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

**FORM 10-Q**

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

**For the quarterly period ended March 31, 2014**

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  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  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   
Non-accelerated filer

Accelerated filer   
Smaller reporting company

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

Yes  No

As of March 31, 2014, the Company had 201,041,556 shares of common stock, \$0.001 par value, issued and outstanding.

Documents incorporated by reference: None

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**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

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## Forward-Looking Statements

This Quarterly Report on Form 10-Q 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. For example, 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. However, 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, 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, 2013, 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**

	<u>March 31, 2014</u>	<u>December 31, 2013</u>
	(Unaudited)	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 311,932	\$ 14,352
Deferred financing costs	—	35,120
Prepaid insurance, including current portion of long-term prepaid insurance of \$14,945 at March 31, 2014	<u>53,278</u>	<u>2,383</u>
Total current assets	365,210	51,855
Equipment, net of accumulated depreciation of \$17	1,908	—
Long-term prepaid insurance, net of current portion of \$14,945	<u>74,103</u>	<u>—</u>
Total assets	<u>\$ 441,221</u>	<u>\$ 51,855</u>
<b>LIABILITIES AND STOCKHOLDERS' DEFICIENCY</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$ 1,891,229	\$ 1,829,616
Accrued compensation and related expenses	144,000	1,480,264
Notes payable to Chairman, including accrued interest of \$48	—	75,048
Note payable to related party, including accrued interest of \$85,972 and \$73,980 at March 31, 2014 and December 31, 2013, respectively	526,971	521,255
Project advance, including accrued interest of \$87,801 and \$86,796 at March 31, 2014 and December 31, 2013, respectively	<u>335,101</u>	<u>334,096</u>
Total current liabilities	<u>2,897,301</u>	<u>4,240,279</u>
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 dividend) \$753,628; shares authorized: 1,700; shares issued and outstanding: 753.22; common shares issuable upon conversion at 303,030.3 common shares per Series G share: 228,372,117 shares, including 123,635 shares issuable for dividend of \$408 at March 31, 2014	753,628	—
Common stock, \$0.001 par value; shares authorized: 1,400,000,000; shares issued and outstanding: 201,041,556 and 144,041,556 at March 31, 2014 and December 31, 2013, respectively	201,041	144,041
Additional paid-in capital	128,701,424	125,188,620
Accumulated deficit	<u>(132,133,876)</u>	<u>(129,542,788)</u>
Total stockholders' deficiency	<u>(2,456,080)</u>	<u>(4,188,424)</u>
Total liabilities and stockholders' deficiency	<u>\$ 441,221</u>	<u>\$ 51,855</u>

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

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

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

	<b>Three Months Ended March 31,</b>	
	<b>2014</b>	<b>2013</b>
Revenues	\$ —	\$ —
Operating expenses:		
General and administrative, including \$1,960,000 and \$-0- to related parties for the three months ended March 31, 2014 and 2013, respectively	2,348,107	759,289
Research and development	64,089	83,928
Total operating expenses	2,412,196	843,217
Loss from operations	(2,412,196)	(843,217)
Gain on settlements with former management	1,038,270	—
Interest expense, including \$12,046 and \$11,993 to related parties for the three months ended March 31, 2014 and 2013, respectively	(13,061)	(15,037)
Foreign currency transaction gain	6,277	20,868
Net loss	(1,380,710)	(837,386)
Adjustments related to Series G 1.5% Convertible Preferred Stock:		
Amortization of deemed dividend on Series G 1.5% Convertible Preferred Stock	(1,209,970)	—
Dividend on Series G 1.5% Convertible Preferred Stock	(408)	—
Net loss attributable to common stockholders	\$ (2,591,088)	\$ (837,386)
Net loss per common share - basic and diluted	\$ (0.02)	\$ (0.01)
Weighted average common shares outstanding - basic and diluted	152,274,889	144,041,556

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

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

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

Three Months Ended March 31, 2014

	<u>Series B Convertible Preferred Stock</u>		<u>Series G 1.5% Convertible Preferred Stock</u>		<u>Common Stock</u>		<u>Additional Paid-in Capital</u>	<u>Accumulated Deficit</u>	<u>Total Stockholders' Deficiency</u>
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Par Value</u>			
Balance, December 31, 2013	37,500	\$ 21,703	—	\$ —	144,041,556	\$ 144,041	\$ 125,188,620	\$(129,542,788)	\$ (4,188,424)
Sale of Series G 1.5% Convertible Preferred Stock	—	—	753.22	753,220	—	—	—	—	753,220
Costs incurred in connection with sale of Series G 1.5% Convertible Preferred Stock	—	—	—	—	—	—	(100,076)	—	(100,076)
Stock-based compensation expense	—	—	—	—	57,000,000	57,000	2,223,000	—	2,280,000
Fair value of common stock options issued in connection with settlements with former management	—	—	—	—	—	—	179,910	—	179,910
Amortization of deemed dividend on Series G 1.5% Convertible Preferred Stock	—	—	—	—	—	—	1,209,970	(1,209,970)	—
Dividend on Series G 1.5% Convertible Preferred Stock	—	—	—	408	—	—	—	(408)	—
Net loss	—	—	—	—	—	—	—	(1,380,710)	(1,380,710)
Balance, March 31, 2014	<u>37,500</u>	<u>\$ 21,703</u>	<u>753.22</u>	<u>\$ 753,628</u>	<u>201,041,556</u>	<u>\$ 201,041</u>	<u>\$ 128,701,424</u>	<u>\$(132,133,876)</u>	<u>\$ (2,456,080)</u>

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

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

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

	<b>Three Months Ended March 31,</b>	
	<b>2014</b>	<b>2013</b>
<b>Cash flows from operating activities:</b>		
Net loss	\$ (1,380,710)	\$ (837,386)
<b>Adjustments to reconcile net loss to net cash used in operating activities:</b>		
Depreciation expense	17	—
Gain on settlements with former management	(1,038,270)	—
Stock-based compensation expense included in general and administrative expenses	2,280,000	—
Foreign currency transaction gain	(6,277)	(20,868)
<b>Changes in operating assets and liabilities:</b>		
Increase in -		
Prepaid insurance	(124,998)	(81,145)
Increase (decrease) in -		
Accounts payable and accrued expenses	61,613	195,109
Accrued compensation and related expenses	(118,084)	586,700
Accrued interest payable	12,950	12,998
	<u>(313,759)</u>	<u>(144,592)</u>
<b>Cash flows from investing activities:</b>		
Purchases of furniture and equipment	(1,925)	—
	<u>(1,925)</u>	<u>—</u>
<b>Cash flows from financing activities:</b>		
Proceeds from sale of Series G 1.5% Convertible Preferred Stock	753,220	—
Proceeds from issuance of notes payable to Chairman	75,000	—
Repayment of notes payable to Chairman	(150,000)	—
Cash payments made for costs incurred in connection with sale of Series G 1.5% Convertible Preferred Stock	(64,956)	—
	<u>613,264</u>	<u>—</u>
<b>Cash and cash equivalents:</b>		
Net increase (decrease)	297,580	(144,592)
Balance at beginning of period	14,352	152,179
Balance at end of period	<u>\$ 311,932</u>	<u>\$ 7,587</u>
<b>Supplemental disclosures of cash flow information:</b>		
<b>Cash paid for -</b>		
Interest	\$ —	\$ —
Income taxes	\$ —	\$ —
<b>Non-cash investing and financing activities:</b>		
Amortization of deemed dividend on Series G 1.5% Convertible Preferred Stock	\$ 1,209,970	\$ —
Dividend on Series G 1.5% Convertible Preferred Stock	\$ 408	\$ —
Fair value of common stock options issued in connection with debt settlements	\$ 179,910	\$ —
Fair value of common stock warrants issuable 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 Ended March 31, 2014 and 2013**

**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 March 31, 2014 and for the three months ended March 31, 2014 and 2013, 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 March 31, 2014, the results of its consolidated operations for the three months ended March 31, 2014 and 2013, and its consolidated cash flows for the three months ended March 31, 2014 and 2013. Consolidated operating results for the interim periods presented are not necessarily indicative of the results to be expected for a full fiscal year. The condensed consolidated balance sheet at December 31, 2013 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 in the United States (“GAAP”) have been omitted pursuant to such rules and regulations. These 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, 2013, 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. New management was appointed in March 2013 and has continued to implement this revised 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 (including a new license agreement with the University of Illinois), 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 entered into a series of license agreements in 1993 and 1998 with the University of California, Irvine (“UCI”) that granted Cortex proprietary rights to certain chemical compounds that acted as ampakines and their therapeutic uses. These agreements granted Cortex, 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. Cortex was required, among other terms and conditions, to pay UCI a license fee, royalties, patent costs and certain additional payments.

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, UCI notified the Company that these license agreements were terminated due to the Company’s failure to make its obligatory payments. 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 or future drug development programs.



Cortex also 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 obstructive sleep apnea 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  $\Delta^9$ -THC ( $\Delta^9$ -tetrahydrocannabinol). Pier's business plan was to determine whether dronabinol would significantly improve subjective and objective clinical measures in patients with obstructive sleep apnea. 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 ("AHI"), 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.

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. New 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 \$1,380,710 for the three months ended March 31, 2014 and \$1,201,457 for the fiscal year ended December 31, 2013, respectively, negative operating cash flows of \$313,759 for the three months ended March 31, 2014 and \$182,435 for the fiscal year ended December 31, 2013, respectively, and incurred additional net losses and negative operating cash flows in the remainder of the 2014 fiscal year. The Company expects to continue to incur net losses and negative operating cash flows for several more years thereafter. As a result, management and the Company's auditors believe that there is 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. Beginning in late 2012, the Company's business activities were reduced to minimal levels, and the prior Board of Directors of the Company, which was removed by the written consent of stockholders holding a majority of the outstanding shares on March 22, 2013, had retained bankruptcy counsel to assist the Company in preparations to file for liquidation under Chapter 7 of the United States Bankruptcy Code. New management, which was appointed during March and April 2013, has evaluated 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 its 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 (with warrants) in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes (with warrants) in February 2015. The Company currently expects to terminate this financing effective February 27, 2015.

The Company will need to continue to raise additional capital to be able to pay its liabilities and fund its business activities going forward. 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 include the financial statements of Cortex and its wholly-owned subsidiary, Pier. Intercompany balances and transactions have been eliminated in consolidation.

#### ***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.

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

Costs incurred in connection with ongoing financing activities, including legal and other professional fees, cash finders and placement agent fees, and escrow agent fees, are deferred until the related financing is either completed or abandoned. Costs related to abandoned financings are charged to operations.

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 condensed consolidated statements of operations. Costs related to completed equity financings are charged directly to additional paid-in capital.

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

The Series G 1.5% Convertible Preferred Stock (including accrued dividends) 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.

The Company accounts for beneficial conversion features in accordance with ASC 470-20, Accounting for Debt with Conversion and Other Options. 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 is convertible into shares of common stock at a fixed price of \$0.0033 per share. At the time of each of these issuances, the value of the common stock into which the Series G 1.5% Convertible Preferred Stock was convertible had a fair value greater than the proceeds for such issuances. Fair value was determined by reference to the closing market price of the Company's common stock on each of the closing dates. Accordingly, 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 is being 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 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 during the three months ended March 31, 2014 was \$1,209,970.

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 27.9% 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 deemed dividend for the initial closing of the Series G 1.5% Convertible Preferred Stock was \$8,376,719, of which the proportionate share of such deemed dividend attributable to Dr. Lippa's investment was \$2,780,303.

#### ***Equipment***

Equipment is recorded at cost and depreciated on a straight-line basis over the lesser of their estimated useful lives, ranging 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.

#### ***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, in conjunction with the preparation of the Company's fiscal year-end audited financial statements. 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 March 31, 2014.

#### ***Research Grant Revenues***

The Company recognizes research grant revenues as earned when the related expenses for the grant projects are incurred. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research, to the extent that such amounts are expended in accordance with the approved grant project. The Company did not have any research grant revenues during the three months ended March 31, 2014 or 2013.

#### ***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.

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 then current value on the date of vesting.

All share-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 three months ended March 31, 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	0.015% to 0.027%
Expected dividend yield	0%
Expected volatility	200%
Expected life	5-10 years

The Company issues new shares to satisfy stock option and warrant exercises. There were no options granted during the three months ended March 31, 2013. There were no options exercised during the three months ended March 31, 2014 and 2013.

The Company recognizes the fair value of stock-based compensation in general and administrative costs and in research and development costs, as appropriate, in the Company's condensed consolidated statements of operations.

***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, which is not expected for at least the next few years.

As of March 31, 2014, 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.

***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 and Development Costs**

Research and development costs consist primarily of fees paid to consultants and outside service providers, 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 are expensed as incurred over the life of the underlying contracts on the straight-line basis, unless the achievement of milestones, the completion of contracted work, or other information indicates that a different expensing schedule is more appropriate. Payments made pursuant to research and development contracts are initially recorded as advances on research and development contract services in the Company's balance sheet and then charged to research and development costs in the Company's statements of operations as those contract services are performed. Expenses incurred under research and development contracts in excess of amounts advanced are recorded as research and development contract liabilities in the Company's balance sheet, with a corresponding charge to research and development costs in the Company's statements of operations. The Company reviews the status of its research and development contracts on a quarterly basis.

### **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 ended March 31, 2014 and 2013.

### **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 March 31, 2014 and 2013, 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.

	<b>March 31,</b>	
	<b>2014</b>	<b>2013</b>
Series B convertible preferred stock	3,679	3,679
Series G 1.5% convertible preferred stock	228,372,117	—
Common stock warrants	4,000,000	5,691,367
Common stock options	9,466,668	9,860,001
<b>Total</b>	<b>241,842,464</b>	<b>15,555,047</b>

### **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.

## Recent Accounting Pronouncements

In April 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update No. 2014-08 (ASU 2014-08), *Presentation of Financial Statements (Topic 205) and Property, Plant and Equipment (Topic 360)*. ASU 2014-08 amends the requirements for reporting discontinued operations and requires additional disclosures about discontinued operations. Under ASU 2014-08, only disposals representing a strategic shift in operations or that have a major effect on the Company’s operations and financial results should be presented as discontinued operations. ASU 2014-08 is effective for annual periods beginning after December 15, 2014. As the Company is engaged in research and development activities, the Company does not expect the adoption of this guidance to have any impact on the Company’s financial statement presentation or disclosures.

In May 2014, the 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 U.S. 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. ASU 2014-09 is effective for reporting periods beginning after December 15, 2016, and early adoption is not permitted. Entities can 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 this guidance to have any impact on the Company’s financial statement presentation or disclosures.

In June 2014, the FASB issued Accounting Standards Update No. 2014-10 (ASU 2014-10), *Development Stage Entities (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation*. ASU 2014-10 eliminated the requirement to present inception-to-date information about income statement line items, cash flows, and equity transactions, and clarifies how entities should disclose the risks and uncertainties related to their activities. ASU 2014-10 also eliminated an exception provided to development stage entities in Consolidations (ASC Topic 810) for determining whether an entity is a variable interest entity on the basis of the amount of investment equity that is at risk. The presentation and disclosure requirements in Topic 915 will no longer be required for interim and annual reporting periods beginning after December 15, 2014, and the revised consolidation standards will take effect in annual periods beginning after December 15, 2015. Early adoption is permitted. The adoption of ASU 2014-10 is not expected to have any impact on the Company’s financial statement presentation or disclosures.

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

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

#### 4. Notes Payable

##### *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 US 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 anticipates entering into discussions with SAMYANG with a view toward a comprehensive resolution of the aforementioned matters.

Pursuant to the terms of this borrowing arrangement, SAMYANG was granted the right to designate a representative to serve on the Company's Board of Directors, pursuant to which SAMYANG designated Dr. Moogak Hwang, Ph.D. as its representative. In this regard, the Company elected Dr. Hwang to its Board of Directors on August 3, 2012. Dr. Hwang resigned from the Company's Board of Directors effective September 30, 2013.

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

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 have 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 ampakine CX1739 in South Korea for the treatment of sleep apnea and respiratory depression. The unexercised warrants expired 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 being amortized as additional interest expense over the 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 March 31, 2014 and December 31, 2013:

	<u>March 31, 2014</u>	<u>December 31, 2013</u>
Principal amount of note payable	\$ 399,774	\$ 399,774
Accrued interest payable	85,972	73,979
Foreign currency transaction adjustment	41,225	47,502
	<u>\$ 526,971</u>	<u>\$ 521,255</u>

##### *Notes Payable to Chairman*

On June 25, 2013, the Arnold Lippa Family Trust, an affiliate of Dr. Arnold S. Lippa, 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. Lippa 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.



## 5. Project Advance

In June 2000, the Company received \$247,300 from the Institute for the Study of Aging (the “Institute”) 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 funding 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. Included in the condensed consolidated balance sheets is principal and accrued interest with respect to this funding agreement in the amount of \$335,101 and \$334,096 at March 31, 2014 and December 31, 2013, respectively.

The Company entered into an agreement with the Institute on September 2, 2014 to settle this obligation by issuing 1,000,000 shares of the Company’s restricted common stock. The note payable, including accrued interest, had an approximate balance of \$337,000 on such date.

## 6. Settlements

During the three months ended March 31, 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 three months ended March 31, 2014.

## 7. Stockholders’ Equity

### *Preferred Stock*

The Company has authorized a total of 5,000,000 shares of preferred stock, par value \$0.001 per share. As of December 31, 2013, 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”); and 205,000 shares were designated as Series A Junior Participating Preferred Stock (non-voting, “Series A Junior Participating Preferred Stock”). On March 14, 2014, the Company filed a Certificate of Designation, Preferences, Rights and Limitations, (the “Certificate of Designation”) of its Series G 1.5% Convertible Preferred Stock with the Secretary of State of the State of Delaware to amend the Company’s certificate of incorporation. The number of shares designated as Series G 1.5% Convertible Preferred Stock is 1,700 (which shall not be subject to increase without the written consent of a majority of the holders of the Series G 1.5% Convertible Preferred Stock or as otherwise set forth in the Certificate of Designation). Accordingly, as of March 31, 2014, 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 March 31, 2014 or December 31, 2013.

Series B Preferred Stock outstanding as of March 31, 2014 and December 31, 2013 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 March 31, 2014 and December 31, 2013, 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.

Aurora Capital LLC was one of the placement agents. 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.

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, 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 shall be 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.

As of March 31, 2014, the Series G 1.5% Convertible Preferred Stock was convertible into 228,372,117 shares of the Company's common stock, including 123,635 shares attributable to the 1.5% dividend on such shares of \$408 on that date.

On April 17, 2014, the Company completed a second (and final) closing of Series G 1.5% Convertible Preferred Stock in the Private Placement.

#### ***Common Stock and Common Stock Purchase Warrants***

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 the 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. 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 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.

In connection with the private placement of the Company's Series F Convertible Preferred Stock in July 2009, the Company issued warrants to purchase an aggregate of 6,060,470 shares of its common stock to a single institutional investor. The warrants had an exercise price of \$0.2699 per share and were exercisable on or before January 31, 2013. The Company also issued warrants to purchase an additional 606,047 shares of the Company's common stock to the placement agent for that transaction. These warrants had an exercise price of \$0.3656 per share and were subject to the same exercisability term as the warrants issued to the investor. The warrants issued to the investor and the placement agent were subject to a call provision in favor of the Company. None of those investor or placement agent warrants were exercised, and consequently, those unexercised warrants to purchase 6,666,517 shares of the Company's common stock expired in January 2013.

In October 2011, the Company completed a private placement of \$500,000 in securities with Samyang Value Partners Co., Ltd., a wholly-owned subsidiary of Samyang. The transaction included the issuance of 6,765,466 shares of the Company's common stock and two-year warrants to purchase an additional 1,691,367 shares of its common stock. The warrants had an exercise price of \$0.1035 per share and a call right in favor of the Company. None of those warrants were exercised, and consequently, those unexercised warrants to purchase 1,691,367 shares of the Company's common stock expired in October 2013. Related to this private placement, the Company and Samyang entered into a non-binding memorandum of understanding ("MOU") regarding a potential license agreement for rights to the ampakine CX1739 for the treatment of neurodegenerative diseases in South Korea. The MOU also provided Samyang with rights of negotiation to expand its territory into other South East Asian countries, excluding Japan, Taiwan and China, and to include rights to the high impact ampakine CX1846 for the potential treatment of neurodegenerative diseases. The related license agreement was subsequently completed in January 2012.

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 unexercised warrants expired in June 2014.

A summary of warrant activity for the three months ended March 31, 2014 is presented below.

	<u>Number of Shares</u>	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Contractual Life (in Years)</u>
Warrants outstanding at December 31, 2013	4,000,000	\$ 0.056	
Issued	—	—	
Exercised	—	—	
Expired	—	—	
Warrants outstanding at March 31, 2014	<u>4,000,000</u>	<u>\$ 0.056</u>	<u>0.24</u>
Warrants exercisable at December 31, 2013	4,000,000	\$ 0.056	
Warrants exercisable at March 31, 2014	<u>4,000,000</u>	<u>\$ 0.056</u>	<u>0.24</u>

The exercise prices of common stock warrants outstanding and exercisable are as follows at March 31, 2014:

<u>Exercise Price</u>	<u>Warrants Outstanding (Shares)</u>	<u>Warrants Exercisable (Shares)</u>	<u>Expiration Date</u>
\$ 0.056	4,000,000	4,000,000	June 25, 2014

Based on a fair market value of \$0.0352 per share on March 31, 2014, there were no exercisable in-the-money stock warrants as of March 31, 2014.

A summary of warrant activity for the three months ended March 31, 2013 is presented below.

	<u>Number of Shares</u>	<u>Weighted Average Exercise Price</u>	<u>Weighted Average Remaining Contractual Life (in Years)</u>
Warrants outstanding at December 31, 2012	12,357,884	0.182	
Issued	—	—	
Exercised	—	—	
Expired	(6,666,517)	0.279	
Warrants outstanding at March 31, 2013	<u>5,691,367</u>	<u>\$ 0.069</u>	<u>1.03</u>
Warrants exercisable at December 31, 2012	12,357,884	\$ 0.182	
Warrants exercisable at March 31, 2013	<u>5,691,367</u>	<u>\$ 0.069</u>	<u>1.03</u>

The exercise prices of common stock warrants outstanding and exercisable are as follows at March 31, 2013:

<u>Exercise Price</u>	<u>Warrants Outstanding (Shares)</u>	<u>Warrants Exercisable (Shares)</u>	<u>Expiration Date</u>
\$ 0.056	4,000,000	4,000,000	June 25, 2014
\$ 0.100	1,691,367	1,691,367	October 20, 2013
	<u>5,691,367</u>	<u>5,691,367</u>	

## Stock Option Plans

On March 30, 2006, the Company's Board of Directors approved the 2006 Stock Incentive Plan (the "2006 Plan"), which subsequently was approved by the Company's stockholders on May 10, 2006. Upon the approval of the 2006 Plan, no further options were granted under any prior plans. The 2006 Plan provided for the granting of options and rights to purchase up to an aggregate of 9,863,799 shares of the Company's authorized but unissued common stock (subject to adjustment under certain circumstances, such as stock splits, recapitalizations and reorganization) to qualified employees, officers, directors, consultants and other service providers.

Under the 2006 Plan, the Company was able to issue a variety of equity vehicles to provide flexibility in implementing equity awards, including incentive stock options, nonqualified stock options, restricted stock grants, stock appreciation rights, stock payment awards, restricted stock units and dividend equivalents. The exercise price of stock options offered under the 2006 Plan must be at least 100% of the fair market value of the common stock on the date of grant. If the person to whom an incentive stock option is granted is a 10% stockholder of the Company on the date of grant, the exercise price per share shall not be less than 110% of the fair market value on the date of grant. Pursuant to the 2006 Plan, options are generally forfeited ninety days from the date of termination of an optionee's continuous service if such termination occurs for any reason other than permanent disability or death.

Subject to any restrictions under federal or securities laws, the Chief Executive Officer may award stock options to new non-executive officer employees and consultants, with a market value at the time of hire equivalent to up to 100% of the employee's annual salary or the consultant's anticipated annual consulting fees. The Chief Executive Officer shall have the discretion to increase or decrease such awards based on market and recruiting factors subject to a limit per person in each case of options to purchase 50,000 shares. Additionally, on an annual basis, the Chief Executive Officer may grant continuing employees and consultants, based upon performance and subject to meeting objectives, a stock option for that number of shares up to 40% of the employee's annual salary or the consultant's annual fees, but not to exceed 50,000 shares per person per year. Any option grant exceeding 50,000 shares per person per year requires approval by the Compensation Committee of the Board of Directors or the full Board of Directors. These options shall be granted with an exercise price equal to the fair market value of the Company's common stock on the date of issuance, have a ten-year term, vest annually over a three-year period from the dates of grant and have other terms consistent with the 2006 Plan.

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. The Company is no longer making awards under the 2006 Plan.

During the three months ended March 31, 2014, the Company executed settlement agreements with four former executives that resulted in the settlement of potential claims totaling \$1,336,264. In conjunction with such settlement agreements, the Company issued stock options to purchase 4,300,000 shares of common stock exercisable at \$0.042 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. None of the options outstanding at March 31, 2014 and December 31, 2013 were issued pursuant to the Company's stock option plans.

A summary of stock option activity for the three months ended March 31, 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	\$ 0.060	
Granted	4,300,000	0.042	
Expired	—	—	
Forfeited	—	—	
Options outstanding at March 31, 2014	<u>9,466,668</u>	<u>\$ 0.052</u>	<u>7.80</u>
Options exercisable at December 31, 2013	<u>5,166,668</u>	<u>\$ 0.060</u>	
Options exercisable at March 31, 2014	<u>9,466,668</u>	<u>\$ 0.052</u>	<u>7.80</u>

As all stock options outstanding were fully vested at March 31, 2014, there is no compensation expense to be recognized in future periods with respect to such options.

The exercise prices of common stock options outstanding and exercisable were as follows at March 31, 2014:

Exercise Price	Options Outstanding (Shares)	Options Exercisable (Shares)	Expiration Date
\$ 0.040	2,400,000	2,400,000	March 13, 2019
\$ 0.043	1,100,000	1,100,000	March 14, 2024
\$ 0.049	800,000	800,000	February 28, 2024
\$ 0.060	3,083,334	3,083,334	July 17, 2022
\$ 0.060	2,083,334	2,083,334	August 10, 2022
	<u>9,466,668</u>	<u>9,466,668</u>	

Based on a fair market value of \$0.0352 per share on March 31, 2014, there were no exercisable in-the-money stock options as of March 31, 2014.

A summary of stock option activity for the three months ended March 31, 2013 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Options outstanding at December 31, 2012	10,754,155	0.557	
Granted	—	—	
Expired	—	—	
Forfeited	(894,154)	1.141	
Options outstanding at March 31, 2013	<u>9,860,001</u>	<u>\$ 0.505</u>	<u>7.66</u>
Options exercisable at December 31, 2012	10,754,155	\$ 0.557	
Options exercisable at March 31, 2013	<u>9,860,001</u>	<u>\$ 0.505</u>	<u>7.66</u>

The exercise prices of common stock options outstanding and exercisable were as follows at March 31, 2013:

Exercise Price	Options Outstanding (Shares)	Options Exercisable (Shares)	Expiration Date
\$ 0.060	1,238,333	1,238,333	August 3, 2022
\$ 0.060	3,083,334	3,083,334	July 17, 2022
\$ 0.060	2,083,334	2,083,334	August 10, 2022
\$ 0.130	90,000	90,000	March 1, 2021
\$ 0.160	90,000	90,000	March 3, 2021
\$ 0.200	940,000	940,000	August 22, 2019
\$ 0.290	90,000	90,000	June 5, 2019
\$ 0.540	300,000	300,000	January 18, 2018
\$ 0.860	90,000	90,000	February 13, 2018
\$ 0.970	200,000	200,000	August 13, 2018
\$ 1.120	75,000	75,000	February 6, 2017
\$ 1.300	400,000	400,000	December 18, 2016
\$ 2.350	180,000	180,000	December 1, 2015
\$ 2.680	150,000	150,000	December 16, 2014
\$ 2.760	100,000	100,000	December 9, 2013
\$ 2.950	750,000	750,000	January 30, 2016
	<u>9,860,001</u>	<u>9,860,001</u>	

For the three months ended March 31, 2014 and 2013, stock-based compensation costs included in the condensed consolidated statements of operations consisted of general and administrative expenses of \$2,280,000 and \$0, respectively, and research and development expenses of \$0 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 were also out-of-the-money and continued to be out-of-the-money through December 31, 2013. All of the aforementioned options and warrants became increasingly out-of-the-money as December 31, 2012 approached (with most options and warrants being out of the money by multiples of the exercise price at such date), reflecting the fact that the Company's prospects were very negative. The Company was unable to raise operating capital subsequent to its acquisition of Pier, had run out of working capital and essentially ceased business operations during the fourth quarter of 2012, had not filed its September 30, 2012 Form 10-Q Quarterly Report with the U.S. Securities and Exchange Commission due on November 14, 2012, had accepted the resignations of most of its officers and directors, and had prepared to shut-down and liquidate. There were no stock options or warrants exercised from August 10, 2012 through March 31, 2014, and all of these stock options and warrants were out-of-the-money at March 31, 2014. As of March 31, 2014, 2,111,445 contingent shares of common stock remained issuable under the Pier merger agreement due to forfeitures and expirations 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 exercise prices of these stock options and warrants as compared to the common stock trading range, the expiration of most of the lower priced option and warrants within two years, the Company's distressed financial condition and capital requirements, and that these stock options and warrants have remained and have become increasingly out-of-the-money through March 31, 2014, and have continued to expire, as time passes. 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.

### ***Common Shares Reserved for Issuance***

As of March 31, 2014, the Company had reserved an aggregate of 3,679 shares for issuance upon conversion of the Series B Preferred Stock; 4,000,000 shares for issuance upon exercise of warrants; 9,466,668 shares for issuance upon exercise of outstanding stock options; 105,633,002 shares for issuance upon exercise of stock options available for future grant pursuant to the 2014 Plan; 228,372,117 shares for issuance upon conversion of the Series G 1.5% Convertible Preferred Stock; and 2,111,445 shares issuable as contingent shares pursuant to the Pier merger. The Company expects to satisfy such stock obligations through the issuance of authorized but unissued shares of common stock.

## **8. Related Party Transactions**

In 2012, Aurora Capital LLC provided investment banking services to Pier, a company that the Company acquired by merger on August 10, 2012. For those services, on August 10, 2012 Aurora Capital LLC received 2,971,792 shares of the Company's common stock in payment of its fee of \$194,950. 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.

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.

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 the Company and a 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 March 31, 2014 and December 31, 2013.

### ***Pier Registration Statement Filing Obligation***

In conjunction with the Pier transaction effective August 10, 2012, the Company agreed to file a registration statement on Form S-1 under the Securities Act of 1933, as amended, with the SEC within ninety days after the closing of the transaction covering the shares of common stock issued to the former Pier stockholders, as well as the contingent shares, and to take certain other actions to maintain the effectiveness of such registration statement for a period not exceeding three years. The Company has not filed this registration statement. The Agreement and Plan of Merger did not provide for any financial penalties in the event that the Company failed to comply with the registration statement filing requirements.

### ***Lease Commitment***

On May 14, 2012, the Company executed a three-year lease for approximately 5,000 square feet of office space beginning June 1, 2012 at a monthly rate of \$9,204. During December 2013, the Company substantially vacated its operating facility prior to the scheduled termination of the lease agreement in May 2015. In May 2013, a settlement with the landlord was reached, resulting in a gain of \$1,990 during the three months and six months ended June 30, 2013, and the lease was terminated.

### ***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 condensed consolidated financial statements at March 31, 2014 and December 31, 2013.

#### ***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.

### **10. Subsequent Events**

#### ***Second Closing of Series G 1.5% Convertible Preferred Stock Private Placement***

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 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. 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. 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. Aurora Capital LLC was one of the placement agents.

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 are convertible into a total of 281,363,634 shares of common 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.

#### ***Convertible Note and Warrant Financing***

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. This was the initial closing of a private placement of up to \$1,000,000. Unless otherwise provided for in the Notes, the outstanding principal balance of each Note and all accrued and unpaid interest is due and payable in full on September 15, 2015. 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 (an aggregate of 6,814,286 shares), 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 shall be exercisable into a fixed number of shares of common stock of the Company calculated as each Purchaser's investment amount divided by \$0.035 (an aggregate of 6,814,286 shares for the initial closing). The Warrants do not have any cashless exercise provisions and are exercisable through September 15, 2015 at a fixed price of \$0.035 per share. The shares of common stock issuable upon conversion of the Notes and 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 Notes and Warrants to various accredited investors. The Company currently expects to terminate this financing effective February 27, 2015.

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, 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. Aurora Capital LLC is acting as the placement agent for this financing.

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.

#### ***Conversion of Series G 1.5% Convertible Preferred 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.

On January 19, 2015, 25 shares of Series G 1.5% Convertible Preferred Stock, including 0.320031 dividend shares, were converted into 7,672,737 shares of common stock on a cashless basis.

#### ***Exercise of Placement Agent and Selected Dealer Warrants***

Effective August 25, 2014, a 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 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%) on a cashless basis, resulting in the net issuance of 1,126,814 shares of common stock.

Effective September 26, 2014, a 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.

### ***Awards to Officers and Directors as Compensation***

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 vest 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%. See Note 7 for information with respect to common stock awards issued to officers and directors in April 2014 as compensation.

In connection with the appointment of James Sapirstein and Kathryn MacFarlane as directors of the Company on September 3, 2014, the Board of Directors awarded an aggregate of 4,000,000 shares of common stock of the Company to the new directors, 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.

These stock awards to directors in 2014 were made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

### ***Debt Settlements***

During the three months ended June 30, 2014, the Company executed settlement agreements with certain former service providers that resulted in the settlement of potential claims totaling approximately \$591,000 for a cost of approximately \$155,000 in cash, plus the issuance of 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 \$37,500 in the aggregate. In addition to other provisions, the settlement agreements included mutual releases.

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), plus the issuance of a stock option to purchase 500,000 shares of common stock exercisable at \$0.0512 per share for a period of five years, and valued pursuant to the Black-Scholes option-pricing model at \$25,450. In addition to other provisions, the settlement agreement included mutual releases.

The Company 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.

### ***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 certain outstanding patent costs (not to exceed \$16,000), and (iii) the assignment to the University of Illinois of certain rights the Company holds in certain patent applications. In exchange for certain milestone and royalty payments, 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.

### ***Settlement with the Institute for the Study of Aging***

On September 2, 2014, the Company entered into a Release Agreement (the "Release Agreement") with the Institute for the Study of Aging (the "Institute") to settle an outstanding promissory note, dated May 30, 2000, issued by the Company in favor of the Institute for an initial principal amount of \$247,300 (the "Note"), which was made pursuant to an Agreement to Accept Conditions of Loan Support, also dated May 30, 2000 (the "Loan Support Agreement"). At August 31, 2014, the amount owed under the Note, including accrued interest was approximately \$337,000. Pursuant to the terms of the Release Agreement, the Institute received 1,000,000 restricted 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.

### ***Appointment of New Directors***

On September 3, 2014, James Sapirstein and Kathryn MacFarlane were appointed as new directors of the Company. The Board of Directors determined that these two new directors are independent directors. In connection with those appointments and in conformity with its corporate policy of indemnifying all directors and officers, the Board of Directors also agreed at that time to enter into indemnification agreements for all directors and officers of the Company, namely, each existing director of the Company, Dr. Arnold S. Lippa, Jeff E. Margolis, and Robert N. Weingarten, each of whom is also an officer of the Company, and with the two new directors. Pursuant to the indemnity agreements, the Company will indemnify each director or officer when such individual is a party or threatened to become a party, by virtue of being a director or officer of the Company, from the costs and expenses, fines and certain other amounts in connection with certain proceedings, including proceedings in the right of the Company, so long as such director or officer acted in good faith and reasonably believed that such actions were not in the best interests of the Company.

### ***Appointment of Chairman of the Company's Scientific Advisory Board***

On September 18, 2014, Dr. John Greer, Ph.D. was appointed to the position of Chairman of the Company's Scientific Advisory Board, which is currently being formed. Dr. Greer is the Director of the Neuroscience and Mental Health Institute at the University of Alberta. He 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. Dr. Greer is expected to assist the Company in forming the rest of its Scientific Advisory Board.

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. This award was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

### ***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 is a Phase 1 award granted under the Small Business Innovation Research Funding Award Program. The purpose of the project is to determine the most useful injectable route of administration for CX1942, the Company's proprietary, soluble ampakine molecule, a potential rescue medication for drug-induced respiratory depression and lethality. The grant is entitled "Novel Treatment of Drug-Induced Respiratory Depression" and is valued at \$148,583, which is to be paid in increments over the expected six-month duration of the study which commenced in October 2014. The study will measure the potency, latency to onset and duration of action of CX1942 administered to rats. The Company anticipates that the data obtained from the study will be used to finalize preclinical studies in preparation for initiating Phase 1 clinical studies. The preclinical studies are being 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.

### ***Appointment of Senior Vice President of Research and Development***

Richard Purcell was appointed as the Company's Senior Vice President of Research and Development effective October 15, 2014. Mr. Purcell's commitment to the Company is for 30 hours per week in order to allow him to comply with his previous professional commitments. Mr. Purcell provides his services to the Company through his consulting firm, DNA Healthlink, Inc., with which the Company has contracted for his services.

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

### Overview

Cortex Pharmaceuticals, Inc. ("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 Pharmaceuticals, Inc. ("Pier") in August 2012. Cortex and its wholly-owned subsidiary, Pier, are collectively referred to herein as the "Company."

On March 22, 2013, the Company received a written consent of stockholders holding a majority of the Company's common stock (the "Written Consent") (i) removing Charles J. Casamento, M. Ross Johnson, John F. Benedik and Mark A. Varney from their positions as directors of the Company, and (ii) appointing each of Dr. Arnold S. Lippa, Ph.D. and Jeff E. Margolis to fill two of the vacancies created, each to hold such office until the next annual meeting of the stockholders and until their successors have been duly elected and qualified. The Written Consent did not remove Dr. Moogak Hwang, Ph.D., a representative of Samyang Optics Co. Ltd., a lender to and significant stockholder of the Company, from the Board of Directors. Dr. Hwang continued to serve as a director until his resignation from the Board of Directors effective September 30, 2013.

Following the delivery of the Written Consent, the Board of Directors, acting by unanimous written consent dated March 22, 2013, removed all officers of the Company and appointed Dr. Arnold S. Lippa, as Chairman of the Board, President and Chief Executive Officer and Jeff E. Margolis, as Vice President, Treasurer and Secretary. On April 29, 2013, Robert N. Weingarten was appointed as a director, Vice President and Chief Financial Officer.

New management was appointed in March 2013 and has continued to implement this revised 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 (including a new license agreement with the University of Illinois), 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 entered into a series of license agreements in 1993 and 1998 with the University of California, Irvine ("UCI") that granted Cortex proprietary rights to certain chemical compounds that acted as ampakines and their therapeutic uses. These agreements granted Cortex, 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. Cortex was required, among other terms and conditions, to pay UCI a license fee, royalties, patent costs and certain additional payments.

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, UCI notified the Company that these license agreements were terminated due to the Company's failure to make its obligatory payments. 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 or future drug development programs.

The Company also 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 obstructive sleep apnea and had been engaged in research and clinical development activities since formation.

In connection with the merger transaction with Pier, 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 the Company'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.

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  $\Delta$ 9-THC ( $\Delta$ 9-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 obstructive sleep apnea, in which dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index ("AHI"), 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.

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 Company accounted for the Pier transaction pursuant to ASC Topic 805, Business Combinations. The Company identified and evaluated the fair value of the assets acquired. Based on the particular facts and circumstances surrounding the history and status of Pier, including its business and intellectual property at the time of the merger transaction, the Company determined that the identifiable intangible assets were comprised solely of contract-based intangible assets, and that there was no measurable goodwill.

The intangible asset acquired in the Pier transaction consisted of the License Agreement. Unless terminated earlier, the License Agreement would terminate upon expiration or termination of all patent rights. The License Agreement defined patent rights as all of the University of Illinois' rights in the patents and patent applications, and (b) all of the University of Illinois' rights in all divisions, continuations, continuation-in-part applications, reissues, renewals, re-examinations, foreign counterparts, substitutions or extensions thereof. Based upon the expiration date of the underlying patents, the License Agreement would be amortized on a straight-line basis over the remaining life of the underlying patents of 172 months from the date of acquisition.

The License Agreement was terminated effective March 21, 2013 due to the Company's failure to make a required payment. The Company recorded a charge to operations of \$3,321,678 for the impairment of the License Agreement effective December 31, 2012.

New 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.

#### ***Loan from SY Corporation Co., Ltd.***

On June 25, 2012, the Company borrowed 465,000,000 Won (the currency of South Korea, equivalent to approximately \$400,000 US 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 anticipates entering into discussions with SAMYANG with a view toward a comprehensive resolution of the aforementioned matters.

#### **Significant Developments Subsequent to March 31, 2014**

##### ***Second Closing of Series G 1.5% Convertible Preferred Stock Private Placement***

On April 17, 2014, the Company entered into Securities Purchase Agreements with various accredited investors (together with the Initial Purchasers, as previously defined, the "Purchasers"), pursuant to which the Company sold an aggregate of 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. 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. 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 rights to 6,386,120 warrants to acquire 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. Aurora Capital LLC was one of the placement agents.

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 are convertible into a total of 281,363,634 shares of common 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.

### ***Convertible Note and Warrant Financing***

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. This was the initial closing of a private placement of up to \$1,000,000. Unless otherwise provided for in the Notes, the outstanding principal balance of each Note and all accrued and unpaid interest is due and payable in full on September 15, 2015. 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 (an aggregate of 6,814,286 shares), 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 shall be exercisable into a fixed number of shares of common stock of the Company calculated as each Purchaser’s investment amount divided by \$0.035 (an aggregate of 6,814,286 shares for the initial closing). The Warrants do not have any cashless exercise provisions and are exercisable through September 15, 2015 at a fixed price of \$0.035 per share. The shares of common stock issuable upon conversion of the Notes and 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 Notes and Warrants to various accredited investors. The Company currently expects to terminate this financing effective February 27, 2015.

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, 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. Aurora Capital LLC is acting as the placement agent for this financing.

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.

### ***Awards to Officers and Directors as Compensation***

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 vest 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%. See Note 7 to the Company’s Condensed Consolidated Financial Statements for the three months ended March 31, 2014 and 2013 for information with respect to common stock awards issued to officers and directors in April 2014 as compensation.

In connection with the appointment of James Sapirstein and Kathryn MacFarlane as directors of the Company on September 3, 2014, the Board of Directors awarded an aggregate of 4,000,000 shares of common stock of the Company to the new directors, 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.

These stock awards to directors in 2014 were made under the Company’s 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.



### ***Debt Settlements***

During the three months ended June 30, 2014, the Company executed settlement agreements with certain former service providers that resulted in the settlement of potential claims totaling approximately \$591,000 for a cost of approximately \$155,000 in cash, plus the issuance of 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 \$37,500 in the aggregate. In addition to other provisions, the settlement agreements included mutual releases.

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), plus the issuance of a stock option to purchase 500,000 shares of common stock exercisable at \$0.0512 per share for a period of five years, and valued pursuant to the Black-Scholes option-pricing model at \$25,450. In addition to other provisions, the settlement agreement included mutual releases.

The Company 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.

### ***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 certain outstanding patent costs (not to exceed \$16,000), and (iii) the assignment to the University of Illinois of certain rights the Company holds in certain patent applications. In exchange for certain milestone and royalty payments, 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.

### ***Settlement with the Institute for the Study of Aging***

On September 2, 2014, the Company entered into a Release Agreement (the “Release Agreement”) with the Institute for the Study of Aging (the “Institute”) to settle an outstanding promissory note, dated May 30, 2000, issued by the Company in favor of the Institute for an initial principal amount of \$247,300 (the “Note”), which was made pursuant to an Agreement to Accept Conditions of Loan Support, also dated May 30, 2000 (the “Loan Support Agreement”). At August 31, 2014, the amount owed under the Note, including accrued interest was approximately \$337,000. Pursuant to the terms of the Release Agreement, the Institute received 1,000,000 restricted 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.

### ***Appointment of New Directors***

On September 3, 2014, James Sapirstein and Kathryn MacFarlane were appointed as new directors of the Company. The Board of Directors determined that these two new directors are independent directors. In connection with those appointments and in conformity with its corporate policy of indemnifying all directors and officers, the Board of Directors also agreed at that time to enter into indemnification agreements for all directors and officers of the Company, namely, each existing director of the Company, Dr. Arnold S. Lippa, Jeff E. Margolis, and Robert N. Weingarten, each of whom is also an officer of the Company, and with the two new directors. Pursuant to the indemnity agreements, the Company will indemnify each director or officer when such individual is a party or threatened to become a party, by virtue of being a director or officer of the Company, from the costs and expenses, fines and certain other amounts in connection with certain proceedings, including proceedings in the right of the Company, so long as such director or officer acted in good faith and reasonably believed that such actions were not in the best interests of the Company.

### ***Appointment of Chairman of the Company's Scientific Advisory Board***

On September 18, 2014, Dr. John Greer, Ph.D. was appointed to the position of Chairman of the Company's Scientific Advisory Board, which is currently being formed. Dr. Greer is the Director of the Neuroscience and Mental Health Institute at the University of Alberta. He 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. Dr. Greer is expected to assist the Company in forming the rest of its Scientific Advisory Board.

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. This award was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

### ***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 is a Phase 1 award granted under the Small Business Innovation Research Funding Award Program. The purpose of the project is to determine the most useful injectable route of administration for CX1942, the Company's proprietary, soluble ampakine molecule, a potential rescue medication for drug-induced respiratory depression and lethality. The grant is entitled "Novel Treatment of Drug-Induced Respiratory Depression" and is valued at \$148,583, which is to be paid in increments over the expected six-month duration of the study which commenced in October 2014. The study will measure the potency, latency to onset and duration of action of CX1942 administered to rats. The Company anticipates that the data obtained from the study will be used to finalize preclinical studies in preparation for initiating Phase 1 clinical studies. The preclinical studies are being 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.

### ***Appointment of Senior Vice President of Research and Development***

Richard Purcell was appointed as the Company's Senior Vice President of Research and Development effective October 15, 2014. Mr. Purcell's commitment to the Company is for 30 hours per week in order to allow him to comply with his previous professional commitments. Mr. Purcell provides his services to the Company through his consulting firm, DNA Healthlink, Inc., with which the Company has contracted for his services.

### ***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 \$1,380,710 for the three months ended March 31, 2014 and \$1,201,457 for the fiscal year ended December 31, 2013, respectively, negative operating cash flows of \$313,759 for the three months ended March 31, 2014 and \$182,435 for the fiscal year ended December 31, 2013, respectively, and incurred additional net losses and negative operating cash flows in the remainder of the 2014 fiscal year. The Company expects to continue to incur net losses and negative operating cash flows for several more years thereafter. As a result, management and the Company's auditors believe that there is 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. Beginning in late 2012, the Company's business activities were reduced to minimal levels, and the prior Board of Directors of the Company, which was removed by the written consent of stockholders holding a majority of the outstanding shares on March 22, 2013, had retained bankruptcy counsel to assist the Company in preparations to file for liquidation under Chapter 7 of the United States Bankruptcy Code. New management, which was appointed during March and April 2013, has evaluated 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 its 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 (with warrants) in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes (with warrants) in February 2015. The Company currently expects to terminate this financing effective February 27, 2015.

The Company will need to continue to raise additional capital to be able to pay its liabilities and fund its business activities going forward. 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 April 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2014-08 (ASU 2014-08), *Presentation of Financial Statements (Topic 205) and Property, Plant and Equipment (Topic 360)*. ASU 2014-08 amends the requirements for reporting discontinued operations and requires additional disclosures about discontinued operations. Under ASU 2014-08, only disposals representing a strategic shift in operations or that have a major effect on the Company's operations and financial results should be presented as discontinued operations. ASU 2014-08 is effective for annual periods beginning after December 15, 2014. As the Company is engaged in research and development activities, the Company does not expect the adoption of this guidance to have any impact on the Company's financial statement presentation or disclosures.

In May 2014, the 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 U.S. 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. ASU 2014-09 is effective for reporting periods beginning after December 15, 2016, and early adoption is not permitted. Entities can 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 this guidance to have any impact on the Company's financial statement presentation or disclosures.

In June 2014, the FASB issued Accounting Standards Update No. 2014-10 (ASU 2014-10), *Development Stage Entities (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation*. ASU 2014-10 eliminated the requirement to present inception-to-date information about income statement line items, cash flows, and equity transactions, and clarifies how entities should disclose the risks and uncertainties related to their activities. ASU 2014-10 also eliminated an exception provided to development stage entities in Consolidations (ASC Topic 810) for determining whether an entity is a variable interest entity on the basis of the amount of investment equity that is at risk. The presentation and disclosure requirements in Topic 915 will no longer be required for interim and annual reporting periods beginning after December 15, 2014, and the revised consolidation standards will take effect in annual periods beginning after December 15, 2015. Early adoption is permitted. The adoption of ASU 2014-10 is not expected to have any impact on the Company's financial statement presentation or disclosures.

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

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

### ***Concentration of Risk***

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents and short-term investments. 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 the Company's agreements with The Regents of the University of California, the Company had exclusive rights to certain ampakine compounds for all applications for which the University had patent rights, other than endocrine modulation. The license securing these rights has since been terminated.

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 obstructive sleep apnea. 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 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 condensed consolidated financial statements.

### ***Research Grant Revenue***

The Company recognizes research grant revenues as earned when the related expenses for the grant projects are incurred. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research, 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.

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 then current 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, 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 are expensed as incurred over the life of the underlying contracts on the straight-line basis, unless the achievement of milestones, the completion of contracted work, or other information indicates that a different expensing schedule is more appropriate. Payments made pursuant to research and development contracts are initially recorded as advances on research and development contract services in the Company's balance sheet and then charged to research and development costs in the Company's statements of operations as those contract services are performed. Expenses incurred under research and development contracts in excess of amounts advanced are recorded as research and development contract liabilities in the Company's balance sheet, with a corresponding charge to research and development costs in the Company's statements of operations. The Company reviews the status of its research and development contracts on a quarterly basis.

### ***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 March 31, 2014 and 2013

Revenues. The Company had no revenues during the three months ended March 31, 2014 and 2013.

General and Administrative. For the three months ended March 31, 2014, general and administrative expenses were \$2,348,107, an increase of \$1,588,818 or approximately 209%, as compared to \$759,289 for the three months ended March 31, 2013. The increase in general and administrative expenses for the three months ended March 31, 2014, as compared to the three months ended March 31, 2013, is a result of share-based compensation of \$2,280,000 to officers, directors and consultants as compensation for services rendered since they joined the Company in March and April 2013. None of these individuals receiving share-based compensation had previously received any compensation from the Company.

Included in general and administrative expenses of \$759,289 for the three months ended March 31, 2013 were accrued severance costs of \$585,000 relating to the termination of certain corporate officers in March 2013 and accrued legal fees of \$85,000 to reimburse Aurora Capital LLC for its legal fees incurred in conjunction with the removal of the Company's former Board of Directors on March 22, 2013.

For the three months ended March 31, 2014, stock-based compensation costs included in general and administrative expenses were \$2,280,000, including \$1,960,000 to related parties. There were no stock-based compensation costs included in general and administrative expenses during the three months ended March 31, 2013.

Research and Development. For the three months ended March 31, 2014, research and development expenses were \$64,089, a decrease of \$19,839 or approximately 24%, as compared to \$83,928 for the three months ended March 31, 2013. The decrease in research and development expenses for the three months ended March 31, 2014, as compared to the three months ended March 31, 2013, reflects the discontinuance of licensing costs relating to the licensing agreement with the University of California, Irvine that was terminated on April 15, 2013, partially offset by increased spending on patent legal fees.

There were no stock-based compensation costs included in research and development expenses during the three months ended March 31, 2014 or 2013.

Gain on Settlements with Former Management. During the three months ended March 31, 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.

Interest Expense. During the three months ended March 31, 2014, interest expense was \$13,061 (including \$12,046 to related parties), a decrease of \$1,976, as compared to \$15,037 (including \$11,993 to related parties) for the three months ended March 31, 2013. The decrease in interest expense resulted primarily from the discontinuance of interest relating to the licensing agreement with the University of California, Irvine that was terminated on April 15, 2013.

Foreign Currency Transaction Gain. Foreign currency transaction gain was \$6,277 and \$20,868 for the three months ended March 31, 2014 and 2013, respectively, reflecting the \$399,774 loan from Samyang in June 2012 being denominated in the South Korean won.

Net Loss. For the three months ended March 31, 2014, the Company incurred a net loss of \$1,380,710, as compared to a net loss of \$837,386 for the three months ended March 31, 2013.

Amortization of Deemed Dividend on Series G 1.5% Convertible Preferred Stock. For the three months ended March 31, 2014, amortization of the deemed dividend on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 closing was \$1,209,970.

Dividend on Series G 1.5% Convertible Preferred Stock. For the three months ended March 31, 2014, dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 closing were \$408.

Net Loss Attributable to Common Stockholders. For the three months ended March 31, 2014, the Company incurred a net loss attributable to common stockholders of \$1,524,216, as compared to a net loss attributable to common stockholders of \$837,386 for the three months ended March 31, 2013.

## Liquidity and Capital Resources – March 31, 2014

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 \$1,380,710 for the three months ended March 31, 2014 and \$1,201,457 for the fiscal year ended December 31, 2013, respectively, negative operating cash flows of \$313,759 for the three months ended March 31, 2014 and \$182,435 for the fiscal year ended December 31, 2013, respectively, and incurred additional net losses and negative operating cash flows in the remainder of the 2014 fiscal year. The Company expects to continue to incur net losses and negative operating cash flows for several more years thereafter. As a result, management and the Company's auditors believe that there is substantial doubt about the Company's ability to continue as a going concern.

At March 31, 2014, the Company had a working capital deficit of \$2,532,091, as compared to a working capital deficit of \$4,188,424 at December 31, 2013, an increase in working capital of \$1,656,333 for the three months ended March 31, 2014. At March 31, 2014, the Company had cash aggregating \$311,932, as compared to \$14,352 at December 31, 2013, an increase of \$297,580 for the three months ended March 31, 2014. The increase in working capital and cash during the three months ended March 31, 2014 was the result primarily of proceeds from the issuance of Series G 1.5% Convertible Preferred Stock and settlement agreements executed with four former executives.

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. Beginning in late 2012, the Company's business activities were reduced to minimal levels, and the prior Board of Directors of the Company, which was removed by the written consent of stockholders holding a majority of the outstanding shares on March 22, 2013, had retained bankruptcy counsel to assist the Company in preparations to file for liquidation under Chapter 7 of the United States Bankruptcy Code. New management, which was appointed during March and April 2013, has evaluated 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 its 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 (with warrants) in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes (with warrants) in February 2015. The Company currently expects to terminate this financing effective February 27, 2015.

The Company will need to continue to raise additional capital to be able to pay its liabilities and fund its business activities going forward. 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 three months ended March 31, 2014, operating activities utilized cash of \$313,759, as compared to utilizing cash of \$144,592 for the three months ended March 31, 2013, to support the Company's ongoing operations, including research and development activities. Included in the \$313,759 of cash utilized during the three months ended March 31, 2014 was \$118,084 of cash used to fund, in part, settlement agreements with four former executives.

Investing Activities. For the three months ended March 31, 2014, investing activities utilized cash of \$1,925 for the acquisition of furniture and equipment. There were no investing activities during the three months ended March 31, 2013.

Financing Activities. For the three months ended March 31, 2014, financing activities generated cash of \$613,264 consisting of \$753,220 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, offset by the payment of financing costs of \$64,956 relating to the sale of the Series G 1.5% Convertible Preferred Stock and the repayment of the advances to the Chairman totaling \$150,000. There were no financing activities during the three months ended March 31, 2013.

## **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.

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

At March 31, 2014, 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.

New 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. New 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 been diligently working to bring delinquent SEC filings current as promptly as reasonably possible under the circumstances. However, as of the date of the filing of this Quarterly Report on Form 10-Q, the Company had not yet completed the process to establish adequate internal controls over financial reporting.

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

#### (b) Changes in Internal Controls Over Financial Reporting

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

## PART II - OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

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 March 31, 2014.

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.

Additional information with respect to certain legal matters is provided at "ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS – Significant Developments Subsequent to March 31, 2014 – Debt Settlements."

### ITEM 1A. RISK FACTORS

Not applicable.

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

During the three months ended March 31, 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 three months ended March 31, 2014.

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. Aurora Capital LLC was one of the placement agents. The proceeds from the Series G 1.5% Convertible Preferred Stock financing were used to repay advances to Dr. Lippa, to fund settlements with former management, to pay accounts payable and accrued liabilities, and to fund research and development and general and administrative expenses.

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. 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 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.

Additional information with respect to the transactions described above is provided in the Notes to the Condensed Consolidated Statements for the three months ended March 31, 2014 and 2013, 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 US 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 anticipates entering 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.

CORTEX PHARMACEUTICALS, INC.

(Registrant)

Date: February 10, 2015

By: /s/ ARNOLD S. LIPPA

Arnold S. Lippa  
President and Chief Executive Officer

Date: February 10, 2015

By: /s/ ROBERT N. WEINGARTEN

Robert N. Weingarten  
Vice President and Chief Financial Officer

## INDEX TO EXHIBITS

The following documents are filed as part of this report:

Exhibit Number	Description of Document
3.1	Certificate of Designation, Preferences, Rights and Limitations of Series G 1.5% Convertible Preferred Stock, incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 24, 2014.
10.1	Form of Securities Purchase Agreement, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 24, 2014.
10.2	Cortex Pharmaceuticals, Inc. 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan, incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 24, 2014.
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.

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**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: February 10, 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: February 10, 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 March 31, 2014 (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: February 10, 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 March 31, 2014 (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: February 10, 2015

By: /s/ ROBERT N. WEINGARTEN

Robert N. Weingarten  
Chief Financial Officer

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