Flynn James E Form SC 13G August 02, 2012

SECURITIES AND EXCHANGE COMMISSION Washington, DC 20549

SCHEDULE 13G (Rule 13d-102)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULES 13d-1(b)(c), AND (d) AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(b)

(Amendment No.) *

Anthera Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

03674U102

(CUSIP Number)

July 19, 2012

(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)

x Rule 13d-1(c)

" Rule 13d-1(d) (Page 1 of 12 Pages)

* 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.

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 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).

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1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)		
	Deerfield Mgm	t, L.P.	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*(a) o (b) ý		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION		
	Delaware		
	5.	SOLE VOTING POWER	
NUMBER OF		0	
SHARES BENEFICIALLY OWNED BY	6.	SHARED VOTING POWER	
EACH		2,458,168 (1)	
REPORTING PERSON WITH	7.	SOLE DISPOSITIVE POWER	
		0	
	8.	SHARED DISPOSITIVE POWER	
		2,458,168 (1)	
9.	AGGREGATE PERSON	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING	
	2,458,168 (1)		
10.	CHECK BOX IF T EXCLUDES CER	THE AGGREGATE AMOUNT IN ROW (9) " TAIN SHARES*	
11.	PERCENT OF	CLASS REPRESENTED BY AMOUNT IN ROW 9	
	3.31%		
12.	TYPE OF REP	ORTING PERSON*	
	PN		

(1) Comprised of an aggregate of 2,305,368 shares of common stock and warrants to purchase 152,800 shares of common stock held by Deerfield Special Situations Fund, L.P. and Deerfield Special Situations International Master Fund, L.P.

Page 3 of 12 Pages

1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)		
	Deerfield Speci	al Situations Fund, L.P.	
2.	CHECK THE APP GROUP*	PROPRIATE BOX IF A MEMBER OF A (a) o (b) ý	
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION		
	Delaware		
	5.	SOLE VOTING POWER	
NUMBER OF		0	
SHARES BENEFICIALLY	6.	SHARED VOTING POWER	
OWNED BY EACH		1,213,226 (2)	
REPORTING	7.	SOLE DISPOSITIVE POWER	
PERSON WITH		0	
	8.	SHARED DISPOSITIVE POWER	
		1,213,226 (2)	
9.	AGGREGATE PERSON	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING	
	1,213,226 (2)		
10.	CHECK BOX IF T EXCLUDES CER	ΉΕ AGGREGATE AMOUNT IN ROW (9) " ΓΑΙΝ SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9		
	1.63%		
12.	TYPE OF REP	ORTING PERSON*	
	PN		

(2) Includes warrants to purchase 152,800 shares of common stock.

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1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)			
	Deerfield Speci	al Situations International Master Fu	nd, L.P.	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A(a) oGROUP*(b) ý			
3.	SEC USE ONLY			
4.	CITIZENSHIP OR PLACE OF ORGANIZATION			
	British Virgin I	slands		
	5.	SOLE VOTING POWER		
NUMBER OF		0		
SHARES BENEFICIALLY	6.	SHARED VOTING POWER		
OWNED BY EACH		1,244,942		
REPORTING	7.	SOLE DISPOSITIVE POWER		
PERSON WITH		0		
	8.	SHARED DISPOSITIVE POWER		
		1,244,942		
9.	AGGREGATE PERSON	AMOUNT BENEFICIALLY OWN	ED BY EACH REPORTING	
	1,244,942			
10.	CHECK BOX IF T EXCLUDES CER	THE AGGREGATE AMOUNT IN ROW (9) TAIN SHARES*		
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9			
	1.68%			
12.	TYPE OF REP	ORTING PERSON*		
	PN			

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1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)		
	Deerfield Management Company, L.P.		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*(a) o (b) ý		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION		
	Delaware		
	5.	SOLE VOTING POWER	
NUMBER OF		0	
SHARES BENEFICIALLY	6.	SHARED VOTING POWER	
OWNED BY EACH		247,200 (3)	
REPORTING PERSON WITH	7.	SOLE DISPOSITIVE POWER	
		0	
	8.	SHARED DISPOSITIVE POWER	
		247,200 (3)	
9.	AGGREGATE PERSON	AMOUNT BENEFICIALLY OWNE	ED BY EACH REPORTING
	247,200 (3)		
10.	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) " EXCLUDES CERTAIN SHARES*		
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9		
	0.33%		
12.	TYPE OF REP	ORTING PERSON*	
	PN		

(3) Comprised of warrants to purchase 247,200 shares of common stock held by Deerfield Special Situations Fund International Limited.

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1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)		
	Deerfield Speci	al Situations Fund International Lim	ited
2.	CHECK THE APP GROUP*	PROPRIATE BOX IF A MEMBER OF A	(a) o (b) ý
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION		
	British Virgin I	slands	
	5.	SOLE VOTING POWER	
NUMBER OF		0	
SHARES BENEFICIALLY	6.	SHARED VOTING POWER	
OWNED BY EACH		247,200 (4)	
REPORTING	7.	SOLE DISPOSITIVE POWER	
PERSON WITH		0	
	8.	SHARED DISPOSITIVE POWER	
		247,200 (4)	
9.	AGGREGATE PERSON	AMOUNT BENEFICIALLY OWN	ED BY EACH REPORTING
	247,200 (4)		
10.	CHECK BOX IF T EXCLUDES CER	THE AGGREGATE AMOUNT IN ROW (9) TAIN SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9		
	0.33%		
12.	TYPE OF REP	ORTING PERSON*	
	СО		

(4) Comprised of warrants to purchase 247,200 shares of common stock.

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1.	NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)		
	James E. Flynn		
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A(a) oGROUP*(b) ý		
3.	SEC USE ONLY		
4.	CITIZENSHIP OR PLACE OF ORGANIZATION		
	United States		
	5.	SOLE VOTING POWER	
NUMBER OF		0	
SHARES BENEFICIALLY	6.	SHARED VOTING POWER	
OWNED BY EACH		2,705,368 (5)	
REPORTING PERSON WITH	7.	SOLE DISPOSITIVE POWER	
FERSON WITH		0	
	8.	SHARED DISPOSITIVE POWER	
		2,705,368 (5)	
9.	AGGREGATE PERSON	AMOUNT BENEFICIALLY OWNED BY EACH REPORTING	G
	2,705,368 (5)		
10.	CHECK BOX IF T EXCLUDES CER	ΉΕ AGGREGATE AMOUNT IN ROW (9) " ΓΑΙΝ SHARES*	
11.	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9		
	3.63%		
12.	TYPE OF REP	ORTING PERSON*	
	IN		

(5) Comprised of an aggregate of 2,305,368 shares of common stock and warrants to purchase 400,000 shares of common stock held by Deerfield Special Situations Fund, L.P., Deerfield Special Situations International Master Fund, L.P. and Deerfield Special Situations Fund International Limited.

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Item 1(a).	Name of Issuer:
	Anthera Pharmaceuticals, Inc.
Item 1(b).	Address of Issuer's Principal Executive Offices:
	25801 Industrial Boulevard, Suite B Hayward, CA 94545
Item 2(a).	Name of Person Filing:
	James E. Flynn, Deerfield Mgmt, L.P., Deerfield Special Situations Fund, L.P., Deerfield Special Situations International Master Fund, L.P., Deerfield Management Company, L.P., Deerfield Special Situations Fund International Limited
Item 2(b).	Address of Principal Business Office, or if None, Residence:
	James E. Flynn, Deerfield Mgmt, L.P., Deerfield Special Situations Fund, L.P., Deerfield Special Situations International Master Fund, L.P., Deerfield Management Company, L.P., 780 Third Avenue, 37th Floor, New York, NY 10017 Deerfield Special Situations Fund International Limited, c/o Citi Hedge Fund Services (B.V.I.) Ltd., Bison Court, Columbus Centre, P.O. Box 3460, Road Town, Tortola, D8, British Virgin Islands
Item 2(c).	Citizenship:
	Deerfield Mgmt, L.P., Deerfield Management Company, L.P. and Deerfield Special Situations Fund, L.P Delaware limited partnerships Deerfield Special Situations Fund International Limited- British Virgin Islands corporation Deerfield Special Situations International Master Fund, L.P British Virgin Islands limited partnership
Item 2(d).	Title of Class of Securities:
	Common Stock
Item 2(e).	CUSIP Number:

03674U102

Item 3.		This Statement is Filed Pursuant to Rule 13d-1(b), or 13d-2(b) or (c), Check Whether the rson Filing is a:
(a)	0	Broker or dealer registered under Section 15 of the Exchange Act.
(b)	0	Bank as defined in Section 3(a)(6) of the Exchange Act.
(c)	0	Insurance company as defined in Section 3(a)(19) of the Exchange Act.
(d)	0	Investment company registered under Section 8 of the Investment Company Act.

(e)

(f)

(g)

(h)

(i)

(j)

(k)

An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E); An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F); A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G); A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act; A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act; A non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J); Group, in accordance with Rule 13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J), please specify the type of institution:

Item 4. Ownership.

Provide the following information regarding the aggregate number and percentage of the class of securities of the issuer identified in Item 1.

(a) Amount beneficially owned**:

Deerfield Mgmt, L.P. – 2,458,168 shares Deerfield Special Situations Fund, L.P. – 1,213,226 shares Deerfield Special Situations International Master Fund, L.P. – 1,244,942 shares Deerfield Management Company, L.P. – 247,200 shares Deerfield Special Situations Fund International Limited – 247,200 shares James E. Flynn – 2,705,368 shares

(b) Percent of class**:

Deerfield Mgmt, L.P. – 3.31% Deerfield Special Situations Fund, L.P. – 1.63% Deerfield Special Situations International Master Fund, L.P. – 1.68% Deerfield Management Company, L.P. – 0.33% Deerfield Special Situations International Limited – 0.33% James E. Flynn – 3.63%

- (c) Number of shares as to which such person has**:
 - (i) Sole power to vote or to direct the vote All Reporting Persons 0
 - (ii) Shared power to vote or to direct the vote Deerfield Mgmt, L.P. 2,458,168

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Deerfield Special Situations Fund, L.P. – 1,213,226 Deerfield Special Situations International Master Fund, L.P. – 1,244,942 Deerfield Management Company, L.P. – 247,200 Deerfield Special Situations Fund International Limited – 247,200 James E. Flynn - 2,705,368

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(iii)Sole power to dispose or to direct the disposition of	All Reporting Persons - 0
(iv) Shared power to dispose or to direct the disposition of	Deerfield Mgmt, L.P. – 2,458,168 Deerfield Special Situations Fund, L.P. – 1,213,226 Deerfield Special Situations International Master Fund, L.P. – 1,244,942 Deerfield Management Company, L.P. – 247,200 Deerfield Special Situations Fund International Limited – 247,200 James E. Flynn - 2,705,368

**See footnotes on cover pages which are incorporated by reference herein.

Item 5.

Ownership of Five Percent or Less of a Class.

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities check the followingx.

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

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than five percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

N/A

Item Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by theParent Holding Company or Control Person.

If a parent holding company or Control person has filed this schedule, pursuant to Rule 13d-1(b)(1)(ii)(G), so indicate under Item 3(g) and attach an exhibit stating the identity and the Item 3 classification of the relevant subsidiary. If a parent holding company or control person has filed this schedule pursuant to Rule 13d-1(c) or Rule 13d-1(d), attach an exhibit stating the identification of the relevant subsidiary.

N/A

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Item 8.

Identification and Classification of Members of the Group.

If a group has filed this schedule pursuant to ss.240.13d-1(b)(1)(ii)(J), so indicate under Item 3(j) and attach an exhibit stating the identity and Item 3 classification of each member of the group. If a group has filed this schedule pursuant to ss.240.13d-1(c) or ss.240.13d-1(d), attach an exhibit stating the identity of each member of the group.

See Exhibit B

Item 9.

Notice of Dissolution of Group.

Notice of dissolution of a group may be furnished as an exhibit stating the date of the dissolution and that all further filings with respect to transactions in the security reported on will be filed, if required, by members of the group, in their individual capacity. See Item 5.

N/A

Item 10.

Certifications.

"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 having that purpose or effect, other than activities solely in connection with a nomination under §240.14a–11."

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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.

DEERFIELD MGMT, L.P.

- By: J.E. Flynn Capital LLC, General Partner
- By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

- By: Deerfield Mgmt, L.P., General Partner
- By: J.E. Flynn Capital LLC, General Partner
- By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS INTERNATIONAL MASTER FUND, L.P.

- By: Deerfield Mgmt, L.P., General Partner
- By: J.E. Flynn Capital LLC, General Partner
- By: /s/ David Clark David Clark, Authorized Signatory

DEERFIELD MANAGEMENT COMPANY, L.P.

- By: Flynn Management LLC, General Partner
- By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL, LIMITED

By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact JAMES E. FLYNN

/s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

Date: August 2, 2012

Exhibit List

Exhibit A . Joint Filing Agreement.

Exhibit B. Item 8 Statement.

Exhibit C. Power of Attorney.

Exhibit A

Agreement

The undersigned agree that this Schedule 13G, and all amendments thereto, relating to the Common Stock of Anthera Pharmaceuticals, Inc. shall be filed on behalf of the undersigned.

DEERFIELD MGMT, L.P.

- By: J.E. Flynn Capital LLC, General Partner
- By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND, L.P.

- By: Deerfield Mgmt, L.P., General Partner
- By: J.E. Flynn Capital LLC, General Partner
- By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS INTERNATIONAL MASTER FUND, L.P.

- By: Deerfield Mgmt, L.P., General Partner
- By: J.E. Flynn Capital LLC, General Partner
- By: /s/ David Clark David Clark, Authorized Signatory

DEERFIELD MANAGEMENT COMPANY, L.P.

- By: Flynn Management LLC, General Partner
- By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL, LIMITED

By: /s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

JAMES E. FLYNN

/s/ Jonathan Isler Jonathan Isler, Attorney-In-Fact

Exhibit B

Due to the relationships between them, the reporting persons hereunder may be deemed to constitute a "group" with one another for purposes of Section 13(d)(3) of the Securities Exchange Act of 1934.