

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

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**Form 8-K**

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**Current Report**

**Pursuant to Section 13 or 15(d) of the  
Securities Exchange Act of 1934**

**Date of Report (Date of earliest event reported)**  
**May 15, 2012**

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**CORTEX PHARMACEUTICALS, INC.**

**(Exact name of registrant as specified in its charter)**

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**Delaware**  
(State or other jurisdiction of  
incorporation)

**1-16467**  
(Commission  
File Number)

**33-0303583**  
(I.R.S Employer  
Identification No.)

**15241 Barranca Parkway**  
**Irvine, California**  
(Address of principal executive offices)

**92618**  
(Zip Code)

**Registrant's telephone number, including area code: (949) 727-3157**

**N/A**

(Former name or former address, if changed since last report.)

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Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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**Item 2.02. Results of Operations and Financial Condition.**

On May 15, 2012, Cortex Pharmaceuticals, Inc. issued a press release to report its financial results. The press release is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

All of the foregoing information, including Exhibit 99.1, is being furnished under Item 2.02 and shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, except as shall be expressly set forth by specific reference in such a filing.

**Item 9.01. Financial Statements and Exhibits.**

- (a) Financial Statements of Businesses Acquired: None.
- (b) Pro Forma Financial Information: None.
- (c) Shell Company Transactions: None.
- (d) Exhibits.

<i>Exhibit Number</i>	<i>Description</i>
99.1	Press release of Cortex Pharmaceuticals, Inc. dated May 15, 2012.

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CORTEX PHARMACEUTICALS, INC.

Date: May 15, 2012

By: /s/ Maria S. Messinger

Maria S. Messinger  
Vice President, Chief Financial Officer  
and Corporate Secretary

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EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Description</u>	<u>Sequential Page No.</u>
99.1	Press release of Cortex Pharmaceuticals, Inc. dated May 15, 2012.	5

**PRESS RELEASE***Company Contact:*

Mark A. Varney, Ph.D.  
President and CEO  
Cortex Pharmaceuticals, Inc.  
949.727.3157

**CORTEX REPORTS FIRST QUARTER OPERATING RESULTS**

**IRVINE, CA** (May 15, 2012) — Cortex Pharmaceuticals, Inc. (OTCBB (CORX)) reported a net loss of approximately \$934,000, or \$0.01 per share, for the quarter ended March 31, 2012, compared with a net loss of approximately \$1,556,000, or \$0.02 per share, for the corresponding prior year period, with the difference including expenses incurred in the prior year period to reacquire the respiratory depression project that Biovail purchased from the Company in March 2010.

For the quarter ended March 31, 2012, the Company's total operating expenses decreased to approximately \$935,000 from approximately \$1,584,000 for the corresponding prior year period. Along with the \$200,000 upfront payment related to the March 2011 transaction with Biovail, the decreased operating expenses reflect the Company's previously announced decrease in its internal staffing levels in its efforts to conserve its financial resources. Cortex will continue to outsource a substantial amount of its research and development activities to qualified vendors.

The repurchase of AMPAKINE compounds, patents and rights from Biovail reinforces the Company's renewed focus on the discovery and development of innovative pharmaceuticals for the treatment of breathing disorders, including respiratory depression and sleep apnea.

During the quarter ended March 31, 2012, Cortex announced the issuance by The United States Patent and Trademark Office (USPTO) of two key patents that protect the next generation of AMPAKINE® compounds, including the lead preclinical compounds, CX2007 and CX2076. The USPTO issued both a composition-of-matter patent and a divisional patent covering methods of use, including the treatment for a broad range of breathing disorders such as opioid-induced respiratory depression and sleep apneas. These issued patents will provide protection from competitors through August 2028.

**Cortex Pharmaceuticals, Inc.**

Cortex, located in Irvine, California, is a clinical-stage specialty pharmaceutical company focused primarily on the discovery, development and commercialization of positive AMPA-type glutamate receptor modulators. Cortex has pioneered a class of proprietary pharmaceuticals called AMPAKINE compounds, which act to increase the strength of signals at connections between brain cells. Recent research has focused on the use of AMPAKINE compounds for the potential treatment or prevention of respiratory depression induced by opioid analgesics, anesthetic agents and benzodiazepines, as well as the potential treatment for central sleep apnea. For additional information regarding Cortex, please visit the Company's website at <http://www.cortexpharm.com>.

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**Forward-Looking Statement**

Note — This press release contains forward-looking statements concerning the Company’s research and development activities. Words such as “believes,” “anticipates,” “plans,” “expects,” “indicates,” “will,” “intends,” “potential,” “suggests,” “assuming,” “designed” and similar expressions are intended to identify forward-looking statements. These statements are based on the Company’s current beliefs and expectations. The success of such activities depends on a number of factors, including the risks that the Company’s proposed products may at any time be found to be unsafe or ineffective for any or all of their proposed indications; that patents may not issue from the Company’s patent applications; that competitors may challenge or design around the Company’s patents or develop competing technologies; that the Company may have insufficient resources to undertake proposed clinical studies or continue its operations and that preclinical or clinical studies may at any point be suspended or take substantially longer than anticipated to complete. As discussed in the Company’s Securities and Exchange Commission filings, the Company’s proposed products will require additional research, lengthy and costly preclinical and clinical testing and regulatory approval. AMPAKINE compounds are investigational drugs and have not been approved for the treatment of any disease. Readers are cautioned not to place undue reliance on these forward-looking statements that speak only as of the date of this press release. The Company undertakes no obligation to update publicly any forward-looking statements to reflect new information, events or circumstances after the date of this press release or to reflect the occurrence of unanticipated events.

(tables follow)

**Cortex Pharmaceuticals, Inc.**  
**Condensed Statements of Operations**  
**(in thousands, except per share data)**

	Three months ended	
	March 31,	
	2012	2011
	(Unaudited)	(Unaudited)
Revenues	\$ —	\$ 25
Operating expenses:		
Research and development	203	644
General and administrative	732	940
Total operating expenses	935	1,584
Loss from operations	(935)	(1,559)
Interest income, net	1	3
Net loss	\$ (934)	\$ (1,556)
Net loss per share, basic and diluted	\$ (0.01)	\$ (0.02)
Shares used in computing per share amounts Basic and diluted	85,624	78,858

**Cortex Pharmaceuticals, Inc.**  
**Condensed Balance Sheets**  
**(in thousands)**

	March 31,	December 31,
	2012	2011
	(Unaudited)	
<b>Assets:</b>		
Cash and cash equivalents	\$ 779	\$ 1,611
Restricted cash	48	48
Other current assets	60	86
	887	1,745
Furniture, equipment and leasehold improvements, net	56	67
Other	9	9
Total assets	\$ 952	\$ 1,821
<b>Liabilities and Stockholders' (Deficit) Equity:</b>		
Accounts payable and accrued expenses	\$ 1,193	\$ 1,145
Stockholders' (deficit) equity	(241)	676
Total liabilities and stockholders' (deficit) equity	\$ 952	\$ 1,821

**MORE INFORMATION AT [WWW.CORTEXPHARM.COM](http://WWW.CORTEXPHARM.COM)**

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