

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 8-K

Current Report

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

Date of Report (Date of earliest event reported)
July 17, 2012

CORTEX PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

1-16467
(Commission
File Number)

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

7700 Irvine Center Drive, Suite 750
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.)

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))

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Principal Officers; Compensatory Arrangements of Certain Officers.

On July 17, 2012, pursuant to the approval of the Compensation Committee of the Company's Board of Directors, the Company entered into an amendment to extend the term of its existing employment agreement with Roger G. Stoll, Ph.D., the Company's Executive Chairman, through February 13, 2013.

As provided in Dr. Stoll's employment agreement dated as of October 29, 2002 and amended April 8, 2003, November 10, 2004, August 13, 2005, July 11, 2008, July 29, 2009, August 13, 2010 and August 2, 2011, in the event of the termination of his employment, under certain circumstances Dr. Stoll is entitled to compensation equal to twelve (12) months of his then current salary ("Severance Benefits").

The amendment dated July 17, 2012 alters the pay-out of termination benefits in the following manner: in the event of the termination of his employment, under certain circumstances, the payment for potential Severance Benefits to Dr. Stoll shall include (i) a cash amount equal to two months of the Severance Benefits paid in accordance with the Company's normal payroll practices over the seven month period immediately following a termination of employment; (ii) a payment equivalent to six (6) months of the Severance Benefits in the form of the grant of a fully-vested stock option having an exercise price per share equal to the per share fair market value (as defined in the Company's 2006 Stock Incentive Plan) of the underlying securities and an aggregate Black-Scholes value equal to six (6) months of Dr. Stoll's base salary, as calculated using assumptions set forth in the Company's then most recent periodic report on Form 10-K or Form 10-Q, on the date of termination of employment; (iii) a cash payment equal to four months of the Severance Benefits paid in accordance with the Company's normal payroll practices in the form of a consulting agreement extended over the period beginning eight months and ending twenty four (24) months following a termination of employment. During the term of the consulting agreement potential payments identified above, Dr. Stoll has agreed to provide consulting service of up to twenty (20) hours per month to the Company, as reasonably requested by the Chairman of the Board or the Chief Executive Officer of the Company. In the event that certain corporate transactions occur, in certain circumstances the Company has agreed to pay Dr. Stoll any unpaid amounts identified in (iii) above in a single lump-sum amount within thirty (30) days following the date of such transaction.

Also as amended on July 17, 2012 any Severance Benefits for Dr. Stoll shall not be impacted by any voluntary salary reduction implemented by the Company. As also provided in the July 17, 2012 amendment, in the event of the termination of his employment, under certain circumstances, the payment of accrued paid time off for Dr. Stoll shall be paid in accordance with the Company's normal payroll practices over the seven month period immediately following a termination of employment.

The foregoing description of the July 17, 2012 amendment to Dr. Stoll's employment agreement does not purport to be complete and is qualified in its entirety by reference to the Eighth Amendment to the Employment Agreement, which will be filed as an Exhibit to the Company's Form 10-Q for the quarter ended September 30, 2012.

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: None.

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.

July 23, 2012

CORTEX PHARMACEUTICALS, INC.

/s/ Maria S. Messinger

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