

AERIE PHARMACEUTICALS INC
Form SC 13G/A
July 23, 2018

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. 6)*

Aerie Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

00771V108

(CUSIP Number)

July 23, 2018

(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)

(Page 1 of 15 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).

NAME OF REPORTING PERSONS

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

Deerfield Mgmt, L.P.

2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) (b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

Delaware

SOLE VOTING POWER

5.

NUMBER OF 0

SHARES

SHARED VOTING POWER

6. BENEFICIALLY

OWNED BY

1,215,413 (1) SOLE DISPOSITIVE POWER

EACH

7.

REPORTING

0

PERSON

8. SHARED DISPOSITIVE POWER

WITH

1,215,413 (1)

AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

9.

1,215,413 (1)

CHECK BOX IF THE AGGREGATE
AMOUNT IN ROW (9) EXCLUDES
CERTAIN SHARES*

10.

PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

2.69% (2)

TYPE OF REPORTING PERSON*

12.

PN

(1) Comprised of shares of common stock held by Deerfield Partners, L.P. (“Deerfield Partners”) and Deerfield Special Situations Fund, L.P. (“DSS”), of which Deerfield Mgmt, L.P. is the general partner. Upon DSS’ and Deerfield Partners’ receipt of shares of the Issuer’s common stock pursuant to an Exchange and Termination Agreement, dated as of July 23, 2018, Deerfield Mgmt, L.P. beneficially owned an aggregate of 1,987,501 shares, or 4.40%, of the Issuer’s common stock. DSS and Deerfield Partners subsequently closed previously established short positions with respect to the Issuer’s common stock.

(2) Percentage ownership is based on 45,208,820 shares of the Issuer’s common stock outstanding, which reflects 39,839,373 shares of the Issuer’s common stock outstanding as of June 30, 2018, as set forth in the Issuer’s press release, dated July 23, 2018, plus an aggregate of 5,369,447 shares of the Issuer’s common stock that were issued to Deerfield Private Design Fund III, L.P. (“DPD III”), Deerfield Partners and DSS on July 23, 2018

NAME OF REPORTING PERSONS

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

1.

Deerfield Management Company, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

2.

(a)

(b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

Delaware

SOLE VOTING POWER

5.

NUMBER OF 0

SHARES

SHARED VOTING POWER

BENEFICIALLY 6.

OWNED BY

3,891,051 (3)

EACH

SOLE DISPOSITIVE POWER

7.

REPORTING

0

PERSON

8. SHARED DISPOSITIVE POWER

WITH

3,891,051 (3)

AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

9.

3,891,051 (3)

CHECK BOX IF THE AGGREGATE
AMOUNT IN ROW (9) EXCLUDES
CERTAIN SHARES*

10.

PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

8.61% (4)

TYPE OF REPORTING PERSON*

12.

PN

(3) Comprised of shares of common stock held by DPD III, Deerfield Partners and DSS, of which Deerfield Management Company, L.P. is the investment advisor. Upon DPD III, DSS' and Deerfield Partners' receipt of shares of the Issuer's common stock pursuant to an Exchange and Termination Agreement, dated as of July 23, 2018, Deerfield Management Company, L.P. beneficially owned an aggregate of 5,853,502 shares, or 12.95%, of the Issuer's common stock. DPD III's, DSS and Deerfield Partners subsequently closed previously established short positions with respect to the Issuer's common stock.

(4) See footnote (2).

NAME OF REPORTING PERSONS

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

1.

Deerfield Partners, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

2.

(a)

(b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

Delaware

SOLE VOTING POWER

5.

NUMBER OF 0

SHARES

SHARED VOTING POWER

BENEFICIALLY 6.

OWNED BY

1,027,056 (5)

SOLE DISPOSITIVE POWER

EACH 7.

REPORTING

0

PERSON

8. SHARED DISPOSITIVE POWER

WITH

1,027,056 (5)

9. AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

1,027,056 (5)

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

11. PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

2.27% (6)

TYPE OF REPORTING PERSON*

12.

PN

(5) Upon Deerfield Partners' receipt of shares of the Issuer's common stock pursuant to an Exchange and Termination Agreement, dated as of July 23, 2018, Deerfield Partners beneficially owned an aggregate of 1,557,945 shares, or 3.45%, of the Issuer's common stock. Deerfield Partners subsequently closed previously established short positions with respect to the Issuer's common stock.

(6) See footnote (2).

CUSIP No. 00771V108 13G Page 5 of 15

NAME OF REPORTING PERSONS

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

1.

Deerfield Special Situations Fund, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

2.

(a)

(b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

Delaware

SOLE VOTING POWER

5.

NUMBER OF 0

SHARES

SHARED VOTING POWER

BENEFICIALLY 6.

OWNED BY

188,357 (7)

EACH

SOLE DISPOSITIVE POWER

7.

REPORTING

0

PERSON

8. SHARED DISPOSITIVE POWER

WITH

188,357 (7)

AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

9.

188,357 (7)

CHECK BOX IF THE AGGREGATE
AMOUNT IN ROW (9) EXCLUDES
CERTAIN SHARES*

10.

PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

0.42% (8)

TYPE OF REPORTING PERSON*

12.

PN

(7) Upon DSS' receipt of shares of the Issuer's common stock pursuant to an Exchange and Termination Agreement, dated as of July 23, 2018, DSS beneficially owned an aggregate of 429,556 shares, or 0.95%, of the Issuer's common stock. DSS subsequently closed previously established short positions with respect to the Issuer's common stock.

(8) See footnote (2).

CUSIP No. 00771V108 13G Page 6 of 15

NAME OF REPORTING PERSONS

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

1.

Deerfield International Master Fund, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

2.

(a)

(b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

British Virgin Islands
SOLE VOTING POWER

5.

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH

0

SHARED VOTING POWER

6.

0

SOLE DISPOSITIVE POWER

7.

0

8. SHARED DISPOSITIVE POWER

0

9. AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

0

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

11. PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

0.00%

12. TYPE OF REPORTING PERSON*

12.

PN

CUSIP No. 00771V108 13G Page 7 of 15

NAME OF REPORTING PERSONS

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

1.

Deerfield Mgmt III, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

2.

(a)

(b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

Delaware

SOLE VOTING POWER

5.

NUMBER OF 0

SHARES

SHARED VOTING POWER

BENEFICIALLY 6.

OWNED BY

2,675,638 (9)

EACH

7.

SOLE DISPOSITIVE POWER

REPORTING

0

PERSON

8. SHARED DISPOSITIVE POWER

WITH

2,675,638 (9)

AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

9.

2,675,638 (9)

CHECK BOX IF THE AGGREGATE
AMOUNT IN ROW (9) EXCLUDES
CERTAIN SHARES*

10.

PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

5.92% (10)

TYPE OF REPORTING PERSON*

12.

PN

(9) Comprised of shares of common stock held by DPD III, of which Deerfield Mgmt III, L.P. is the general partner. Upon DPD III's receipt of shares of the Issuer's common stock pursuant to an Exchange and Termination Agreement, dated as of July 23, 2018, Deerfield Mgmt III, L.P. beneficially owned an aggregate of 3,866,001 shares, or 8.55%, of the Issuer's common stock. DPD III subsequently closed previously established short positions with respect to the Issuer's common stock.

(10) See footnote (2).

NAME OF REPORTING PERSONS

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

1.

Deerfield Private Design Fund III, L.P.

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

2.

(a)

(b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

Delaware

SOLE VOTING POWER

5.

NUMBER OF 0

SHARES

SHARED VOTING POWER

BENEFICIALLY 6.

OWNED BY

2,675,638 (11)

EACH

SOLE DISPOSITIVE POWER

7.

REPORTING

0

PERSON

8. SHARED DISPOSITIVE POWER

WITH

2,675,638 (11)

9. AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

2,675,638 (11)

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

11. PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

5.92% (12)

TYPE OF REPORTING PERSON*

12.

PN

(11) Upon DPD III's receipt of shares of the Issuer's common stock pursuant to an Exchange and Termination Agreement, dated as of July 23, 2018, DPD III beneficially owned an aggregate of 3,866,001 shares, or 8.55%, of the Issuer's common stock. DPD III subsequently closed previously established short positions with respect to the Issuer's common stock.

(12) See footnote (2).

NAME OF REPORTING PERSONS

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

1.

James E. Flynn

CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP*

2.

(a)

(b)

SEC USE ONLY

3.

CITIZENSHIP OR PLACE OF ORGANIZATION

4.

United States

SOLE VOTING POWER

5.

NUMBER OF 0

SHARES

SHARED VOTING POWER

BENEFICIALLY 6.

OWNED BY

3,891,051 (13)

EACH

SOLE DISPOSITIVE POWER

7.

REPORTING

0

PERSON

8. SHARED DISPOSITIVE POWER

WITH

3,891,051 (13)

9. AGGREGATE AMOUNT
BENEFICIALLY OWNED BY EACH
REPORTING PERSON

3,891,051 (13)

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

11. PERCENT OF CLASS REPRESENTED
BY AMOUNT IN ROW 9

11.

8.61% (14)

TYPE OF REPORTING PERSON*

12.

IN

(13) Comprised of shares of common stock held by DPD III, Deerfield Partners and DSS. Upon DPD III's, DSS' and Deerfield Partners' receipt of shares of the Issuer's common stock pursuant to an Exchange and Termination Agreement, dated as of July 23, 2018, James E. Flynn beneficially owned an aggregate of 5,853,502 shares, or 12.95%, of the Issuer's common stock. DPD III, DSS and Deerfield Partners subsequently closed previously established short positions with respect to the Issuer's common stock.

(14) See footnote (2).

CUSIP No. 00771V108 13G Page 10 of
15

Item 1(a). Name of Issuer:

Aerie Pharmaceuticals, Inc.

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

4301 Emperor Boulevard, Suite 400

Durham, North Carolina 27703

Item 2(a). Name of Person Filing:

James E. Flynn, Deerfield Mgmt, L.P., Deerfield Partners, L.P., Deerfield Mgmt III, L.P., Deerfield Special Situations Fund, L.P., Deerfield Management Company, L.P., Deerfield International Master Fund, L.P. and Deerfield Private Design Fund III, L.P.

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

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

Item 2(c). Citizenship:

Deerfield Mgmt, L.P., Deerfield Management Company, L.P., Deerfield Partners, L.P., Deerfield Special Situations Fund, L.P., Deerfield Mgmt III, L.P., and Deerfield Private Design Fund III, L.P. - Delaware limited partnerships;

Deerfield International Master Fund, L.P. - British Virgin Islands limited partnership;

James E. Flynn - United States citizen

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

Common Stock

Item 2(e). CUSIP Number:

00771V108

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);

CUSIP No. 00771V108 13G Page 11 of
15

- (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) A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act;
- (j) A non-U.S. institution in accordance with Rule 13d-1(b)(1)(ii)(J);
- (k) 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. - 1,215,413 shares
 - Deerfield Management Company, L.P. - 3,891,051 shares
 - Deerfield Mgmt III, L.P. – 2,675,638 shares
 - Deerfield Partners, L.P. - 1,027,056 shares
 - Deerfield Special Situations Fund, L.P. - 188,357 shares
 - Deerfield International Master Fund, L.P. - 0 shares
 - Deerfield Private Design Fund III, L.P. - 2,675,638 shares
 - James E. Flynn – 3,891,051 shares
- (b) Percent of class**:

Edgar Filing: AERIE PHARMACEUTICALS INC - Form SC 13G/A

Deerfield Mgmt, L.P. – 2.69%

Deerfield Management Company, L.P. - 8.61%

Deerfield Mgmt III, L.P. – 5.92%

Deerfield Partners, L.P. – 2.27%

Deerfield Special Situations Fund, L.P. – 0.42%

Deerfield International Master Fund, L.P. – 0.00%

Deerfield Private Design Fund III, L.P. – 5.92%

James E. Flynn – 8.61%

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

(i) Sole power to vote or to direct the vote: All Reporting Persons - 0

Deerfield Mgmt, L.P. - 1,215,413

Deerfield Management Company, L.P. - 3,891,051

Deerfield Mgmt III, L.P. - 2,675,638

(ii) Shared power to vote or to direct the vote: Deerfield Partners, L.P. - 1,027,056

Deerfield Special Situations Fund, L.P. - 188,357

Deerfield International Master Fund, L.P. - 0

Deerfield Private Design Fund III, L.P. - 2,675,638

James E. Flynn – 3,891,051

CUSIP No. 00771V108 13G Page 12 of 15

- (iii) Sole power to dispose or to direct the disposition of: All Reporting Persons - 0
- Deerfield Mgmt, L.P. - 1,215,413
- Deerfield Management Company, L.P. - 3,891,051
- Deerfield Mgmt III, L.P. - 2,675,638
- (iv) Shared power to dispose or to direct the disposition of: Deerfield Partners, L.P. - 1,027,056
- Deerfield Special Situations Fund, L.P. - 188,357
- Deerfield International Master Fund, L.P. - 0
- Deerfield Private Design Fund III, L.P. - 2,675,638
- James E. Flynn - 3,891,051

**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 following *.

*In connection with the consolidation of Deerfield Partners, L.P. ("DP") and Deerfield International Master Fund, L.P. ("DIMF"), effective January 1, 2018, the assets of DIMF (including the shares of the Issuer then held by DIMF) were transferred to DP and DIMF ceased to be the beneficial owner of any shares of the Issuer.

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 the
7. 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

CUSIP No. 00771V108 13G Page 13 of
15

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."

CUSIP No. 00771V108 13G Page 14 of
15

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 MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC, General Partner

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD MGMT III, L.P.

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

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD PARTNERS, 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 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 INTERNATIONAL MASTER 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 PRIVATE DESIGN FUND III, L.P.

By: Deerfield Mgmt III, L.P., General Partner

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

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

CUSIP No. 00771V108 13G Page 15 of
15

JAMES E. FLYNN

/s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

Date: July 23, 2018

Exhibit List

Exhibit A. Joint Filing Agreement.

Exhibit B. Item 8 Statement.

Exhibit C. Power of Attorney (1).

(1) Power of Attorney previously filed as Exhibit 24 to a Form 3 with regard to Proteon Therapeutics, Inc. filed with the Securities and Exchange Commission on August 4, 2017 by Deerfield Special Situations Fund, L.P., Deerfield Partners, L.P., Deerfield International Master Fund, L.P., Deerfield Private Design Fund III, L.P., Deerfield Private Design Fund IV, L.P., Deerfield Mgmt, L.P., Deerfield Mgmt III, L.P., Deerfield Mgmt IV, L.P., Deerfield Management Company, L.P., and James E. Flynn.

Exhibit A

Joint Filing Agreement

The undersigned agree that this Schedule 13G, and all amendments thereto, relating to the Common Stock of Aerie 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 MANAGEMENT COMPANY, L.P.

By: Flynn Management LLC, General Partner

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD MGMT III, L.P.

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

By: /s/ Jonathan Isler

Jonathan Isler, Attorney-In-Fact

DEERFIELD PARTNERS, 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 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 INTERNATIONAL MASTER 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 PRIVATE DESIGN FUND III, L.P.

By: Deerfield Mgmt III, L.P., General Partner

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

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.