



**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  Accelerated filer   
Non-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 April 30, 2015, the Company had 376,826,279 shares of common stock, \$0.001 par value, issued and outstanding.

Documents incorporated by reference: None

**CORTEX PHARMACEUTICALS, INC.  
AND SUBSIDIARY**

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## Forward-Looking Statements

This Quarterly Report on Form 10-Q of Cortex Pharmaceuticals, Inc. (the “Company”) contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. These might include statements regarding the Company’s financial position, business strategy and other plans and objectives for future operations, and assumptions and predictions about future product demand, supply, manufacturing, costs, marketing and pricing factors are all forward-looking statements. These statements are generally accompanied by words such as “intend,” “anticipate,” “believe,” “estimate,” “potential(ly),” “continue,” “forecast,” “plan,” “may,” “will,” “could,” “would,” “should,” “expect” or the negative of such terms or other comparable terminology. The Company believes that the assumptions and expectations reflected in such forward-looking statements are reasonable, based on information available to it on the date hereof, but the Company cannot provide assurances that these assumptions and expectations will prove to have been correct or that the Company will take any action that the Company may presently be planning. These forward-looking statements are inherently subject to known and unknown risks and uncertainties. Actual results or experience may differ materially from those expected, anticipated or implied in the forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, regulatory policies or changes thereto, available cash, research and development results, competition from other similar businesses, and market and general economic factors. This discussion should be read in conjunction with the condensed consolidated financial statements (unaudited) and notes thereto included in Item 1 of this Quarterly Report on Form 10-Q and the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2014, including the section entitled “Item 1A. Risk Factors.” The Company does not intend to update or revise any forward-looking statements to reflect new information, future events or otherwise.

**PART I - FINANCIAL INFORMATION****ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS****CORTEX PHARMACEUTICALS, INC.****AND SUBSIDIARY****CONDENSED CONSOLIDATED BALANCE SHEETS**

	<b>March 31, 2015</b> (Unaudited)	<b>December 31, 2014</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$ 154,152	\$ 162,752
Grant receivable	28,583	48,000
Capitalized financing costs	77,030	85,702
Prepaid insurance, including current portion of long-term prepaid insurance of \$14,945 at March 31, 2015 and December 31, 2014	58,824	24,219
Total current assets	318,589	320,673
Equipment, net of accumulated depreciation of \$3,561 and \$1,659 at March 31, 2015 and December 31, 2014, respectively	17,336	16,741
Long-term prepaid insurance, net of current portion of \$14,945 at March 31, 2015 and December 31, 2014	59,158	62,894
Total assets	\$ 395,083	\$ 400,308
<b>LIABILITIES AND STOCKHOLDERS' DEFICIENCY</b>		
Current liabilities:		
Accounts payable and accrued expenses, including \$95,000 and \$108,375 payable to related parties at March 31, 2015 and December 31, 2014, respectively	\$ 2,043,434	\$ 1,845,875
Accrued compensation and related expenses	18,500	144,000
Unearned grant revenues	12,382	34,333
10% convertible notes payable, including accrued interest of \$16,715 and \$4,093, net of unamortized discount of \$367,354 and \$323,350, at March 31, 2015 and December 31, 2014, respectively	228,861	50,243
	534,060	526,257

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Note payable to related party, including accrued interest of \$134,611 and \$122,618 at March 31, 2015 and December 31, 2014, respectively		
Other short-term note payable, including accrued interest of \$77	36,202	—
Total current liabilities	2,873,439	2,600,708
Commitments and contingencies (Note 9)		
Stockholders' deficiency:		
Series B convertible preferred stock, \$0.001 par value; \$0.6667 per share liquidation preference; aggregate liquidation preference \$25,001; shares authorized: 37,500; shares issued and outstanding: 37,500; common shares issuable upon conversion at 0.09812 per share: 3,679	21,703	21,703
Series G 1.5% cumulative mandatorily convertible preferred stock, \$0.001 par value, \$1,000 per share stated value and liquidation preference; aggregate liquidation preference (including dividends) \$850,611 and \$872,737 at March 31, 2015 and December 31, 2014, respectively; shares authorized: 1,700; shares issued and outstanding: 850.6 and 872.7 at March 31, 2015 and December 31, 2014, respectively; common shares issuable upon conversion at 303,030.3 common shares per Series G share: 257,760,939 shares, including 3,973,063 shares issuable for dividends of \$13,111 at March 31, 2015, and 264,465,728 shares, including 3,102,094 shares issuable for dividends of \$10,237 at December 31, 2014	850,611	872,737
Common stock, \$0.001 par value; shares authorized: 1,400,000,000; shares issued and outstanding: 240,819,176 and 232,145,326 at March 31, 2015 and December 31, 2014, respectively	240,819	232,145
Additional paid-in capital	139,320,936	138,984,110
Accumulated deficit	(142,912,425)	(142,311,095)
Total stockholders' deficiency	(2,478,356 )	(2,200,400 )
Total liabilities and stockholders' deficiency	\$395,083	\$400,308

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



**CORTEX PHARMACEUTICALS, INC.****AND SUBSIDIARY****CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS****(Unaudited)**

	<b>Three Months Ended</b>	
	<b>March 31,</b>	<b>2014</b>
	<b>2015</b>	<b>2014</b>
Grant revenues	\$74,534	\$—
Operating expenses:		
General and administrative, including \$1,960,000 to related parties for the three months ended March 31, 2014	229,900	2,348,107
Research and development, including \$76,500 to a related party for the three months ended March 31, 2015	310,972	64,089
Total operating expenses	540,872	2,412,196
Loss from operations	(466,338 )	(2,412,196 )
Gain on settlements with former management	92,550	1,038,270
Interest expense, including \$11,993 and \$12,046 to related parties for the three months ended March 31, 2015 and 2014, respectively	(228,534 )	(13,061 )
Foreign currency transaction gain	4,190	6,277
Net loss	(598,132 )	(1,380,710 )
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 )
Dividends on Series G 1.5% Convertible Preferred Stock	(3,198 )	(408 )
Net loss attributable to common stockholders	\$(601,330 )	\$(2,591,088 )
Net loss per common share - basic and diluted	\$(0.00 )	\$(0.02 )
Weighted average common shares outstanding - basic and diluted	238,705,800	152,274,889

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, 2015**

	<b>Series B Convertible Preferred Stock</b>		<b>Series G 1.5% Convertible Preferred Stock</b>		<b>Common Stock</b>		<b>Additional Paid-in Capital</b>	<b>Accumulated Deficit</b>	<b>Total Stockholder Deficiency</b>
	<b>Shares</b>	<b>Amount</b>	<b>Shares</b>	<b>Amount</b>	<b>Shares</b>	<b>Par Value</b>			
Balance, December 31, 2014	37,500	\$21,703	872.7	\$872,737	232,145,326	\$232,145	\$138,984,110	\$(142,311,095)	\$(2,200,400)
Conversion of Series G 1.5% Convertible Preferred Stock Common stock issued as compensation Fair value of common stock options issued in connection with settlements with former management	—	—	(25.3 )	(25,324 )	7,673,850	7,674	17,650	—	—
Fair value of common stock warrants issued to investors in connection with the	—	—	—	—	1,000,000	1,000	71,000	—	72,000
	—	—	—	—	—	—	25,450	—	25,450
	—	—	—	—	—	—	112,557	—	112,557

convertible note and warrant financing Fair value of common stock warrants issued to finders in connection with the convertible note and warrant financing Fair value of beneficial conversion feature of convertible notes payable issued to investors in connection with the convertible note and warrant financing	—	—	—	—	—	—	12,726	—	12,726
Dividends on Series G 1.5% Convertible Preferred Stock Net loss Balance, March 31, 2015	—	—	3.2	3,198	—	—	—	(3,198	) —
	—	—	—	—	—	—	—	(598,132	) (598,132
	37,500	\$21,703	850.6	\$850,611	240,819,176	\$240,819	\$139,320,936	\$(142,912,425)	\$(2,478,350)

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</b>	
	<b>March 31,</b>	
	<b>2015</b>	<b>2014</b>
Cash flows from operating activities:		
Net loss	\$(598,132)	\$(1,380,710)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	1,902	17
Amortization of discounts related to convertible notes payable - Investor warrants	82,677	—
Beneficial conversion feature	83,320	—
Amortization of capitalized financing costs	37,098	—
Gain on settlements with former management	(92,550 )	(1,038,270)
Stock-based compensation expense included in - General and administrative expenses	—	2,280,000
Research and development expenses	72,000	—
Foreign currency transaction gain	(4,190 )	(6,277 )
Changes in operating assets and liabilities:		
(Increase) decrease in - Grant receivable	19,417	—
Prepaid insurance	5,256	(124,998 )
Increase (decrease) in - Accounts payable and accrued expenses	197,559	61,613
Accrued compensation and related expenses	(7,500 )	(118,084 )
Accrued interest payable	24,691	12,950
Unearned grant revenues	(21,951 )	—
Net cash used in operating activities	(200,403)	(313,759 )
Cash flows from investing activities:		
Purchases of equipment	(2,497 )	(1,925 )
Net cash used in investing activities	(2,497 )	(1,925 )
Cash flows from financing activities:		
Proceeds from sale of Series G 1.5% Convertible Preferred Stock	—	753,220
Proceeds from convertible note and warrant financing	210,000	—
Proceeds from issuance of notes payable to Chairman	—	75,000
Repayment of notes payable to Chairman	(15,700 )	—

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Cash payments made for deferred costs incurred in connection with convertible note and warrant financing		
Cash payments made for costs incurred in connection with sale of Series G 1.5% Convertible Preferred Stock	—	(64,956 )
Net cash provided by financing activities	194,300	613,264
Cash and cash equivalents:		
Net increase (decrease)	(8,600 )	297,580
Balance at beginning of period	162,752	14,352
Balance at end of period	\$ 154,152	\$ 311,932

(Continued)

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**CORTEX PHARMACEUTICALS, INC.****AND SUBSIDIARY****CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)****(Unaudited)**

	<b>Three Months Ended March 31,</b>	
	<b>2015</b>	<b>2014</b>
Supplemental disclosures of cash flow information:		
Cash paid for -		
Interest	\$ 750	\$ —
Income taxes	\$ —	\$ —
Non-cash financing activities:		
Amortization of deemed dividend on Series G 1.5% Convertible Preferred Stock	\$ —	\$ 1,209,970
Dividends on Series G 1.5% Convertible Preferred Stock	\$ 3,198	\$ 408
Short-term note payable issued in connection with the procurement of director and officer insurance	\$ 36,125	\$ —
Stated value of Series G 1.5% Convertible Preferred Stock converted into common stock	\$ 25,324	\$ —
Fair value of common stock options issued in connection with settlements with former management	\$ 25,450	\$ 179,910
Fair value of common stock warrants issued to investors in connection with the convertible note and warrant financing	\$ 112,557	\$ —
Fair value of common stock warrants issued to finders in connection with the convertible note and warrant financing	\$ 12,726	\$ —
Fair value of beneficial conversion feature of convertible notes payable issued to investors in connection with the convertible note and warrant financing	\$ 97,443	\$ —
Fair value of common stock warrants issued to placement agents and selected dealers in connection with the sale of Series G 1.5% Convertible Preferred Stock	\$ —	\$ 443,848
Deferred financing costs transferred to additional paid-in capital in connection with sale of Series G 1.5% Convertible Preferred Stock	\$ —	\$ 35,120

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

**CORTEX PHARMACEUTICALS, INC.**

**AND SUBSIDIARY**

**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**

**(Unaudited)**

**Three Months Ended March 31, 2015 and 2014**

**1. Basis of Presentation**

The condensed consolidated financial statements of Cortex Pharmaceuticals, Inc. (“Cortex”) and its wholly-owned subsidiary, Pier Pharmaceuticals, Inc. (“Pier”) (collectively referred to herein as the “Company,” unless the context indicates otherwise), at March 31, 2015 and for the three months ended March 31, 2015 and 2014, are unaudited. In the opinion of management, all adjustments (including normal recurring adjustments) have been made that are necessary to present fairly the consolidated financial position of the Company as of March 31, 2015, the results of its consolidated operations for the three months ended March 31, 2015 and 2014, and its consolidated cash flows for the three months ended March 31, 2015 and 2014. Consolidated operating results for the interim periods presented are not necessarily indicative of the results to be expected for a full fiscal year. The consolidated balance sheet at December 31, 2014 has been derived from the Company’s audited consolidated financial statements at such date.

The condensed consolidated financial statements and related notes have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been omitted pursuant to such rules and regulations. These consolidated financial statements should be read in conjunction with the consolidated financial statements and other information included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2014, 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 strategic focus, including seeking the capital to fund such efforts. As a result of the Company's scientific discoveries and the acquisition of strategic, exclusive license agreements, management believes that the Company is now a leader in the discovery and development of innovative pharmaceuticals for the treatment of respiratory disorders.

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

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

On May 8, 2007, Cortex entered into a license agreement, as subsequently amended, with the University of Alberta granting Cortex exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. These patents, along with Cortex's own patents claiming chemical structures, comprise Cortex's principal intellectual property supporting Cortex's research and clinical development program in the use of ampakines for the treatment of respiratory disorders. Cortex has completed pre-clinical studies indicating that several of its ampakines, including CX717, CX1739 and CX1942, were efficacious in treating drug induced respiratory depression caused by opiates or certain anesthetics without offsetting the analgesic effects of the opiates or the anesthetic effects of the anesthetics. In two clinical Phase 2 studies, one of which was published in a peer-reviewed journal, CX717, a predecessor compound to CX1739 and CX1942, antagonized the respiratory depression produced by fentanyl, a potent narcotic, without affecting the analgesia produced by this drug. In addition, Cortex has conducted a Phase 2A clinical study in which patients with sleep apnea were administered CX1739, Cortex's lead clinical compound. Preliminary results suggested that CX1739 might have use for the treatment of central and mixed sleep apnea, but not obstructive sleep apnea ("OSA").



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

Through the merger, the Company gained access to an Exclusive License Agreement (as amended, the "License Agreement") that Pier had entered into with the University of Illinois on October 10, 2007. The License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids, of which dronabinol is a specific example, for the treatment of sleep related breathing disorders (including sleep apnea). Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as  $\Delta^9$ -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 OSA, in which dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index, the primary therapeutic end-point, and was observed to be safe and well tolerated. Dronabinol is currently under investigation, at the University of Illinois and other centers, in a potentially pivotal 120 patient, double-blind, placebo-controlled Phase 2B OSA clinical trial, fully funded by the National Institutes of Health.

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 \$598,132 for the three months ended March 31, 2015 and \$2,707,535 for the fiscal year ended December 31, 2014, negative operating cash flows of \$200,403 for the three months ended March 31, 2015 and \$885,869 for the fiscal year ended December 31, 2014, and expects to continue to incur net losses and negative operating cash flows for several more years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern, and the Company's independent registered public accounting firm, in their report on the Company's consolidated financial statements for the year ended December 31, 2014, has expressed substantial doubt about the Company's ability to continue as a going concern.

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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. New management, which was appointed during March and April 2013, has evaluated and addressed the status of numerous aspects of the Company's existing business and obligations, including, without limitation, debt obligations, financial requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has raised new capital to fund 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 and warrants in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes and warrants in February 2015. The Company terminated this financing effective February 18, 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 are prepared in accordance with United States generally accepted accounting principles ("GAAP") and include the financial statements of Cortex and its wholly-owned subsidiary, Pier. Intercompany balances and transactions have been eliminated in consolidation.

#### ***Use of Estimates***

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions. These estimates and assumptions affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual amounts may differ from those estimates.

### ***Concentrations of Credit Risk***

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

### ***Cash Equivalents***

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

### ***Fair Value of Financial Instruments***

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

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

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

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

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

The Company believes that the carrying amount of its financial instruments (consisting of cash, cash equivalents, grants receivable and accounts payable) approximates fair value due to the short-term nature of such instruments. With respect to the note payable to a related party and the convertible notes payable, management does not believe that the credit markets have materially changed for these types of speculative borrowings since the original borrowing date.

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

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

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

financings are charged to operations.

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

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

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

The Company accounted for the beneficial conversion features in accordance with Accounting Standards Codification (“ASC”) 470-20, Accounting for Debt with Conversion and Other Options. The Company calculated a deemed dividend on the Series G 1.5% Convertible Preferred Stock of \$8,376,719 in March 2014 and \$1,673,127 in April 2014, which equals the amount by which the estimated fair value of the common stock issuable upon conversion of the issued Series G 1.5% Convertible Preferred Stock exceeded the proceeds from such issuances. The deemed dividend on the Series G 1.5% Convertible Preferred Stock was amortized on the straight-line basis from the respective issuance dates through the earliest conversion date of June 16, 2014, in accordance with ASC 470-20. The difference between the amortization of the deemed dividend calculated based on the straight-line method and the effective yield method was not material. The amortization of the deemed dividend for the three months 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 26.9% of the entire amount of Series G 1.5% Convertible Preferred Stock sold in the financing. Dr. Lippa had been an officer and director of the Company for approximately one year when he purchased the 250 shares of Series G 1.5% Convertible Preferred Stock, and his investment, which was only a portion of the first closing, was made on the same terms and conditions as those provided to the other unaffiliated investors who made up the majority of the financing. Dr. Lippa did not control, directly or indirectly, 10% or more of the Company’s voting equity securities at the time of his investment. The proportionate share of the deemed dividend attributable to Dr. Lippa’s investment in the Series G 1.5% Convertible Preferred Stock in March 2014 was \$2,780,303.

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

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

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

On December 9, 2014, December 31, 2014, and February 2, 2015, the Company sold an additional \$46,000, \$85,000 and \$210,000, respectively, of principal amount of the convertible notes and warrants to various accredited investors. The Company terminated this financing effective February 18, 2015.

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

The Company considered the face value of the convertible notes to be representative of their fair value. The Company determined the fair value of the warrants based on the Black-Scholes option-pricing model. The relative fair value method generated respective fair values for each of the convertible notes and the warrants of approximately 52% for the convertible notes and approximately 48% for the warrants. Once these values were determined, the fair value of the warrants of \$176,549 and the fair value of the beneficial conversion feature of \$192,951 (which were calculated based on the effective conversion price) were recorded as a reduction to the face value of the promissory note obligation. As a result, this aggregate debt discount reduced the carrying value of the convertible notes to zero at each issuance date. The excess amount generated from this calculation was not recorded, as the carrying value of a promissory note cannot be reduced below zero. The aggregate debt discount is being amortized as interest expense over the life of the promissory notes. The difference between the amortization of the debt discount calculated based on the straight-line method and the effective yield method was not material.



The cash fees paid to finders and for legal costs were deferred and capitalized as deferred offering costs and are being amortized to interest expense over the life of the promissory notes. The finder's warrants were considered as an additional cost of the offering and were included in deferred offering costs at fair value. The difference between the amortization of the deferred offering costs calculated based on the straight-line method and the effective yield method was not material.

### ***Equipment***

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

### ***Long-Term Prepaid Insurance***

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

### ***Impairment of Long-Lived Assets***

The Company reviews its long-lived assets, including long-term prepaid insurance, for impairment whenever events or changes in circumstances indicate that the total amount of an asset may not be recoverable, but at least annually. An impairment loss is recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition is less than the asset's carrying amount. The Company has not deemed any long-lived assets as impaired at March 31, 2015.

### ***Stock-Based Compensation***

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

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

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

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

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

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

For options granted during the three months ended March 31, 2015, the fair value of each option award was estimated using the Black-Scholes option-pricing model with the following assumptions:

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

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	1.5% to 2.7	%
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 exercised during the three months ended March 31, 2015 and 2014.

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

### ***Income Taxes***

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

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

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

As of March 31, 2015, the Company did not have any unrecognized tax benefits related to various federal and state income tax matters and does not anticipate any material amount of unrecognized tax benefits within the next 12 months.

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

The Company accounts for uncertainties in income tax law under a comprehensive model for the financial statement recognition, measurement, presentation and disclosure of uncertain tax positions taken or expected to be taken in income tax returns as prescribed by GAAP. The tax effects of a position are recognized only if it is “more-likely-than-not” to be sustained by the taxing authority as of the reporting date. If the tax position is not considered “more-likely-than-not” to be sustained, then no benefits of the position are recognized. As of March 31, 2015, the Company had not recorded any liability for uncertain tax positions. In subsequent periods, any interest and penalties related to uncertain tax positions will be recognized as a component of income tax expense.

### ***Foreign Currency Transactions***

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

### ***Research Grants***

The Company recognizes revenues from research grants as earned based on the percentage-of-completion method of accounting and issues invoices for contract amounts billed based on the terms of the grant agreement. Revenues recorded under research grants in excess of amounts earned are classified as unearned grant revenue liability in the Company’s consolidated balance sheet. Grant receivable reflects contractual amounts due and payable under the grant agreement. The payment of grant receivables is based on progress reports provided by the Company. As of March 31, 2015, the Company was current in filing the required progress reports, as a result of which no allowance for uncollectible amounts was considered necessary.

Research grants are generally funded and paid through government or institutional programs. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research project, to the extent that such amounts are expended in accordance with the approved grant project. During the three months ended March 31, 2015, the Company had research grant revenues of \$74,534. At March 31, 2015 and December 31, 2014, the Company had grant receivable of \$28,583 and \$48,000, respectively, and unearned grant revenues of \$12,382 and \$34,333, respectively. The Company had no research grant revenues during the three months ended March 31, 2014.

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

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

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

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

### *License Agreements*

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

### ***Patent Costs***

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

### ***Comprehensive Income (Loss)***

Components of comprehensive income or loss, including net income or loss, are reported in the financial statements in the period in which they are recognized. Comprehensive income or loss is defined as the change in equity during a period from transactions and other events and circumstances from non-owner sources. Net income (loss) and other comprehensive income (loss) are reported net of any related tax effect to arrive at comprehensive income (loss). The Company did not have any items of comprehensive income (loss) for the three months ended March 31, 2015 and 2014.

### ***Earnings per Share***

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

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

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

At March 31, 2015 and 2014, the Company excluded the outstanding securities summarized below, which entitle the holders thereof to acquire shares of common stock, from its calculation of earnings per share, as their effect would have been anti-dilutive.

	<b>March 31,</b>	
	<b>2015</b>	<b>2014</b>
Series B convertible preferred stock	3,679	3,679
Series G 1.5% convertible preferred stock	257,760,939	228,372,117
10% convertible notes payable	17,034,702	—
Common stock warrants	32,106,094	4,000,000
Common stock options	26,216,668	9,466,668
Total	333,122,082	241,842,464

### ***Reclassifications***

Certain comparative figures in 2014 have been reclassified to conform to the current year's presentation. These reclassifications were immaterial, both individually and in the aggregate.

### ***Recent Accounting Pronouncements***

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2014-09 (ASU 2014-09), *Revenue from Contracts with Customers*. ASU 2014-09 will eliminate transaction- and industry-specific revenue recognition guidance under current GAAP and replace it with a principle based approach for determining revenue recognition. ASU 2014-09 will require that companies recognize revenue based on the value of transferred goods or services as they occur in the contract. ASU 2014-09 also will require additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. 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 ASU 2014-09 to have any impact on the Company's financial statement presentation or disclosures.



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

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

In February 2015, the FASB issued Accounting Standards Update No. 2015-02 (ASU 2015-02), *Consolidation (Topic 810)*. ASU 2015-02 changes the guidance with respect to the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. All legal entities are subject to reevaluation under the revised consolidation mode. ASU 2015-02 affects the following areas: (1) Limited partnerships and similar legal entities. (2) Evaluating fees paid to a decision maker or a service provider as a variable interest. (3) The effect of fee arrangements on the primary beneficiary determination. (4) The effect of related parties on the primary beneficiary

determination. (5) Certain investment funds. ASU 2015-02 is effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the guidance in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. A reporting entity may apply the amendments in this guidance using a modified retrospective approach by recording a cumulative-effect adjustment to equity as of the beginning of the fiscal year of adoption. A reporting entity also may apply the amendments retrospectively. The adoption of ASU 2015-02 is not expected to have any impact on the Company's financial statement presentation or disclosures.

In April 2015, the FASB issued Accounting Standards Update No. 2015-03 (ASU 2015-03), *Interest – Imputation of Interest (Subtopic 835-30)*. ASU 2015-03 simplifies the presentation of debt issuance costs and requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the new guidance. ASU 2015-3 is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within that fiscal year. Early adoption is permitted for financial statements that have not been previously issued. An entity is required to apply the new guidance on a retrospective basis, wherein the balance sheet of each individual period presented is adjusted to reflect the period-specific effects of applying the new guidance. Upon transition, an entity is required to comply with the applicable disclosures for a change in an accounting principle. These disclosures include the nature of and reason for the change in accounting principle, the transition method, a description of the prior-period information that has been retrospectively adjusted, and the effect of the change on the financial statement line items (i.e., debt issuance cost asset and the debt liability). All of the Company's deferred debt issuance costs classified as an asset at March 31, 2015 will be amortized to interest expense by September 30, 2015. Accordingly, the adoption of ASU 2015-03 will impact the presentation of deferred debt issuance costs classified as an asset on the Company's interim condensed consolidated financial statements for the period ended March 31, 2015.

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

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

#### **4. Notes Payable**

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

On November 5, 2014, the Company entered into a Convertible Note and Warrant Purchase Agreement (the “Purchase Agreement”) with various accredited, non-affiliated investors (each, a “Purchaser”), pursuant to which the Company sold an aggregate principal amount of \$238,500 of its (i) 10% Convertible Notes due September 15, 2015 (each a “Note”, and together, the “Notes”) and (ii) Warrants to purchase shares of common stock (the “Warrants”) as described below. This was the initial closing of a private placement that was terminated effective February 18, 2015. Unless otherwise provided for in the Notes, the outstanding principal balance of each Note and all accrued and unpaid interest, compounded annually at 10%, is due and payable in full on September 15, 2015. The Company may elect, at its option and in its sole discretion, to extend the maturity date of the Notes to September 15, 2016 upon thirty days’ notice to the Note holders delivered prior to the maturity date, subject to the issuance by the Company to the Note holders of additional warrants, exercisable for a period of one year from the date of issuance, to purchase the Company’s common stock exercisable at \$0.035 per share of common stock, into that number of shares of common stock calculated as the product of the principal amount of the Note plus any accrued and unpaid interest, multiplied by 50% and then dividing that product by \$0.035 (the “Extended Maturity Date Warrant”). The Extended Maturity Date Warrant shall otherwise be substantially similar in form and substance to the warrant issued in connection with the

Note.

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 for the initial closing), plus any accrued and unpaid interest, which is treated in the same manner as the outstanding principal amount. In the case of a Qualified Financing (as defined in the Purchase Agreement), the outstanding principal amount and accrued and unpaid interest under the Notes automatically convert into common stock at a common stock equivalent price of \$0.035. In the case of an Acquisition (as defined in the Purchase Agreement), the Company may elect to either: (i) convert the outstanding principal amount and all accrued and unpaid interest under the Notes into shares of common stock or (ii) accelerate the maturity date of the Notes to the date of closing of the Acquisition. Each Warrant to purchase shares of common stock is exercisable into a fixed number of shares of common stock of the Company calculated as each Purchaser's investment amount divided by \$0.035 (an aggregate of 6,814,286 shares for the initial closing). The Warrants were detachable and are exercisable through September 15, 2015 at a fixed price of \$0.035 per share. The warrants do not have any cashless exercise provisions. The shares of common stock issuable upon conversion of the Notes and exercise of the Warrants are not subject to any registration rights.

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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 terminated this financing effective February 18, 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. The stock warrants issued to the placement agent and/or its designees or affiliates in connection with the 2014 closings of the Purchase Agreement, to purchase 597,000 shares of the Company's common stock, were valued pursuant to the Black-Scholes option-pricing model at \$19,986, \$614 and \$3,340, respectively. The stock warrants issued to the placement agent and/or its designees or affiliates in connection with the February 2, 2015 closing of the Purchase Agreement, to purchase 420,000 shares of the Company's common stock, were valued pursuant to the Black-Scholes option-pricing model at \$12,726. Total financing costs at March 31, 2015 aggregating \$129,776, consisting of \$93,110 paid in cash and \$36,666 paid in the form of Placement Agent Warrants, are being amortized as additional interest expense over the life of the Notes. During the three months ended March 31, 2015, \$37,098 was charged to interest expense with respect to the amortization of capitalized financing costs.

Aurora Capital LLC, a related party (see Note 8), was the placement agent for this financing, and Aurora and its designees and/or affiliates received aggregate fees in connection with this financing in the form of \$33,425 in cash and Placement Agent Warrants to purchase 955,000 shares of common stock in connection with the four closings.

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

The Company used the Black-Scholes option-pricing model to estimate the fair value of the warrants to purchase 16,557,141 shares of the Company's common stock sold to investors in connection with the four closings at a fixed exercise price of \$0.035 per share. The Company applied the relative fair value method to allocate the proceeds from the borrowing to the Notes and the Warrants. Consequently, approximately 50% of the proceeds of the borrowing were attributed to the debt instrument. The 50% value attributed to the Warrants is being amortized as additional

interest expense over the life of the related Notes. During the three months ended March 31, 2015, \$82,667 was charged to interest expense from the amortization of debt discount related to the value attributed to the Warrants.

During the three months ended March 31, 2015, \$83,320 was charged to interest expense from the amortization of debt discount related to the value attributed to the beneficial conversion feature.

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

	<b>March 31, 2015</b>	<b>December 31, 2014</b>
Principal amount of notes payable	\$579,500	\$369,500
Add accrued interest payable	16,715	4,093
	596,215	373,593
Less unamortized discounts:		
Stock warrants	(185,145)	(155,264)
Beneficial conversion feature	(182,209)	(168,086)
	\$228,861	\$50,243

As of March 31, 2015, the 10% Convertible Notes Payable were convertible into 17,034,702 shares of the Company's common stock, including 477,560 shares attributable to accrued interest of \$16,715 payable as of such date. As of December 31, 2014, the 10% Convertible Notes Payable were convertible into 10,674,107 shares of the Company's common stock, including 116,964 shares attributable to accrued interest of \$4,093 payable as of such date.

### ***Note Payable to Related Party***

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

The promissory note is secured by collateral that represents a lien on certain patents owned by the Company, including composition of matter patents for certain of the Company's high impact 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 had a call right for consideration of \$0.001 per share, in favor of the Company, to the extent that the weighted average closing price of the Company's common stock exceeds \$0.084 per share for each of ten consecutive trading days, subject to certain circumstances. Additionally, an existing license agreement with SAMYANG was expanded to include rights to ampakine CX1739 in South Korea for the treatment of sleep apnea and respiratory depression. The warrants expired unexercised on June 25, 2014.

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

attributed to the debt instrument.

The 36% value attributed to the warrant was amortized as additional interest expense over the 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, 2015 and December 31, 2014:

	<b>March 31, 2015</b>	<b>December 31, 2014</b>
Principal amount of note payable	\$399,774	\$ 399,774
Accrued interest payable	134,611	122,618
Foreign currency transaction adjustment	(325 )	3,865
	<b>\$534,060</b>	<b>\$ 526,257</b>



### *Notes Payable to Chairman*

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

### *Other Short-Term Note Payable*

The other short-term note payable at March 31, 2015 consists of a premium financing agreement with respect to an insurance policy. The note is payable, with interest at 5.08%, in ten monthly installments of \$3,697.

## **5. Project Advance**

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

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

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

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## 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.

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

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

Effective January 29, 2015, the Company executed a settlement agreement with its former Vice President and Chief Financial Officer, as amended on February 4, 2015, that resulted in the settlement of potential claims for a total cash payment of \$26,000 to be paid on or before June 30, 2015 (of which \$6,000 was paid on execution and \$1,500 was paid in March 2015), plus the issuance of a stock option to purchase 500,000 shares of common stock exercisable at \$0.0512 per share for a period of five years, and valued pursuant to the Black-Scholes option-pricing model at \$25,450. In addition to other provisions, the settlement agreement included mutual releases. The settlement resulted in the Company recognizing a gain of \$92,550 during the three months ended March 31, 2015.

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

## 7. Stockholders' Deficiency

### *Preferred Stock*

The Company has authorized a total of 5,000,000 shares of preferred stock, par value \$0.001 per share. As of December 31, 2014, 1,250,000 shares were designated as 9% Cumulative Convertible Preferred Stock (non-voting, "9% Preferred Stock"); 37,500 shares were designated as Series B Convertible Preferred Stock (non-voting, "Series B Preferred Stock"); 205,000 shares were designated as Series A Junior Participating Preferred Stock (non-voting, "Series A Junior Participating Preferred Stock"); and 1,700 shares were designated as Series G 1.5% Convertible Preferred Stock. Accordingly, as of March 31, 2015, 3,505,800 shares of preferred stock were undesignated and may be issued with such rights and powers as the Board of Directors may designate.

There were no shares of 9% Preferred Stock or Series A Junior Participating Preferred Stock outstanding as of March 31, 2015 or December 31, 2014.

Series B Preferred Stock outstanding as of March 31, 2015 and December 31, 2014 consisted of 37,500 shares issued in a May 1991 private placement. Each share of Series B Preferred Stock is convertible into approximately 0.09812 shares of common stock at an effective conversion price of \$6.795 per share of common stock, which is subject to adjustment under certain circumstances. As of March 31, 2015 and December 31, 2014, the shares of Series B Preferred Stock outstanding are convertible into 3,679 shares of common stock. The Company may redeem the Series B Preferred Stock for \$25,001, equivalent to \$0.6667 per share, an amount equal to its liquidation preference, at any time upon 30 days prior notice.

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

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

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

The Series G 1.5% Convertible Preferred Stock has a stated value of \$1,000 per share and a stated dividend at the rate per share (as a percentage of the Stated Value per share) of 1.5% per annum, compounded quarterly, payable quarterly within 15 calendar days of the end of each fiscal quarter of the Company, in duly authorized, validly issued, fully paid and non-assessable shares of Series G 1.5% Convertible Preferred Stock, which may include fractional shares of Series G 1.5% Convertible Preferred Stock. The Company recorded a dividend on the Series G 1.5% Convertible Preferred Stock of \$3,198 and \$408 for the three months ended March 31, 2015 and 2014, respectively, which was paid through the issuance of an additional 3.2 shares and 0.4 shares, respectively, of Series G 1.5% Convertible Preferred Stock. The Company recorded a dividend on the Series G 1.5% Convertible Preferred Stock of \$10,926 for the year ended December 31, 2014, which was paid through the issuance of an additional 10.9 shares of Series G 1.5% Convertible Preferred Stock.

The Series G 1.5% Convertible Preferred Stock became convertible, beginning 60 days after the last share of Series G 1.5% Convertible Preferred Stock is issued in the Private Placement, at the option of the holder, into common stock at the applicable conversion price, at a rate determined by dividing the Stated Value of the shares of Series G 1.5% Convertible Preferred Stock to be converted by the conversion price, subject to adjustments for stock dividends, splits, combinations and similar events as described in the form of Certificate of Designation. As the stated value of the Series G 1.5% Convertible Preferred Stock is \$1,000 per share, and the fixed conversion price is \$0.0033, each share of Series G 1.5% Convertible Preferred Stock is convertible into 303,030.3 shares of common stock. In addition, the Company has the right to require the holders of the Series G 1.5% Convertible Preferred Stock to convert such shares into common stock under certain enumerated circumstances as set forth in the Certificate of Designation.

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

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

Placement at the Conversion Price.

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

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

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

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The shares of Series G 1.5% Convertible Preferred Stock were offered and sold without registration under the Securities Act of 1933, as amended (the “Securities Act”), in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act as provided in Rule 506(b) of Regulation D promulgated thereunder. The shares of Series G 1.5% Convertible Preferred Stock and the Company’s common stock issuable upon conversion of the shares of Series G 1.5% Convertible Preferred Stock have not been registered under the Securities Act or any other applicable securities laws, and unless so registered, may not be offered or sold in the United States except pursuant to an exemption from the registration requirements of the Securities Act.

On April 17, 2014, the Company entered into Securities Purchase Agreements with various accredited investors (together with the Initial Purchasers as defined above, the “Purchasers”), pursuant to which the Company sold an aggregate of an additional 175.28 shares of its Series G 1.5% Convertible Preferred Stock, for a purchase price of \$1,000 per share, or an aggregate purchase price of \$175,280. This was the second and final closing on the Private Placement, in which a total of 928.5 shares of Series G 1.5% Convertible Preferred Stock were sold for an aggregate purchase price of \$928,500. The Purchasers in the second and final tranche of the Private Placement consisted of new, non-affiliated, accredited investors and non-management investors who had also invested in the first closing. One of the investors in this second and final closing was an affiliate of an associated person of Aurora Capital LLC, a related party (see Note 8). Neither the Series G 1.5% Convertible Preferred Stock nor the underlying shares of common stock have any registration rights.

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

As the stated value of the Series G 1.5% Convertible Preferred Stock is \$1,000 per share, and the fixed conversion price is \$0.0033, each share of Series G 1.5% Convertible Preferred Stock is convertible into 303,030.3 shares of common stock. The aggregate of 928.5 shares of Series G 1.5% Convertible Preferred Stock sold in all of the closings of the Private Placement were initially convertible into a total of 281,363,634 shares of common stock.

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

Aurora Capital LLC, a related party (see Note 8), was one of the placement agents for this financing, and Aurora and its designees and/or affiliates received fees in connection with this financing in the form of cash of \$2,800 and warrants to purchase 10,427,029 shares of common stock during the year ended December 31, 2014. Both Dr. Arnold S. Lippa and Jeff E. Margolis, officers and directors of the Company since March 22, 2013, have indirect ownership interests in Aurora Capital LLC through interests held in its members, and Jeff E. Margolis is also an officer of Aurora Capital LLC.

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

Effective September 5, 2014, a finder's warrant issued on April 17, 2014 in conjunction with the Private Placement of the Series G 1.5% Convertible Preferred Stock, representing the right to acquire a total of 2,412,878 shares of common stock, was exercised in part (50%, or 1,206,439 shares) on a cashless basis, resulting in the net issuance of 1,126,814 shares of common stock.

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



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

During the three months ended March 31, 2015, 25.323705 shares of Series G 1.5% Convertible Preferred Stock, including 0.323705 dividend shares, were converted into 7,673,850 shares of common stock on a cashless basis.

As of March 31, 2015, the Series G 1.5% Convertible Preferred Stock was convertible into 257,760,939 shares of the Company's common stock, including 3,973,063 shares attributable to the 1.5% dividend on such shares of \$13,111 accrued as of such date. As of December 31, 2014, the Series G 1.5% Convertible Preferred Stock was convertible into 264,465,728 shares of the Company's common stock, including 3,102,094 shares attributable to the 1.5% dividend on such shares of \$10,237 accrued as of such date.

See Note 10 for a description of additional Series G 1.5% Convertible Preferred Stock conversions.

### *Common Stock*

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

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

effective as of March 18, 2014. The stock awards were valued at \$0.04 per share, which was the closing price of the Company's common stock on March 18, 2014. These stock awards were made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

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

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

Effective October 15, 2014, Richard Purcell was appointed as the Company's Senior Vice President of Research and Development. In conjunction with his appointment, the Company agreed to issue to Mr. Purcell 2,000,000 shares of the Company's common stock, with 25% of such stock grant vesting and issuable every three months after the date of his appointment (i.e., on January 15, 2015, April 15, 2015, July 15, 2015 and October 15, 2015), subject to Mr. Purcell's continued relationship with the Company on each of the vesting dates. The stock grant was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan. Based on the Company's closing stock price on October 15, 2014 of \$0.078 per share, during the three months ended March 31, 2015, the Company recorded a charge to operations of \$39,000 with respect to this stock award. At March 31, 2015, total unrecognized compensation expense for the outstanding unvested stock awards was \$117,000, which will be recognized by the Company as charges to operations of \$39,000 on each of April 15, 2015, July 15, 2015 and October 15, 2015.

Information with respect to common stock purchase warrants issued to finders and placement agents in connection with the sale of the Notes and Warrants is provided at Note 4 under "10% Convertible Notes Payable."

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

### *Common Stock Warrants*

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

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

A summary of warrant activity for the three months ended March 31, 2015 is presented below.

	<b>Number of Shares</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Life (in Years)</b>
Warrants outstanding at December 31, 2014	25,686,096	\$ 0.01744	
Issued	6,419,998	0.03500	
Exercised	—	—	
Expired	—	—	
Warrants outstanding at March 31, 2015	32,106,094	\$ 0.02095	2.08
Warrants exercisable at December 31, 2014	25,686,096	\$ 0.01744	
Warrants exercisable at March 31, 2015	32,106,094	\$ 0.02095	2.08

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The exercise prices of common stock warrants outstanding and exercisable are as follows at March 31, 2015:

<b>Exercise Price</b>	<b>Warrants Outstanding (Shares)</b>	<b>Warrants Exercisable (Shares)</b>	<b>Expiration Date</b>
\$0.00396	14,531,953	14,531,953	April 17, 2019
\$0.03500	17,574,141	17,574,141	September 15, 2015
	32,106,094	32,106,094	

Based on a fair market value of \$0.0491 per share on March 31, 2015, the intrinsic value of exercisable in-the-money stock warrants was \$903,768 as of March 31, 2015.

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

	<b>Number of Shares</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Life (in Years)</b>
Warrants outstanding at December 31, 2013	4,000,000	\$ 0.05600	
Issued	—	—	
Exercised	—	—	
Expired	—	—	
Warrants outstanding at March 31, 2014	4,000,000	\$ 0.05600	0.24
Warrants exercisable at December 31, 2013	4,000,000	\$ 0.05600	
Warrants exercisable at March 31, 2014	4,000,000	\$ 0.05600	0.24

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

<b>Exercise Price</b>	<b>Warrants Outstanding (Shares)</b>	<b>Warrants Exercisable (Shares)</b>	<b>Expiration Date</b>
\$ 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 common stock warrants as of March 31, 2014.

### *Stock Options*

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

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.

During the three months ended June 30, 2014, the Company executed settlement agreements with two former professional service providers that resulted in the settlement of potential claims totaling \$496,514. In conjunction with such settlement agreements, the Company issued stock options to purchase 1,250,000 shares of common stock exercisable at \$0.04 per share for a period of five years. The stock options were valued pursuant to the Black-Scholes option-pricing model at \$42,250.

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

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. In conjunction with such settlement agreement, the Company issued stock options to purchase 500,000 shares of common stock exercisable at \$0.0512 per share for a period of five years. The stock options were valued pursuant to the Black-Scholes option-pricing model at \$25,450.

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

A summary of stock option activity for the three months ended March 31, 2015 is presented below.

	<b>Number of Shares</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Life (in Years)</b>
Options outstanding at December 31, 2014	25,716,668	\$ 0.050	
Granted	500,000	0.051	
Expired	—	—	
Forfeited	—	—	
Options outstanding at March 31, 2015	26,216,668	\$ 0.050	5.20
Options exercisable at December 31, 2014	25,716,668	\$ 0.050	
Options exercisable at March 31, 2015	26,216,668	\$ 0.050	5.20

As of March 31, 2015, all outstanding options were fully vested. Accordingly, there was no deferred compensation expense to be recognized in future periods for outstanding but unvested stock options.

The exercise prices of common stock options outstanding and exercisable were as follows at March 31, 2015:

<b>Exercise Price</b>	<b>Options Outstanding (Shares)</b>	<b>Options Exercisable (Shares)</b>	<b>Expiration Date</b>
\$ 0.040	2,400,000	2,400,000	March 13, 2019
\$ 0.040	1,250,000	1,250,000	April 14, 2019
\$ 0.043	1,100,000	1,100,000	March 14, 2024
\$ 0.049	800,000	800,000	February 28, 2024
\$ 0.050	15,000,000	15,000,000	July 17, 2019
\$ 0.051	500,000	500,000	January 29, 2020
\$ 0.060	3,083,334	3,083,334	July 17, 2022
\$ 0.060	2,083,334	2,083,334	August 10, 2022
	26,216,668	26,216,668	



Based on a fair market value of \$0.0491 per share on March 31, 2015, the intrinsic value of exercisable in-the-money stock options was \$40,005 as of March 31, 2015.

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

	<b>Number of Shares</b>	<b>Weighted Average Exercise Price</b>	<b>Weighted Average Remaining Contractual Life (in Years)</b>
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	9,466,668	\$ 0.052	7.80
Options exercisable at December 31, 2013	5,166,668	\$ 0.060	
Options exercisable at March 31, 2014	9,466,668	\$ 0.052	7.80

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

<b>Exercise Price</b>	<b>Options Outstanding (Shares)</b>	<b>Options Exercisable (Shares)</b>	<b>Expiration Date</b>
\$ 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
	9,466,668	9,466,668	

Based on a fair market value of \$0.0352 per share on March 31, 2013, there were no exercisable in-the-money common stock options as of March 31, 2014.

For the three months ended March 31, 2015 and 2014, stock-based compensation costs included in the statements of operations consisted of general and administrative expenses of \$0 and \$2,280,000, respectively, and research and development expenses of \$72,000 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.

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The stock options and warrants outstanding at June 30, 2012 were all out-of-the-money on August 10, 2012. During late July and early August 2012, the Company issued options to officers and directors at that time to purchase a total of 7,361,668 shares of common stock exercisable for ten years at \$0.06 per share. By October 1, 2012, these options, as well as the options and warrants outstanding at June 30, 2012, were also out-of-the-money and continued to be out-of-the-money through December 31, 2014.

There were no stock options or warrants exercised subsequent to August 10, 2012 that triggered additional contingent consideration, and the only remaining stock options outstanding that could still trigger the additional contingent consideration generally remained out-of-the-money through March 31, 2015. As of March 31, 2015, 2,111,445 contingent shares of common stock remained issuable under the Pier merger agreement due to expirations and forfeitures of stock options and warrants occurring since August 10, 2012.

The Company concluded that the issuance of any of the contingent shares to the Pier Stock Recipients was remote, given the large spread between the exercise prices of these stock options and warrants as compared to the common stock trading range, the subsequent expiration or forfeiture of most of the options and warrants, the Company's distressed financial condition and capital requirements, and that these stock options and warrants have generally remained out-of-the-money through March 31, 2015, 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 at that time.

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

As of March 31, 2015, the Company had reserved an aggregate of 3,679 shares for issuance upon conversion of the Series B Preferred Stock; 32,106,094 shares for issuance upon exercise of warrants; 26,216,668 shares for issuance upon exercise of outstanding stock options; 25,633,002 shares to cover equity grants available for future issuance pursuant to the 2014 Plan; 257,760,939 shares for issuance upon conversion of the Series G 1.5% Convertible Preferred Stock; 17,034,702 shares for issuance upon conversion of the 10% Convertible Notes; 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**

Dr. Arnold S. Lipka and Jeff E. Margolis, officers and directors of the Company since March 22, 2013, have indirect ownership interests in Aurora Capital LLC through interests held in its members, and Jeff. E. Margolis is also an officer of Aurora Capital LLC. Aurora Capital LLC is a boutique investment banking firm specializing in the life

sciences sector that is also a full service brokerage firm.

On March 31, 2013, the Company accrued \$85,000 as reimbursement for legal fees incurred by Aurora Capital LLC in conjunction with the removal of the Company's prior Board of Directors on March 22, 2013, which amount has been included in accounts payable and accrued expenses at March 31, 2015 and 2014.

During the three months ended March 31, 2015, the Company charged \$10,000 to operations for consulting services rendered by an entity controlled by family members of Dr. Arnold S. Lippa.

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

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

## **9. Commitments and Contingencies**

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

The Company is periodically the subject of various pending and threatened legal actions and claims. In the opinion of management of the Company, adequate provision has been made in the Company's financial statements with respect to such matters.

A former director of the Company, who joined the Company's Board of Directors on August 10, 2012 in conjunction with the Pier transaction and who resigned from the Company's Board of Directors on September 28, 2012, has asserted certain claims for consulting compensation against the Company. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its consolidated financial statements at March 31, 2015 and December 31, 2014.

As of March 31, 2015 and December 31, 2014, the Company's patent legal counsel had recorded a lien against certain of the Company's patents and patent applications relating to its ampakine technology in the United States Patent and Trademark Office with respect to outstanding delinquent invoices payable to the law firm, which are included in accounts payable and accrued expenses in the Company's consolidated balance sheets at March 31, 2015 and December 31, 2014. On April 8, 2015, the Company entered into a Settlement Agreement and General Release (the "Settlement Agreement") with the law firm to settle this outstanding obligation. Additional information with respect to this settlement is provided at Note 10.

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

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

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

On April 15, 2013, the Company received a letter from UCI indicating that the license agreements between UCI and the Company had been terminated due to the Company's failure to make certain payments required to maintain the agreements. Since the patents covered in these license agreements had begun to expire and the therapeutic uses described in these patents were no longer germane to the Company's new focus on respiratory disorders, the loss of these license agreements is not expected to have a material impact on the Company's current drug development

programs. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its consolidated financial statements at March 31, 2015 and December 31, 2014.

***University of Alberta License Agreement***

On May 8, 2007, the Company entered into a license agreement, as amended, with the University of Alberta granting the Company exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. The Company agreed to pay the University of Alberta a licensing fee and a patent issuance fee, which were paid, and prospective payments consisting of a royalty on net sales, sublicense fee payments, maintenance payments and milestone payments. The prospective maintenance payments commence on the enrollment of the first patient into the first Phase 2B clinical trial and increase upon the successful completion of the Phase 2B clinical trial. As the Company does not at this time anticipate scheduling a Phase 2B clinical trial, no maintenance payments are currently due and payable to the University of Alberta. In addition, no other prospective payments are currently due and payable to the University of Alberta.

***University of Illinois 2014 Exclusive License Agreement***

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

The 2014 License Agreement granted the Company (i) exclusive rights to several issued and pending patents in numerous jurisdictions and (ii) the non-exclusive right to certain technical information that is generated by the University of Illinois in connection with certain clinical trials as specified in the 2014 License Agreement, all of which relate to the use of cannabinoids for the treatment of sleep related breathing disorders. The Company is developing dronabinol ( $\Delta^9$ -tetrahydrocannabinol), a cannabinoid, for the treatment of OSA, the most common form of sleep apnea.

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

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

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

On September 18, 2014, the Company entered into a contract with the National Institute on Drug Abuse, a division of the National Institutes of Health. The funding under the contract was a Phase 1 award granted under the Small Business Innovation Research Funding Award Program. The purpose of the project was to determine the most useful route of administration for injecting CX1942, the Company's proprietary, soluble ampakine molecule, a potential rescue medication for drug-induced respiratory depression and lethality. The grant was entitled "Novel Treatment of Drug-Induced Respiratory Depression" and was valued at \$148,583, which was paid in increments over the duration of the study which commenced in October 2014 and was completed in April 2015. The study was conducted in rats and measured the ability of CX1942, when injected by various routes of administration, to antagonize the respiratory depression produced by opiates and various combinations of respiratory depressant drugs. The primary measures were potency, latency to onset and duration of action of CX1942. The Company anticipates that the data obtained from this study will be used to determine the designs of preclinical studies necessary for initiating Phase 1 clinical studies. The

preclinical studies were performed in collaboration with Dr. David Fuller of the University of Florida and Dr. John Greer of the University of Alberta, Chairman of the Company's Scientific Advisory Board.

## **10. Subsequent Events**

The Company performed an evaluation of subsequent events through the date of filing of these financial statements with the SEC, noting no additional items requiring disclosure, other than the items disclosed below.

### ***Debt Settlement***

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

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

On April 7, 2015, April 14, 2015, April 15, 2015 and April 20, 2015, an aggregate of 447.173441 shares of Series G 1.5% Convertible Preferred Stock, including 7.173441 dividend shares, were converted into 135,507,104 shares of common stock on a cashless basis.



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

### **Overview**

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

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

New management was appointed in March 2013 and has continued to implement this strategic focus, including seeking the capital to fund such efforts. As a result of the Company's scientific discoveries and the acquisition of strategic, exclusive license agreements, management believes that the Company is now a leader in the discovery and development of innovative pharmaceuticals for the treatment of respiratory disorders.

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

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

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

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

Through the merger, Cortex gained access to an Exclusive License Agreement (as amended, the "License Agreement") that Pier had entered into with the University of Illinois on October 10, 2007. The License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids, of which dronabinol is a specific example, for the treatment of sleep related breathing disorders (including sleep apnea). Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as  $\Delta$ 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 OSA, in which dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index, the primary therapeutic end-point, and was observed to be safe and well tolerated. Dronabinol is currently under investigation, at the University of Illinois and other centers, in a potentially pivotal 120 patient, double-blind, placebo-controlled Phase 2B OSA clinical trial, fully funded by the National Institutes of Health.

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.

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

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

### ***Recent Publications***

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

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

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

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

### ***Going Concern***

The Company’s condensed consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred net losses of \$598,132 for the three months ended March 31, 2015 and \$2,707,535 for the fiscal year ended December 31, 2014, negative operating cash flows of \$200,403 for the three months ended March 31, 2015 and \$885,869 for the fiscal year ended December 31, 2014, and expects to continue to incur net losses and negative operating cash flows for several more years. As a result, management has concluded that there is substantial doubt about the Company’s ability to continue as a going concern, and the Company’s independent registered public accounting firm, in their report on the Company’s consolidated financial statements for the year ended December 31, 2014, has expressed substantial doubt about the Company’s ability to continue as a going concern.

The Company is currently, and has for some time, been in significant financial distress. It has limited cash resources and current assets and has no ongoing source of revenue. 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 and warrants in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes and warrants in February 2015. The Company terminated this financing effective February 18, 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 May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update No. 2014-09 (ASU 2014-09), *Revenue from Contracts with Customers*. ASU 2014-09 will eliminate transaction- and industry-specific revenue recognition guidance under current GAAP and replace it with a principle based approach for determining revenue recognition. ASU 2014-09 will require that companies recognize revenue based on the value of transferred goods or services as they occur in the contract. ASU 2014-09 also will require additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. 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 ASU 2014-09 to have any impact on the Company’s financial statement presentation or disclosures.

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

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

In February 2015, the FASB issued Accounting Standards Update No. 2015-02 (ASU 2015-02), *Consolidation (Topic 810)*. ASU 2015-02 changes the guidance with respect to the analysis that a reporting entity must perform to determine whether it should consolidate certain types of legal entities. All legal entities are subject to reevaluation under the revised consolidation mode. ASU 2015-02 affects the following areas: (1) Limited partnerships and similar legal entities. (2) Evaluating fees paid to a decision maker or a service provider as a variable interest. (3) The effect of fee arrangements on the primary beneficiary determination. (4) The effect of related parties on the primary beneficiary

determination. (5) Certain investment funds. ASU 2015-02 is effective for public business entities for fiscal years, and for interim periods within those fiscal years, beginning after December 15, 2015. Early adoption is permitted, including adoption in an interim period. If an entity early adopts the guidance in an interim period, any adjustments should be reflected as of the beginning of the fiscal year that includes that interim period. A reporting entity may apply the amendments in this guidance using a modified retrospective approach by recording a cumulative-effect adjustment to equity as of the beginning of the fiscal year of adoption. A reporting entity also may apply the amendments retrospectively. The adoption of ASU 2015-02 is not expected to have any impact on the Company's financial statement presentation or disclosures.

In April 2015, the FASB issued Accounting Standards Update No. 2015-03 (ASU 2015-03), *Interest – Imputation of Interest (Subtopic 835-30)*. ASU 2015-03 simplifies the presentation of debt issuance costs and requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the new guidance. ASU 2015-3 is effective for financial statements issued for fiscal years beginning after December 15, 2015, and interim periods within that fiscal year. Early adoption is permitted for financial statements that have not been previously issued. An entity is required to apply the new guidance on a retrospective basis, wherein the balance sheet of each individual period presented is adjusted to reflect the period-specific effects of applying the new guidance. Upon transition, an entity is required to comply with the applicable disclosures for a change in an accounting principle. These disclosures include the nature of and reason for the change in accounting principle, the transition method, a description of the prior-period information that has been retrospectively adjusted, and the effect of the change on the financial statement line items (i.e., debt issuance cost asset and the debt liability). All of the Company's deferred debt issuance costs classified as an asset at March 31, 2015 will be amortized to interest expense by September 30, 2015. Accordingly, the adoption of ASU 2015-03 will impact the presentation of deferred debt issuance costs classified as an asset on the Company's interim condensed consolidated financial statements for the period ended March 31, 2015.



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

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

### **Concentration of Risk**

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

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

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

On May 8, 2007, the Company entered into a license agreement, as subsequently amended, with the University of Alberta granting the Company exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. The Company agreed to pay the University of Alberta a licensing fee and a patent issuance fee, which were paid, and prospective payments consisting of a royalty on net sales, sublicense fee payments, maintenance payments and milestone payments. The prospective maintenance payments commence on the enrollment of the first patient into the first Phase 2B clinical trial and increase upon the successful completion of the Phase 2B clinical trial. As the Company does not at this time anticipate scheduling a Phase 2B clinical trial, no maintenance payments are currently due and payable to the University of Alberta. In addition, no other prospective payments are currently due and payable to the University of Alberta.

Through the merger with Pier, the Company gained access to the License Agreement that Pier had entered into with the University of Illinois on October 10, 2007. The Pier License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids for the treatment of sleep related breathing disorders (including sleep apnea), of which dronabinol is a specific example of one type of cannabinoid. Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as  $\Delta$ 9-THC ( $\Delta$ 9-tetrahydrocannabinol). Dronabinol is currently approved by the FDA and is sold generically for use in refractory chemotherapy-induced nausea and vomiting, as well as for anorexia in patients with AIDS. Pier's business plan was to determine whether dronabinol would significantly improve subjective and objective clinical measures in patients with OSA. In addition, Pier intended to evaluate the feasibility and comparative efficacy of a proprietary formulation of dronabinol. The Pier License Agreement was terminated effective March 21, 2013 due to the Company's failure to make a required payment and on June 27, 2014, the Company entered into a new license agreement with the University of Illinois, the material terms of which were similar to the Pier License Agreement that had been terminated. If the Company is unable to comply with the terms of the new license agreement, such as required payments thereunder, the Company risks the new license agreement being terminated.

### **Critical Accounting Policies and Estimates**

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

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

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

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

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

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

The Company accounted for the beneficial conversion features associated with the Series G 1.5% Convertible Preferred Stock in accordance with Accounting Standards Codification (“ASC”) 470-20, Accounting for Debt with Conversion and Other Options. The Company calculated a deemed dividend on the Series G 1.5% Convertible Preferred Stock of \$8,376,719 in March 2014 and \$1,673,127 in April 2014, which equals the amount by which the estimated fair value of the common stock issuable upon conversion of the issued Series G 1.5% Convertible Preferred Stock exceeded the proceeds from such issuances. The deemed dividend on the Series G 1.5% Convertible Preferred Stock was amortized on the straight-line basis from the respective issuance dates through the earliest conversion date of June 16, 2014, in accordance with ASC 470-20. The difference between the amortization of the deemed dividend calculated based on the straight-line method and the effective yield method was not material.

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

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

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

The cash fees paid to finders and for legal costs were deferred and capitalized as deferred offering costs and are being amortized to interest expense over the life of the promissory notes. The finder's warrants were considered as an additional cost of the offering and were included in deferred offering costs at fair value. The difference between the amortization of the deferred offering costs calculated based on the straight-line method and the effective yield method was not material.

### ***Research Grants***

The Company recognizes revenues from research grants as earned based on the percentage-of-completion method of accounting and issues invoices for contract amounts billed based on the terms of the grant agreement. Revenues recorded under research grants in excess of amounts earned are classified as unearned grant revenue liability in the Company's consolidated balance sheet. Grant receivable reflects contractual amounts due and payable under the grant agreement. The payment of grants receivables are based on progress reports provided by the Company. As of March 31, 2015, the Company was current in filing the required progress reports, as a result of which no allowance for uncollectible amounts was considered necessary.

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

amounts are expended in accordance with the approved grant project.

### *Stock-Based Compensation*

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

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

Stock grants, which are generally time vested, are charged to operations at the grant date fair value ratably over the vesting period.

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

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

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

The Company issues new shares to satisfy stock option exercises.

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

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

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

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

### ***License Agreements***

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

in the Company's consolidated statement of operations. Payments of such liabilities are made in the ordinary course of business.

### *Patent Costs*

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

## **Results of Operations**

### **Three Months Ended March 31, 2015 and 2014**

Revenues. During the three months ended March 31, 2015, the Company had research grant revenues of \$74,534 related to a contract with the National Institute on Drug Abuse entered into on September 18, 2014. The Company had no research grant revenues during the three months ended March 31, 2014.

General and Administrative. For the three months ended March 31, 2015, general and administrative expenses were \$229,900, a decrease of \$2,118,207, as compared to \$2,348,107 for the three months ended March 31, 2014. The decrease in general and administrative expenses for the three months ended March 31, 2015, as compared to the three months ended March 31, 2014, is primarily a result of stock-based compensation of \$0 for the three months ended March 31, 2015 as compared to \$2,280,000 for the three months ended March 31, 2014. The Company also incurred an increase in general and administrative costs of \$140,394 for the three months ended March 31, 2015, as compared to the three months ended March 31, 2014, as a result of professional fees and other costs incurred in connection with management's continuing efforts to reestablish and update the Company's accounting systems and records and prepare various delinquent financial reports and public filings.



For the three months ended March 31, 2014, stock-based compensation costs included in general and administrative expenses aggregated \$2,280,000, of which \$1,960,000 was primarily to officers and directors as compensation for services rendered. None of these individuals receiving stock-based compensation had previously received any compensation from the Company since joining the Company in March and April 2013. There were no stock-based compensation costs included in general and administrative expenses during the year ended December 31, 2013.

Research and Development. For the three months ended March 31, 2015, research and development expenses were \$310,972, an increase of \$246,883, as compared to \$64,089 for the three months ended March 31, 2014. The increase in research and development expenses for the three months ended March 31, 2015, as compared to the three months ended March 31, 2014, is primarily a result of stock-based compensation of \$33,000 to Dr. John Greer, Ph.D. in connection with his appointment to the position of Chairman of the Company's Scientific Advisory Board and \$39,000 to Richard Purcell in connection with his appointment as the Company's Senior Vice President of Research and Development, \$50,579 of project management costs related to the planning for an upcoming clinical study, consulting fees of \$37,500 paid to the Company's Senior Vice President of Research and Development, an accrued minimum annual royalty of \$25,000 to the University of Illinois, and salaries and other costs incurred in connection with work performed relating to the grant from the National Institute on Drug Abuse entered into on September 18, 2014.

For the three months ended March 31, 2015, stock-based compensation costs included in research and development expenses aggregated \$72,000. There were no stock-based compensation costs included in research and development expenses during the three months ended March 31, 2014.

Gain on Settlements with Former Management. During the three months ended March 31, 2015, the Company recorded a gain of \$92,550 as a result of a settlement agreement with its former Vice President and Chief Financial Officer effective January 29, 2015, as amended on February 4, 2015, that resulted in the settlement of potential claims. In conjunction with such settlement agreement, the Company agreed to a total cash payment of \$26,000 to be paid on or before June 30, 2015 (of which \$6,000 was paid upon execution and \$1,500 was paid in March 2015), and issued stock options to purchase 500,000 shares of common stock exercisable at \$0.0512 per share for a period of five years. The stock options were valued pursuant to the Black-Scholes option-pricing model at \$25,450.

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, 2015, interest expense was \$228,534 (including \$11,993 to a related party), an increase of \$215,473, as compared to \$13,061 (including \$12,046 to related parties) for the three months ended March 31, 2014. The increase in interest expense resulted primarily from costs associated with

convertible note and warrant financing conducted during November 2014 through February 2015. Such costs charged to interest expense consisted of the amortization of capitalized financing costs of \$37,097, the amortization of debt discount costs of \$165,997, and accrued interest of \$12,621.

Foreign Currency Transaction Gain. Foreign currency transaction gain was \$4,190 for the three months ended March 31, 2015, as compared to a foreign currency transaction gain of \$6,277 for the three months ended March 31, 2014. The foreign currency transaction gain relates to the \$399,774 loan from SY Corporation Co., Ltd., formerly known as Samyang Optics Co. Ltd., made in June 2012, which is denominated in the South Korean Won.

Net Loss. For the three months ended March 31, 2015, the Company incurred a net loss of \$598,132, as compared to a net loss of \$1,380,710 for the three months ended March 31, 2014.

Amortization of Deemed Dividend on Series G 1.5% Convertible Preferred Stock. For the three months ended March 31, 2015, there was no amortization of the deemed dividend on the shares of Series G 1.5% Convertible Preferred Stock, as the deemed dividend was fully amortized as of June 16, 2014. For the three months ended 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 and the April 17, 2014 closings was \$1,209,970.

Dividend on Series G 1.5% Convertible Preferred Stock. For the three months ended March 31, 2015, dividends accrued on the shares of Series G 1.5% Convertible Preferred Stock issued in the March 18, 2014 and the April 17, 2014 closings were \$3,198. 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, 2015, the Company incurred a net loss attributable to common stockholders of \$601,330, as compared to a net loss attributable to common stockholders of \$2,591,088 for the three months ended March 31, 2014.

### **Liquidity and Capital Resources – March 31, 2015**

The Company's consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred net losses of \$598,132 for the three months ended March 31, 2015 and \$2,707,535 for the fiscal year ended December 31, 2014, negative operating cash flows of \$200,403 for the three months ended March 31, 2015 and \$885,869 for the fiscal year ended December 31, 2014, and expects to continue to incur net losses and negative operating cash flows for several more years. As a result, management has concluded that there is substantial doubt about the Company's ability to continue as a going concern, and the Company's independent registered public accounting firm, in their report on the Company's consolidated financial statements for the year ended December 31, 2014, has expressed substantial doubt about the Company's ability to continue as a going concern.

At March 31, 2015, the Company had a working capital deficit of \$2,554,850, as compared to a working capital deficit of \$2,280,035 at December 31, 2014, reflecting a decrease in working capital of \$274,815 for the three months ended March 31, 2015. The decrease in working capital during the three months ended March 31, 2015 is comprised primarily of an increase in accounts payable and accrued liabilities of \$197,559 and a net increase in notes payable of \$178,618 (reflecting the \$210,000 of proceeds received from the February 2, 2015 closing of the convertible note and warrant financing), offset by the reduction in accrued compensation and related expenses resulting from the gain of \$92,550 recognized in connection with the settlement agreement reached with the Company's former Vice President and Chief Financial Officer.

At March 31, 2015, the Company had cash aggregating \$154,152, as compared to \$162,752 at December 31, 2014, reflecting a decrease in cash of \$8,600 for the three months ended March 31, 2015. The decrease in cash during the three months ended March 31, 2015 was primarily the result of cash utilized in operating activities and debt settlements, offset by the \$210,000 of proceeds received from the February 2, 2015 closing of the convertible note and warrant financing.

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. New management, which was appointed during March and April 2013, has evaluated and addressed the status of numerous aspects of the Company's existing business and obligations, including, without limitation, debt obligations, financial requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has raised new capital to fund 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 and warrants in an aggregate principal amount of \$369,500 to various accredited investors and an additional \$210,000 of such short-term convertible notes and warrants in February 2015. The Company terminated this financing effective February 18, 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, 2015, operating activities utilized cash of \$200,403, as compared to utilizing cash of \$313,759 for the three months ended March 31, 2014, to support the Company's ongoing operations, including legal and accounting fees and costs related to the preparation of delinquent financial statements and SEC filings, research and development activities, patent fees and related legal costs, and a settlement agreement with a former member of management. Included in the \$200,403 of cash utilized during the three months ended March 31, 2015 is \$7,500 of cash used to fund, in part, a settlement agreement with a former executive, as compared to \$118,084 of cash utilized during the three months ended March 31, 2014 to fund, in part, settlement agreements with four former executives.

Investing Activities. For the three months ended March 31, 2015, investing activities utilized cash of \$2,497 for the acquisition of equipment, as compared to \$1,925 during the three months ended March 31, 2014.

Financing Activities. For the three months ended March 31, 2015, financing activities generated cash of \$194,300, consisting of \$210,000 in proceeds from the convertible note and warrant financing, offset by the payment of financing costs of \$15,700 relating to the convertible note and warrant financing. 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 notes payable to the Chairman totaling \$150,000.

## **Principal Commitments**

### ***University of Alberta License Agreement***

On May 8, 2007, the Company entered into a license agreement, as amended, with the University of Alberta granting the Company exclusive rights to practice patents held by the University of Alberta claiming the use of ampakines for the treatment of various respiratory disorders. The Company agreed to pay the University of Alberta a licensing fee and a patent issuance fee, which were paid, and prospective payments consisting of a royalty on net sales, sublicense fee payments, maintenance payments and milestone payments. The prospective maintenance payments commence on the enrollment of the first patient into the first Phase 2B clinical trial and increase upon the successful completion of the Phase 2B clinical trial. As the Company does not at this time anticipate scheduling a Phase 2B clinical trial, no maintenance payments are currently due and payable to the University of Alberta. In addition, no other prospective payments are currently due and payable to the University of Alberta.

### ***University of Illinois 2014 Exclusive License Agreement***

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

The 2014 License Agreement granted the Company (i) exclusive rights to several issued and pending patents in numerous jurisdictions and (ii) the non-exclusive right to certain technical information that is generated by the University of Illinois in connection with certain clinical trials as specified in the 2014 License Agreement, all of which relate to the use of cannabinoids for the treatment of sleep related breathing disorders. The Company is developing dronabinol ( $\Delta^9$ -tetrahydrocannabinol), a cannabinoid, for the treatment of OSA, the most common form of sleep apnea.

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

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

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

At March 31, 2015, the Company did not have any transactions, obligations or relationships that could be considered off-balance sheet arrangements.



### **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURE ABOUT MARKET RISK**

Not applicable.

### **ITEM 4. CONTROLS AND PROCEDURES**

#### **(a) Evaluation of Disclosure Controls and Procedures**

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

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

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 worked diligently to bring delinquent SEC filings current as



promptly as reasonably possible under the circumstances. The Company is now current in its SEC periodic reporting obligations, but as of the date of the filing of this Quarterly Report on Form 10-Q, the Company had not yet completed the process to establish adequate internal controls over financial reporting.

The Company's management, consisting of its principal executive officer and principal financial officer, does not expect that its disclosure controls and procedures or its internal controls will prevent all error or fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Furthermore, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Due to the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. 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, 2015.

The Company is periodically the subject of various pending and threatened legal actions and claims. In the opinion of management of the Company, adequate provision has been made in the Company's condensed consolidated financial statements with respect to such matters.

### **ITEM 1A. RISK FACTORS**

As of the date of this filing, there have been no material changes to the Risk Factors included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2014, as filed with the SEC on March 30, 2015 (the "2014 Form 10-K"). The Risk Factors set forth in the 2014 Form 10-K should be read carefully in connection with evaluating the Company's business and in connection with the forward-looking statements contained in this Quarterly Report on Form 10-Q. Any of the risks described in the 2014 Form 10-K could materially adversely affect the Company's business, financial condition or future results and the actual outcome of matters as to which forward-looking statements are made. These are not the only risks that the Company faces. Additional risks and uncertainties not currently known to the Company or that the Company currently deems to be immaterial also may materially adversely affect the Company's business, financial condition and/or operating results.

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

On September 18, 2014, Dr. John Greer, Ph.D. was appointed to the position of Chairman of the Company's Scientific Advisory Board. Dr. Greer is the Director of the Neuroscience and Mental Health Institute at the University of Alberta, holds two grants regarding research into neuromuscular control of breathing, and is the inventor on the use patents licensed by the Company with respect to ampakines. In connection with the appointment of Dr. Greer as Chairman of the Company's Scientific Advisory Board on September 18, 2014, the Board of Directors awarded 2,000,000 shares of common stock of the Company to Dr. Greer (through his wholly-owned consulting company,

Progress Scientific, Inc.), vesting 25% upon appointment, 25% on September 30, 2014, 25% on December 31, 2014, and 25% on March 31, 2015. The stock award was valued at \$0.066 per share, which was the closing price of the Company's common stock on September 18, 2014. This stock award was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

Effective October 15, 2014, Richard Purcell was appointed as the Company's Senior Vice President of Research and Development. In conjunction with his appointment, the Company agreed to issue to Mr. Purcell 2,000,000 shares of the Company's common stock, with 25% of such stock grant vesting and issuable every three months after the date of his appointment (i.e., on January 15, 2015, April 15, 2015, July 15, 2015 and October 15, 2015), subject to Mr. Purcell's continued relationship with the Company on each of the vesting dates. The stock grant was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

On January 19, 2015, 25.320031 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. On April 7, 2015, April 14, 2015, April 15, 2015 and April 20, 2015, an aggregate of 447.173441 shares of Series G 1.5% Convertible Preferred Stock, including 7.173441 dividend shares, were converted into 135,507,104 shares of common stock on a cashless basis.

Effective January 29, 2015, the Company executed a settlement agreement with its former Vice President and Chief Financial Officer, as amended on February 4, 2015, that resulted in the settlement of potential claims for a total cash payment of \$26,000 to be paid on or before June 30, 2015 (of which \$6,000 was paid upon execution and \$1,500 was paid in March 2015), plus the issuance of a stock option to purchase 500,000 shares of common stock exercisable at \$0.0512 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.

On April 8, 2015, the Company entered into a Settlement Agreement with its patent legal counsel to settle amounts due such firm for services rendered and costs incurred with respect to foreign associates and outside vendors aggregating \$194,736. Pursuant to the terms of the Settlement Agreement, the law firm received a cash payment of \$15,000, non-qualified stock options to purchase 2,520,442 shares of common stock exercisable at \$0.0476 per share for a period of five years, and a short-term unsecured note payable in the principal amount of \$59,763.

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

### **ITEM 3. DEFAULTS UPON SENIOR SECURITIES**

On June 25, 2012, the Company borrowed 465,000,000 Won (the currency of South Korea, equivalent to approximately \$400,000 United States Dollars) from and executed a secured note payable to SY Corporation Co., Ltd., formerly known as Samyang Optics Co. Ltd. (“SAMYANG”), an approximately 20% common stockholder of the Company at that time. The note accrues simple interest at the rate of 12% per annum and had a maturity date of June 25, 2013, although SAMYANG was permitted to demand early repayment of the promissory note on or after December 25, 2012. SAMYANG did not demand early repayment. The Company has not made any payments on the promissory note. At June 30, 2013 and subsequently, the promissory note was outstanding and in technical default, although SAMYANG had not issued a notice of default or a demand for repayment. The Company believes that SAMYANG is in default of its obligations under its January 2012 license agreement, as amended, with the Company, but the Company has not yet issued a notice of default. The Company is endeavoring to enter into discussions with SAMYANG with a view toward a comprehensive resolution of the aforementioned matters.

### **ITEM 4. MINE SAFETY DISCLOSURES**

Not applicable.

### **ITEM 5. OTHER INFORMATION**

Not applicable.

**ITEM 6. EXHIBITS**

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

## SIGNATURES

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

CORTEX PHARMACEUTICALS, INC.  
(Registrant)

Date: May 13, 2015 By: */s/ ARNOLD S. LIPPA*  
Arnold S. Lippa  
President and Chief Executive Officer

Date: May 13, 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
10.1	Convertible Note and Warrant Purchase Agreement (including the Form of Note and Form of Warrant), incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission on November 12, 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.

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

