SECURITIES AND EXCHANGE COMMISSION

SECORITIES 1	ind Exciminate con	
	Washington, D.C. 20549	
	Form 8-K	
Current Report Pursuant to	Section 13 or 15(d) of the Securities	s Exchange Act of 1934
Date	of Report (Date of earliest event reported)	
	December 14, 2004	
CORTEX P	HARMACEUTICA	LS, INC.
(Exac	ct name of registrant as specified in its charter)	
Delaware (State or other jurisdiction	1-16467 (Commission File Number)	33-0303583 (I.R.S. Employer
of incorporation)		Identification No.
15241 Barranca Parkway		
Irvine, California		92618
(Address of principal executive office	s)	(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 1.01. Entry into a Material Definitive Agreement.

On December 15, 2004, Cortex Pharmaceuticals, Inc. (<u>Cortex</u>) announced that it had closed a private placement with a select group of 24 accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended) with gross proceeds (assuming no exercise of the warrants) of approximately \$11.26 million. Cortex sold an aggregate of 4,233,333 shares of its common stock at \$2.66 per share and five-year warrants to purchase up to an aggregate of 2,116,666 shares of common stock with an exercise price of \$3.00 per share.

The securities issued in the private placement have not been registered under the Securities Act of 1933, as amended, and until so registered the securities may not be offered or sold in the United States absent registration or availability of an applicable exemption from registration. The Registration Rights Agreement requires Cortex to prepare and file with the Securities and Exchange Commission a registration statement for the purpose of registering under the Securities Act of 1933, all of the shares of Cortex s common stock that were sold to the investors pursuant to the Purchase Agreement as well as the shares of common stock issuable upon exercise of the warrants.

This announcement is not an offer to sell securities of Cortex, and any opportunity to participate in the private placement was available to a very limited group of investors.

The foregoing description of the private placement does not purport to be complete and is qualified in its entirety by reference to the Securities Purchase Agreement, the Registration Rights Agreement and the form of Common Stock Purchase Warrant, which are collectively filed as Exhibit 10.87 to this report and are incorporated herein by reference. The press release describing the private placement is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

Item 3.02. Unregistered Sales of Equity Securities.

The securities described in Item 1.01 above were offered and sold in reliance upon exemptions from registration pursuant to Section 4(2) under the Securities Act of 1933, as amended, and Rule 506 promulgated thereunder. The agreements executed in connection with the private placement contain representations to support Cortex s reasonable belief that the investors had access to information concerning its operations and financial condition, the investors are acquiring the securities for their own account and not with a view to the distribution thereof, and that the investors are accredited investors (as defined by Rule 501 under the Securities Act of 1933, as amended). At the time of their issuance, the securities will be deemed to be restricted securities for purposes of the Securities Act of 1933, as amended, and the certificates representing the securities shall bear legends to that effect.

Pursuant to the terms of a letter agreement, dated as of January 7, 2004, by and between Cortex and Rodman & Renshaw, LLC (<u>Rodman</u>), Cortex agreed to issue Rodman warrants to purchase up to 164,289 shares of its common stock at an exercise price of \$3.43 per share in connection with the transaction described in Item 1.01 above. The warrants are being issued as partial consideration for Rodman s services as the placement agent in such transaction. The warrants were issued in reliance upon exemptions from registration pursuant to Section 4(2) under the Securities Act of 1933, as amended, and Rule 506 promulgated thereunder. At the time of their issuance, the warrants will be deemed to be restricted securities for purposes of the Securities Act of 1933, as amended, and the certificates representing the securities shall bear legends to that effect.

Item 9.01. Financial Statements and Exhibits.

(c) Exhibits.

Exhibit	
Number	Description
	
10.87	Securities Purchase Agreement, dated December 14, 2004, by and among Cortex Pharmaceuticals, Inc. and the investors named therein, including the Registration Rights Agreement attached as Exhibit A thereto and a form of Common Stock Purchase Warrant attached as Exhibit C thereto.
99.1	Press Release dated December 15, 2004.

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.

December 20, 2004

/s/ Maria S. Messinger

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

EXHIBIT INDEX

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