

AERIE PHARMACEUTICALS INC
Form SC 13D/A
June 05, 2014

CUSIP NO. 00771V108 13DPage 1 of 16

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

SCHEDULE 13D

(RULE 13d-101)

INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO RULE 13d-1(a)

AND AMENDMENTS THERETO FILED PURSUANT TO RULE 13d-2(a)

(Amendment No. 1)*

Aerie Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock, par value \$0.001 per share

(Title of Class of Securities)

00771V108

(CUSIP Number)

Nathalie Auber

Sofinnova Ventures, Inc.

2800 Sand Hill Road, Suite 150

Menlo Park, CA 94025

(650) 681-8420

(Name, Address and Telephone Number of Person

Authorized to Receive Notices and Communications)

COPY TO:

Linda Daley, Esq.

c/o Gunderson Dettmer Stough Villeneuve Franklin & Hachigian, LLP

1200 Seaport Blvd., Redwood City, CA 94063

(650) 463-5243

May 22, 2014

(Date of Event Which Requires Filing of This Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§ 240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box "

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Rule 240.13d-7 for other parties to whom copies are to be sent.

*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 disclosures provided in a prior cover page.

This information required on 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).

CUSIP NO. 00771V108 13D Page 2 of 16

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

2 Sofinnova Venture Partners VII, L.P. ("SVP VII")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

3 (a) (b)

4 SEC USE ONLY
 SOURCE OF FUNDS
 WC

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM
 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION
 Delaware

NUMBER OF SOLE VOTING POWER
 SHARES 7 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable
 BENEFICIALLY warrants, except that Sofinnova Management VII, L.L.C. ("SM VII"), the general partner of SVP
 OWNED BY 8 SHARED VOTING POWER
 EACH See response to row 7.
 REPORTING 9 SOLE DISPOSITIVE POWER
 PERSON 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable
 WITH 10 SHARED DISPOSITIVE POWER
 See response to row 9.

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 2,716,657

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
 ..

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
 11.6%

14 TYPE OF REPORTING PERSON
 PN

CUSIP NO. 00771V108 13D Page 3 of 16

1 NAME OF REPORTING PERSON
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
 Sofinnova Management VII, L.L.C. ("SM VII")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

2

3 (a) (b)

4 SEC USE ONLY

5 SOURCE OF FUNDS

6 AF

CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM 2(d) or 2(e)

CITIZENSHIP OR PLACE OF ORGANIZATION

Delaware

SOLE VOTING POWER

NUMBER OF 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

SHARES 7 warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII, may be deemed to have sole voting power, and Powell, Healy and Buatois, the managing members of SM VII, and Mehra, a director of the Issuer, may be deemed to have shared power to vote these

BENEFICIALLY shares.

OWNED BY 8 SHARED VOTING POWER

EACH See response to row 7.

SOLE DISPOSITIVE POWER

REPORTING 9 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

PERSON warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII, may be deemed to have sole dispositive power, and Powell, Healy and Buatois, the managing

WITH 10 members of SM VII, and Mehra, a director of the Issuer, may be deemed to have shared dispositive

power over these shares.

SHARED DISPOSITIVE POWER

See response to row 9.

AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON

11 2,716,657

CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES

12

PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11

13 11.6%

TYPE OF REPORTING PERSON

14 OO

CUSIP NO. 00771V108 13D Page 4 of 16

1 NAME OF REPORTING PERSON
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
 Anand Mehra ("Mehra")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

2 (a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS
 AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM
 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION
 U.S. Citizen

NUMBER OF 7 SOLE VOTING POWER
 28,000 shares of Common Stock, all of which are issuable pursuant to outstanding options

SHARES SHARED VOTING POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

BENEFICIAALLY warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 OWNED BY may be deemed to have sole voting power, and Mehra, a director of the Issuer, may be deemed to
 EACH have shared voting power to vote these shares.

9 SOLE DISPOSITIVE POWER
 28,000 shares of Common Stock, all of which are issuable pursuant to outstanding options

REPORTING SHARED DISPOSITIVE POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

PERSON 10 warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 WITH may be deemed to have sole dispositive power, and Mehra, a director of the Issuer, may be deemed
 to have shared power to dispose of these shares.

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 2,744,657

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
 ..

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
 11.7%

14 TYPE OF REPORTING PERSON
 IN

CUSIP NO. 00771V108 13D Page 5 of 16

1 NAME OF REPORTING PERSON
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
 Dr. Michael F. Powell ("Powell")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

2 (a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS
 AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM
 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION
 U.S. Citizen

NUMBER OF 7 SOLE VOTING POWER
 -0-

SHARES SHARED VOTING POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

BENEFICIAALLY warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 OWNED BY deemed to have sole voting power, and Powell, a managing member of SM VII, may be
 EACH 9 SOLE DISPOSITIVE POWER
 -0-

REPORTING SHARED DISPOSITIVE POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

PERSON 10 warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 WITH be deemed to have sole dispositive power, and Powell, a managing member of SM VII, may
 be deemed to have shared power to dispose of these shares.

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 2,716,657

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
 ..

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
 11.6%

14 TYPE OF REPORTING PERSON
 IN

CUSIP NO. 00771V108 13D Page 6 of 16

1 NAME OF REPORTING PERSON
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
 Dr. James I. Healy (“Healy”)
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

2 (a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS
 AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM
 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION
 U.S. Citizen

NUMBER OF 7 SOLE VOTING POWER
 -0-

SHARES SHARED VOTING POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

BENEFICIAALLY warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 may be deemed to have sole voting power, and Healy, a managing member of SM VII, may be

OWNED BY EACH 9 SOLE DISPOSITIVE POWER
 -0-

REPORTING PERSON WITH SHARED DISPOSITIVE POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable
 10 warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 may be deemed to have sole dispositive power, and Healy, a managing member of SM VII, may be
 deemed to have shared power to dispose of these shares.

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 2,716,657

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
 ..

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
 11.6%

14 TYPE OF REPORTING PERSON
 IN

CUSIP NO. 00771V108 13D Page 7 of 16

1 NAME OF REPORTING PERSON
 I.R.S. IDENTIFICATION NO. OF ABOVE PERSONS (ENTITIES ONLY)
 Eric P. Buatois ("Buatois")
 CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP

2 (a) (b)

3 SEC USE ONLY

4 SOURCE OF FUNDS
 AF

5 CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEM
 2(d) or 2(e)

6 CITIZENSHIP OR PLACE OF ORGANIZATION
 U.S. Permanent Resident

NUMBER OF 7 SOLE VOTING POWER
 -0-

SHARES SHARED VOTING POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable

BENEFICIAALLY 8 warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 may be deemed to have sole voting power, and Buatois, a managing member of SM VII, may be

OWNED BY EACH 9 SOLE DISPOSITIVE POWER
 -0-

REPORTING PERSON WITH SHARED DISPOSITIVE POWER
 2,716,657 shares, which includes 150,000 shares of Common Stock subject to currently exercisable
 10 warrants, all of which are owned directly by SVP VII. SM VII, the general partner of SVP VII,
 may be deemed to have sole dispositive power, and Buatois, a managing member of SM VII, may
 be deemed to have shared power to dispose of these shares.

11 AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON
 2,716,657

12 CHECK BOX IF THE AGGREGATE AMOUNT IN ROW 11 EXCLUDES CERTAIN SHARES
 ..

13 PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 11
 11.6%

14 TYPE OF REPORTING PERSON
 IN

CUSIP NO. 00771V108 13D Page 8 of 16

Statement on Schedule 13D

This Amendment No. 1 (“Amendment No. 1”) amends and restates the Statement on Schedule 13D initially filed on November 8, 2013 that relates to the beneficial ownership of common stock, par value \$0.001 per share (“Common Stock”), of Aerie Pharmaceuticals, Inc., a Delaware corporation (“Issuer”) and is being filed to reflect open market sales and in-kind distribution of Common Stock by Sofinnova Venture Partners VII, L.P., a Delaware limited partnership (“SVP VII”). This Amendment No. 1 is being filed by SVP VII, Sofinnova Management VII, L.L.C., a Delaware limited liability company (“SM VII”), Dr. Anand Mehra (“Mehra”), Dr. Michael F. Powell (“Powell”), Dr. James I. Healy (“Healy”), and Eric P. Buatois (“Buatois” and collectively with SVP VII, SM VII, Mehra, Powell, and Healy, “Reporting Persons”).

ITEM 1. SECURITY AND ISSUER.

- (a) The class of equity securities to which this statement relates is the Common Stock of the Issuer.

- (b) The Issuer’s principal executive offices are located at 135 US Highway 206, Suite 15, Bedminster, New Jersey, 07921.

ITEM 2. IDENTITY AND BACKGROUND.

- (a) The persons and entities filing this Schedule 13D are SVP VII, SM VII, Mehra, Powell, Healy, and Buatois. SM VII, the general partner of SVP VII, may be deemed to have sole power to vote and sole power to dispose of shares of the Issuer directly owned by SVP VII. Mehra may be deemed to have sole power to vote and sole power to dispose of shares of the Issuer directly owned by Mehra.

- (b) The address of the principal place of business for each of the Reporting Persons is c/o Sofinnova Ventures, 2800 Sand Hill Road, Suite 150, Menlo Park, California 94025.

(c) The principal occupation of each of the Reporting Persons is the venture capital investment business. The principal business of SVP VII is to make investments in private and public companies, and the principal business of SM VII is to serve as the general partner of SVP VII. Powell, Healy and Buatois are the managing members of SM VII, and Mehra, a director of the issuer, is a member of SM VII.

(d) During the last five years, none of the Reporting Persons has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) SVP VII is a Delaware limited partnership. SM VII is a Delaware limited liability company. Mehra, Powell and Healy are U.S. citizens. Buatois is a U.S. permanent resident.

ITEM 3. SOURCE AND AMOUNT OF FUNDS OR OTHER CONSIDERATION.

On February 23, 2011, SVP VII entered into a Preferred Stock Purchase Agreement pursuant to which SVP VII acquired from the Issuer an aggregate 4,662,765 shares of Series A-4 Convertible Preferred Stock for a purchase price of \$1.10 per share, or \$5,129,041.10 in the aggregate (such aggregate amount includes the value of equity interests in Novaer Holding, Inc. ("Novaer"), which were distributed to the Issuer's stockholders and warrant holders as a dividend on November 26, 2012).

On February 23, 2011, SVP VII entered into a Preferred Stock Purchase Agreement pursuant to which SVP VII acquired from the issuer an aggregate 6,818,182 shares of Series B Convertible Preferred Stock for a purchase price of \$1.10 per share, or \$7,500,000.20 in the aggregate (such aggregate amount includes the value of equity interests in Novaer, which were distributed to the Issuer's stockholders and warrant holders as a dividend on November 26, 2012).

CUSIP NO. 00771V108 13DPage 9 of 16

On August 27, 2010, SVP VII received 750,000 Series A-4 warrants to purchase shares of the Issuer's Series A-4 Convertible Preferred Stock, exercisable at a price of \$1.00 per share at any time during their ten year term (expiration is August 2020), subject to adjustment (the "Series A-4 Warrants").

Between December 7, 2012 and June 30, 2013, SVP received convertible notes of the Issuer (the "2012 Notes"). The 2012 Notes accrue interest at a rate of 8% per annum, with principal plus accrued interest thereon due upon maturity at September 30, 2013. The 2012 Notes are convertible into Common Stock of the Issuer upon the closing of an equity financing that raises at least \$15 million, a qualified initial public offering, liquidation or any reorganization, consolidation or merger.

On December 7, 2012, SVP VII received 129,666 Series B warrants to purchase shares of the Issuer's Series B Convertible Preferred Stock, exercisable at a price of \$0.01 per share at any time during their seven year term (expiration is December 2019), subject to adjustment (the "Series B Warrants").

On March 28, 2013, SVP VII received 129,666 Series B Warrants.

On May 23, 2013, SVP VII received 194,501 Series B Warrants.

On August 9, 2013, SVP VII received 194,501 Series B Warrants.

On September 30, 2013, SVP VII received 129,666 Series B Warrants.

In connection with the Issuer's initial public offering of Common Stock, which closed on October 30, 2013 ("Offering"), the shares of Series A-4 Convertible Preferred Stock previously acquired by SVP VII were converted into Common Stock on a 1 for 0.2 basis.

In connection with the Offering, the shares of Series B Convertible Preferred Stock previously acquired by SVP VII were converted into Common Stock on a 1 for 0.2 basis.

In connection with the Offering, the Series A-4 Warrants automatically became exercisable for 150,000 shares of the Issuer's Common Stock at an exercise price of \$5.00 per share.

In connection with the Offering, the outstanding principal amount and all accrued and unpaid interest on the 2012 Notes automatically converted into shares of Common Stock at a price per share equal to the initial public offering price upon the closing of the Offering.

In connection with the Offering, the Series B Warrants automatically became exercisable for 155,600 shares of the Issuer's Common Stock at an exercise price of \$0.05 per share, and SVP VII exercised such Series B Warrants in connection with the Offering.

SVP VII purchased 285,000 shares of the Common Stock at \$10.00 per share in the Offering, or \$2,850,000 in the aggregate.

CUSIP NO. 00771V108 13DPage 10 of 16

On September 12, 2013, Mehra received 28,000 options to purchase Common Stock of the Issuer, exercisable at a price of \$3.15 per share. The options are exercisable as follows: on or after the 12th day of each successive month beginning October 12, 2013, the options may be exercised to purchase up to an additional 1/36th of the number of option shares.

On May 22, 2014, SVP VII disposed of 323,932 shares of Common Stock in open market sales for a price of \$16 per share or \$5,182,912 in the aggregate.

On June 2, 2014, SVP VII made a pro rata distribution to its partners, without consideration, of 200,000 shares of Common Stock in accordance with its partnership agreement (the "June 2 Distribution"). SM VII received 8,022 shares of Common Stock in connection with the June 2 Distribution of such shares to the partners of SVP VII. On June 2, 2014, the closing price of the Common Stock on the NASDAQ Stock Market was \$15.97 per share.

The source of the funds for all purchases and acquisitions by the Reporting Persons was from working capital.

No part of the purchase price was borrowed by any Reporting Person for the purpose of acquiring any securities discussed in this Item 3.

ITEM 4. PURPOSE OF TRANSACTION.

The Reporting Persons hold their securities of the Issuer for investment purposes. Depending on the factors discussed herein, the Reporting Persons may, from time to time, acquire additional shares of Common Stock and/or retain and/or sell all or a portion of the shares of Common Stock held by the Reporting Persons in the open market or in privately negotiated transactions, and/or may distribute the Common Stock held by the Reporting Persons to their respective members or limited partners. Any actions the Reporting Persons might undertake will be dependent upon the Reporting Persons' review of numerous factors, including, among other things, the price levels of the Common Stock, general market and economic conditions, ongoing evaluation of the Issuer's business, financial condition, operations and prospects; the relative attractiveness of alternative business and investment opportunities, and other future developments. Except as set forth above, the Reporting Persons have no present plans or intentions which would result in or relate to any of the transactions described in subparagraphs (a) through (j) of Item 4 of Schedule 13D.

ITEM 5. INTEREST IN SECURITIES OF THE ISSUER.

(a,b) Regarding aggregate beneficial ownership, see Row 11 of the cover page of each Reporting Person. Regarding percentage beneficial ownership, see Row 13 of the cover page of each Reporting Person. Regarding sole power to vote shares, see Row 7 of the cover page of each Reporting Person. Regarding shared power to vote shares, see Row 8 of the cover page of each Reporting Person. Regarding sole power to dispose of shares, see Row 9 of the cover page of each Reporting Person. Regarding shared power to dispose of shares, see Row 10 of the cover page of each Reporting Person. The percentage listed in Row 13 for each Reporting Person was calculated based upon 23,437,055 shares of Common Stock reported to be outstanding as of May 6, 2014 on the Issuer's Form 10-Q filed with the Securities and Exchange Commission on May 13, 2014.

(c) Except as set forth in Item 3 above, the Reporting Persons have not effected any transaction in the Common Stock of the Issuer during the past 60 days.

(d) Under certain circumstances set forth in the limited partnership agreement of SVP VII, the general partner and limited partners of SVP VII may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the Issuer owned by such entity of which they are a partner.

(e) Not applicable.

CUSIP NO. 00771V108 13DPage 11 of 16

ITEM 6. CONTRACTS, ARRANGEMENTS, UNDERSTANDINGS OR RELATIONSHIPS WITH RESPECT TO SECURITIES OF THE ISSUER.

In connection with the acquisition of the preferred stock of the Issuer, the Reporting Persons and certain other investors are entitled to the registration of their shares, including demand and piggyback registration rights, as more fully described in the Prospectus and incorporated herein by reference.

In connection with the acquisition of the preferred stock of the Issuer, the Reporting Persons and certain other investors entered into a voting agreement, entitling such parties to designate a director to the Issuer's board of directors. Such voting agreement automatically terminated upon the closing of the Offering. Such voting agreement is more fully described in the Prospectus and incorporated herein by reference.

Mehra, in his capacity as a director of the Issuer, and along with the other directors of the Issuer, entered into an Indemnification Agreement with the Issuer, as more fully described in the Prospectus and incorporated herein by reference.

On September 12, 2013, Mehra was granted an option to purchase up to 28,000 shares of the Issuer's Common Stock. All of the shares of Common Stock underlying the option grant will vest ratably over the 36 month period beginning on the date of the grant through September 12, 2016, in accordance with the Issuer's 2005 Stock Option Plan. Such 2005 Stock Option Plan is more fully described in the Prospectus and incorporated herein by reference.

In connection with the Issuer's initial public offering, the Reporting Persons and certain other persons entered into a lock-up agreement and agreed, subject to certain exceptions, not to offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exchangeable for shares of Common Stock, or enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of any shares of Common Stock or such other securities, without the prior written consent of RBC Capital Markets, LLC and Stifel, Nicolaus & Company, Incorporated for a period of 180 days from the date of the Prospectus, subject to certain exceptions. Such lock-up period is more fully described in the Prospectus and incorporated herein by reference.

ITEM 7. MATERIAL TO BE FILED AS EXHIBITS.

EXHIBIT
A Agreement of Joint Filing.

EXHIBIT
B Power of Attorney

EXHIBIT
C Warrant to Purchase Preferred Stock of Aerie Pharmaceuticals, Inc. dated August 27, 2010

EXHIBIT
D Form of Indemnification Agreement for Directors and Officers, the form is incorporated herein by reference to Exhibit 10.19 to the Issuer's Registration Statement on Form S-1, filed with the SEC on September 17, 2013.

EXHIBIT
E Form of Lock-Up Agreement entered into by and among the Issuer, the underwriters and certain others, the form is incorporated by reference to Exhibit A to Exhibit 1.1 to the Issuer's Registration Statement on Form S-1 filed with the SEC on September 17, 2013.

CUSIP NO. 00771V108 13DPage 12 of 16

SIGNATURES

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.

Date: June 4, 2014

SOFINNOVA VENTURE PARTNERS VII, L.P.,
a Delaware Limited Partnership

By: SOFINNOVA MANAGEMENT VII, L.L.C.,
a Delaware Limited Liability Company
Its: General Partner

By: /s/ Nathalie Auber

Nathalie Auber
Attorney-in-Fact

SOFINNOVA MANAGEMENT VII,
a Delaware Limited Liability Company

By: /s/ Nathalie Auber

Nathalie Auber
Attorney-in-Fact

DR. ANAND MEHRA
DR. JAMES I. HEALY

DR. MICHAEL F. POWELL

ERIC P. BUATOIS

By: /s/ Nathalie Auber

Nathalie Auber
Attorney-in-Fact

*Signed pursuant to a Power of Attorney already on file with the appropriate agencies.

CUSIP NO. 00771V108 13D Page 13 of 16

EXHIBIT INDEX

Exhibit Description

- A Agreement of Joint Filing.
- B Power of Attorney.
- C Warrant to Purchase Preferred Stock of Aerie Pharmaceuticals, Inc. dated August 27, 2010
- D Form of Indemnification Agreement for Directors and Officers, the form is incorporated herein by reference to Exhibit 10.19 to the Issuer's Registration Statement on Form S-1, filed with the SEC on September 17, 2013.
- E Form of Lock-Up Agreement entered into by and among the Issuer, the underwriters and certain others, the form is incorporated by reference to Exhibit A to Exhibit 1.1 to the Issuer's Registration Statement on Form S-1 filed with the SEC on September 17, 2013.

CUSIP NO. 00771V108 13DPage 14 of 16

exhibit A

Agreement of Joint Filing

The undersigned hereby agree that a single Schedule 13D (or any amendment thereto) relating to the Common Stock of Aerie Pharmaceuticals, Inc. shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13D.

Date: November 8, 2013

SOFINNOVA VENTURE PARTNERS VII, L.P.,

a Delaware Limited Partnership

By: SOFINNOVA MANAGEMENT VII, L.L.C.,

a Delaware Limited Liability Company

Its: General Partner

By: /s/ Nathalie Auber

Nathalie Auber
Attorney-in-Fact

SOFINNOVA MANAGEMENT VII,

a Delaware Limited Liability Company

By: /s/ Nathalie Auber

Nathalie Auber
Attorney-in-Fact

DR. ANAND MEHRA
DR. JAMES I. HEALY

DR. MICHAEL F. POWELL

ERIC P. BUATOIS

By: /s/ Nathalie Auber

Nathalie Auber
Attorney-in-Fact

CUSIP NO. 00771V108 13DPage 15 of 16

exhibit B

Power of Attorney

Nathalie Auber has signed this Schedule 13D as Attorney-In-Fact. Note that copies of the applicable Power of Attorney are already on file with the appropriate agencies.

CUSIP NO. 00771V108 13DPage 16 of 16

exhibit C

Warrant to Purchase Preferred Stock of Aerie Pharmaceuticals, Inc.

THIS WARRANT AND THE SHARES PURCHASABLE HEREUNDER HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933, AS AMENDED, OR QUALIFIED UNDER ANY STATE SECURITIES LAWS. SUCH SECURITIES MAY NOT BE SOLD OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR QUALIFICATION OR AN EXEMPTION THEREFROM UNDER SAID ACT AND ANY APPLICABLE STATE SECURITIES LAWS.

THIS WARRANT AND THE SHARES PURCHASABLE HEREUNDER ARE SUBJECT TO RESTRICTIONS ON TRANSFER CONTAINED IN THAT CERTAIN NOTE AND WARRANT PURCHASE AGREEMENT, DATED AUGUST 27, 2010, WHICH RESTRICTIONS ON TRANSFER ARE INCORPORATED HEREIN BY REFERENCE.

Dated: August 27, 2010

WARRANT TO PURCHASE

PREFERRED STOCK OF

AERIE PHARMACEUTICALS, INC.

This certifies that Sofinnova Venture Partners VII, L.P. or assigns (collectively, the "Holder"), for value received, is entitled to purchase, at an exercise price of One Dollar (\$1.00) per share (the "Exercise Price"), from **AERIE PHARMACEUTICALS, INC.**, a Delaware corporation (the "Company"), up to Seven Hundred Fifty Thousand (750,000) shares of Preferred Stock (as defined below). This Warrant is issued pursuant to the terms of that certain Note and Warrant Purchase Agreement, dated as of August 27, 2010 (as amended or otherwise modified from time to time, the "Note Purchase Agreement"). The Holder is entitled to the benefit of, and is subject to certain restrictions contained in, the Note Purchase Agreement. Capitalized terms not otherwise defined herein shall have the meanings ascribed to them in the Note Purchase Agreement. This Warrant is one of several warrants of like tenor and effect issued pursuant to the Note Purchase Agreement (collectively, the "Warrants").

This Warrant shall be exercisable at any time from time to time from the date this Warrant is issued (such date being referred to herein as the “Initial Exercise Date”) up to and including 5:00 p.m. (Pacific Time) on the ten year anniversary of the date hereof (the “Expiration Date”), upon surrender to the Company at its principal office (or at such other location as the Company may advise the Holder in writing) of this Warrant properly endorsed with (i) the Form of Subscription attached hereto duly completed and executed, (ii) payment pursuant to Section 2 of the aggregate Exercise Price for the number of shares for which this Warrant is being exercised determined in accordance with the provisions hereof, and (iii) any documents reasonably requested by the Company to be executed by the Holder as if Holder were an investor in the next Qualified Financing (as defined in the Note), Non-Qualified Equity-Based Transaction (as defined in the Note) or Other Financing (as defined in the Note), as applicable, including, without limitation, an investors’ rights agreement, a right of first refusal and co-sale agreement, and a voting agreement, thereby agreeing to be bound by all obligations and receive all rights thereunder. The Exercise Price and the number of shares purchasable hereunder are subject to adjustment as provided in Section 4 of this Warrant.

For purposes of this Warrant, the following terms shall have the following meanings:

(i) “Preferred Stock” shall mean (i) Series A-4 Preferred Stock of the Company or (ii) if there are no authorized shares of Series A-4 Preferred Stock, then Series A-3 Preferred Stock.

(ii) “Warrant Shares” shall mean the shares of Preferred Stock issuable or issued upon exercise of this Warrant.

1. Exercise; Issuance of Certificates; Acknowledgement. This Warrant is exercisable at the option of the holder of record hereof, at any time or from time to time from or after the Initial Exercise Date up to the Expiration Date for all or any part of the Warrant Shares (but not for a fraction of a share) which may be purchased hereunder. The Company agrees that the shares of Preferred Stock purchased under this Warrant shall be and are deemed to be issued to the Holder hereof as the record owner of such shares as of the close of business on the date on which this Warrant shall have been surrendered, properly endorsed, the completed, executed Form of Subscription delivered and payment made for such shares. Certificates for the shares of the Preferred Stock so purchased, together with any other securities or property to which the Holder hereof is entitled upon such exercise, shall be delivered to the Holder hereof by the Company at the Company’s expense within a reasonable time after the rights represented by this Warrant have been so exercised. Each certificate so delivered shall be in such denominations of the Warrant Shares as may be requested by the Holder hereof and shall be registered in the name of such Holder. In case of a purchase of less than all the Warrant Shares, the Company shall execute and deliver to Holder within a reasonable time an Acknowledgement in the form attached hereto indicating the number of Warrant Shares which remain subject to this Warrant, if any. Notwithstanding anything to the contrary contained herein, unless the Holder otherwise notifies the Company, this Warrant shall be deemed to be automatically exercised using the Net Issuance Method pursuant to Section 2 hereof immediately prior to the time on the Expiration Date at which this Warrant ceases to be exercisable.

2. Payment for Shares. The aggregate purchase price for Warrant Shares being purchased hereunder may be paid either (i) by cash or wire transfer of immediately available funds, (ii) if the fair market value of one (1) share of the Warrant Shares on the date of exercise is greater than the Exercise Price, by surrender of a number of Warrant Shares which have a fair market value equal to the aggregate purchase price of the Warrant Shares being purchased (“Net Issuance”) as determined herein, or (iii) any combination of the foregoing. If the Holder elects the Net Issuance method of payment, the Company shall issue to Holder upon exercise a number of shares of Warrant Shares determined in accordance with the following formula:

$$X = \frac{Y(A-B)}{A}$$

where: $X =$ the number of Warrant Shares to be issued to the Holder;

$Y =$ the number of Warrant Shares with respect to which the Holder is exercising its purchase rights under this Warrant;

A = the fair market value of one (1) share of the Warrant Shares on the date of exercise; and

B = the Exercise Price.

No fractional shares arising out of the above formula for determining the number of shares to be issued to the Holder shall be issued, and the Company shall in lieu thereof make payment to the Holder of cash in the amount of such fraction multiplied by the fair market value of one (1) share of the Warrant Shares on the date of exercise. For purposes of the above calculation, the fair market value of one (1) share of the Warrant Shares shall mean (a) if the date of exercise is after the commencement of trading of the Common Stock on a securities exchange or over-the-counter but prior to the closing of the initial public offering of the Company's Common Stock pursuant to a registration statement under the Securities Act of 1933, as amended (the "IPO"), the price per share to the public set forth on the final prospectus relating to the IPO, multiplied by the number of shares of Common Stock into which each share of the Warrant Shares is then convertible, (b) if the Common Stock is then traded on a securities exchange, the average of the closing prices of such Common Stock on such exchange over the thirty (30) calendar day period (or portion thereof) ending three (3) days prior to the date of exercise, multiplied by the number of shares of Common Stock into which each share of the Warrant Shares is then convertible, (c) if the Common Stock is then regularly traded over-the-counter, the average of the closing sale prices or secondarily the closing bid of such Common Stock over the thirty (30) calendar day period (or portion thereof) ending three (3) days prior to the date of exercise, multiplied by the number of shares of Common Stock into which each share of the Warrant Shares is then convertible, or (d) if there is no active public market for the Common Stock, the fair market value of one share of the Warrant Shares as determined in good faith by the Board of Directors of the Company.

3. Shares to be Fully Paid; Reservation of Shares. The Company covenants and agrees that all shares of Preferred Stock which may be issued upon the exercise of the rights represented by this Warrant (together with all shares of Common Stock issuable upon conversion of such Preferred Stock) will, upon issuance, be duly authorized, validly issued, fully paid and nonassessable and free from all preemptive rights of any stockholder and free of all taxes, liens and charges with respect to the issue thereof. The Company further covenants and agrees that during the period within which the rights represented by this Warrant may be exercised, the Company will at all times have authorized and reserved, for the purpose of issue or transfer upon exercise of the subscription rights evidenced by this Warrant, a sufficient number of shares of authorized but unissued shares of Preferred Stock (together with the number of shares of Common Stock issuable upon conversion of such Preferred Stock), or other securities and property, when and as required to provide for the exercise of the rights represented by this Warrant.

4. Adjustment of Exercise Price and Number of Shares. The Exercise Price and the number of shares purchasable upon the exercise of this Warrant shall be subject to adjustment from time to time upon the occurrence of certain events described in this Section 4. Upon each adjustment of the Exercise Price, the Holder of this Warrant shall

thereafter be entitled to purchase, at the Exercise Price resulting from such adjustment, the number of shares obtained by multiplying the Exercise Price in effect immediately prior to such adjustment by the number of shares purchasable pursuant hereto immediately prior to such adjustment, and dividing the product thereof by the Exercise Price resulting from such adjustment.

4.1 Conversion of Preferred Stock. If all of the outstanding Preferred Stock of the Company are converted into shares of Common Stock, then this Warrant shall automatically become exercisable for that number of shares of Common Stock equal to the number of shares of Common Stock that would have been received if this Warrant had been exercised in full and the shares of Preferred Stock received thereupon had been simultaneously converted into shares of Common Stock immediately prior to such event, and the Exercise Price shall be automatically adjusted to equal the number obtained by dividing (i) the aggregate Exercise Price of the shares of Preferred Stock for which this Warrant was exercisable immediately prior to such conversion, by (ii) the number of shares of Common Stock for which this Warrant is exercisable immediately after such conversion.

4.2 Subdivisions, Combinations and Dividends. In case the Company shall at any time subdivide its outstanding shares of Preferred Stock into a greater number of shares or pay a dividend in Preferred Stock in respect of outstanding shares of Preferred Stock, the Exercise Price in effect immediately prior to such subdivision or at the record date of such dividend shall be proportionately reduced, and conversely, in case the outstanding shares of the Preferred Stock of the Company shall be combined into a smaller number of shares, the Exercise Price in effect immediately prior to such combination shall be proportionately increased.

4.3 Reclassification. If any reclassification of the capital stock of the Company shall be effected in such a way that holders of Preferred Stock shall be entitled to receive stock, securities, or other assets or property, then, as a condition of such reclassification, lawful and adequate provisions shall be made whereby the Holder hereof shall thereafter have the right to purchase and receive (in lieu of the shares of the Preferred Stock immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby) such shares of stock, securities or other assets or property as may be issued or payable with respect to or in exchange for a number of outstanding shares of such Preferred Stock equal to the number of shares of such Preferred Stock immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby. In any reclassification described above, appropriate provision shall be made with respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof (including, without limitation, provisions for adjustments of the Exercise Price and of the number of shares purchasable and receivable upon the exercise of this Warrant) shall thereafter be applicable, as nearly as may be, in relation to any shares of stock, securities or assets thereafter deliverable upon the exercise hereof.

4.4 Notice of Adjustment. Upon any adjustment of the Exercise Price or any increase or decrease in the number of shares purchasable upon the exercise of this Warrant, the Company shall give written notice thereof, by first class mail postage prepaid, addressed to the registered Holder of this Warrant at the address of such Holder as shown on the books of the Company. The notice shall be signed by the Company's chief financial officer and shall state the Exercise Price resulting from such adjustment and the increase or decrease, if any, in the number of shares purchasable at such price upon the exercise of this Warrant, setting forth in reasonable detail the method of calculation and the facts upon which such calculation is based. For the avoidance of doubt, the Company acknowledges that the Holder of this Warrant shall be entitled to the benefit of all adjustments in the number of shares of Common Stock of the Company issuable upon conversion of the Preferred Stock of the Company which occur prior to the exercise of this Warrant, including without limitation, any increase in the number of shares of Common Stock issuable upon conversion as a result of a dilutive issuance of capital stock.

4.5 Other Notices. If at any time:

- (1) the Company shall declare any cash dividend upon its Preferred Stock (or Common Stock issuable upon conversion thereof);
- (2) there shall be any capital reorganization or reclassification of the capital stock of the Company; or consolidation or merger of the Company with, or sale of all or substantially all of its assets to, another Person;
- (3) there shall be a voluntary or involuntary dissolution, liquidation or winding-up of the Company; or
- (4) there shall be an IPO;

then, in any one or more of said cases, the Company shall give, by first class mail, postage prepaid, addressed to the Holder of this Warrant at the address of such Holder as shown on the books of the Company, (a) at least twenty (20) days prior written notice of the date on which the books of the Company shall close or a record shall be taken for such dividend or for determining rights to vote in respect of any such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation or winding-up, and (b) in the case of any such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation, winding-up or public offering, at least twenty (20) days prior written notice of the date when the same shall take place; provided, however, that the Holder shall make a best efforts attempt to respond to such notice as early as possible after the receipt thereof. Any notice given in accordance with the foregoing clause (a) shall also specify, in the case of any such dividend, the date on which the holders of Preferred Stock (or Common Stock issuable upon conversion thereof) shall be entitled thereto. Any notice given in accordance with the foregoing clause (b) shall also specify the date on which the holders of Preferred Stock (or Common Stock issuable upon conversion thereof) shall be entitled to exchange their Preferred Stock (or Common Stock issuable upon conversion thereof) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, sale, dissolution, liquidation, winding-up, conversion or public offering, as the case may be.

4.6 Acquisition. In the event of any reorganization, consolidation or merger of the Company, transfer of all or substantially all of the assets of the Company or any simultaneous sale of more than a majority of the then outstanding securities of the Company other than a mere reincorporation transaction (an "Acquisition"), then, as a condition of such Acquisition, lawful and adequate provisions shall be made whereby the Holder hereof shall thereafter have the right to purchase and receive (in lieu of the shares of the Preferred Stock immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby), at the same aggregate exercise price, such shares of stock, securities or other assets or property as may be issued or payable with respect to or in exchange for a number of outstanding shares of such Preferred Stock equal to the number of shares of such Preferred Stock immediately theretofore purchasable and receivable upon the exercise of the rights represented hereby. In any Acquisition

described above, appropriate provision shall be made with respect to the rights and interests of the Holder of this Warrant to the end that the provisions hereof (including, without limitation, provisions for adjustments of the Exercise Price and of the number of shares purchasable and receivable upon the exercise of this Warrant) shall thereafter be applicable, as nearly as may be, in relation to any shares of stock, securities or assets thereafter deliverable upon the exercise hereof.

5. No Voting or Dividend Rights. Nothing contained in this Warrant shall be construed as conferring upon the Holder hereof the right to vote or to consent to receive notice as a stockholder of the Company or any other matters or any rights whatsoever as a stockholder of the Company. No dividends or interest shall be payable or accrued in respect of this Warrant or the interest represented hereby or the shares purchasable hereunder until, and only to the extent that, this Warrant shall have been exercised.

6. Warrants Transferable. Subject to compliance with applicable federal and state securities laws and the transfer restrictions set forth in the Note Purchase Agreement, this Warrant and all rights hereunder may be transferred, in whole or in part, without charge to the holder hereof (except for transfer taxes) upon surrender of this Warrant properly endorsed and in compliance with the provisions of the Note Purchase Agreement. Each taker and holder of this Warrant, by taking or holding the same, consents and agrees that this Warrant, when endorsed in blank, shall be deemed negotiable, and that the holder hereof, when this Warrant shall have been so endorsed, may be treated by the Company, at the Company's option, and all other persons dealing with this Warrant as the absolute owner hereof for any purpose and as the person entitled to exercise the rights represented by this Warrant, or to the transfer hereof on the books of the Company and notice to the contrary notwithstanding; but until such transfer on such books, the Company may treat the registered owner hereof as the owner for all purposes.

7. Lost Warrants. Upon receipt of evidence reasonably satisfactory to the Company of the loss, theft, destruction, or mutilation of this Warrant and, in the case of any such loss, theft or destruction, upon receipt of an indemnity reasonably satisfactory to the Company, or in the case of any such mutilation upon surrender and cancellation of such Warrant, the Company, at its expense, will make and deliver a new Warrant, of like tenor, in lieu of the lost, stolen, destroyed or mutilated Warrant.

8. Modification and Waiver. Any term, covenant, agreement or condition of this Warrant may be amended or waived if such amendment or waiver is in writing and is signed by the Company and the holders of a majority of the equity securities issuable or issued upon exercise of all of the Warrants issued pursuant to the Note Purchase Agreement. No failure or delay by the Holder in exercising any right hereunder shall operate as a waiver thereof or of any other right nor shall any single or partial exercise of any such right preclude any other further exercise thereof or of any other right. A waiver or consent given hereunder shall be effective only if in writing and in the specific instance and for the specific purpose for which given. Any amendment, waiver or consent effected in accordance with this Section 8 shall be binding upon the Company, each holder of a Warrant issued pursuant to the Note Purchase Agreement that is then outstanding, and each future holder of such a Warrant and their respective successors and assigns whether or not such party, assignee or other holder entered into or approved such amendment, waiver or consent.

9. Notices. Except as may be otherwise provided herein, all notices, requests, waivers and other communications made pursuant to this Warrant shall be made in accordance with Section 7.7 of the Note Purchase Agreement.
10. Governing Law. This Warrant is to be construed in accordance with and governed by the laws of the State of California, without regard to the conflict of law principles thereof.
11. Registration Rights Agreement. The Company agrees that the Holder shall have registration rights such that the common stock issuable upon conversion of the Warrant Shares shall be considered Registrable Securities under, and as defined in, the Company's Investors' Rights Agreement, dated as of September 28, 2005, as amended, amended and restated, superseded or modified from time to time (the "Investors' Rights Agreement"), and the Company and the Holder agree that the Holder shall have all the rights and obligations of a Holder (as defined in the Investors' Rights Agreement) with respect to such shares of common stock under the Investors' Rights Agreement.

IN WITNESS WHEREOF, the Company has caused this Warrant to be duly executed by its officers, thereunto duly authorized as of the date first above written.

AERIE PHARMACEUTICALS, INC.

By: _____

Thomas J. Van Haarlem, M.D.

President and Chief Executive Officer

FORM OF SUBSCRIPTION

(To be signed only upon exercise of Warrant)

To: _____

The undersigned, the holder of a right to purchase shares of Series ____ Preferred Stock of **AERIE PHARMACEUTICALS, INC.**, a Delaware corporation (the "Company"), pursuant to that certain Warrant to Purchase Preferred Stock of **AERIE PHARMACEUTICALS, INC.** (the "Warrant"), dated as of August 27, 2010, hereby irrevocably elects to exercise the purchase right represented by such Warrant for, and to purchase thereunder, _____ (_____) shares of Series ____ Preferred Stock of the Company and herewith makes payment of _____ Dollars (\$_____) therefor by the following method:

(Check one of the following):

_____ (check if applicable) The undersigned hereby elects to make payment of _____ Dollars (\$_____) therefor in cash.

_____ (check if applicable) The undersigned hereby elects to make payment for the aggregate exercise price of this exercise using the Net Issuance method pursuant to Section 2 of the Warrant.

The undersigned represents that it is acquiring such securities for its own account for investment and not with a view to or for sale in connection with any distribution thereof and in order to induce the issuance of such securities makes to the Company, as of the date hereof, the representations and warranties set forth in Section 3 of the Note and Warrant Purchase Agreement, dated as of August 27, 2010, by and among the Company and the other parties thereto.

DATED: _____

sofinnova venture partners Vii, L.P.

By: Sofinnova Management VII, L.L.C.

Its: General Partner

By: _____

Name:

Title:

Address: 140 Geary Street
Tenth Floor
San Francisco, CA 94108-5630

1

ACKNOWLEDGMENT

To: Sofinnova Venture Partners VII, L.P.

The undersigned hereby acknowledges that as of the date hereof, _____ (_____) shares of Series [__] Preferred Stock remain subject to the right of purchase in favor of Sofinnova Venture Partners VII, L.P. pursuant to that certain Warrant to Purchase Preferred Stock of **AERIE PHARMACEUTICALS, INC.**, dated as of August 27, 2010.

DATED: _____

AERIE PHARMACEUTICALS, INC.

By: _____

Name: Thomas J. van Haarlem, M.D.

Title: Chief Executive Officer

