Flynn James E Form SC 13G/A July 07, 2009

# 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. 4) *
ARENA PHARMACEUTICALS, INC.
(Name of Issuer)
Common Stock
(Title of Class of Securities)
040047102
(CUSIP Number)
July 6, 2009
(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 17 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).
CUSIP No. 040047102
1. NAME OF REPORTING PERSONS

I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)

Deerfield Capital, L.P.

2.	CHECK TH	E APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a)  _  (b)  X		
3.	SEC USE	ONLY			
4.		HIP OR PLACE OF ORGANIZATION			
	Delaware 	:			
		5. SOLE VOTING POWER			
		0			
	MBER OF	6. SHARED VOTING POWER			
_	HARES EFICIALLY	18,853,846*			
	NED BY EACH	7. SOLE DISPOSITIVE POWER			
REPORTING PERSON WITH		0			
		8. SHARED DISPOSITIVE POWER			
		18,853,846*			
9.	AGGREGAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON			
	18,853,8	46*			
10.	CHECK BO	X IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARE	 ES*  _		
11.		OF CLASS REPRESENTED BY AMOUNT IN ROW (9)			
	9.98%				
12.	TYPE OF REPORTING PERSON*				
	PN				
* Cor	morised of	398.486 shares and 18.455.360 warrants held by Deerfield			

<sup>\*</sup> Comprised of 398,486 shares and 18,455,360 warrants held by Deerfield Partners, L.P., Deerfield Special Situations Fund, L.P., Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.

CUSIP No. 040047102 NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield Partners, L.P. 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a) |\_| (b) |X| \_\_\_\_\_ 3. SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION Delaware 5. SOLE VOTING POWER \_\_\_\_\_ NUMBER OF 6. SHARED VOTING POWER SHARES BENEFICIALLY 5,931,360 (Includes Warrants to Purchase 5,544,000 Shares of Common Stock) REPORTING PERSON 7. SOLE DISPOSITIVE POWER WITH \_\_\_\_\_\_ 8. SHARED DISPOSITIVE POWER 5,931,360 (Includes Warrants to Purchase 5,544,000 Shares of Common Stock) AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 5,931,360 (Includes Warrants to Purchase 5,544,000 Shares of Common Stock) 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* |\_| \_\_\_\_\_\_ 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) -----12. TYPE OF REPORTING PERSON\*

Page 3 of 17

\_\_\_\_\_\_

CUSIP No. 040047102 NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield Special Situations Fund, L.P. 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a) | | (b) |X| \_\_\_\_\_ 3. SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION New York 5. SOLE VOTING POWER \_\_\_\_\_ NUMBER OF 6. SHARED VOTING POWER SHARES BENEFICIALLY 602,486 (includes Warrants to purchase 591,360 Shares of Common Stock) REPORTING PERSON 7. SOLE DISPOSITIVE POWER WITH \_\_\_\_\_\_ 8. SHARED DISPOSITIVE POWER 602,486 (includes Warrants to purchase 591,360 Shares of Common Stock) AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 602,486 (includes Warrants to purchase 591,360 Shares of Common Stock) 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* |\_| \_\_\_\_\_\_ 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) \_\_\_\_\_\_ 12. TYPE OF REPORTING PERSON\*

Page 4 of 17

\_\_\_\_\_\_

CUSIP No. 040047102 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) | | (b) |X| \_\_\_\_\_\_ 3. SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION New York 5. SOLE VOTING POWER \_\_\_\_\_ NUMBER OF 6. SHARED VOTING POWER SHARES BENEFICIALLY 10,146,154 \_\_\_\_\_\_ 7. SOLE DISPOSITIVE POWER REPORTING PERSON \_\_\_\_\_ 8. SHARED DISPOSITIVE POWER 10,146,154\* \_\_\_\_\_\_ AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 10,146,154\* 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* |\_| 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9)

\* Comprised of 601,514 shares and 9,544,640 warrants held by Deerfield International Limited and Deerfield Special Situations Fund International Limited. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person

\_\_\_\_\_\_

\_\_\_\_\_\_

9.98%

PN

12. TYPE OF REPORTING PERSON\*

disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.

Page 5 of 17

CUSIP No. 040047102 NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield International Limited 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP\* (a) |\_| (b) |X| 3. SEC USE ONLY 4. CITIZENSHIP OR PLACE OF ORGANIZATION British Virgin Islands \_\_\_\_\_\_ 5. SOLE VOTING POWER NUMBER OF 6. SHARED VOTING POWER SHARES BENEFICIALLY 9,037,040 OWNED BY (Includes wal. FACH of Common Stock)\* (Includes Warrants to Purchase 8,456,000 Shares REPORTING 7. SOLE DISPOSITIVE POWER PERSON WITH 8. SHARED DISPOSITIVE POWER 9,037,040 (Includes Warrants to Purchase 8,456,000 Shares of Common Stock) \* 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON (Includes Warrants to Purchase 8,456,000 Shares of Common Stock)\* 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* |\_| 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 9.98% 12. TYPE OF REPORTING PERSON\*

CO

-----

\* The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding.

Page 6 of 17

CUSIP	No. 0400	47102	
1.		REPORTING PERSONS DENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)	 
	Deerfiel	d Special Situations Fund International Limited	
2.	CHECK TH	E APPROPRIATE BOX IF A MEMBER OF A GROUP*	_   X
3.	SEC USE	ONLY	 
4.	CITIZENS	HIP OR PLACE OF ORGANIZATION	 
	British	Virgin Islands	
		5. SOLE VOTING POWER	 
		0	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH		6. SHARED VOTING POWER	 
		1,109,114 (Includes Warrants to Purchase 1,088,640 Shares of Common Stock)	
		7. SOLE DISPOSITIVE POWER	 
		0	
		8. SHARED DISPOSITIVE POWER	 
		1,109,114 (Includes Warrants to Purchase 1,088,640 Shares of Common Stock)	
9.	AGGREGAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	 
	1,109,11 (Include	4 s Warrants to Purchase 1,088,640 Shares of Common Stock)	

10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES\* |\_|

11.		OF CLASS REPRESENTED BY AMOUNT IN ROW (9)		
	1.37%			
12.	TYPE OF	REPORTING PERSON*		
	CO			
		Page 7 of 17		
CUSIP	No. 0400	047102		
1.		REPORTING PERSONS DENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)		
	Deerfiel	d Private Design Fund, L.P.		
2.	CHECK TH	IE APPROPRIATE BOX IF A MEMBER OF A GROUP*		_   X
3.	SEC USE	ONLY		
4.	 CITIZENS	SHIP OR PLACE OF ORGANIZATION		
	Delaware			
		5. SOLE VOTING POWER		
		0		
		6. SHARED VOTING POWER		
		4,718,560 (Comprised of Warrants to Purchase 4,718,560 Shares of Common Stock)		
		7. SOLE DISPOSITIVE POWER		
VV	1111	0		
		8. SHARED DISPOSITIVE POWER		
		4,718,560 (Comprised of Warrants to Purchase 4,718,560 Shares of Common Stock)		
9.	AGGREGAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON		
	4,718,56 (Compris	50 sed of Warrants to Purchase 4,718,560 Shares of Common Stock	)	
10	CHECK BO	OX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARE	 c*	

11.	PERCENT	OF CLASS REPRESENTED BY AMOUNT IN ROW (9)	
	5.57%		
12.	TYPE OF	REPORTING PERSON*	
	CO		
		Page 8 of 17	
CUSIP	No. 0400	0047102	
1.		REPORTING PERSONS IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)	
	Deerfiel	eld Private Design International, L.P.	
2.	CHECK TH	THE APPROPRIATE BOX IF A MEMBER OF A GROUP*	(a)  _  (b)  X
3.	SEC USE	CONLY	
4.	CITIZENS	JSHIP OR PLACE OF ORGANIZATION	
	British	n Virgin Islands	
		5. SOLE VOTING POWER	
		0	
SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON		6. SHARED VOTING POWER	
		7,601,440 (Comprised of Warrants to Purchase 7,601,440 Shares of Common Stock)	
		7. SOLE DISPOSITIVE POWER	
VV	IITH	0	
		8. SHARED DISPOSITIVE POWER	
		7,601,440 (Comprised of Warrants to Purchase 7,601,440 Shares of Common Stock)	
9.	AGGREGA1	ATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	7,601,44 (Compris	140 .sed of Warrants to Purchase 7,601,440 Shares of Common Stock	.)
10.	CHECK BO	BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARE	S*  X

11.		OF CLASS REPRESENTED BY AMOUNT IN ROW (9)	
	8.67% 		
12.	TYPE OF	REPORTING PERSON*	
	CO		
		Page 9 of 17	
CUSIP	No. 0400	47102	
1.		REPORTING PERSONS DENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)	
	James E.	-	
2.	CHECK TH		(a)  _  (b)  X
3.	SEC USE	ONLY	
4.	CITIZENS	CHIP OR PLACE OF ORGANIZATION	
	United S	States States	
		5. SOLE VOTING POWER	
		0	
		6. SHARED VOTING POWER	
BENE		29,000,000*	
E.	ED BY ACH	7. SOLE DISPOSITIVE POWER	
PE	ORTING RSON	0	
W	ITH	8. SHARED DISPOSITIVE POWER	
		29,000,000*	
9.	AGGREGAT	E AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	29,000,0		
10.	CHECK BC	OX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARE:	 S*  _
11.	PERCENT	OF CLASS REPRESENTED BY AMOUNT IN ROW (9)	
	9.98%		

#### 12. TYPE OF REPORTING PERSON\*

ΤN

\_\_\_\_\_\_

\* Comprised of shares and warrants held by Deerfield Partners, L.P. Deerfield Special Situations Fund, Deerfield Special Situations Fund International Limited, Deerfield International Limited Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding.

Page 10 of 17

CUSIP No. 040047102

Item 1(a). Name of Issuer:

ARENA PHARMACEUTICALS, INC.

\_\_\_\_\_\_

Item 1(b). Address of Issuer's Principal Executive Offices:

6166 Nancy Ridge Drive San Diego, California 92121

\_\_\_\_\_\_

Item 2(a). Name of Person Filing:

James E. Flynn, Deerfield Capital, L.P., Deerfield Partners, L.P., Deerfield Special Situations Fund, L.P., Deerfield Management Company, L.P., Deerfield International Limited, Deerfield Special Situations Fund International Limited, Deerfield Private Design Fund, L.P., and Deerfield Private Design International, L.P.

\_\_\_\_\_\_

Item 2(b). Address of Principal Business Office, or if None, Residence:

James E. Flynn, Deerfield Capital, L.P., Deerfield Partners, L.P. Deerfield Special Situations Fund, L.P., Deerfield Management Company, L.P., Deerfield Private Design Fund, L.P., and Deerfield Private Design International, L.P. 780 Third Avenue, 37th Floor, New York, NY 10017

Deerfield International Limited, Deerfield Special Situations Fund International Limited c/o Bisys Management, Bison Court, Columbus Centre, P.O. Box 3460, Road Town, Tortola, British Virgin Islands

\_\_\_\_\_\_

Item 2(c). Citizenship:

Mr. Flynn - United States citizen Deerfield Capital, L.P., Deerfield Partners, L.P., Deerfield Special Situations Fund, L.P. and Deerfield Private Design Fund, L.P. -Delaware limited partnerships

Deerfield Management Company, L.P. - New York limited partnership Deerfield International Limited, Deerfield Special Situations Fund International Limited and Deerfield Private Design International, L.P. - British Virgin Islands corporations

\_\_\_\_\_\_

Item 2(d). Title of Class of Securities:

	Common Stock
Item 2(e).	CUSIP Number:
	040047102
Item 3.	If This Statement is Filed Pursuant to Rule 13d-1(b), or 13d-2(b) or (c), Check Whether the Person Filing is a:
(a)	[_] Broker or dealer registered under Section 15 of the Exchange Act.
(b)	[_] Bank as defined in Section 3(a)(6) of the Exchange Act.
(c)	[_] Insurance company as defined in Section 3(a)(19) of the Exchange Act.
(d)	[_] Investment company registered under Section 8 of the Investment Company Act.
(e)	[_] An investment adviser in accordance with Rule 13d-1(b)(1)(ii)(E);
(f)	[_] An employee benefit plan or endowment fund in accordance with Rule 13d-1(b)(1)(ii)(F);
(g)	[_] A parent holding company or control person in accordance with Rule 13d-1(b)(1)(ii)(G);
(h)	[_] A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act;
(i)	<pre>[_] A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;</pre>
(j)	[_] Group, in accordance with Rule 13d-1(b)(1)(ii)(J).

## Page 11 of 17

#### 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 Capital, L.P. - 18,853,846 shares(1)
Deerfield Partners, L.P. - 5,931,360 shares (Includes Warrants to
Purchase 5,544,000 Shares of Common Stock)
Deerfield Special Situations Fund, L.P. - 602,486 shares (Includes
Warrants to Purchase 591,360 Shares of Common Stock)
Deerfield Management Company, L.P. - 10,146,154 shares(2)
Deerfield International Limited - 9,037,040 shares (Includes
Warrants to Purchase 8,456,000 Shares of Common Stock)(3)
Deerfield Special Situations Fund International Limited - 1,109,114
shares (Includes Warrants to Purchase 1,088,640 Shares of Common
Stock)
Deerfield Private Design Fund, L.P. - 4,718,560 shares (comprised of

Warrants to Purchase 4,718,560 Shares of Common Stock)
Deerfield Private Design International, L.P. - 7,601,440 shares
(comprised of Warrants to Purchase 7,601,440 Shares of Common Stock)
James E. Flynn - 29,000,000 shares(4)

-----

- (1) Comprised of 398,486 shares and 18,455,360 warrants held by Deerfield Partners, L.P., Deerfield Special Situations Fund, L.P., Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.
- (2) Comprised of 601,514 shares and 9,544,640 warrants held by Deerfield International Limited and Deerfield Special Situations Fund International Limited. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.
- (3) The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding
- (4) Comprised of shares and warrants held by Deerfield Partners, L.P., Deerfield Special Situations Fund, Deerfield Special Situations Fund International Limited, Deerfield International Limited, Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding.

Page 12 of 17

#### (b) Percent of class:

Deerfield Capital, L.P. - 9.98%

Deerfield Partners, L.P. - 6.93%

Deerfield Special Situations Fund, L.P. - .75%

Deerfield Management Company, L.P. - 9.98%

Deerfield International Limited - 9.98%

Deerfield Special Situations Fund International Limited - 1.37%

Deerfield Private Design Fund, L.P. - 5.57%

Deerfield Private Design International Limited - 8.67%

James E. Flynn - 9.98%

-----

- (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 Capital, L.P. - 18,853,846 shares(5) Deerfield Partners, L.P. - 5,931,360 shares (Includes Warrants to Purchase 5,544,000 Shares of Common Stock Deerfield Special Situations Fund, L.P. - 602,486 shares (Includes Warrants to Purchase 591,360 Shares of Common Stock) Deerfield Management Company, L.P. - 10,146,154 shares(6) Deerfield International Limited - 9,037,040 shares (Includes Warrants to Purchase 8,456,000 Shares of Common Stock) Deerfield Special Situations Fund International Limited - 1,109,114 shares (Includes Warrants to Purchase 1,088,640 Shares of Common Stock) (7) Deerfield Private Design Fund, L.P. - 4,718,560 shares (comprised of Warrants to Purchase 4,718,560 Shares of Common Stock) Deerfield Private Design International, L.P. - 7,601,440 shares (comprised of Warrants to Purchase 7,601,440 Shares of Common Stock) James E. Flynn - 29,000,000 shares (8)

<sup>(5)</sup> Comprised of 398,486 shares and 18,455,360 warrants held by Deerfield Partners, L.P., Deerfield Special Situations Fund, L.P., Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.

<sup>(6)</sup> Comprised of 601,514 shares and 9,544,640 warrants held by Deerfield International Limited and Deerfield Special Situations Fund International Limited. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with

which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.

- (7) The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding
- (8) Comprised of shares and warrants held by Deerfield Partners, L.P., Deerfield Special Situations Fund, Deerfield Special Situations Fund International Limited, Deerfield International Limited, Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding.

Page 13 of 17

(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 Capital, L.P. - 18,853,846 shares(9) Deerfield Partners, L.P. - 5,931,360 shares (Includes Warrants to Purchase 5,544,000 Shares of Common Stock Deerfield Special Situations Fund, L.P. - 602,486 shares (Includes Warrants to Purchase 591,360 Shares of Common Stock) Deerfield Management Company, L.P. - 10,146,154 shares(10) Deerfield International Limited - 9,037,040 shares (Includes Warrants to Purchase 8,456,000 Shares of Common Stock) (11) Deerfield Special Situations Fund International Limited - 1,109,114 shares (Includes Warrants to Purchase 1,088,640 Shares of Common Stock) Deerfield Private Design Fund, L.P. - 4,718,560 shares (comprised of Warrants to Purchase 4,718,560 Shares of Common Stock) Deerfield Private Design International, L.P. - 7,601,440 shares (comprised of Warrants to Purchase 7,601,440 Shares of

Common Stock)

James E. Flynn - 29,000,000 shares(12)

-----

- (9) Comprised of 398,486 shares and 18,455,360 warrants held by Deerfield Partners, L.P., Deerfield Special Situations Fund, L.P., Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.
- (10) Comprised of 601,514 shares and 9,544,640 warrants held by Deerfield International Limited and Deerfield Special Situations Fund International Limited. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares then beneficially owned by the holder and its affiliates and any other person or entities with which such holder would constitute a Section 13(d) "group" would exceed 9.98% of the total number of shares of the Issuer then outstanding (the "Ownership Cap"). Accordingly, notwithstanding the number of shares reported, the reporting person disclaims beneficial ownership of the shares underlying such warrants to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.
- (11) The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding
- (12) Comprised of shares and warrants held by Deerfield Partners, L.P., Deerfield Special Situations Fund, Deerfield Special Situations Fund International Limited, Deerfield International Limited, Deerfield Private Design Fund, L.P. and Deerfield Private Design International, L.P. The provisions of such warrants restrict the exercise of such warrants to the extent that, upon such exercise, the number of shares that are beneficially owned by such holder and its affiliates and any other persons or entities which with which such holder would constitute a Section 13(d) "group", would exceed 9.98% of the total number of shares of the Issuer's total outstanding.

Page 14 of 17

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 following  $|\_|$ .

The Control of Mary Mary The Provider Debat Conf. And her Provider

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

\_\_\_\_\_

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 such purpose or effect."

Page 15 of 17

#### 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 CAPITAL, L.P.

By: J.E. Flynn Capital LLC, General Partner By: /s/ Darren Levine \_\_\_\_\_ Darren Levine, Attorney-In-Fact DEERFIELD PARTNERS, L.P. By: Deerfield Capital, L.P. By: J.E. Flynn Capital LLC, General Partner By: /s/ Darren Levine Darren Levine, Attorney-In-Fact DEERFIELD SPECIAL SITUATIONS FUND, L.P. By: Deerfield Capital, L.P. By: J.E. Flynn Capital LLC, General Partner By: /s/ Darren Levine \_\_\_\_\_ Darren Levine, Attorney-In-Fact DEERFIELD PRIVATE DESIGN FUND, L.P. By: Deerfield Capital, L.P. By: J.E. Flynn Capital LLC, General Partner By: /s/ Darren Levine Darren Levine, Attorney-In-Fact DEERFIELD PRIVATE DESIGN INTERNATIONAL, L.P. By: Deerfield Capital, L.P. By: J.E. Flynn Capital LLC, General Partner By: /s/ Darren Levine Darren Levine, Attorney-In-Fact DEERFIELD MANAGEMENT COMPANY, L.P. By: Flynn Management LLC General Partner

By: /s/ Darren Levine

Darren Levine, Attorney-In-Fact

Page 16 of 17

#### DEERFIELD INTERNATIONAL LIMITED

By: Deerfield Management Company

By: Flynn Management LLC, General Partner

By: /s/ Darren Levine

Darren Levine, Attorney-In-Fact

#### DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

By: Deerfield Management Company

By: Flynn Management LLC, General Partner

By: /s/ Darren Levine

\_\_\_\_\_

Darren Levine, Attorney-In-Fact

JAMES E. FLYNN

/s/ Darren Levine

\_\_\_\_\_

Darren Levine, Attorney-In-Fact

Date: July 6, 2009

Page 17 of 17

Exhibit List

Exhibit A. Joint Filing Agreement.

Exhibit B. Item 8 Statement.

Exhibit C (1). Power of Attorney.

(1) Previously filed as Exhibit 24 to a Form 4 with regard to Dynavax Technologies Corporation filed with the Securities and Commission on July 20, 2007 by Deerfield Capital L.P.; Deerfield Partners, L.P.; Deerfield Management Company, L.P.; Deerfield International Limited; Deerfield Special Situations Fund, L.P.; Deerfield Special Situations Fund International Limited; Deerfield Private Design Fund, L.P.; Deerfield Private Design International, L.P. and James E. Flynn.

#### Exhibit A

#### Agreement

The undersigned agree that this Schedule 13G Amendment, and all further amendments thereto, relating to the Common Stock of Third Wave Technologies, Inc. shall be filed on behalf of the undersigned.

#### DEERFIELD CAPITAL, L.P.

By: J.E. Flynn Capital LLC, General Partner

By: /s/ Darren Levine

Darren Levine, Attorney-In-Fact

#### DEERFIELD PARTNERS, L.P.

By: Deerfield Capital, L.P.

By: J.E. Flynn Capital LLC, General Partner

By: /s/ Darren Levine
----Darren Levine, Attorney-In-Fact

#### DEERFIELD SPECIAL SITUATIONS FUND, L.P.

By: Deerfield Capital, L.P.

By: J.E. Flynn Capital LLC, General Partner

By: /s/ Darren Levine
----Darren Levine, Attorney-In-Fact

#### DEERFIELD MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC General Partner

By: /s/ Darren Levine
----Darren Levine, Attorney-In-Fact

#### DEERFIELD INTERNATIONAL LIMITED

By: Deerfield Management Company

By: Flynn Management LLC, General Partner

By: /s/ Darren Levine

Darren Levine, Attorney-In-Fact

DEERFIELD PRIVATE DESIGN FUND, L.P.

By: Deerfield Capital, L.P.

By: J.E. Flynn Capital LLC,

General Partner

By: /s/ Darren Levine

\_\_\_\_\_

Darren Levine, Attorney-In-Fact

DEERFIELD PRIVATE DESIGN INTERNATIONAL, L.P.

By: Deerfield Capital, L.P.

By: J.E. Flynn Capital LLC,

General Partner

By: /s/ Darren Levine

\_\_\_\_\_

Darren Levine, Attorney-In-Fact

DEERFIELD SPECIAL SITUATIONS FUND INTERNATIONAL LIMITED

By: Deerfield Management Company

By: Flynn Management LLC,

General Partner

By: /s/ Darren Levine

\_\_\_\_\_

Darren Levine, Attorney-In-Fact

JAMES E. FLYNN

/s/ Darren Levine

-----

Darren Levine, 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.