AERIE PHARMACEUTICALS INC Form SC 13G/A February 17, 2015

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. 1) *

Aerie Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

00771V108

(CUSIP Number)

December 31, 2014

(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 16 Pages)

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).

^{*} 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.

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NAME OF REPORTING PERSONS
 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) o (b) \circ

- 3. SEC USE ONLY
- 4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH 0

6. SHARED VOTING POWER

3,270,208 (1)

REPORTING 7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

3,270,208 (1)

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

3,270,208 (1)

- 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) $_{
 m O}$ EXCLUDES CERTAIN SHARES*
- 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

9.98%

12. TYPE OF REPORTING PERSON*

PN

⁽¹⁾ Comprised of an aggregate of 1,858,917 shares of common stock and 1,411,291 shares of common stock underlying convertible notes held by Deerfield Partners, L.P., Deerfield International Master Fund, L.P., Deerfield Special Situations Fund, L.P., and Deerfield Special Situations International Master Fund, L.P., of which Deerfield

Mgmt, L.P. is the general partner. The provisions of the convertible notes beneficially owned by the reporting person restrict the conversion of such securities to the extent that, upon such exercise or conversion, the number of shares then beneficially owned by the holder 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 convertible notes to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.

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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) \circ

- 3. SEC USE ONLY
- 4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH 0

6. SHARED VOTING POWER

6,899,240 (2)

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

6,899,240 (2)

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

6,899,240 (2)

- 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) $_{
 m O}$ EXCLUDES CERTAIN SHARES*
- 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

9.98%

12. TYPE OF REPORTING PERSON*

PN

⁽²⁾ Comprised of an aggregate of 1,858,917 shares of common stock and 5,040,323 shares of common stock underlying convertible notes held by Deerfield Partners, L.P., Deerfield International Master Fund, L.P., Deerfield Special Situations Fund, L.P., Deerfield Private

Design Fund III, L.P., of which Deerfield Management Company, L.P. is the investment advisor. The provisions of the convertible notes beneficially owned by the reporting person restrict the conversion of such securities to the extent that, upon such exercise or conversion, the number of shares then beneficially owned by the holder 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 convertible notes to the extent beneficial ownership of such shares would cause all reporting persons hereunder, in the aggregate, to exceed the Ownership Cap.

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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) o (b) \circ

- 3. SEC USE ONLY
- 4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING

PERSON WITH

0

6. SHARED VOTING POWER

1,212,778 (3)

7. SOLE DISPOSITIVE POWER

0

8. SHARED DISPOSITIVE POWER

1,212,778 (3)

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,212,778 (3)

- 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) $_{
 m O}$ EXCLUDES CERTAIN SHARES*
- 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

4.96%

12. TYPE OF REPORTING PERSON*

PN

(3) Comprised of an aggregate of 765,197 shares of common stock and 447,581 shares of common stock underlying convertible notes.

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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 (a) o GROUP* (b) \circ

- 3. SEC USE ONLY
- 4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

6.

5. SOLE VOTING POWER

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH 0

301,825 (4)

REPORTING PERSON WITH 7. SOLE DISPOSITIVE POWER

8. SHARED DISPOSITIVE POWER

SHARED VOTING POWER

301,825 (4)

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

301,825 (4)

- 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) $_{
 m O}$ EXCLUDES CERTAIN SHARES*
- 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

1.25%

12. TYPE OF REPORTING PERSON*

PN

(4) Comprised of an aggregate of 81,664 shares of common stock and 220,161 shares of common stock underlying convertible notes.

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

Deerfield International Master Fund, L.P.

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

- 3. SEC USE ONLY
- 4. CITIZENSHIP OR PLACE OF ORGANIZATION

British Virgin Islands

5. SOLE VOTING POWER

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH 0

6. SHARED VOTING POWER

1,506,304 (5)

REPORTING PERSON WITH 7. SOLE DISPOSITIVE POWER

8. SHARED DISPOSITIVE POWER

1,506,304 (5)

9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

1,506,304 (5)

- 10. CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) $_{
 m O}$ EXCLUDES CERTAIN SHARES*
- 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9

6.14%

12. TYPE OF REPORTING PERSON*

PN

(5) Comprised of an aggregate of 945,820 shares of common stock and 560,484 shares of common stock underlying convertible notes.

CUSIP No. 00771V108 13G 1. NAME OF REPORTING PERSONS I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY) Deerfield Special Situations International Master Fund, L.P. CHECK THE APPROPRIATE BOX IF A MEMBER OF A 2. (a) o GROUP* (b) ý 3. SEC USE ONLY CITIZENSHIP OR PLACE OF ORGANIZATION 4. British Virgin Islands 5. **SOLE VOTING POWER** NUMBER OF 0 **SHARES** 6. SHARED VOTING POWER **BENEFICIALLY** OWNED BY 249,301 (6) **EACH** 7. SOLE DISPOSITIVE POWER **REPORTING** PERSON WITH 8. SHARED DISPOSITIVE POWER 249,301 (6) 9. AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING **PERSON** 249,301 (6) CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) 10. **EXCLUDES CERTAIN SHARES*** 11. PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 1.03% TYPE OF REPORTING PERSON* 12.

PN

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(6) Comprised of an aggregate of 66,236 shares of common stock and 183,065 shares of common stock underlying

convertible notes

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

Deerfield Mgmt III, L.P.

- 2. CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP* (a) o (b) \circ
- 3. SEC USE ONLY
- 4. CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

5. SOLE VOTING POWER

NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH 0

6. SHARED VOTING POWER