UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934 (Amendment No.)

CORTEX PHARMACEUTICALS, INC.

(Name of Issuer)

COMMON STOCK, \$0.001 par value per share

(Title of Class of Securities)

220524300 (CUSIP Number)

 ${\color{blue} August~10,~2012} \\ ({\color{blue} Date~of~Event~Which~Requires~Filing~of~this~Statement})}$

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

☐ Rule 13d-1(b)

☐ Rule 13d-1(c)

☐ Rule 13d-1(d)

The information required in the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act, but shall be subject to all other provisions of the Act (however, see the Notes).

^{*} The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter the disclosures provided in a prior cover page.

CUSIP No. 220524300			P	age 2 of 9	
1	NAMES OF REPORTING PERSONS/ I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
	Origin Ventures II, L.P. (20-1849450)				
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) □ (b) ⊠				
3	SEC USE ONLY				
4	CITIZENSHIP OR PLACE OF ORGANIZATION				
	Delaware				
		5	SOLE VOTING POWER		
			24,200,507 (1)		
NUMBEF SHARE	ES	6	SHARED VOTING POWER		
BENEFICI. OWNED BY			None		
REPORTING PERSON WITH:		7	SOLE DISPOSITIVE POWER		
			24,200,507 (1)		
		8	SHARED DISPOSITIVE POWER		
			None		
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON				
	24,200,507 shares of Common Stock (1)				
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) □				
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)				
	16.8% (2)				
12	TYPE OF REPORTING PERSON (See Instructions)				
	PN				

- (1) Origin Ventures II, L.P. ("OVII") has sole voting and dispositive control over 24,200,507 shares of common stock ("Common Stock") of Cortex Pharmaceuticals, Inc. (the "Issuer"), except that Origin Ventures II Management, LLC ("OVIIM"), the general partner of OVII, and Bruce N. Barron ("Barron") and Steven N. Miller ("Miller"), managing directors of OVIIM, may be deemed to share the right to direct the voting and dispositive control over such stock.
- (2) This percentage is calculated based upon 144,041,558 shares of the Issuer's Common Stock issued and outstanding as of August 13, 2012, as disclosed in the Quarterly Report on Form 10-Q of the Issuer for the quarter ended June 30, 2012.

CUSIP No. 22	0524300		Page 3 of 9		
1	NAME	С О	DE DEDODTING DEDGONG		
1	NAMES OF REPORTING PERSONS/ I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
	1.10.5. 1	DL.	MILITEATION NOS. OF ABOVE LEASONS (ENTITLES ONLT)		
	Origin	V	entures II Management, LLC		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)				
	(a) □ (b) ⊠				
3	SEC USE ONLY				
4	CITIZENSHIP OR PLACE OF ORGANIZATION				
	Delaware				
		5	SOLE VOTING POWER		
NUMBER	OF				
SHARI		6	SHARED VOTING POWER		
BENEFICI			24,200,507 (3)		
OWNED BY EACH REPORTING PERSON WITH:		7	SOLE DISPOSITIVE POWER		
			SALARIA DI PROGRAMIA DOLLARIA		
		8	SHARED DISPOSITIVE POWER		
			24,200,507 (3)		
9	AGGR	EG.	ATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
10	24,200,507 shares of Common Stock (3)				
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) □				
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)				
-10	16.8% (2)				
12	TYPE OF REPORTING PERSON (See Instructions)				
	СО				

⁽³⁾ OVIIM shares voting and dispositive control over the 24,200,507 shares of Common Stock beneficially owned by OVII.

CUSIP No. 22	0524300		Page 4 of 9			
1	NAME	9.0	DE DEDODITALC DEDGOMO!			
1		NAMES OF REPORTING PERSONS/ I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
	I.R.S. IDENTIFICATION NOS. OF ADOVE PERSONS (ENTITIES ONLT)					
	Bruce	N.	Barron			
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS)					
	(a) □ (b) ⊠					
3	SEC USE ONLY					
4	CITIZENSHIP OR PLACE OF ORGANIZATION					
	Delaware					
		5	SOLE VOTING POWER			
NUMBER	OF					
SHARI		6	SHARED VOTING POWER			
BENEFICI			24,200,507 (4)			
OWNED BY EACH REPORTING PERSON WITH:		7	SOLE DISPOSITIVE POWER			
		8	SHARED DISPOSITIVE POWER			
			24,200,507 (4)			
9	AGGR	EG.	ATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
10	24,200,507 shares of Common Stock (4)					
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) □					
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)					
	16.8% (2)					
12	TYPE OF REPORTING PERSON (See Instructions)					
	СО					

⁽⁴⁾ Barron shares voting and dispositive control over the 24,200,507 shares of Common Stock beneficially owned by OVII.

CUSIP No. 220524300 Page 5 of					
Tage 5 017					
1	NAMES OF REPORTING PERSONS/ I.R.S. IDENTIFICATION NOS. OF ABOVE PERSONS (ENTITIES ONLY)				
	Stever	n N	I. Miller		
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) □ (b) ⊠				
3	SEC USE ONLY				
4	CITIZENSHIP OR PLACE OF ORGANIZATION				
	Delaware				
		5	SOLE VOTING POWER		
NUMBEF SHARI BENEFICI	ES	6	SHARED VOTING POWER 24,200,507 (5)		
OWNED BY REPORT	ING	7	SOLE DISPOSITIVE POWER		
PERSON WITH:		8	SHARED DISPOSITIVE POWER		
			24,200,507 (5)		
9	AGGR	ĒG	ATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
	24,200,507 shares of Common Stock (5)				
10	CHECK IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES (See Instructions) □				
11	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)				
	16.8% (2)				
12	TYPE OF REPORTING PERSON (See Instructions)				
	CO				

⁽⁵⁾ Miller shares voting and dispositive control over the 24,200,507 shares of Common Stock beneficially owned by OVII.

CUSIP No. 220524300 Page 6 of 9

Item 1.

(a) Name of Issuer:

Cortex Pharmaceuticals, Inc.

(b) Address of Issuer's Principal Executive Offices:

7700 Irvine Center Drive Suite 750 Irvine, CA 92618

Item 2.

(a) Name of Person(s) Filing:

Origin Ventures II, L.P. ("OVII")
Origin Ventures II Management, LLC ("OVIIM")
Bruce N. Barron ("Barron")
Steven N. Miller ("Miller")

(b) Address of Principal Business Office(s):

1033 Skokie Blvd., Suite 430 Northbrook, IL, 60062.

(c) <u>Citizenship</u>:

Entities: OVII Delaware

OVIIM Delaware

Individuals: Barron United States

Miller United States

(d) <u>Title of Class of Securities</u>:

Common Stock

(e) <u>CUSIP Number</u>:

220524300

Item 3.

Not Applicable.

CUSIP No. 220524300 Page 7 of 9

Item 4. Ownership.

(a) Amount beneficially owned:

As of the date of this statement, OVII beneficially owned 24,200,507 shares of common stock of the Issuer and OVIIM, as the general partner of OVII, and Barron and Miller as the managing directors of OVIIM, may be deemed to beneficially own 24,200,507 shares of common stock of the Issuer held by OVII.

(b) Percent of class:

16.8%

(c) Number of shares as to which the person has:

The information in items 5 through 9 on the cover of this statement is hereby incorporated by reference.

Item 5. Ownership of Five Percent or Less of a Class.

Not applicable.

Item 6. Ownership of More Than Five Percent on Behalf of Another Person.

Not applicable.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company.

Not applicable.

Item 8. Identification and Classification of Members of the Group.

Not applicable.

Item 9. Notice of Dissolution of Group.

Not applicable.

Item 10. Certification.

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction have that purpose or effect.

EXHIBITS:

A: Joint Filing Statement

CUSIP No. 220524300		Page 8 of 9
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SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: September 19, 2012

Dated: September 19, 2012

Dated: September 19, 2012

Dated: September 19, 2012

Origin Ventures II, L.P.

By: Origin Ventures II Management, LLC

By: /s/ Bruce Barron

Bruce Barron, Managing Director

Origin Ventures II Management, LLC

By: /s/ Bruce Barron

Bruce Barron, Managing Director

By: /s/ Bruce Barron

Bruce Barron

By: /s/ Steven Miller

Steven Miller

CUSIP No. 220524300 Page 9 of 9

EXHIBIT A

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, each of the undersigned agrees that (i) this statement on Schedule 13G has been adopted and filed on behalf of each of them and (ii) all future amendments to such statement on Schedule 13G will, unless written notice to the contrary is delivered as described below, be jointly filed on behalf of each of them. This agreement may be terminated with respect to the obligations to jointly file future amendments to such statement on Schedule 13G as to any of the undersigned upon such person giving written notice thereof to each of the other persons signatory hereto, at the principal office thereof.

Origin Ventures II, L.P.

By: Origin Ventures II Management, LLC

By: /s/ Bruce Barron

Bruce Barron, Managing Director

Origin Ventures II Management, LLC

By: /s/ Bruce Barron

Bruce Barron, Managing Director

By: /s/ Bruce Barron

Bruce Barron

By: /s/ Steven Miller

Steven Miller

Dated: September 19, 2012

Dated: September 19, 2012

Dated: September 19, 2012

Dated: September 19, 2012