

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

Schedule 13G

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

(Amendment No. _____)*

Epizyme, Inc.
(Name of Issuer)

Common Stock
(Title of Class of Securities)

29428V104
(CUSIP Number)

December 31, 2013
(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)

*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.

The 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).

(Continued on following pages)

Page 1 of 8
Exhibit Index on Page 7

| | | |
|---|---|---|
| 1 | NAME OF REPORTING PERSON Kleiner Perkins Caufield & Byers XIII, LLC ("KPCB XIII") | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> | |
| 3 | SEC USE ONLY | |
| 4 | CITIZENSHIP OR PLACE OF ORGANIZATION Delaware | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 5 | SOLE VOTING POWER 4,226,751 shares, except that KPCB XIII Associates, LLC ("Associates"), the managing member of KPCB XIII, may be deemed to have sole power to vote these shares. |
| | 6 | SHARED VOTING POWER See response to row 5. |
| | 7 | SOLE DISPOSITIVE POWER 4,226,751 shares, except that Associates, the managing member of KPCB XIII, may be deemed to have sole power to dispose these shares. |
| | 8 | SHARED DISPOSITIVE POWER See response to row 7. |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | 4,226,751 |
| 10 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES | <input type="checkbox"/> |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | 14.8% |
| 12 | TYPE OF REPORTING PERSON | OO |

| | | | |
|---|--|--------------------------|---|
| 1 | NAME OF REPORTING PERSON | | KPCB XIII Associates, LLC |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP | | (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> |
| 3 | SEC USE ONLY | | |
| 4 | CITIZENSHIP OR PLACE OF ORGANIZATION Delaware | | |
| NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH | 5 | SOLE VOTING POWER | 4,226,751 shares, all of which are directly owned by KPCB XIII. Associates, the managing member of KPCB XIII, may be deemed to have sole power to vote these shares. |
| | 6 | SHARED VOTING POWER | See response to row 5. |
| | 7 | SOLE DISPOSITIVE POWER | 4,226,751 shares, all of which are directly owned by KPCB XIII. Associates, the managing member of KPCB XIII, may be deemed to have sole power to dispose these shares. |
| | 8 | SHARED DISPOSITIVE POWER | See response to row 7. |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON | | 4,226,751 |
| 10 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES | | <input type="checkbox"/> |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW 9 | | 14.8% |
| 12 | TYPE OF REPORTING PERSON | | OO |

ITEM 1(A). NAME OF ISSUER

Epizyme, Inc. (the "Issuer")

ITEM 1(B). ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICES

400 Technology Square
Cambridge, Massachusetts 02139

ITEM 2(A). NAME OF PERSONS FILING

This Schedule is filed by Kleiner Perkins Caufield & Byers XIII, LLC, a Delaware limited liability company and KPCB XIII Associates, LLC, a Delaware limited liability company. The foregoing entities and individuals are collectively referred to as the "Reporting Persons."

ITEM 2(B). ADDRESS OF PRINCIPAL BUSINESS OFFICE

The address for each Reporting Person is:

c/o Kleiner Perkins Caufield & Byers
2750 Sand Hill Road
Menlo Park, California 94025

ITEM 2(C). CITIZENSHIP

See Row 4 of cover page for each Reporting Person.

ITEM 2(D). TITLE OF CLASS OF SECURITIES

Common Stock, \$0.0001 par value.

ITEM 2(E). CUSIP NUMBER

29428V104

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:

Not applicable.

ITEM 4. OWNERSHIP

The following information with respect to the ownership of the ordinary shares of the Issuer by the persons filing this Statement is provided as of December 31, 2013:

- (a) Amount beneficially owned:
See Row 9 of cover page for each Reporting Person.
- (b) Percent of Class:
See Row 11 of cover page for each Reporting Person.
- (c) Number of shares as to which such person has:
- (i) Sole power to vote or to direct the vote:
See Row 5 of cover page for each Reporting Person.
 - (ii) Shared power to vote or to direct the vote:
See Row 6 of cover page for each Reporting Person.
 - (iii) Sole power to dispose or to direct the disposition of:
See Row 7 of cover page for each Reporting Person.
 - (iv) Shared power to dispose or to direct the disposition of:
See Row 8 of cover page for each Reporting Person.

ITEM 5. OWNERSHIP OF FIVE PERCENT OR LESS OF A CLASS

Not applicable.

ITEM 6. OWNERSHIP OF MORE THAN FIVE PERCENT ON BEHALF OF ANOTHER PERSON

Under certain circumstances set forth in the limited liability company agreements of the Reporting Persons, the members of such entities may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the Issuer owned by each such entity of which they are a member.

ITEM 7. IDENTIFICATION AND CLASSIFICATION OF THE SUBSIDIARY WHICH ACQUIRED THE SECURITY BEING REPORTED ON BY THE PARENT HOLDING COMPANY

Not applicable.

ITEM 8. IDENTIFICATION AND CLASSIFICATION OF MEMBERS OF THE GROUP

Not applicable.

ITEM 9. NOTICE OF DISSOLUTION OF GROUP

Not applicable.

ITEM 10. CERTIFICATION

Not applicable.

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: February 14, 2014

KLEINER PERKINS CAUFIELD & BYERS XIII, LLC,
a Delaware limited liability company

By: KPCB XIII ASSOCIATES, LLC, a Delaware limited
liability company, its managing member

By: /s/ Theodore Schlein
Theodore E. Schlein
Managing Member

KPCB XIII ASSOCIATES, LLC, a Delaware limited
liability company

By: /s/ Theodore Schlein
Theodore E. Schlein
Managing Member

EXHIBIT INDEX

| Exhibit | Found on Sequentially Numbered Page |
|--------------------------------------|---|
| Exhibit A: Agreement of Joint Filing | 8 |

EXHIBIT AAgreement of Joint Filing

The undersigned hereby agree that a single Schedule 13G (or any amendment thereto) relating to the common stock of the Issuer shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13G.

Date: February 14, 2014

KLEINER PERKINS CAUFIELD & BYERS XIII, LLC,
a Delaware limited liability company

By: KPCB XIII ASSOCIATES, LLC, a Delaware limited
liability company, its managing member

By: /s/ Theodore Schlein
Theodore E. Schlein
Managing Member

KPCB XIII ASSOCIATES, LLC, a Delaware limited
liability company

By: /s/ Theodore Schlein
Theodore E. Schlein
Managing Member
