

CORTEX PHARMACEUTICALS INC/DE/  
Form 10-Q  
December 15, 2014

**UNITED STATES**

**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 10-Q**

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

**For the quarterly period ended June 30, 2013**

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

**Commission file number: 1-16467**

**CORTEX PHARMACEUTICALS, INC.**

(Exact name of registrant as specified in its charter)

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

**126 Valley Road, Suite C**

**Glen Rock, New Jersey 07452**

(Address of principal executive offices)

**(201) 444-4947**

(Registrant's telephone number, including area code)

Not applicable

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

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes  No

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

Yes  No

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

Large accelerated filer  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 June 30, 2013, the Company had 144,041,556 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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**PART I - FINANCIAL INFORMATION****ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS****CORTEX PHARMACEUTICALS, INC.****AND SUBSIDIARY****CONDENSED CONSOLIDATED BALANCE SHEETS**

	<b>June 30, 2013</b>	<b>December 31,</b>
	(Unaudited)	<b>2012</b>
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$25,570	\$152,179
Deferred financing costs	13,328	—
Other current assets	15,090	17,002
Total current assets	53,988	169,181
Other	—	29,545
Total assets	\$53,988	\$198,726
<b>LIABILITIES AND STOCKHOLDERS' DEFICIENCY</b>		
Current liabilities:		
Accounts payable and accrued expenses	\$1,769,030	\$1,509,827
Accrued compensation and related expenses	1,480,264	885,180
Notes payable to Chairman, including accrued interest of \$1	25,001	—
Notes payable to related party, including accrued interest of \$49,460 and \$25,340 at June 30, 2013 and December 31, 2012, respectively	456,503	465,392
Project advance, including accrued interest of \$84,742 and \$82,722 at June 30, 2013 and December 31, 2012, respectively	332,042	330,022
Total current liabilities	4,062,840	3,190,421
Commitments and contingencies (Note 11)		
Stockholders' deficiency:		

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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
Common stock, \$0.001 par value; shares authorized: 205,000,000; shares issued and outstanding: 144,041,556	144,041	144,041
Additional paid-in capital	125,183,892	125,183,892
Accumulated deficit	(129,358,488)	(128,341,331)
Total stockholders' deficiency	(4,008,852 )	(2,991,695 )
Total liabilities and stockholders' deficiency	\$53,988	\$198,726

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

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

	<b>Three Months Ended</b>		<b>Six Months Ended</b>	
	<b>June 30,</b>		<b>June 30,</b>	
	<b>2013</b>	<b>2012</b>	<b>2013</b>	<b>2012</b>
Grant revenues	\$—	\$48,309	\$—	\$48,309
Operating expenses:				
General and administrative	104,229	594,798	863,768	1,326,171
Research and development	74,993	264,295	158,671	467,276
Pier merger-related costs	—	161,247	—	161,247
Gain on settlement of office lease	(1,990)	—	(1,990)	—
Total operating expenses	177,232	1,020,340	1,020,449	1,954,694
Loss from operations	(177,232)	(972,031)	(1,020,449)	(1,906,385)
Interest income	—	34	—	91
Interest expense, including \$12,127 and \$5,779 to related parties for the three months ended June 30, 2013 and 2012, respectively, and \$24,120 and \$5,779 to related parties for the six months ended June 30, 2013 and 2012, respectively	(14,680)	(7,885)	(29,717)	(8,890)
Foreign currency transaction gain (loss)	12,141	(10,420)	33,009	(10,420)
Loss on sale of assets	—	(4,705)	—	(3,173)
Net loss	\$(179,771)	\$(995,007)	\$(1,017,157)	\$(1,928,777)
Net loss per common share - Basic and diluted	\$(0.00)	\$(0.01)	\$(0.01)	\$(0.02)
Weighted average common shares outstanding - Basic and diluted	144,041,556	85,623,663	144,041,556	85,623,663

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

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**CORTEX PHARMACEUTICALS, INC.****AND SUBSIDIARY****CONDENSED CONSOLIDATED STATEMENT OF STOCKHOLDERS' DEFICIENCY****(Unaudited)****Six Months Ended June 30, 2013**

	<b>Series B Convertible Preferred Stock</b>		<b>Common Stock</b>		<b>Additional</b>		<b>Total</b>
	<b>Shares</b>	<b>Dollar Amount</b>	<b>Shares</b>	<b>Par Value</b>	<b>Paid-in Capital</b>	<b>Accumulated Deficit</b>	<b>Stockholders' Equity</b>
Balance, December 31, 2012	37,500	\$ 21,703	144,041,556	\$ 144,041	\$ 125,183,892	\$(128,341,331)	\$(2,991,695 )
Net loss	—	—	—	—	—	(1,017,157 )	(1,017,157 )
Balance, June 30, 2013	37,500	\$ 21,703	144,041,556	\$ 144,041	\$ 125,183,892	\$(129,358,488)	\$(4,008,852 )

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

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

	<b>Six Months Ended June</b>	
	<b>30,</b>	
	<b>2013</b>	<b>2012</b>
Cash flows from operating activities:		
Net loss	\$(1,017,157)	\$(1,928,777)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation expense	—	13,843
Stock-based compensation costs	—	34,641
Gain on settlement of office lease	(1,990 )	—
Foreign currency transaction (gain) loss	(33,009 )	10,420
Amortization of capitalized financing costs	—	712
Amortization of discount on note payable	—	4,797
Loss on sale of assets	—	3,173
Changes in operating assets and liabilities:		
(Increase) decrease in -		
Restricted cash	—	48,309
Other current assets	1,912	38,242
Other non-current assets	29,545	(20,656 )
Increase (decrease) in -		
Accounts payable and accrued expenses	261,193	339,176
Accrued compensation and related expenses	595,084	108,079
Unearned revenue	—	(48,309 )
Deferred rent	—	(64,445 )
Accrued interest payable	26,141	2,830
Net cash used in operating activities	(138,281 )	(1,457,965)
Cash flows from investing activities:		
Proceeds from sales of equipment	—	6,785
Purchases of furniture and equipment	—	(5,293 )
Net cash provided by investing activities	—	1,492
Cash flows from financing activities:		
Proceeds from issuance of notes payable	25,000	399,774
Deferred financing costs related to Series G preferred stock	(13,328 )	—

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Financing costs related to issuance of note payable	—	(21,370 )
Net cash provided by financing activities	11,672	378,404
Cash and cash equivalents:		
Net decrease	(126,609 )	(1,078,069)
Balance at beginning of period	152,179	1,610,945
Balance at end of period	\$25,570	\$532,876
Supplemental disclosures of cash flow information:		
Cash paid for -		
Interest	\$—	\$—
Income taxes	\$—	\$—

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

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**CORTEX PHARMACEUTICALS, INC.**

**AND SUBSIDIARY**

**NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS**

**(Unaudited)**

**Three Months and Six Months Ended June 30, 2013 and 2012**

**1. Basis of Presentation**

The condensed consolidated financial statements of Cortex Pharmaceuticals, Inc. (“Cortex”) and its wholly-owned subsidiary, Pier Pharmaceuticals, Inc. (“Pier”) (collectively referred to herein as the “Company”, unless the context indicates otherwise), at June 30, 2013 and for the three months and six months ended June 30, 2013 and 2012, are unaudited. In the opinion of management, all adjustments (including normal recurring adjustments) have been made that are necessary to present fairly the consolidated financial position of the Company as of June 30, 2013, the results of its consolidated operations for the three months and six months ended June 30, 2013 and 2012, and its consolidated cash flows for the six months ended June 30, 2013 and 2012. Consolidated operating results for the interim periods presented are not necessarily indicative of the results to be expected for a full fiscal year. The condensed consolidated balance sheet at December 31, 2012 has been derived from the Company’s audited consolidated financial statements at such date.

The condensed consolidated financial statements and related notes have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission (the “SEC”). Accordingly, certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles in the United States (“GAAP”) have been omitted pursuant to such rules and regulations. These 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, 2012, 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 (see Note 4).

On March 22, 2013, the Company received a written consent of stockholders holding a majority of the Company's common stock signed by Origin Ventures II LP, Illinois Emerging Technologies Fund, LP, Illinois Ventures LLC, Samyang Optics Co. Ltd., Samyang Value Partners Co., Ltd., Steven Chizzik, Kenneth M. Cohen, Peter Letendre, David W. Carley and Aurora Capital LLC (the "Written Consent") (i) removing Charles J. Casamento, M. Ross Johnson, John F. Benedik and Mark A. Varney from their positions as directors of the Company and (ii) appointing each of Arnold S. Lippa, Ph.D. and Jeff E. Margolis to fill two of the vacancies created, each to hold such office until the next annual meeting of the stockholders and until their successors have been duly elected and qualified. The Written Consent did not remove Moogak Hwang, Ph.D., a representative of Samyang Optics Co. Ltd., a lender to and significant stockholder of the Company (see Note 6), from the Board of Directors. Dr. Hwang continued to serve as a director until his resignation from the Board of Directors effective September 30, 2013 (see Note 6).

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

Since new management's appointment in March 2013, new management has continued to implement this revised strategic focus, including seeking the capital to fund such efforts. As a result of the Company's scientific discoveries and the acquisition of strategic, exclusive license agreements (including a new license agreement with the University of Illinois, as described at Note 12), 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.

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

At December 31, 2012, the Company was not in compliance with its minimum annual payment obligations and believed that this default constituted a termination of the license agreements. On April 15, 2013, UCI notified the Company that these license agreements were terminated due to the Company's failure to make its obligatory payments. Since the patents covered in these license agreements had begun to expire and the therapeutic uses described in these patents were no longer germane to the Company's new focus on respiratory disorders, the loss of these license agreements is not expected to have a material impact on the Company's current or future drug development programs. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its financial statements at June 30, 2013.

Cortex also owns patents and patent applications for certain families of chemical compounds, including ampakines, which claim the chemical structures and their use in the treatment of various disorders. These patents cover, among other compounds, Cortex's lead ampakines CX 1739 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.

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 (see Note 4). Pier was formed in June 2007 (under the name SteadySleep Rx Co.) as a clinical stage pharmaceutical company to develop a pharmacologic treatment for the respiratory disorder known as obstructive sleep apnea and had been engaged in research and clinical development activities since formation.

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Through the merger, the Company gained access to an Exclusive License Agreement, as amended (the “License Agreement”), that Pier had entered into with the University of Illinois on October 10, 2007. The License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids, of which dronabinol is a specific example, for the treatment of sleep related breathing disorders (including sleep apnea). Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as  $\Delta$ 9-THC ( $\Delta$ 9-tetrahydrocannabinol). Pier’s business plan was to determine whether dronabinol would significantly improve subjective and objective clinical measures in patients with obstructive sleep apnea. In addition, Pier intended to evaluate the feasibility and comparative efficacy of a proprietary formulation of dronabinol.

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

Prior to the merger, Pier conducted a 21 day, randomized, double-blind, placebo-controlled dose escalation Phase 2 clinical study in 22 patients with obstructive sleep apnea (“OSA”), in which dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index (“AHI”), the primary therapeutic end-point, and was observed to be safe and well tolerated. Dronabinol is currently under investigation, at the University of Illinois and other centers, in a potentially pivotal 120 patient, double-blind, placebo-controlled Phase 2B OSA clinical trial, fully funded by the National Institutes of Health.

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

The License Agreement was terminated effective March 21, 2013 due to the Company’s failure to make a required payment (see Note 5). New management subsequently opened negotiations with the University of Illinois, as a result of which 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 (see Note 12).

### ***Going Concern***

The Company's condensed consolidated financial statements have been presented on the basis that it is a going concern, which contemplates the realization of assets and satisfaction of liabilities in the normal course of business. The Company has incurred net losses of \$1,017,157 for the six months ended June 30, 2013 and \$7,572,244 for the fiscal year ended December 31, 2012, negative operating cash flows of \$138,281 for the six months ended June 30, 2013 and \$1,861,870 for the fiscal year ended December 31, 2012, and incurred additional net losses and negative operating cash flows in the remainder of the 2013 and 2014 fiscal years. The Company expects to continue to incur net losses and negative operating cash flows for several more years thereafter. As a result, management and the Company's auditors believe that there is substantial doubt about the Company's ability to continue as a going concern.

The Company is currently, and has for some time, been in significant financial distress. It has limited cash resources and current assets and has no ongoing source of revenue. Beginning in late 2012, the Company's business activities were reduced to minimal levels, and the prior Board of Directors of the Company, which was removed by the written consent of stockholders holding a majority of the outstanding shares on March 22, 2013, had retained bankruptcy counsel to assist the Company in preparations to file for liquidation under Chapter 7 of the United States Bankruptcy Code. New management, which was appointed during March and April 2013, has evaluated the status of numerous aspects of the Company's existing business and obligations, including, without limitation, debt obligations, financial requirements, intellectual property, licensing agreements, legal and patent matters and regulatory compliance, and has raised new capital to fund its business activities.

From June 2013 through March 2014, the Company's Chairman and Chief Executive Officer advanced short-term loans to the Company aggregating \$150,000 in order to meet its minimum operating needs. In March and April 2014, the Company completed a private placement by selling 928.5 shares of its Series G Preferred Stock for gross proceeds of \$928,500 (see Note 12) and repaid the aggregate advances. The Company's Chairman and Chief Executive Officer invested \$250,000 in the Series G Preferred Stock private placement. On November 5, 2014 and December 9, 2014, the Company sold convertible notes (with warrants) in an aggregate principal amount of \$238,500 and \$46,000, respectively, to various accredited investors. The purchasers consisted of non-affiliated investors (see Note 12). The Company intends to continue this financing until it has sold an aggregate principal amount of \$1,000,000 of such notes, although there can be no assurances that the Company will be successful in this regard.

The Company will need to raise additional capital, either through the current financing or otherwise, or both, to be able to pay its liabilities and fund its business activities going forward. As a result of the Company's current financial situation, the Company has limited access to external sources of debt and equity financing. Accordingly, there can be no assurances that the Company will be able to secure additional financing in the amounts necessary to fully fund its operating and debt service requirements. If the Company is unable to access sufficient cash resources, the Company may be forced to discontinue its operations entirely and liquidate.

### **3. Summary of Significant Accounting Policies**

#### ***Principles of Consolidation***

The accompanying condensed consolidated financial statements include the financial statements of Cortex and Pier, its wholly-owned subsidiary, from its August 10, 2012 acquisition date. Intercompany balances and transactions have been eliminated in consolidation.

#### ***Cash Concentrations***

The Company's cash balances may periodically exceed federally insured limits. The Company has not experienced a loss in such accounts to date. The Company maintains its accounts with financial institutions with high credit ratings.

#### ***Cash Equivalents***

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

### *Concentrations of Credit Risk*

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

### *Fair Value of Financial Instruments*

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

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

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

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

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

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

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

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

Deferred financing costs, net of accumulated amortization, included in the condensed consolidated balance sheet at June 30, 2013 and December 31, 2012 were \$13,328 and \$-0-, respectively.

### ***Furniture and Equipment***

Furniture and equipment are recorded at cost and depreciated on a straight-line basis over the lesser of their estimated useful lives, ranging from three to five years.

### ***Long-Lived Assets***

The Company reviews its long-lived assets, including intangible assets such as the License Agreement, for impairment whenever events or changes in circumstances indicate that the total amount of an asset may not be recoverable, but at least annually, in conjunction with the preparation of the Company's fiscal year-end audited financial statements. An impairment loss is recognized when estimated future cash flows expected to result from the use of the asset and its eventual disposition is less than the asset's carrying amount. The Company does not have any goodwill.

### ***License Agreement***

The License Agreement with the University of Illinois acquired in the Pier transaction was an acquired intangible asset recorded at cost of \$3,411,157 (based on the fair value ascribed to the License Agreement in August 2012, as described in Note 4), and was being amortized on a straight-line basis over the remaining life of its underlying patents of 172 months from the date of acquisition.

The Company performed an impairment assessment of the carrying value of the License Agreement as of December 31, 2012 and determined that it had no expected future value at that date. The Company made this determination because it was unable to make a \$75,000 payment due under the License Agreement at December 31, 2012, as a result of which the License Agreement was forfeited during the three months ended March 31, 2013. The Company recorded an impairment charge to operations of \$3,321,678 at December 31, 2012 to write off the carrying value of the License Agreement (see Note 5).

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

The Company records research grant revenues when the expenses related to the grant projects are incurred. Amounts received under research grants are nonrefundable, regardless of the success of the underlying research, to the extent that such amounts are expended in accordance with the approved grant project.

### *Stock-Based Compensation*

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

The Company accounts for stock-based payments to officers and directors by measuring the cost of services received in exchange for equity awards based on the grant date fair value of the awards, with the cost recognized as compensation expense on the straight-line basis in the Company's financial statements over the vesting period of the awards. The Company accounts for stock-based payments to 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.

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

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

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

The Company issues new shares to satisfy stock option exercises.

There were no stock options issued or exercised during the six months ended June 30, 2013 and 2012.

### *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 projects it will be able to utilize these tax attributes.

As of June 30, 2013, the Company did not have any unrecognized tax benefits related to various federal and state income tax matters.

The Company is subject to U.S. federal income tax as well as income tax of multiple state tax jurisdictions. The Company is currently open to audit under the statute of limitations by the Internal Revenue Service for the years ending December 31, 2011 through 2013. The Company and its subsidiary's state income tax returns (prior to the Pier merger) are open to audit under the statute of limitations for the years ended December 31, 2010 through 2013. The Company does not anticipate any material amount of unrecognized tax benefits within the next 12 months.

The Company is currently delinquent with respect to certain of its U.S. federal and applicable states income tax filings and no potential penalties, interest or other charges have been provided for in the Company's consolidated financial statements because no income was generated during those periods.

### ***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 statement of operations.

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

Research and development costs consist primarily of fees paid to consultants and outside service providers, patent fees and costs, and other expenses relating to the acquisition, design, development and testing of the Company's treatments and product candidates.

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

### ***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 six months ended June 30, 2013 and 2012.

***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) available 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.

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

At June 30, 2013 and 2012, 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>June 30,</b>	
	<b>2013</b>	<b>2012</b>
Convertible preferred stock	3,679	3,679
Warrants	5,691,367	22,739,759
Stock options	5,166,668	10,730,856
Total	10,861,714	33,474,294

### *Use of Estimates*

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

### *Recent Accounting Pronouncements*

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

In May 2014, the FASB issued Accounting Standards Update No. 2014-09 (ASU 2014-09), *Revenue from Contracts with Customers*. ASU 2014-09 will eliminate transaction- and industry-specific revenue recognition guidance under current U.S. GAAP and replace it with a principle based approach for determining revenue recognition. ASU 2014-09 will require that companies recognize revenue based on the value of transferred goods or services as they occur in the contract. ASU 2014-09 also will require additional disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments and assets recognized from costs incurred to obtain or fulfill a contract. ASU 2014-09 is effective for reporting periods beginning after December 15, 2016, and early adoption is not permitted. Entities can transition to the standard either retrospectively or as a cumulative-effect adjustment as of the date of adoption. As the Company does not expect to have any operating revenues for the foreseeable future, the Company does not expect the adoption of this guidance to have any impact on the Company’s financial statement presentation or disclosures.

In June 2014, the FASB issued Accounting Standards Update No. 2014-10 (ASU 2014-10), *Development Stage Entities (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation*. ASU 2014-10 eliminated the requirement to present inception-to-date information about income statement line items, cash flows, and equity transactions, and clarifies how entities should disclose the risks and uncertainties related to their activities. ASU 2014-10 also eliminated an exception provided to development stage entities in Consolidations (ASC Topic 810) for determining whether an entity is a variable interest entity on the basis of the amount of investment equity that is at risk. The presentation and disclosure requirements in Topic 915 will no longer be required for interim and annual reporting periods beginning

after December 15, 2014, and the revised consolidation standards will take effect in annual periods beginning after December 15, 2015. Early adoption is permitted. The adoption of ASU 2014-10 is not expected to have any impact on the Company's financial statement presentation or disclosures.

In August 2014, the FASB issued Accounting Standards Update No. 2014-15 (ASU 2014-15), *Presentation of Financial Statements – Going Concern (Subtopic 205-10)*. ASU 2014-15 provides guidance as to management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. In connection with preparing financial statements for each annual and interim reporting period, an entity's management should evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the entity's ability to continue as a going concern within one year after the date that the financial statements are issued (or within one year after the date that the financial statements are available to be issued when applicable). Management's evaluation should be based on relevant conditions and events that are known and reasonably knowable at the date that the financial statements are issued (or at the date that the financial statements are available to be issued when applicable). Substantial doubt about an entity's ability to continue as a going concern exists when relevant conditions and events, considered in the aggregate, indicate that it is probable that the entity will be unable to meet its obligations as they become due within one year after the date that the financial statements are issued (or available to be issued). ASU 2014-15 is effective for the annual period ending after December 15, 2016, and for annual periods and interim periods thereafter. Early application is permitted. The Company is currently evaluating the impact the adoption of ASU 2014-15 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.

### ***Reclassifications***

Certain comparative figures in 2012 have been reclassified to conform to the current year's presentation. These reclassifications were not material, either individually or in the aggregate.

### **4. Merger with Pier Pharmaceuticals, Inc.**

On August 10, 2012, pursuant to an Agreement and Plan of Merger by and among Pier, a privately-held corporation, Pier Acquisition Corp., a Delaware corporation ("Merger Sub") and a wholly-owned subsidiary of Cortex, and Cortex, Merger Sub merged with and into Pier and Pier became a wholly-owned subsidiary of Cortex. Pier was formed in June 2007 (under the name SteadySleep Rx Co.) as a clinical stage pharmaceutical company to develop a pharmacologic treatment for the respiratory disorder known as obstructive sleep apnea and had been engaged in research and clinical development activities since formation. As a result, Cortex acquired 100% of the issued and outstanding equity securities of Pier.

In connection with the merger transaction with Pier, Cortex issued 58,417,893 newly issued shares of its common stock with an aggregate fair value of \$3,271,402 (\$0.056 per share), based upon the closing price of 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.

Pier was formed on June 25, 2007 as a closely-held clinical stage pharmaceutical company to develop a pharmacologic treatment for the respiratory disorder known as obstructive sleep apnea and has been engaged in research and early clinical development activities since formation. Pier was a development stage company, as it had not commenced any revenue-generating operations, did not have any cash flows from operations, and was dependent on debt and equity funding to finance its operations.

On October 10, 2007, Pier obtained the basis for its research and clinical development activities by entering into a License Agreement with the University of Illinois. 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 breathing-related sleep 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 administration to humans would significantly improve subjective and objective clinical measures in patients with obstructive sleep apnea. In addition, Pier intended to evaluate the feasibility and comparative efficacy of a proprietary formulation of dronabinol.

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

The License Agreement was the basis for Pier's research and development activities, and was Pier's primary asset and its only intellectual property asset. By providing Cortex with the means to expand its respiratory disorders program, the License Agreement was the central reason that Cortex entered into the merger transaction with Pier in August 2012.

The transaction brought together a series of unique drug products that in preclinical animal models and early clinical studies have shown efficacy in preventing or reversing drug-induced respiratory depression and in reducing obstructive, central and mixed sleep apneas. Phase 2 clinical assets include Cortex's CX1739, a compound targeting opiate-induced respiratory depression and central sleep apnea, and Pier's dronabinol, a compound that was, at the time, about to begin a Phase 2B study in obstructive sleep apnea patients that was funded entirely by a National Institutes of Health grant of nearly \$5 million. Subsequent to the closing of the transaction, the Company intended to focus entirely on treatments for breathing disorders, and expected to have multiple opportunities for value-generating clinical milestones with dronabinol and CX1739.

Pursuant to the terms of the transaction, Cortex agreed to issue contingent consideration, consisting of up to approximately 18,300,000 additional shares of common stock, to Pier's former security holders and certain parties 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 Pier's former security holders and other parties, following their receipt of such additional shares, could not exceed their ownership percentage as of the initial transaction date.

The stock options and warrants outstanding at June 30, 2012 were all out-of-the-money on August 10, 2012. During late July and early August 2012, the Company issued options to officers and directors at that time to purchase a total of 7,361,668 shares of common stock exercisable for ten years at \$0.06 per share (see Note 9). By October 1, 2012, these options were also out-of-the-money and continued to be out-of-the-money through June 30, 2013. All of the aforementioned options and warrants became increasingly out-of-the-money as December 31, 2012 approached (with most options and warrants being out of the money by multiples of the exercise price at such date), reflecting the fact that the Company's prospects were very negative. The Company was unable to raise operating capital subsequent to its acquisition of Pier, had run out of working capital and essentially ceased business operations during the fourth quarter of 2012, had not filed its September 30, 2012 Form 10-Q Quarterly Report with the U.S. Securities and Exchange Commission due on November 14, 2012, had accepted the resignations of most of its officers and directors, and had prepared to shut-down and liquidate. There were no stock options or warrants exercised subsequent to August 10, 2012, and all of these stock options and warrants were out-of-the-money at June 30, 2013. As of June 30, 2013, approximately 3,200,000 contingent shares of common stock remained issuable under the Pier merger agreement due to forfeitures and expirations of stock options and warrants occurring since August 10, 2012.

Accordingly, the Company concluded that the issuance of any of the contingent stock consideration was remote, given the large spread between exercise prices of these stock options and warrants as compared to the common stock trading range, the expiration of most of the lower priced option and warrants within two years, the Company's distressed financial condition and capital requirements, and that these stock options and warrants have remained and have become increasingly out-of-the-money through June 30, 2013, 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.



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

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

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

The following table summarizes the fair value of the assets acquired and liabilities assumed by the Company at the closing of the Pier transaction on August 10, 2012.

Fair value of assets acquired:	
Cash	\$23,208
Other current assets	698
Equipment	3,463
License agreement	3,411,157
Total assets acquired	\$3,438,526
Consideration transferred by the Company:	
Fair value of common shares issued	\$3,271,402
Liabilities assumed	167,124
Total consideration paid	\$3,438,526

The following pro forma operating data presents the results of operations for the three months and six months ended June 30, 2012, as if the merger had occurred on the first day of the period presented. The pro forma results are not necessarily indicative of the financial results that might have occurred had the merger transaction actually taken place on the first day of the period presented, or of future results of operations. Pro forma information for the three months and six months ended June 30, 2012 is summarized as follows:

	<b>Three Months Ended June 30, 2012</b>	<b>Six Months Ended June 30, 2012</b>
Total revenues	\$48,309	\$48,309
Net loss	\$(968,831 )	\$(2,079,683 )
Net loss per common share - Basic and diluted	\$(0.01 )	\$(0.01 )
Weighted average common shares outstanding - Basic and diluted	144,041,556	144,041,556

As a condition of the Pier transaction, positions for two of Cortex's executive officers were eliminated and thus the severance agreements for such executive officers were amended. As amended, the severance agreements provided for the grant of fully vested, ten-year options to purchase up to a total of 5,166,668 shares of the Company's common stock at an exercise price of \$0.06 per share, which was in excess of the closing price of the Company's common stock on the closing date of the Pier acquisition. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model was determined to be \$310,000 (\$0.06 per share) and was charged to merger costs on August 10, 2012. The Black-Scholes option-pricing model utilized the following inputs: exercise price per share-\$0.06; stock price per share - \$0.056; expected dividend yield - 0.00%; expected volatility - 176%; average risk-free interest rate - 0.31%; expected life - 10 years. As amended, the severance agreements also required the payment of \$429,231 for various other amounts due the two executive officers. As of August 10, 2012, these amounts were accrued and charged to merger costs. As a result of the management change that occurred on March 22, 2013, these officers

asserted claims against the Company (see Note 12).

Pier merger-related costs for the year ended December 31, 2012 are summarized as follows:

Direct merger costs	\$506,876
Merger-related severance and termination costs	739,231
Total	\$1,246,107

The License Agreement was terminated effective March 21, 2013 due to the Company's failure to make a required payment (see Note 5). New management subsequently opened negotiations with the University of Illinois, as a result of which 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 (see Note 12).

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## **5. Impairment and Termination of University of Illinois License Agreement**

At December 31, 2012, the Company was obligated to pay a \$75,000 milestone fee to the University of Illinois under the License Agreement (see Note 4). At such date, due to the Company's distressed financial condition, lack of working capital and inability to raise additional operating capital, the Company was unable to make such payment on a timely basis, or within the 30-day cure period.

At December 31, 2012, the Company determined that the License Agreement would be forfeited during the first quarter of the 2013 fiscal year. Accordingly, the License Agreement had no expected future value and was therefore impaired at December 31, 2012, as a result of which the Company recorded a charge to operations of \$3,321,678 at December 31, 2012 (reflecting the remaining unamortized carrying value of the License Agreement at December 31, 2012).

Subsequently, on February 19, 2013, the University of Illinois notified the Company that it had defaulted under the License Agreement due to non-payment of the \$75,000 milestone fee due December 31, 2012. On March 22, 2013, the University of Illinois notified the Company that the License Agreement had been terminated effective March 21, 2013 due to the Company's failure to make the required \$75,000 payment.

## **6. Notes Payable**

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

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

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

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

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

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

The 36% value attributed to the warrant was 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 June 30, 2013 and December 31, 2012:

	<b>June 30, 2013</b>	<b>December 31, 2012</b>
Principal amount of note payable	\$399,774	\$399,774
Accrued interest payable	49,460	25,340
Foreign currency transaction adjustment	7,269	40,278
	<b>\$456,503</b>	<b>\$465,392</b>

### *Notes Payable to Chairman*

On June 25, 2013, the Arnold Lippa Family Trust, an affiliate of Dr. Lippa, the Company's Chairman and Chief Executive Officer, began advancing funds to the Company in order to meet minimum operating needs. At June 30, 2013, Dr. Lippa had advanced \$25,000 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 Preferred Stock (see Note 12).

### **7. Furniture, Equipment and Leasehold Improvements**

During the year ended December 31, 2012, in connection with the downsizing of the Company's operations, the Company disposed of furniture, equipment and leasehold improvements costing a total of \$1,170,849. Of that amount,

\$835,077 and \$898,731 occurred during the three months and six months ended June 30, 2012, respectively.

On May 14, 2012, the Company executed a three-year lease for office space beginning June 1, 2012 at a monthly rate of \$9,204. During the three months ended December 31, 2012, the Company substantially vacated its operating facility and abandoned its furniture, equipment and leasehold improvements. In May 2013, the Company received notice that it had been sued in the Superior Court of California in a complaint filed on March 28, 2013 by its former landlord, PPC Irvine Center Investment, LLC, seeking among other things, \$57,535 in past due rent, termination of the lease agreement, and reasonable attorney's fees. On May 23, 2013, a settlement was reached with the landlord that provided for the Company to relinquish its security deposit in the amount of \$29,545, transfer title to its remaining furniture, equipment and leasehold improvements, and pay an additional \$26,000. The transfer of the Company's furniture, equipment and leasehold improvements resulted in a loss of \$39,126, which was recorded at December 31, 2012. During the three months and six months ended June 30, 2013, the Company recorded a gain of \$1,990 with respect to the final disposition of this matter.

In order to estimate the fair value of the liability to be accrued with respect to the Company's potential liability under the abandoned lease at December 31, 2012, the Company considered various factors, including the current lease rates for similar office space in Irvine, California, the desirability of the area to businesses, and the estimated time that it would take to find a new tenant for the office space. Taking these factors into account, the Company concluded that the potential rental income from a sublease of its operating facility would equal or exceed the Company's remaining lease obligation. The Company also considered the negotiations with the landlord during May 2013, which indicated that a settlement for substantially less than the remaining payments under the lease was more likely than not to be successful.

## 8. Project Advance

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

Pursuant to the funding agreement, if the Company complied with certain conditions, including the completion of the MCI clinical trial, the Company would not be required to make any repayments unless and until the Company enters one of its ampakine compounds into a Phase 3 clinical trials for Alzheimer’s disease. Upon initiation of such clinical trials, repayment would include the principal amount plus accrued interest computed at a rate equal to one-half of the prime lending rate. In the event of repayment, the Institute could elect to receive the outstanding principal balance and any accrued interest thereon in shares of the Company’s common stock. The conversion price for such form of repayment was fixed at \$4.50 per share and was subject to adjustment if the Company paid a dividend or distribution in shares of common stock, effected a stock split or reverse stock split, effected a reorganization or reclassification of its capital stock, or effected a consolidation or merger with or into another corporation or entity. Included in the condensed consolidated balance sheets is principal and accrued interest with respect to this funding agreement in the amount of \$332,042 and \$330,022 at June 30, 2013 and December 31, 2012, respectively.

The Company entered into an agreement with the Institute on September 2, 2014 to settle this obligation by issuing 1,000,000 shares of the Company’s restricted common stock (see Note 12). The note payable, including accrued interest, had an approximate balance of \$337,000 on such date.

## 9. Stockholders’ Equity

### *Preferred Stock*

The Company has authorized a total of 5,000,000 shares of preferred stock, par value \$0.001 per share. As of June 30, 2013 and December 31, 2012, 1,250,000 shares were designated as 9% Cumulative Convertible Preferred Stock (non-voting, “9% Preferred”); 37,500 shares were designated as Series B Convertible Preferred Stock (non-voting, “Series B Preferred”); 205,000 were designated as Series A Junior Participating Preferred Stock (non-voting, “Series A Junior Participating”) and 3,507,500 shares were undesignated and may be issued with such rights and powers as the Board of Directors may designate.



None of the 9% Preferred shares or the Series A Junior Participating shares were outstanding as of June 30, 2013 or December 31, 2012.

Series B Preferred shares outstanding as of June 30, 2013 and December 31, 2012 consisted of 37,500 shares issued in a May 1991 private placement. Each share of Series B Preferred is convertible into approximately 0.09812 shares of common stock at an effective conversion price of \$6.795 per share of common stock, which is subject to adjustment under certain circumstances. As of June 30, 2013 and December 31, 2012, these shares of Series B Preferred outstanding are convertible into 3,679 shares of common stock. The Company may redeem the Series B Preferred for \$25,001, equivalent to \$0.6667 per share, an amount equal to its liquidation preference, at any time upon 30 days prior notice.

On March 14, 2014, the Company designated 1,700 shares of the previously undesignated shares of preferred stock as Series G Preferred Stock (see Note 12).

*Common Stock and Common Stock Purchase Warrants*

Under the terms of the Company's registered direct offering with several institutional investors in January 2007, the Company sold an aggregate of 5,021,427 shares of its common stock and warrants to purchase 3,263,927 shares of its common stock. The warrants had an exercise price of \$1.66 per share and were exercisable on or before January 21, 2012. During the year ended December 31, 2007, the Company received approximately \$443,000 from the partial exercise of such warrants. None of the remaining warrants to purchase 2,996,927 shares of the Company's common stock were exercised, and consequently, those unexercised warrants expired in January 2012.

Under the terms of the Company's registered direct offering with several institutional investors in August 2007, the Company sold an aggregate of 7,075,000 shares of its common stock and warrants to purchase 2,830,000 shares of its common stock. The warrants had an exercise price of \$2.64 per share and were exercisable on or before August 28, 2012. In addition, the Company issued warrants to purchase an aggregate of 176,875 shares of its common stock to the placement agents in that offering. The placement agent warrants had an exercise price of \$3.96 per share and were also exercisable on or before August 28, 2012. None of those investor or placement agent warrants were exercised, and consequently, those unexercised warrants to purchase 3,006,875 shares of the Company's common stock expired in August 2012.

In connection with the registered direct offering of the Company's 0% Series E Convertible Preferred Stock in April 2009, the Company issued warrants to purchase an aggregate of 6,941,176 shares of its common stock to a single institutional investor. The warrants had an exercise price of \$0.3401 per share and were exercisable on or before October 17, 2012. In February 2010, the exercise price of these warrants was reduced to \$0.2721 in exchange for the investor's consent and waiver with respect to the Company's completed financing transaction with Samyang in January 2010. The warrants were also subject to a call provision in favor of the Company. The Company also issued warrants to purchase an additional 433,824 shares of the Company's common stock to the placement agent for that transaction. These warrants had an exercise price of \$0.26 per share and were subject to the same exercisability term as the warrants issued to the investor. None of those investor or placement agent warrants were exercised, and consequently, those unexercised warrants to purchase 7,375,000 shares of the Company's common stock expired in August 2012.

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

In connection with the conversion of a promissory note issued to Samyang in June 2010, the Company issued to Samyang two-year warrants to purchase 4,081,633 shares of the Company's common stock at an exercise price of \$0.206 per share. None of those warrants were exercised, and consequently, those unexercised warrants to purchase 4,081,633 shares of the Company's common stock expired in June 2012.

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

In connection with a private placement of debt on June 25, 2012, the Company issued to Samyang two-year detachable warrants to purchase 4,000,000 shares of the Company's common stock at a fixed exercise price of \$0.056 per share (see Note 6). 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.

A summary of warrant activity for the six months ended June 30, 2013 is presented below.

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (in Years)
Warrants outstanding at December 31, 2012	12,357,884	0.182	
Issued	—	—	
Exercised	—	—	
Expired	(6,666,517 )	0.279	
Warrants outstanding at June 30, 2013	5,691,367	\$ 0.069	0.78
Warrants exercisable at December 31, 2012	12,357,884	\$ 0.182	
Warrants exercisable at June 30, 2013	5,691,367	\$ 0.069	0.78

The exercise prices of common stock warrants outstanding and exercisable are as follows at June 30, 2013:

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

Based on a fair market value of \$0.06 per share on June 30, 2013, the intrinsic value attributed to exercisable but unexercised common stock warrants was \$16,000 at June 30, 2013.

#### *Stock Option and Stock Purchase Plan*

The Company's 1996 Stock Incentive Plan (the "1996 Plan"), which terminated pursuant to its terms on October 25, 2006, provided for the granting of options and rights to purchase up to an aggregate of 10,213,474 shares of the Company's authorized but unissued common stock to qualified employees, officers, directors, consultants and other service providers. Options granted under the 1996 Plan generally vested over a three-year period, although some options granted to officers included more accelerated vesting. Options previously granted under the 1996 Plan generally expire ten years from the date of grant, but some options granted to consultants expire five years from the date of grant. Pursuant to the 1996 Plan, options are generally forfeited three months from the date of termination of an optionee's continuous service if such termination occurs for any reason other than permanent disability or death.

On March 30, 2006, the Company's Board of Directors approved the 2006 Stock Incentive Plan (the "2006 Plan"), which subsequently was approved by the Company's stockholders on May 10, 2006. Upon the approval of the 2006 Plan, no further options were granted under the 1996 Plan. The 2006 Plan provides for the granting of options and rights to purchase up to an aggregate of 9,863,799 shares of the Company's authorized but unissued common stock (subject to adjustment under certain circumstances, such as stock splits, recapitalizations and reorganization) to qualified employees, officers, directors, consultants and other service providers.

Under the 2006 Plan, the Company may issue a variety of equity vehicles to provide flexibility in implementing equity awards, including incentive stock options, nonqualified stock options, restricted stock grants, stock appreciation rights, stock payment awards, restricted stock units and dividend equivalents. The exercise price of stock options offered under the 2006 Plan must be at least 100% of the fair market value of the common stock on the date of grant. If the person to whom an incentive stock option is granted is a 10% stockholder of the Company on the date of grant, the exercise price per share shall not be less than 110% of the fair market value on the date of grant. Vesting and expiration provisions for options granted under the 2006 Plan are similar to those under the 1996 Plan. Pursuant to the 2006 Plan, options are generally forfeited ninety days from the date of termination of an optionee's continuous service if such termination occurs for any reason other than permanent disability or death.

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

Under the 2006 Plan, each non-employee director is automatically granted options to purchase 30,000 shares of common stock upon commencement of service as a director and, each non-employee director is automatically granted additional options to purchase 30,000 shares of common stock on the date of the first meeting of the Board of Directors for the relative calendar year. The nonqualified options to non-employee directors have an exercise price equal to 100% of the fair market value of the common stock on the date of grant, have a ten-year term and vest annually over a three-year period from the dates of grant.

On August 3, 2012, fully vested, ten-year options to purchase a total of 2,195,000 shares of the Company's common stock at an exercise price of \$0.06 per share, representing the closing price of the Company's common stock on the date of issue, were granted to directors of the Company for past services. The fair value of these options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$131,700 (\$0.06 per share), which was charged to general and administrative expense on that date.

In July and August 2012, pursuant to severance agreements amended in connection with the merger transaction with Pier, fully-vested, ten-year options to purchase a total of 5,166,668 shares of the Company's common stock at an exercise price of \$0.06 per share, which was in excess of the closing price of the Company's common stock on the closing date of the merger, were granted to two of the Company's former executive officers. The fair value of these

options, as calculated pursuant to the Black-Scholes option-pricing model, was determined to be \$310,000 (\$0.06 per share), which was charged to merger-related costs on the dates of grant.

The Company is no longer making awards under the 2006 Plan and has adopted, with stockholder approval, the 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan (see Note 11).

As of June 30, 2013, options to purchase an aggregate of 5,166,668 shares of common stock were exercisable under the Company's stock option plans. During the six months ended June 30, 2013, the Company did not issue any options to purchase shares of common stock.

A summary of stock option activity for the six months ended June 30, 2013 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, 2012	10,754,155	0.557	
Granted	—	—	
Expired	—	—	
Forfeited	(5,587,487 )	1.018	
Options outstanding at June 30, 2013	5,166,668	\$ 0.060	9.12
Options exercisable at December 31, 2012	10,754,155	\$ 0.557	
Options exercisable at June 30, 2013	5,166,668	\$ 0.060	9.12

As all stock options outstanding were fully vested at June 30, 2013, there is no compensation expense to be recognized in future periods with respect to such options.

The exercise prices of common stock options outstanding and exercisable were as follows at June 30, 2013:

Exercise Price	Options Outstanding (Shares)	Options Exercisable (Shares)	Expiration Date
\$ 0.060	3,083,334	3,083,334	July 17, 2022
\$ 0.060	2,083,334	2,083,334	August 10, 2022
	5,166,668	5,166,668	

Based on a fair market value of \$0.06 per share on June 30, 2013, there were no exercisable in-the-money stock options as of June 30, 2013.

For the three months ended June 30, 2013 and 2012, stock-based compensation costs included in the statements of operations consisted of general and administrative expenses of \$-0- and \$14,623, respectively, and research and development expenses of \$-0- and \$3,298, respectively. For the six months ended June 30, 2013 and 2012, stock-based compensation costs included in the statements of operations consisted of general and administrative expenses of \$-0- and \$27,829, respectively, and research and development expenses of \$-0- and \$6,811, respectively.

As of June 30, 2013, the Company had reserved an aggregate of 3,679 shares for issuance upon conversion of the Series B Preferred; 5,691,367 shares for issuance upon exercise of warrants; 5,166,668 shares for issuance upon exercise of outstanding stock options; 9,863,799 shares for issuance upon exercise of stock options available for future grant pursuant to the 2006 Plan; and 3,239,023 shares issuable as contingent shares pursuant to the Pier merger (see Note 4). The Company expects to satisfy such stock obligations through the issuance of authorized but unissued shares of common stock.

### ***Stockholder Rights Plan***

On February 5, 2002, the Company's Board of Directors approved the adoption of a Stockholder Rights Plan to protect stockholder interests against takeover strategies that may not provide maximum stockholder value. A dividend of one Right (each, a "Right" and, collectively, the "Rights") for each outstanding share of the Company's common stock was distributed to stockholders of record on February 15, 2002. The Stockholder Rights Plan terminated and the related Rights expired by their terms on February 15, 2012.

## **10. Related Party Transactions**



In 2012, Aurora Capital LLC provided investment banking services to Pier, a company that the Company acquired by merger on August 10, 2012 (see Note 4). For those services, on August 10, 2012 Aurora Capital LLC received 2,971,792 shares of the Company's common stock in payment of its fee of \$194,950. Both Arnold Lipka and Jeff 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.

On March 31, 2013, the Company accrued \$85,000 as reimbursement for legal fees incurred by Aurora Capital LLC in conjunction with the removal of the Company's prior Board of Directors on March 22, 2013 (see Note 2).

See Notes 6 and 9 for a description of transactions with Samyang, a significant stockholder of the Company and a lender to the Company.

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## 11. 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.

The Company's former Vice President and Chief Financial Officer has asserted certain claims for compensation against the Company through the date of her resignation from the Company on October 26, 2012. The Company is engaged in negotiations with this former officer to resolve this matter in its entirety to avoid litigation, but there can be no assurances that the Company will be successful in such endeavor. To the extent that the former officer files a formal complaint or other legal claim against the Company, the Company intends to defend itself through the appropriate legal process and will consider all available options, including filing legal counter-claims. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its financial statements at June 30, 2013.

A former director of the Company, who joined the Company's Board of Directors on August 10, 2012 in conjunction with the Pier transaction and who resigned from the Company's Board of Directors on September 28, 2012, has asserted certain claims for consulting compensation against the Company. In the opinion of management, the Company has made adequate provision for any liability relating to this matter in its financial statements at June 30, 2013.

### *Lease Commitment*

On May 14, 2012, the Company executed a three-year lease for office space beginning June 1, 2012 at a monthly rate of \$9,204. During the three months ended December 31, 2012, the Company substantially vacated its operating facility prior to the scheduled termination of the lease agreement in May 2015. In May 2013, a settlement with the landlord was reached and the lease was terminated (see Note 7).

### *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. At December 31, 2012, the Company was not in compliance with its minimum annual payment obligations and believed that this default constituted a termination of the license agreements.

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

### *University of Alberta License Agreement*

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

## **12. Subsequent Events**

### *Series G Preferred Stock Placement*

On March 14, 2014, the Company filed a Certificate of Designation, Preferences, Rights and Limitations, (the “Certificate of Designation”) of its Series G Preferred Stock (“Series G Preferred Stock”) with the Secretary of State of the State of Delaware to amend the Company’s certificate of incorporation. The number of shares designated as Series G Preferred Stock is 1,700 (which shall not be subject to increase without the written consent of a majority of the holders of the Series G Preferred Stock or as otherwise set forth in the Certificate of Designation). The Stated Value of each share of Series G Preferred Stock is \$1,000.

The Company shall pay a stated dividend on the Series G Preferred Stock at a rate per share (as a percentage of the Stated Value per share) of 1.5% per annum, payable quarterly within 15 calendar days of the end of each fiscal quarter of the Company, in duly authorized, validly issued, fully paid and non-assessable shares of Series G Preferred Stock, which may include fractional shares of Series G Preferred Stock.

The Series G Preferred Stock shall be convertible, beginning 60 days after the last share of Series G 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 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. The stated value of the Series G Preferred Stock is \$1,000 per share, and the fixed conversion price is \$0.0033. Accordingly, at the option of the holder, each share of Series G Preferred Stock is convertible commencing on the date that is 60 calendar days after the date on which the last share of Series G Preferred Stock is issued pursuant to a Purchase Agreement, into 303,030 shares of common stock. In addition, the

Company has the right to require the holders of the Series G 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 Preferred Stock issued and outstanding, all outstanding shares of Series G Preferred Stock, plus all accrued or declared, but unpaid, dividends thereon, shall mandatorily be converted into such number of shares of common stock determined by dividing the Stated Value of such Series G 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 Preferred Stock shall be redeemed by conversion on the two year anniversary of the date the last share of Series G 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 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 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.

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 Preferred Stock for a purchase price of \$1,000 per share, or an aggregate purchase price of \$753,220. This financing represents the initial closing on a private placement of up to \$1,500,000 (the “Private Placement”). The Initial Purchasers in this tranche of the Private Placement consisted of (i) 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 Preferred Stock, and (ii) new, non-affiliated, accredited investors. Neither the Series G 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 warrants totaling approximately 5.6365% of the shares of common stock into which the Series G Preferred Stock may convert, exercisable for five years at a fixed price of \$0.00396, which is 120% of the conversion price at which the Series G Preferred Stock may convert into the Company’s common stock. Aurora Capital LLC was one of the placement agents.

On April 17, 2014, the Company entered into Securities Purchase Agreements with various accredited investors (together with the Initial Purchasers, the “Purchasers”), pursuant to which the Company sold an aggregate of 175.28 shares of its Series G Preferred Stock, for a purchase price of \$1,000 per share, or an aggregate purchase price of \$175,280. This was the second and final closing on the Private Placement. The Purchasers in the second and final tranche of the Private Placement consisted of new, non-affiliated, accredited investors and non-management investors who had also invested in the first closing. One of the investors in this second and final closing was an affiliate of an associated person of Aurora Capital LLC. Neither the Series G 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 warrants totaling approximately 12% of the shares of common stock into which the Series G Preferred Stock may convert, exercisable for five years at a fixed price of \$0.00396, which is 120% of the conversion price at which the Series G Preferred Stock may convert into the Company’s common stock. Aurora Capital LLC was one of the placement agents.

The stated value of the Series G Preferred Stock is \$1,000 per share, and the fixed conversion price is \$0.0033. Accordingly, at the option of the holder, each share of Series G Preferred Stock is convertible commencing on the date that is sixty calendar days after the date on which the last share of Series G Preferred Stock is issued pursuant to a Purchase Agreement, into 303,030 shares of common stock. The aggregate of 928.5 shares of Series G Preferred Stock sold in the Private Placement are convertible into a total of 281,363,634 shares of common stock. The Company had 144,041,556 shares of common stock, plus an additional 57,000,000 shares of common stock issued to management on April 14, 2014, issued and outstanding immediately prior to the closing of the Private Placement of Series G Preferred Stock described herein.

The warrants that the placement agents and selected dealers received in connection with the Private Placement 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 Preferred Stock may convert into the Company's common stock.

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

The shares of Series G 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 Preferred Stock and the Company's common stock issuable upon conversion of the shares of Series G 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.

### *Convertible Note and Warrant Financing*

On November 5, 2014, the Company entered into a Convertible Note and Warrant Purchase Agreement (the “Purchase Agreement”) with various accredited, non-affiliated investors (each, a “Purchaser”), pursuant to which the Company sold an aggregate principal amount of \$238,500 of its (i) 10% Convertible Notes due September 15, 2015 (each a “Note”, and together, the “Notes”) and (ii) Warrants to purchase shares of common stock (the “Warrants”). This financing represents the initial closing on a private placement of up to \$1,000,000, and the Company may close on one or more additional tranches of this private placement in the near future. Unless otherwise provided for in the Notes, the outstanding principal balance of each Note and all accrued and unpaid interest is due and payable in full on September 15, 2015. At any time, each Purchaser may elect, at its option and in its sole discretion, to convert the outstanding principal amount into a fixed number of shares of the Company’s common stock equal to the quotient obtained by dividing the outstanding principal amount by \$0.035 (an aggregate of 6,814,286 shares), plus any accrued and unpaid interest, which is treated in the same manner as the outstanding principal amount. In the case of a Qualified Financing (as defined in the Purchase Agreement), the outstanding principal amount and accrued and unpaid interest under the Notes automatically convert into common stock at a common stock equivalent price of \$0.035. In the case of an Acquisition (as defined in the Purchase Agreement), the Company may elect to either: (i) convert the outstanding principal amount and all accrued and unpaid interest under the Notes into shares of common stock or (ii) accelerate the maturity date of the Notes to the date of closing of the Acquisition. Each Warrant to purchase shares of common stock shall be exercisable into a fixed number of shares of common stock of the Company calculated as each Purchaser’s investment amount divided by \$0.035 (an aggregate of 6,814,286 shares). The Warrants do not have any cashless exercise provisions and are exercisable through September 15, 2015 at a fixed price of \$0.035 per share.

On December 9, 2014, a second closing for \$46,000 was conducted under this financing.

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. The Placement Agent Warrants have cashless exercise provisions and are exercisable through September 15, 2015 at a fixed price of \$0.035 per share. Aurora Capital LLC is acting as the placement agent for this financing.

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



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

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

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

Effective September 26, 2014, a warrant issued on April 17, 2014 in conjunction with the Private Placement of the Series G 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.

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### ***Increase in Authorized Common Shares***

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

### ***2014 Equity, Equity-Linked and Equity Derivative Incentive Plan***

In connection with the Private Placement, effective 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 "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.

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

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 are also directors of the Company, and 12,000,000 shares to certain other parties, one of whom is an associated person of Aurora Capital LLC. These awards were made under the Plan and were awarded to those individuals on that date as compensation for services rendered through March 31, 2014. None of the officers or directors of the Company had received any cash compensation from the Company since joining the Company in March and April 2013, and there were no prior compensation arrangements with such individuals. The fair value of these stock awards will be charged to operations as stock-based compensation in the three months ended June 30, 2014.

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 are also directors of the Company. The stock options were awarded as compensation for those individuals through December 31, 2014. The awarded stock options vest in three equal installments on July 17, 2014 (at issuance), September 30, 2014, and December 31, 2014, and expire on July 17, 2019. The exercise price of the stock options of \$0.05 per share was in excess of the closing market price of a share of the Company's common stock on the date of issuance. The Company believes and intends that a portion of the stock options awarded qualify as

incentive stock options under the Internal Revenue Code of 1986, as amended. The issuance of incentive stock awards is restricted as to amount as set forth in the Plan, and the form of award of the awarded stock options reflects this intention and the limits under the Plan.

In connection with the appointment of James Sapirstein and Kathryn MacFarlane as directors of the Company on September 3, 2014, the Board of Directors awarded an aggregate of 4,000,000 shares of common stock of the Company to the new directors, consisting of 2,000,000 shares to each new director, vesting 50% upon appointment to the Board of Directors, 25% on September 30, 2014 and 25% on December 31, 2014.

All of these awards were made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

### ***Debt 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 approximately \$1,336,000 for a total of approximately \$118,000 in cash, plus the issuance of options to purchase 4,300,000 shares of common stock exercisable at \$0.04 per share for periods ranging from five to ten years. In addition to other provisions, the settlement agreements included mutual releases.

During the three months ended June 30, 2014, the Company also executed settlement agreements with certain former service providers that resulted in the settlement of potential claims totaling approximately \$591,000 for a cost of approximately \$155,000 in cash, plus the issuance of options to purchase 1,250,000 shares of common stock exercisable at \$0.04 per share for a period of five years. In addition to other provisions, the settlement agreements included mutual releases.

The aforementioned agreements resulted in the settlement of potential claims totaling approximately \$1,927,000 for a cost of approximately \$273,000 in cash, plus the issuance of options to purchase 5,550,000 shares of common stock exercisable at \$0.04 per share for periods ranging from five to ten years. The Company continues to explore ways to reduce its indebtedness, and might in the future enter additional settlements of potential claims, including, without limitation, those by other former executives or third party creditors.

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

On June 27, 2014, the Company entered into an Exclusive License Agreement (the “2014 License Agreement”) with the University of Illinois, the material terms of which were similar to the License Agreement between the parties that had been previously terminated on March 21, 2013. The 2014 License Agreement became effective on September 18, 2014, upon the completion of certain conditions set forth in the 2014 License Agreement, including (i) the payment by the Company of a \$25,000 licensing fee, (ii) the payment by the Company of certain outstanding patent costs (not to exceed \$16,000), and (iii) the assignment to the University of Illinois of certain rights the Company holds in certain patent applications. In exchange for certain milestone and royalty payments, the 2014 License Agreement granted the Company (i) exclusive rights to several issued and pending patents in numerous jurisdictions and (ii) the non-exclusive right to certain technical information that is generated by the University of Illinois in connection with certain clinical trials as specified in the 2014 License Agreement, all of which relate to the use of cannabinoids for the treatment of sleep related breathing disorders. The Company is developing dronabinol ( $\Delta^9$ -tetrahydrocannabinol), a cannabinoid, for the treatment of OSA, the most common form of sleep apnea.

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

On September 2, 2014, the Company entered into a Release Agreement (the “Release Agreement”) with the Institute for the Study of Aging (the “Institute”) to settle an outstanding promissory note, dated May 30, 2000, issued by the Company in favor of the Institute for the principal amount of \$247,300 (the “Note”), which was made pursuant to an Agreement to Accept Conditions of Loan Support, also dated May 30, 2000 (the “Loan Support Agreement”). At August 31, 2014, the amount owed under the Note, including accrued interest was approximately \$337,000. Pursuant to the terms of the Release Agreement, the Institute received 1,000,000 restricted shares of the Company’s common stock as settlement of all obligations of the Company under the Note and the Loan Support Agreement. Such common shares are “restricted securities” as defined under Rule 144 promulgated under the Securities Act of 1933, as amended, and are not subject to any registration rights. The Release Agreement also includes a mutual release between the Company and the Institute, releasing each party from all claims up until the date of the Release Agreement.

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

On September 3, 2014, James Sapirstein and Kathryn MacFarlane were appointed as new directors of the Company. These two new directors are considered to be independent directors. In connection with those appointments and in conformity with its corporate policy of indemnifying all directors and officers, the Board of Directors also agreed at that time to enter into indemnification agreements for all directors and officers of the Company, namely, each existing director of the Company, Arnold S. Lippa, Jeff E. Margolis, and Robert N. Weingarten, each of whom is also an officer of the Company, and with the two new directors. Pursuant to the indemnity agreements, the Company will indemnify each director or officer when such individual is a party or threatened to become a party, by virtue of being a director or officer of the Company, from the costs and expenses, fines and certain other amounts in connection with certain proceedings, including proceedings in the right of the Company, so long as such director or officer acted in good faith and reasonably believed that such actions were in the best interests of the Company.

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

On September 18, 2014, John Greer, Ph.D. was appointed to the position of Chairman of the Company's Scientific Advisory Board, which is currently being formed. Dr. Greer is the Director of the Neuroscience and Mental Health Institute at the University of Alberta. He holds two grants regarding research into neuromuscular control of breathing and is the inventor on the use patents licensed by the Company with respect to ampakines. Dr. Greer is expected to assist the Company in forming the rest of its Scientific Advisory Board.

In connection with the appointment of Dr. Greer as Chairman of the Company's Scientific Advisory Board on September 18, 2014, the Board of Directors awarded 2,000,000 shares of common stock of the Company to Dr. Greer (through his wholly-owned consulting company, Progress Scientific, Inc.), vesting 25% upon appointment, 25% on September 30, 2014, 25% on December 31, 2014, and 25% on March 31, 2015. This award was made under the Company's 2014 Equity, Equity-Linked and Equity Derivative Incentive Plan.

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

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

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

On September 18, 2014, the Company entered into a contract with the National Institute on Drug Abuse, which is a division of the National Institutes of Health. The funding is a Phase 1 award granted under the Small Business Innovation Research Funding Award Program. The purpose of the project is to determine the most useful injectable route of administration for CX1942, the Company's proprietary, soluble ampakine molecule, a potential rescue medication for drug-induced respiratory depression and lethality. The grant is entitled "Novel Treatment of Drug-Induced Respiratory Depression" and is valued at \$148,583, which is to be paid in increments over the expected six-month duration of the study which commenced in October 2014. The study will measure the potency, latency to onset and duration of action of CX1942 administered to rats. The Company anticipates that the data obtained from the study will be used to finalize preclinical studies in preparation for initiating Phase 1 clinical studies. The preclinical studies will be performed in collaboration with Dr. David Fuller of the University of Florida and Dr. John Greer of the University of Alberta.



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

### Overview

Cortex Pharmaceuticals, Inc. ("Cortex") was formed in 1987 to engage in the discovery, development and commercialization of innovative pharmaceuticals for the treatment of neurological and psychiatric disorders. In 2011, prior management conducted a re-evaluation of Cortex's strategic focus and determined that clinical development in the area of respiratory disorders, particularly respiratory depression and sleep apnea, provided the most cost-effective opportunities for potential rapid development and commercialization of Cortex's compounds. Accordingly, Cortex narrowed its clinical focus at that time and abandoned other avenues of scientific inquiry. This re-evaluation provided the impetus for Cortex's acquisition of Pier Pharmaceuticals, Inc. ("Pier") in August 2012, as described below. Cortex and its wholly-owned subsidiary, Pier, are collectively referred to herein as the "Company".

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

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

Since new management's appointment in March 2013, new management has continued to implement this revised strategic focus, including seeking the capital to fund such efforts. As a result of the Company's scientific discoveries and the acquisition of strategic, exclusive license agreements (including a new license agreement with the University of Illinois), management believes that the Company is now a leader in the discovery and development of innovative pharmaceuticals for the treatment of respiratory disorders.





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

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

At December 31, 2012, the Company was not in compliance with its minimum annual payment obligations and believed that this default constituted a termination of the license agreements. On April 15, 2013, UCI notified the Company that these license agreements were terminated due to the Company’s failure to make its obligatory payments. Since the patents covered in these license agreements had begun to expire and the therapeutic uses described in these patents were no longer germane to the Company’s new focus on respiratory disorders, the loss of these license agreements is not expected to have a material impact on the Company’s current or future drug development programs.

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

On May 8, 2007, 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. These patents, along with the Company’s own patents claiming chemical structures, comprise the Company’s principal intellectual property supporting the Company’s research and clinical development program in the use of ampakines for the treatment of respiratory disorders. The Company has completed preclinical studies indicating that several of its ampakines, including CX717, CX1739 and CX1942, were efficacious in treating drug induced respiratory depression caused by 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, the Company has conducted a Phase 2A clinical study in which patients with sleep apnea were administered CX1739, the Company’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.

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, as described below.

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

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

***Merger with Pier Pharmaceuticals, Inc.***

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

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

Through the merger, Cortex gained access to an Exclusive License Agreement, as amended (the “License Agreement”), that Pier had entered into with the University of Illinois on October 10, 2007. The License Agreement covered certain patents and patent applications in the United States and other countries claiming the use of certain compounds referred to as cannabinoids, of which dronabinol is a specific example, for the treatment of sleep related breathing disorders (including sleep apnea). Dronabinol is a synthetic derivative of the naturally occurring substance in the cannabis plant, otherwise known as  $\Delta$ 9-THC ( $\Delta$ 9-tetrahydrocannabinol). Pier’s business plan was to determine whether dronabinol would significantly improve subjective and objective clinical measures in patients with obstructive sleep apnea (“OSA”). In addition, Pier intended to evaluate the feasibility and comparative efficacy of a proprietary formulation of dronabinol.

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

Prior to the merger, Pier conducted a 21 day, randomized, double-blind, placebo-controlled dose escalation Phase 2 clinical study in 22 patients with obstructive sleep apnea, in which dronabinol produced a statistically significant reduction in the Apnea-Hypopnea Index (“AHI”), the primary therapeutic end-point, and was observed to be safe and well tolerated. Dronabinol is currently under investigation, at the University of Illinois and other centers, in a potentially pivotal 120 patient, double-blind, placebo-controlled Phase 2B OSA clinical trial, fully funded by the National Institutes of Health.

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

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

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

The following table summarizes the fair value of the assets acquired and liabilities assumed by the Company at the closing of the Pier transaction on August 10, 2012.

Fair value of assets acquired: