

Epizyme, Inc.  
Form SC 13G  
February 12, 2014

**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**SCHEDULE 13G**  
**Under the Securities Exchange Act of 1934**  
**(Amendment No. )\***

**EPIZYME, INC.**  
**(Name of Issuer)**  
**Common Stock, \$0.0001 par value per share**  
**(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).

CUSIP No. 29428V104

1) Names of reporting persons.

CELGENE EUROPEAN INVESTMENT COMPANY LLC

2) Check the appropriate box if a member of a group (see instructions)

(a)  (b)

3) SEC use only

4) Citizenship or place of organization

Delaware

5. Sole voting power

Number of

shares -0-

6. Shared voting power

beneficially

owned by 3,607,974

each 7. Sole dispositive power

reporting

person -0-

8. Shared dispositive power

with:

3,607,974

9) Aggregate amount beneficially owned by each reporting person

3,607,974

10) Check if the aggregate amount in Row (9) excludes certain shares (see instructions)

11) Percent of class represented by amount in Item 9

11.3%(1)

12) Type of reporting person (see instructions)

OO (limited liability company)

(1) The percentage ownership is based upon 32,018,245 shares outstanding as of February 10, 2014.

CUSIP No. 29428V104

1) Names of reporting persons.

CELGENE CORPORATION

2) Check the appropriate box if a member of a group (see instructions)

(a)  (b)

3) SEC use only

4) Citizenship or place of organization

Delaware

5. Sole voting power

Number of

shares 66,666

6. Shared voting power

beneficially

owned by 3,607,974

7. Sole dispositive power

each

reporting

person 66,666

8. Shared dispositive power

with:

3,607,974

9) Aggregate amount beneficially owned by each reporting person

3,674,640

10) Check if the aggregate amount in Row (9) excludes certain shares (see instructions)

11) Percent of class represented by amount in Item 9

11.5% (1)

12) Type of reporting person (see instructions)

CO

(1) The percentage ownership is based upon 32,018,245 shares outstanding as of February 10, 2014.

ITEM 1.

(A) NAME OF ISSUER:

Epizyme, Inc.

(B) ADDRESS OF ISSUER'S PRINCIPAL EXECUTIVE OFFICE:

400 Technology Square, Cambridge, Massachusetts 02139

ITEM 2.

(A) NAME OF PERSONS FILING:

Celgene European Investment Company LLC ( CEIC )

Celgene Corporation ( Celgene )

(B) ADDRESS OF PRINCIPAL BUSINESS OFFICE OR IF NONE, RESIDENCE:

86 Morris Avenue, Summit, New Jersey 07901

(C) CITIZENSHIP:

Delaware, U.S.A.

(D) TITLE OF CLASS OF SECURITIES:

Common Stock

(E) CUSIP NUMBER:

29428V104

ITEM 3. STATEMENT FILED PURSUANT TO RULE 13D-1(B) OR 13D-2(B) OR (C)

Not applicable.

ITEM 4. OWNERSHIP.

(a), (b) and (c) The information contained on the cover pages to this Schedule 13G are incorporated herein by reference.

As of February 10, 2014, following the consummation of the Issuer's follow-on equity offering on such date, (i) CEIC shares beneficial ownership of 3,607,974 shares of Common Stock (approximately 11.3% of the shares of Common Stock outstanding as of such date), (ii) Celgene shares beneficial ownership of 3,607,974 shares of Common Stock (approximately 11.3% of the shares of Common Stock outstanding as of such date), and (iii) Celgene has sole beneficial ownership of 66,666 shares of Common Stock (approximately 0.2% of the shares of Common Stock outstanding as of such date).

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

Not applicable.

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.

**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.

Dated: February 12, 2014

CELGENE EUROPEAN INVESTMENT  
COMPANY LLC

By: Celgene International Sàrl

By: /s/ Robert J. Hugin  
Robert J. Hugin  
Manager

CELGENE CORPORATION

By: /s/ Robert J. Hugin  
Robert J. Hugin  
Chief Executive Officer

JOINT FILING AGREEMENT

Pursuant to Rule 13d-1(k)(1) under the Securities Exchange Act of 1934, the undersigned hereby agree that only one statement containing the information required by Schedule 13G need be filed with respect to the ownership by each of the undersigned of shares of stock of Epizyme, Inc. The undersigned also agree that all subsequent amendments to this statement on Schedule 13G may be filed on behalf of each of the undersigned without the necessity of filing additional joint filing agreements.

EXECUTED this February 12, 2014.

CELGENE EUROPEAN INVESTMENT  
COMPANY LLC

By: Celgene International Sàrl

By: /s/ Robert J. Hugin  
Robert J. Hugin  
Manager

CELGENE CORPORATION

By: /s/ Robert J. Hugin  
Robert J. Hugin  
Chief Executive Officer