

GENOCEA BIOSCIENCES, INC.  
Form SC 13D/A  
February 16, 2016

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

**SCHEDULE 13D**  
**Under the Securities Exchange Act of 1934**  
**(Amendment No. 2)\***

**GENOCEA BIOSCIENCES, INC.**

**(Name of Issuer)**

**Common Stock, \$0.001 par value**

**(Title of Class of Securities)**

**372427104**

**(CUSIP Number)**

**Polaris Partners**  
**One Marina Park Drive, 10<sup>th</sup> Floor**  
**Boston, MA 02210**

**Gunderson Dettmer Stough Villeneuve**  
**Franklin & Hachigian, LLP**  
**One Marina Park Drive, Suite 900**  
**Boston, MA 02210**  
**Attn: Jay K. Hachigian, Esq.**

(617) 648-9100

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

December 31, 2015

(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 §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.

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).

1. Names of Reporting Persons.

Polaris Venture Partners V, L.P. ( PVP V )

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

Number of

Shares

1,899,578 shares, except that (i) Polaris Venture Management Co. V, L.L.C. ( PVM V ), the general partner of PVP V, may be deemed to have sole power to vote these shares, and (ii) Jonathan A.

Beneficially

Flint ( Flint ), a managing member of PVM V, may be deemed to have shared power to vote these shares, Terrance G. McGuire ( McGuire ), a managing member of PVM V, may be deemed to have

Owned by

shared power to vote these shares and Kevin Bitterman ( Bitterman ), an assignee of PVM V, may be deemed to have shared power to vote these shares.

Each

8. Shared Voting Power

Reporting

Person

See response to row 7.

9. Sole Dispositive Power

With

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1,899,578 shares, except that (i) PVM V, the general partner of PVP V, may be deemed to have sole power to dispose of these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares and Bitterman, an assignee of PVM V, maybe be deemed to have shared power to dispose of these shares.

10. Shared Dispositive Power

See response to row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,899,578

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

6.8%

14. Type of Reporting Person (See Instructions)

PN

1. Names of Reporting Persons.

Polaris Venture Partners Entrepreneurs Fund V, L.P. ( PVPE V )

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

WC

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

Number of

Shares

Beneficially

Owned by

Each

8. Shared Voting Power

37,019 shares, except that (i) PVM V, the general partner of PVPE V, may be deemed to have sole power to vote these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to vote these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to vote these shares and Bitterman, an assignee of PVM V, may be deemed to have shared power to vote these shares.

Reporting

Person

9. Sole Dispositive Power

With

See response to row 7.

37,019 shares, except that (i) PVM V, the general partner of PVPE V, may be deemed to have sole power to dispose of these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to dispose of these shares.

10. Shared Dispositive Power

See response to Row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

37,019

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

0.1%

14. Type of Reporting Person (See Instructions)

PN

1. Names of Reporting Persons.

Polaris Venture Partners Founders Fund V, L.P. ( PVPFF V )

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

WC

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

Number of

Shares

Beneficially

Owned by

Each

Reporting

Person

With

13,012 shares, except that (i) PVM V, the general partner of PVPFF V, may be deemed to have sole power to vote these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to vote these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to vote these shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to vote these shares.

8. Shared Voting Power

See response to row 7.  
9. Sole Dispositive Power

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13,012 shares, except that (i) PVM V, the general partner of PVPFF V, may be deemed to have sole power to dispose of these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to dispose of these shares.

10. Shared Dispositive Power

See response to Row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

13,012

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

0.0%

14. Type of Reporting Person (See Instructions)

PN



1. Names of Reporting Persons.

Polaris Venture Partners Special Founders Fund V, L.P. ( PVPSFF V )

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

WC

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

Number of

Shares

Beneficially

Owned by

Each

8. Shared Voting Power

18,997 shares, except that (i) PVM V, the general partner of PVPSFF V, may be deemed to have sole power to vote these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to vote these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to vote these shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to vote these shares.

Reporting

Person

9. Sole Dispositive Power

With

See response to row 7.

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18,997 shares, except that (i) PVM V, the general partner of PVPSFF V, may be deemed to have sole power to dispose of these shares, and (ii) Flint, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to dispose of these shares.

10. Shared Dispositive Power

See response to row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

18,997

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

0.1%

14. Type of Reporting Person (See Instructions)

PN

1. Names of Reporting Persons.

Polaris Venture Management Co. V, L.L.C. ( PVM V )

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

AF

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

Delaware

7. Sole Voting Power

Number of

Shares

Beneficially

Owned by

Each

Reporting

Person

With

1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that Flint, a managing member of PVM V (which is the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V and may be deemed to have sole power to vote these shares), may be deemed to have shared power to vote these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to vote these shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to vote these shares.

8. Shared Voting Power

See response to row 7.

9. Sole Dispositive Power

1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that Flint, a managing member of PVM V (which is the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V and may be deemed to have sole power to dispose of these shares), may be deemed to have shared power to dispose of these shares, McGuire, a managing member of PVM V, may be deemed to have shared power to dispose of these shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to dispose of these shares.

10. Shared Dispositive Power

See response to row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,968,606

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

7.0%

14. Type of Reporting Person (See Instructions)

OO

1. Names of Reporting Persons.

Jonathan A. Flint

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

AF

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

USA

7. Sole Voting Power

Number of

Shares

Beneficially

Owned by

Each

Reporting

Person

With

1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that PVM V, as the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, may be deemed to have sole power to vote PVP V s, PVPE V s, PVPFF V s and PVPSFF V s shares (collectively, the Fund V Shares ), McGuire, as a managing member of PVM V, may be deemed to have shared power to vote the Fund V Shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to vote the Fund V Shares.

8. Shared Voting Power

See response to row 7.

9. Sole Dispositive Power

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1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that PVM V, as general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, maybe deemed to have sole power to dispose of the Fund V Shares, McGuire, as a managing member of PVM V, may be deemed to have shared power to dispose of the Fund V Shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to dispose of the Fund V Shares.

10. Shared Dispositive Power

See response to row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,968,606

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

7.0%

14. Type of Reporting Person (See Instructions)

IN

1. Names of Reporting Persons.

Terrance G. McGuire

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

AF

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

USA

7. Sole Voting Power

Number of

Shares

Beneficially

Owned by

Each

Reporting

Person

With

1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that PVM V, as the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, may be deemed to have sole power to vote the Fund V Shares, Flint, as a managing member of PVM V, may be deemed to have shared power to vote the Fund V Shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to vote the Fund V Shares.

8. Shared Voting Power

See response to row 7.

9. Sole Dispositive Power

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1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that PVM V, as general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, may be deemed to have sole power to dispose of the Fund V Shares, Flint, as a managing member of PVM V, may be deemed to have shared power to dispose of the Fund V Shares, and Bitterman, an assignee of PVM V, may be deemed to have shared power to dispose of the Fund V Shares.

10. Shared Dispositive Power

See response to row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,968,606

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

7.0%

14. Type of Reporting Person (See Instructions)

IN



1. Names of Reporting Persons.

Kevin Bitterman

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)  (b)

3. SEC Use Only

4. Source of Funds (See Instructions)

AF

5. Check if Disclosure of Legal Proceedings is Required Pursuant to Items 2(d) or 2(e)

..

6. Citizenship or Place of Organization

USA

7. Sole Voting Power

Number of

Shares

Beneficially

Owned by

Each

Reporting

Person

With

1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that PVM V, as the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, may be deemed to have sole power to vote the Fund V Shares, Flint, as a managing member of PVM V, may be deemed to have shared power to vote the Fund V Shares, and McGuire, as a managing member of PVM V, may be deemed to have shared power to vote the Fund V Shares.

8. Shared Voting Power

See response to row 7.

9. Sole Dispositive Power

1,968,606 shares, of which 1,899,578 shares are directly owned by PVP V, 37,019 shares are directly owned by PVPE V, 13,012 shares are directly owned by PVPFF V and 18,997 shares are directly owned by PVPSFF V, except that PVM V, as general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, may be deemed to have sole power to dispose of the Fund V Shares, Flint, as a managing member of PVM V, may be deemed to have shared power to dispose of the Fund V Shares, and McGuire, as a managing member of PVM V, may be deemed to have shared power to dispose of the Fund V Shares.

10. Shared Dispositive Power

See response to row 9.

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,968,606

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

..

13. Percent of Class Represented by Amount in Row (11)

7.0%

14. Type of Reporting Person (See Instructions)

IN

**SCHEDULE 13D**

This Amendment No. 2 (this Amendment No. 2) amends and supplements the Schedule 13D originally filed with the Securities and Exchange Commission (the SEC) on February 14, 2014 (the Original Schedule 13D), as amended by Amendment No. 1 filed on May 14, 2015 (Amendment No. 1), together with the Original Schedule 13D and this Amendment No. 2, the Schedule 13D) by the Reporting Persons, with respect to shares of Common Stock beneficially owned by the Reporting Persons. Except as amended or supplemented in this Amendment No. 2, all other information in the Schedule 13D is as set forth therein. Capitalized terms used herein but not defined shall have the meanings ascribed thereto in the Schedule 13D.

**Item 4. Purpose of Transaction.**

Item 4 of the Schedule 13D is hereby amended to add the following statements:

In a series of transactions that occurred on June 16, 2015, June 17, 2015, June 18, 2015 and June 19, 2015, PVP V sold an aggregate of 83,584 shares of Common Stock, PVPE V sold 1,629 shares of Common Stock, PVPFF V sold 573 shares of Common Stock and PVPSFF V sold 836 shares of Common Stock.

**Item 5. Interest in Securities of the Issuer.**

Items 5(a) and (c) of the Original Schedule 13D are hereby amended and restated in their entirety as follows:

The information below is based on a total of 28,115,036 shares of Common Stock outstanding as reported on the Issuer's Form 10-Q, Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934, as filed with the Securities and Exchange Commission of November 5, 2015.

(a) PVP V directly beneficially owns 1,899,578 shares of Common Stock, or approximately 6.8% of the Common Stock outstanding. PVPE V directly beneficially owns 37,019 shares of Common Stock, or approximately 0.1% of the Common Stock outstanding. PVPFF V directly beneficially owns 13,012 shares of Common Stock, or approximately 0.0% of the Common Stock outstanding. PVPSFF V directly beneficially owns 18,997 shares of Common Stock, or approximately 0.1% of the Common Stock outstanding. PVM V, as the general partner of PVP V, PVPE V, PVPFF V and PVPSFF V, may be deemed to indirectly beneficially own the securities owned by PVP V, PVPE V, PVPFF V and PVPSFF V.

**Item 7. Material to be Filed as Exhibits.**

Exhibit A - Joint Filing Agreement

**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.

Date: February 16, 2016

POLARIS VENTURE PARTNERS V, L.P.

By: Polaris Venture Management Co. V,  
L.L.C.

By: \*  
Managing Member

POLARIS VENTURE PARTNERS  
ENTREPRENEURS FUND V, L.P.

By: Polaris Venture Management Co. V,  
L.L.C.

By: \*  
Managing Member

POLARIS VENTURE PARTNERS  
FOUNDERS FUND V, L.P.

By: Polaris Venture Management Co. V,  
L.L.C.

By: \*  
Managing Member

POLARIS VENTURE PARTNERS SPECIAL  
FOUNDERS FUND V, L.P.

By: Polaris Venture Management Co. V,  
L.L.C.

By: \*  
Managing Member

POLARIS VENTURE MANAGEMENT CO.  
V, L.L.C.

By:                   \*  
                          Managing Member

JONATHAN A. FLINT

By:                   \*  
                          Jonathan A. Flint

TERRANCE G. MCGUIRE

By:                   \*  
                          Terrance G. McGuire

KEVIN BITTERMAN

By:                   \*  
                          Kevin Bitterman

\*By: /s/ Mary Blair  
Name: Mary Blair  
      Attorney-in-Fact

[This Schedule 13D was executed pursuant to a Power of Attorney. Note that copies of the applicable Powers of Attorney are already on file with the appropriate agencies.]