief Executive Officer advanced short-term loans to the Company aggregating \$150,000 in order to meet its minimum operating needs. In March and April 2014, the Company completed a private placement by selling 928.5 shares of its Series G 1.5% Convertible Preferred Stock for gross proceeds of \$928,500 and repaid the aggregate advances. The Company’s Chairman and Chief Executive Officer invested \$250,000 in the Series G 1.5% Convertible Preferred Stock private placement. During November and December 2014, the Company sold short-term convertible notes and warrants in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes and warrants in February 2015. The Company terminated this financing, which generated aggregate gross proceeds of \$579,500, effective February 18, 2015. On June 16, 2015, the Company’s Chairman and Chief Executive Officer advanced \$40,000 to the Company in the form of a short-term loan for working capital purposes.

The Company is continuing its efforts to raise additional capital in order to be able to pay its liabilities and fund its business activities on a going forward basis. 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 fully fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources, the Company may be forced to discontinue its operations entirely and liquidate.

**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. As the Company does not expect to have any operating revenues for the foreseeable future, the Company does not expect the adoption of ASU 2014-09 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 January 2015, the FASB issued Accounting Standards Update No. 2015-01 (ASU 2015-01), *Income Statement – Extraordinary and Unusual Items (Subtopic 225-20)*. ASU 2015-01 eliminates from GAAP the concept of extraordinary items. Subtopic 225-20, *Income Statement—Extraordinary and Unusual Items*, required that an entity separately classify, present, and disclose extraordinary events and transactions. Presently, an event or transaction is presumed to be an ordinary and usual activity of the reporting entity unless evidence clearly supports its classification as an extraordinary item. Paragraph 225-20-45-2 contains the following criteria that must both be met for extraordinary classification: (1) Unusual nature. The underlying event or transaction should possess a high degree of abnormality and be of a type clearly unrelated to, or only incidentally related to, the ordinary and typical activities of the entity, taking into account the environment in which the entity operates. (2) Infrequency of occurrence. The underlying event or transaction should be of a type that would not reasonably be expected to recur in the foreseeable future, taking into account the environment in which the entity operates. If an event or transaction meets the criteria for extraordinary classification, an entity is required to segregate the extraordinary item from the results of ordinary operations and show the item separately in the income statement, net of tax, after income from continuing operations. The entity also is required to disclose applicable income taxes and either present or disclose earnings-per-share data applicable to the extraordinary item. ASU 2015-01 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. A reporting entity may apply the guidance prospectively. A reporting entity also may apply the guidance retrospectively to all prior periods presented in the financial statements. Early adoption is permitted provided that the guidance is applied from the beginning of the fiscal year of adoption. The adoption of ASU 2015-01 is not expected to have any impact on the Company's financial statement presentation or disclosures.

In February 2015, the FASB issued Accounting Standards Update No. 2015-02 (ASU 2015-02), *Consolidation (Topic 810)*. ASU 2015-02 changes the guidance with respect to the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. All legal entities are subject to reevaluation under the revised consolidation mode. ASU 2015-02 affects the following areas: (1) Limited partnerships and similar legal entities. (2) Evaluating fees paid to a decision maker or a service provider as a variable interest. (3) The effect of fee arrangements on the primary beneficiary determination. (4) The effect of related parties on the primary beneficiary determination. (5) Certain investment funds. ASU 2015-02 is effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the guidance in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. A reporting entity may apply the amendments in this guidance using a modified retrospective approach by recording a cumulative-effect adjustment to equity as of the beginning of the fiscal year of adoption. A reporting entity also may apply the amendments retrospectively. The adoption of ASU 2015-02 is not expected to have any impact on the Company's financial statement presentation or disclosures.

In April 2015, the FASB issued Accounting Standards Update No. 2015-03 (ASU 2015-03), *Interest – Imputation of Interest (Subtopic 835-30)*. ASU 2015-03 simplifies the presentation of debt issuance costs and requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the new guidance. ASU 2015-3 is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within that fiscal year. Early adoption is permitted for financial statements that have not been previously issued. An entity is required to apply the new 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. Upon transition, an entity 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., debt issuance cost asset and the debt liability). The adoption of ASU 2015-03 is expected to have an impact on the accounting and presentation of debt issuance costs incurred by the Company beginning in 2016.

In April 2015, the FASB issued Accounting Standards Update No. 2015-05 (ASU 2015-05), *Intangibles – Goodwill and Other – Internal-Use Software (Subtopic 350-40)*. ASU 2015-05 addresses the lack of explicit guidance about a customer's accounting for fees paid in a cloud computing arrangement, including software as a service, platform as a service, infrastructure as a service, and other similar hosting arrangements. ASU 2015-05 provides guidance to customers about whether a cloud computing arrangement includes a software license. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software license, the customer should account for the arrangement as a service contract. The guidance will not change GAAP for a customer's accounting for service contracts. As a result, all software licenses within the scope of Subtopic 350-40 will be accounted for consistent with other licenses of intangible assets. ASU 2015-05 is effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2015. Early adoption is permitted. An entity can elect to adopt the amendments either (1) prospectively to all arrangement entered into or materially modified after the effective date, or (2) retrospectively. For prospective transition, the only disclosure requirements at transition are the nature of and reason for the change in accounting principle, the transition method, and a qualitative description of the financial statement line items affected by the change. For retrospective transition, the disclosure requirements at transition include the requirements for prospective transition and quantitative information about the effects of the accounting change. The Company is currently evaluating the impact of the adoption of ASU 2015-05 on the Company's financial statement presentation and 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.

### **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 opiate 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 License Agreement that Pier had entered into with the University of Illinois on October 10, 2007. The Pier 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  $\Delta$ 9-THC ( $\Delta$ 9-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 Pier 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 a new license agreement with the University of Illinois, the material terms of which were similar to the Pier License Agreement that had been terminated. If the Company is unable to comply with the terms of the new license agreement, such as required payments thereunder, the Company risks the new 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.

### ***Deferred and Capitalized Financing Costs***

Costs incurred in connection with ongoing financing activities, including legal and other professional fees, cash finder's and placement agent fees, and escrow agent fees, are deferred until the related financing is either completed or abandoned.

Costs related to completed debt financings are capitalized on the balance sheet and amortized over the term of the related debt agreements. Amortization of these costs is calculated on the straight-line basis, which approximates the effective interest method, and is charged to interest expense in the consolidated statements of operations. Costs related to completed equity financings are charged directly to additional paid-in capital. Costs related to abandoned financings are charged to operations.

### ***Series G 1.5% Convertible Preferred Stock***

The Company accounted for the beneficial conversion features associated with the Series G 1.5% Convertible Preferred Stock 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.

### ***10% Convertible Notes Payable***

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 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. 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 promissory note cannot be reduced below zero. The aggregate debt discount is being 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 finders and for legal costs were deferred and capitalized as deferred offering costs and are being amortized to interest expense over the original term of the promissory notes. The finder's 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.

### ***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. Revenues 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 receivables are based on progress reports provided by the Company. As of June 30, 2015, the grant was completed and the Company was current in filing 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 time vested, are charged to operations at the grant date fair value ratably over the vesting period.

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 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.

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 to satisfy stock option exercises.

### ***Research and Development Costs***

Research and development costs consist primarily of 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 consolidated balance sheet, with a corresponding charge to research and development costs in the Company's 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 consolidated balance sheet, with a corresponding charge to research and development costs in the Company's 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.

## **Results of Operations**

### **Three Months Ended June 30, 2015 and 2014**

**Revenues.** During the three months ended June 30, 2015, the Company had research grant revenues of \$12,382 related to a contract with the National Institute on Drug Abuse entered into on September 18, 2014. The Company had no research grant revenues during the three months ended June 30, 2014.

**General and Administrative.** For the three months ended June 30, 2015, general and administrative expenses were \$800,393, an increase of \$593,137, as compared to \$207,256 for the three months ended June 30, 2014. The increase in general and administrative expenses for the three months ended June 30, 2015, as compared to the three months ended June 30, 2014, is primarily a result of stock-based compensation of \$438,600 for the three months ended June 30, 2015 as compared to \$0 for the three months ended June 30, 2014. The Company also incurred an increase in general and administrative costs of \$215,000 for the three months ended June 30, 2015, as compared to \$0 for the three months ended June 30, 2014, as a result of bonuses awarded to the Company's three executive officers and non-management members of the Board of Directors. The increases were partially offset by a decrease of \$37,058 in professional fees and other costs that were incurred during the three months ended June 30, 2014 in connection with management's efforts to reestablish and update the Company's accounting systems and records and prepare various delinquent financial reports and public filings.

For the three months ended June 30, 2015, stock-based compensation costs included in general and administrative expenses aggregated \$438,600, which was primarily to the Company's three executive officers and non-management members of the Board of Directors as compensation for services rendered.

**Research and Development.** For the three months ended June 30, 2015, research and development expenses were \$272,340, an increase of \$191,907, as compared to \$80,433 for the three months ended June 30, 2014. The increase in research and development expenses for the three months ended June 30, 2015, as compared to the three months ended June 30, 2014, is primarily a result of stock-based compensation of \$17,200 to Dr. John Greer, Ph.D. in connection with his appointment to the position of Chairman of the Company's Scientific Advisory Board and \$56,200 to Richard Purcell in connection with his appointment as the Company's Senior Vice President of Research and Development, \$44,081 of project management costs related to the planning for an upcoming clinical study of CX1739, consulting fees of \$37,500 paid to the Company's Senior Vice President of Research and Development, an accrued minimum annual royalty of \$25,000 to the University of Illinois, an increase in patent related legal fees of \$14,053, and salaries and other costs incurred in connection with work performed relating to the grant from the National Institute on Drug Abuse entered into on September 18, 2014.

For the three months ended June 30, 2015, stock-based compensation costs included in research and development expenses aggregated \$73,400. There were no stock-based compensation costs included in research and development expenses during the three months ended June 30, 2014.

Gain (Loss) on Settlements with Former Management. During the three months ended June 30, 2015, the Company recorded a loss of \$840 as a result of a second amendment to a settlement agreement with its former Vice President and Chief Financial Officer effective January 29, 2015, as amended, 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 (the closing market price on the date of grant) for a period of five years. The stock options granted on January 29, 2015 were valued pursuant to the Black-Scholes option-pricing model at \$25,450. Pursuant to an amendment dated June 29, 2015, \$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.

During the three months ended June 30, 2014, the Company had no gain (loss) on settlements with former management.

Gain on 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 in the amount of \$916,827 were settled for \$15,000 in cash, the issuance of a note payable in the amount 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.

During the three months ended June 30, 2014, the Company recorded a gain of \$393,590 as a result of settlement agreements with two former service providers. The Company settled potential claims totaling \$496,514 for cash payments of \$60,675 plus the issuance of stock options to purchase 1,250,000 shares of common stock exercisable at \$0.04 per share for a period of five years. The stock options were valued pursuant to the Black-Scholes option-pricing model at \$42,250.

Interest Expense. During the three months ended June 30, 2015, interest expense was \$269,433 (including \$12,291 to related parties), an increase of \$256,291, as compared to \$13,142 (including \$12,126 to related parties) for the three months ended June 30, 2014. The increase in interest expense resulted primarily from costs associated with convertible note and warrant financing conducted during November 2014 through February 2015. Such costs charged to interest expense during the three months ended June 30, 2015 consisted of the amortization of capitalized financing costs of \$41,725, the amortization of debt discount costs of \$198,984, and accrued interest of \$14,648.

Foreign Currency Transaction Gain (Loss). Foreign currency transaction gain was \$5,617 for the three months ended June 30, 2015, as compared to a foreign currency transaction loss of \$30,335 for the three months ended June 30, 2014. The foreign currency transaction gain (loss) relates to the \$399,774 loan from SY Corporation Co., Ltd., formerly known as Samyang Optics Co. Ltd., made in June 2012, which is denominated in the South Korean Won.

Net Loss. For the three months ended June 30, 2015, the Company incurred a net loss of \$1,249,632, as compared to a net income of \$62,424 for the three months ended June 30, 2014.

Amortization of Deemed Dividend on Series G 1.5% Convertible Preferred Stock. For the three months ended June 30, 2015, there was no amortization of the deemed dividend on the shares of Series G 1.5% Convertible Preferred Stock, as the deemed dividend was fully amortized as of June 16, 2014. For the three months ended June 30, 2014, amortization of the deemed dividend on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 and the April 17, 2014 closings was \$8,839,876.

Dividends on Series G 1.5% Convertible Preferred Stock. 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 the April 17, 2014 closings were \$1,574. For the three months ended June 30, 2014, 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 \$3,396.

Net Loss Attributable to Common Stockholders. For the three months ended June 30, 2015, the Company incurred a net loss attributable to common stockholders of \$1,251,206, as compared to a net loss attributable to common stockholders of \$8,780,848 for the three months ended June 30, 2014.

## Six Months Ended June 30, 2015 and 2014

**Revenues.** During the six months ended June 30, 2015, the Company had research grant revenues of \$86,916 related to a contract with the National Institute on Drug Abuse entered into on September 18, 2014. The Company had no research grant revenues during the six months ended June 30, 2014.

**General and Administrative.** For the six months ended June 30, 2015, general and administrative expenses were \$1,030,293, a decrease of \$1,525,070, as compared to \$2,555,363 for the six months ended June 30, 2014. The decrease in general and administrative expenses for the six months ended June 30, 2015, as compared to the six months ended June 30, 2014, is primarily a result of stock-based compensation of \$438,600 for the six months ended June 30, 2015 as compared to \$2,280,000 for the six months ended June 30, 2014. The Company also incurred increases in general and administrative costs of \$215,000 for the six months ended June 30, 2015, as compared to \$0 for the six months ended June 30, 2014, as a result of bonuses awarded to the Company's three executive officers and non-management members of the Board of Directors, and \$103,336 for the six months ended June 30, 2015, as compared to the six months ended June 30, 2014, as a result of professional fees and other costs incurred in connection with management's efforts to reestablish and update the Company's accounting systems and records and prepare various delinquent financial reports and public filings.

For the six months ended June 30, 2015, stock-based compensation costs included in general and administrative expenses aggregated \$438,600, which was primarily to the Company's three executive officers and non-management members of the Board of Directors as compensation for services rendered.

For the six months ended June 30, 2014, stock-based compensation costs included in general and administrative expenses aggregated \$2,280,000, of which \$1,960,000 was primarily to officers and directors as compensation for services rendered. None of these individuals receiving stock-based compensation had previously received any compensation from the Company since joining the Company in March and April 2013.

**Research and Development.** For the six months ended June 30, 2015, research and development expenses were \$713,132, an increase of \$568,610, as compared to \$144,522 for the six months ended June 30, 2014. The increase in research and development expenses for the six months ended June 30, 2015, as compared to the six months ended June 30, 2014, is primarily a result of stock-based compensation of \$50,200 to Dr. John Greer, Ph.D. in connection with his appointment to the position of Chairman of the Company's Scientific Advisory Board and \$95,200 to Richard Purcell in connection with his appointment as the Company's Senior Vice President of Research and Development, \$173,902 of project management costs related to the planning for an upcoming clinical study of CX1739, consulting fees of \$75,000 paid to the Company's Senior Vice President of Research and Development, an accrued minimum annual royalty of \$50,000 to the University of Illinois, and salaries and other costs incurred in connection with work performed relating to the grant from the National Institute on Drug Abuse entered into on September 18, 2014.

For the six months ended June 30, 2015, stock-based compensation costs included in research and development expenses aggregated \$145,400. There were no stock-based compensation costs included in research and development expenses during the six months ended June 30, 2014.

**Gain (Loss) on Settlements 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.

During the six months ended June 30, 2014, the Company recorded a gain of \$1,038,270 as a result of settlement agreements with four former executives. The Company settled potential claims totaling \$1,336,264 for cash payments of \$118,084 and the issuance of stock options to purchase 4,300,000 shares of common stock exercisable at \$0.04 per share for periods ranging from five to ten years. The stock options were valued pursuant to the Black-Scholes option-pricing model at \$179,910.

Gain on 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 in the amount of \$916,827 were settled for \$15,000 in cash, the issuance of a note payable in the amount 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.

During the six months ended June 30, 2014, the Company recorded a gain of \$393,590 as a result of settlement agreements with two former service providers. The Company settled potential claims totaling \$496,514 for cash payments of \$60,675 plus the issuance of stock options to purchase 1,250,000 shares of common stock exercisable at \$0.04 per share for a period of five years. The stock options were valued pursuant to the Black-Scholes option-pricing model at \$42,250.

Interest Expense. During the six months ended June 30, 2015, interest expense was \$497,968 (including \$24,284 to related parties), an increase of \$471,765, as compared to \$26,203 (including \$24,172 to related parties) for the six months ended June 30, 2014. The increase in interest expense resulted primarily from costs associated with convertible note and warrant financing conducted during November 2014 through February 2015. Such costs charged to interest expense consisted of the amortization of capitalized financing costs of \$78,822, the amortization of debt discount costs of \$364,981, and accrued interest of \$27,269.

Foreign Currency Transaction Gain (Loss). Foreign currency transaction gain was \$9,808 for the six months ended June 30, 2015, as compared to a foreign currency transaction loss of \$24,058 for the six months ended June 30, 2014. The foreign currency transaction gain (loss) relates to the \$399,774 loan from SY Corporation Co., Ltd., formerly known as Samyang Optics Co. Ltd., made in June 2012, which is denominated in the South Korean Won.

Net Loss. For the six months ended June 30, 2015, the Company incurred a net loss of \$1,977,584, as compared to a net loss of \$1,318,286 for the six months ended June 30, 2014.

Amortization of Deemed Dividend on Series G 1.5% Convertible Preferred Stock. For the six months ended June 30, 2015, there was no amortization of the deemed dividend on the shares of Series G 1.5% Convertible Preferred Stock, as the deemed dividend was fully amortized as of June 16, 2014. For the six months ended June 30, 2014, amortization of the deemed dividend on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 and the April 17, 2014 closings was \$10,049,846.

Dividends on Series G 1.5% Convertible Preferred Stock. 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 the April 17, 2014 closings were \$4,772. For the six months ended June 30, 2014, 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 \$3,804.

Net Loss Attributable to Common Stockholders. For the six months ended June 30, 2015, the Company incurred a net loss attributable to common stockholders of \$1,982,356, as compared to a net loss attributable to common stockholders of \$11,371,936 for the six months ended June 30, 2014.

### **Liquidity and Capital Resources – June 30, 2015**

The Company's 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 \$1,977,584 for the six months ended June 30, 2015 and \$2,707,535 for the fiscal year ended December 31, 2014, negative operating cash flows of \$322,695 for the six months ended June 30, 2015 and \$885,869 for the fiscal year ended December 31, 2014, and expects to continue to incur net losses and negative operating cash flows for several more years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern, and the Company's independent registered public accounting firm, in their report on the Company's consolidated financial statements for the year ended December 31, 2014, has expressed substantial doubt about the Company's ability to continue as a going concern.

At June 30, 2015, the Company had a working capital deficit of \$2,649,298, as compared to a working capital deficit of \$2,280,035 at December 31, 2014, reflecting a decrease in working capital of \$369,263 for the six months ended June 30, 2015. The decrease in working capital during the six months ended June 30, 2015 is comprised primarily of a net increase in notes payable of \$533,385, offset by a decrease in accounts payable and accrued liabilities, including accrued compensation, of \$295,529.

At June 30, 2015, the Company had cash aggregating \$53,182, as compared to \$162,752 at December 31, 2014, reflecting a decrease in cash of \$109,570 for the six months ended June 30, 2015. The decrease in cash during the six months ended June 30, 2015 was primarily the result of cash utilized in operating activities and debt settlements, offset by the \$210,000 of proceeds received from the February 2, 2015 closing of the convertible note and warrant financing, and \$40,000 in proceeds from short-term advances made by the Company's Chairman and Chief Executive Officer.

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 revenue. Current management, which was appointed during March and April 2013, has evaluated and addressed the status of numerous aspects of the Company's existing business and obligations, including, without limitation, debt obligations, financial requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has raised new capital to fund the Company's business activities.

To meet minimum operating needs, from June 2013 through March 2014 the Company's Chairman and Chief Executive Officer advanced short-term loans to the Company aggregating \$150,000. In March and April 2014, the Company completed a private placement by selling 928.5 shares of its Series G 1.5% Convertible Preferred Stock for gross proceeds of \$928,500 and repaid the aggregate advances. The Company's Chairman and Chief Executive Officer invested \$250,000 in the Series G 1.5% Convertible Preferred Stock private placement. During November and December 2014, the Company sold short-term convertible notes and warrants in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes and warrants in February 2015. The Company terminated this financing, which generated aggregate gross proceeds of \$579,500, effective February 18, 2015. On June 16, 2015, the Company's Chairman and Chief Executive Officer advanced \$40,000 to the Company in the form of a short-term loan for working capital purposes. The loan is due upon demand and bears interest at a rate of 10% per annum.

With regard to the sale of the short-term convertible notes and warrants aggregating gross proceeds of \$579,500 during November 2014 through February 2015, the Company may elect, at its option and in its sole discretion, to extend the maturity date of the notes to September 15, 2016 upon thirty days advance written notice to the note holders delivered prior to the September 15, 2015 maturity date, subject to the issuance by the Company to the note holders of additional warrants, exercisable for a period of one year from the date of issuance, to purchase the Company's common stock exercisable at \$0.035 per share of common stock, into that number of shares of common stock calculated as the product of the principal amount of the Note, plus any accrued and unpaid interest (estimated to be approximately \$43,750 at September 15, 2015), multiplied by 50%, and then dividing that product by \$0.035. The additional warrants shall otherwise be substantially similar in form and substance to the warrants issued in connection with the notes, and shall be exercisable through September 15, 2016. The extension of the maturity date of the notes for one year would result in the issuance of an additional approximately 8,900,000 warrants to the note holders, which the Company would expect to account for at fair value as a reduction to the carrying value of the Notes, with such amount to be amortized over the one year extension period.

The Company is continuing its efforts to raise additional capital in order to be able to pay its liabilities and fund its business activities on a going forward basis. 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 fully fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources, the Company may be forced to discontinue its operations entirely and liquidate.

Operating Activities. For the six months ended June 30, 2015, operating activities utilized cash of \$322,695, as compared to utilizing cash of \$600,349 for the six months ended June 30, 2014, to support the Company's ongoing operations, including legal and accounting fees and costs related to the preparation of delinquent financial statements and SEC filings, research and development activities, patent fees and related legal costs, and settlement agreements. Included in the \$322,695 of cash utilized during the six months ended June 30, 2015 is \$25,500 of cash used to fund, in part, various settlement agreements with a former member of management and four current service providers, as compared to \$118,084 of cash utilized during the six months ended June 30, 2014 to fund, in part, settlement agreements with four former executives.

Investing Activities. For the six months ended June 30, 2015, investing activities utilized cash of \$2,497 for the acquisition of equipment, as compared to \$1,924 during the six months ended June 30, 2014.

Financing Activities. 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, offset by principal paid on other notes payable, and the payment of financing costs of \$23,700 relating to various financings. For the six months ended June 30, 2014, financing activities generated cash of \$760,579, consisting of \$928,500 in proceeds from the sale of the Series G 1.5% Convertible Preferred Stock and \$75,000 in proceeds from notes payable issued to the Company's Chairman and Chief Executive Officer, offset by the payment of financing costs of \$92,921 relating to the sale of the Series G 1.5% Convertible Preferred Stock and the repayment of notes payable to the Chairman and Chief Executive Officer totaling \$150,000.

## **Principal Commitments**

### ***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, 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.

### ***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 the 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 ( $\Delta^9$ -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. In the year after the first application is submitted for market approval 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 six months ended June 30, 2015, the Company recorded a charge to operations of \$50,000 with respect to its 2015 minimum annual royalty obligation, which was included in research and development expenses, with a corresponding credit to accounts payable and accrued liabilities.

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.



### ***Partnership with the Knowledge Translation Strategy Unit of the Canadian Institutes of Health Research***

On June 30, 2015, the Company announced a partnership with the Knowledge Translation Strategy Unit of the Canadian Institutes of Health Research. Through collaboration with John Greer, Ph.D., Chairman of the Company's Scientific Advisory Board and Professor of Physiology and Alberta Innovates – Health Solutions Senior Scientist with the Neuroscience and Mental Health Institute at the University of Alberta, a research grant has been awarded by the Canadian Institutes of Health Research in the approximate amount of CAD\$145,000 (approximately US\$110,000) to partially fund the development of CX1942 and related compounds for the alleviation of various forms of respiratory depression. As the Principal Investigator, Dr. Greer will be heading the research and development effort. The Company intends to provide approximately CAD\$85,000 (approximately US\$65,000) of funding ratably over a period of approximately one year beginning in October 2015 to underwrite additional costs budgeted under this research grant. The data generated by this research grant will belong to the Company.

### **Off-Balance Sheet Arrangements**

At June 30, 2015, 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.

In July 2015, the Company determined that it had inadvertently omitted to record charges from, and a related liability to, a third party vendor for research and development services rendered during the three months ended March 31, 2015, in part as a result of the delayed receipt of information and invoicing from the vendor. Accordingly, the Company amended its Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015 to restate its condensed consolidated financial statements as of and for the three months ended March 31, 2015, and to amend the related footnotes and other disclosures included therein. Additional information on this matter is contained at Note 1 to the condensed consolidated financial statements included in the Company's Quarterly Report on Form 10-Q/A for the quarterly period ended March 31, 2015. The Company has instituted additional internal control procedures to prevent a recurrence of such an event.

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. In addition, as conditions change over time, so too may the effectiveness of internal controls. However, following the amendment to the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015, as discussed above, 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. However, as discussed at (a) above, the Company incurred a failure of disclosure controls and procedures, as well as a failure of internal controls over financial reporting, with respect to the preparation of the Company's condensed consolidated financial statements as of and for the three months ended March 31, 2015. The Company has instituted additional internal control procedures to prevent a recurrence of the matter referred to above.

## **PART II - OTHER INFORMATION**

### **ITEM 1. LEGAL PROCEEDINGS**

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, has asserted certain claims for consulting compensation against the Company. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its financial statements at June 30, 2015.

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 with respect to such matters.

### **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, 2014, as filed with the SEC on March 30, 2015 (the "2014 Form 10-K"). The Risk Factors set forth in the 2014 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 2014 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 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 the Director of the Neuroscience and Mental Health Institute at the University of Alberta, holds two grants regarding research into neuromuscular control of breathing, and is the inventor on the use 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.

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.

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.

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. On June 29, 2015, the settlement agreement was further amended, resulting in a cash payment of \$3,000, an extension of the \$15,500 remaining balance due through December 31, 2015, subject to a further partial cash payment of \$3,000 on September 30, 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.

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.

During the three months and six months ended June 30, 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 in the amount of \$916,827 were settled for \$15,000 in cash, the issuance of a note payable in the amount of \$59,763, 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 31,618,470 shares of common stock exercisable at the closing market price of the Company's common stock on the date of issuance. 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).

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 three of the Company's 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), will vest 25% on September 30, 2015 and 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 Stock and Stock Option Plan. The aggregate grant date fair value of these stock options calculated pursuant to the Black-Scholes option-pricing model was \$946,000.

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, 2015 and 2014, which is included elsewhere in this document.

**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. (“Samyang”), an approximately 20% common stockholder of the Company at that time. The note accrues simple interest at the rate of 12% per annum and had a maturity date of June 25, 2013, although Samyang was permitted to demand early repayment of the promissory note on or after December 25, 2012. Samyang did not demand early repayment. 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 Samyang had not issued a notice of default or a demand for repayment. The Company believes that Samyang 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 to enter into discussions with Samyang with a view toward a comprehensive resolution of the aforementioned matters.

**ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

**ITEM 5. OTHER INFORMATION**

Not applicable.

**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.

	<div>CORTEX PHARMACEUTICALS, INC.<hr/></div>
	(Registrant)
Date: August 13, 2015	By: <div><div>/s/ <i>ARNOLD S. LIPPA</i></div><hr/>Arnold S. Lippa President and Chief Executive Officer</div>
Date: August 13, 2015	By: <div><div>/s/ <i>ROBERT N. WEINGARTEN</i></div><hr/>Robert N. Weingarten Vice President and Chief Financial Officer</div>

INDEX TO EXHIBITS

The following documents are filed as part of this report:

Exhibit Number	Description of Document
10.1	Demand Promissory Note payable to Arnold S. Lippa, 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 June 19, 2015.
10.2	Cortex 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 July 8, 2015.
10.3	Form of Non-Statutory Stock Option Award Agreement under the Cortex Pharmaceuticals, Inc. 2015 Stock and Stock Option Plan, 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 July 8, 2015.
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.”

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER  
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Arnold S. Lippa, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cortex Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 13, 2015

By: /s/ ARNOLD S. LIPPA

Arnold S. Lippa  
Chief Executive Officer

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**CERTIFICATION OF CHIEF FINANCIAL OFFICER  
UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Robert N. Weingarten, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Cortex Pharmaceuticals, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)), for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's Board of Directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 13, 2015

By: /s/ ROBERT N. WEINGARTEN

Robert N. Weingarten  
Chief Financial Officer

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**CERTIFICATION OF CHIEF EXECUTIVE OFFICER  
UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Arnold S. Lippa, the Chief Executive Officer of Cortex Pharmaceuticals, Inc. (the “Company”), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

- (i) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2015 (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Date: August 13, 2015

By: /s/ ARNOLD S. LIPPA  
Arnold S. Lippa  
Chief Executive Officer

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**CERTIFICATION OF CHIEF FINANCIAL OFFICER  
UNDER SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

I, Robert N. Weingarten, the Chief Financial Officer of Cortex Pharmaceuticals, Inc. (the “Company”), certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

- (i) The Quarterly Report on Form 10-Q of the Company for the quarterly period ended June 30, 2015 (the “Report”) fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and
- (ii) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.

Date: August 13, 2015

By: /s/ ROBERT N. WEINGARTEN  
Robert N. Weingarten  
Chief Financial Officer

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