GENOCEA BIOSCIENCES, INC. Form SC 13D/A May 14, 2015

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 1)*

GENOCEA BIOSCIENCES, INC.

(Name of Issuer)

Common Stock, \$0.001 par value

(Title of Class of Securities)

372427104

(CUSIP Number)

Polaris Partners

Gunderson Dettmer Stough Villeneuve

1000 Winter Street, Suite 3350

Franklin & Hachigian, LLP

Waltham, MA 02451

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)

August 8, 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 §240.13d-7 for other parties to whom copies are to be sent.

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).

^{*} 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.

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1.	Names	of Re	porting	Persons.
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- Polaris Venture Partners V, L.P. (PVP V)
- 2. Check the Appropriate Box if a Member of a Group (See Instructions)
 - (a) " (b) x
- 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 1,983,164 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. Flint

Beneficially (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 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

Owned by

Person See response to row 7.

9. Sole Dispositive Power

With

1,983,164 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.

11.	See response to row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	1,983,164 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	8.2% Type of Reporting Person (See Instructions)
	PN

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	1.	Names	of Reporting	Persons.
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- 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) x
- 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

38,648 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.

Owned by

8. Shared Voting Power

Each

Reporting

See response to row 7.

9. Sole Dispositive Power

With

Person

38,648 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.

11.	See response to Row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	38,648 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	0.2% Type of Reporting Person (See Instructions)
	PN

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 Names of Reporting Persons 	1.	Names	of Re	porting	Persons
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- 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) x
- 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

13,585 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.

Owned by

8. Shared Voting Power

Each

Reporting

Person See response to row 7.

9. Sole Dispositive Power

With

13,585 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.

11.	See response to Row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	13,585 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	0.1% Type of Reporting Person (See Instructions)
	PN

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	1.	Names	of Re	porting	Persons.
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- 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) x
- 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

19,833 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.

Owned by

8. Shared Voting Power

Each

Reporting

See response to row 7.

Person

9. Sole Dispositive Power

With

19,833 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.

11.	See response to row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	19,833 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	0.1% Type of Reporting Person (See Instructions)
	PN

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 Names of Reporting Persons 	1.	Names	of Re	porting	Persons
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- 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) x
- 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

2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 shares are directly owned by PVPSFF V, except that Flint, a managing member of PVM V (which is general partner of PVP V, PVPE V, PVPFF V and PVPSFF 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.

Owned by

Each

8. Shared Voting Power

Reporting

Person

See response to row 7.

With

9. Sole Dispositive Power

2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 shares are directly owned by PVPSFF V, except that Flint, a managing member of PVM V (which is general partner of PVP V, PVPE V, PVPFF V and PVPSFF 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.

11.	See response to row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	2,055,230 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	8.5% Type of Reporting Person (See Instructions)
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1.	Names	of Re	porting	Persons.
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Jonathan A. Flint

- 2. Check the Appropriate Box if a Member of a Group (See Instructions)
 - (a) " (b) x
- 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 2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are

directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 shares are

Beneficially

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, PVPFF 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.

Each 8. Shared Voting Power

Reporting

Owned by

Person See response to row 7.

With 9. Sole Dispositive Power

2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 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.

11.	See response to row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	2,055,230 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	8.5% Type of Reporting Person (See Instructions)
	IN

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1.	Names	of Re	porting	Persons.
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Terrance G. McGuire

- 2. Check the Appropriate Box if a Member of a Group (See Instructions)
 - (a) " (b) x
- 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 2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are

directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 shares are

Beneficially 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.

Each 8. Shared Voting Power

Reporting

Owned by

Person See response to row 7.

9. Sole Dispositive Power

With

2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 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.

11.	See response to row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	2,055,230 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	8.5% Type of Reporting Person (See Instructions)
	IN

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	1.	Names	of Re	porting	Persons.
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Kevin Bitterman

- 2. Check the Appropriate Box if a Member of a Group (See Instructions)
 - (a) " (b) x
- 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

2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 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

Beneficially

Owned by

managing member of PVM V, may be deemed to have shared power to vote the Fund V Shares, and McGuire, a managing member of PVM V, may be deemed to have shared power to vote the Fund V

Shares.

Each

8. Shared Voting Power

Reporting

Person

See response to row 7.

With

9. Sole Dispositive Power

2,055,230 shares, of which 1,983,164 shares are directly owned by PVP V, 38,648 shares are directly owned by PVPE V, 13,585 shares are directly owned by PVPFF V and 19,833 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, a member of PVM V, may be deemed to have shared power to dispose of the Fund V Shares.

11.	See response to row 9. Aggregate Amount Beneficially Owned by Each Reporting Person
12.	2,055,230 Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)
13.	Percent of Class Represented by Amount in Row (11)
14.	8.5% Type of Reporting Person (See Instructions)
	IN

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SCHEDULE 13D

This Amendment No. 1 (this Amendment No. 1) amends and supplements the Schedule 13D originally filed with the Securities and Exchange Commission (the SEC) on February 14, 2014, by the Reporting Persons (the Schedule 13D), with respect to shares of common stock, par value \$0.001 per share of the Issuer (Common Stock) beneficially owned by the Reporting Persons. Except as amended or supplemented in this Amendment No. 1, 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 5. Interest in Securities of the Issuer.

The information below is based on a total of 24,137,395 shares of Common Stock outstanding as of March 31, 2015 as reported in the Issuer s Definitive Proxy Statement filed with the SEC on April 16, 2015.

- (a) PVP V directly beneficially owns 1,983,164 shares of Common Stock, or approximately 8.2% of the Common Stock outstanding. PVPE V directly beneficially owns 38,648 shares of Common Stock, or approximately 0.2% of the Common Stock outstanding. PVPFF V directly beneficially owns 13,585 shares of Common Stock, or approximately 0.1% of the Common Stock outstanding. PVPSFF V directly beneficially owns 19,833 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.
- (b) The managing members of PVM V and Bitterman may be deemed to share the power to vote or direct the voting of and to dispose or direct the disposition of the securities of the Issuer that are beneficially owned by PVP V, PVPE V, PVPFF V and PVPSFF V. Each such person disclaims beneficial ownership of all securities other than those he or she owns directly, if any, or by virtue of his or her indirect pro rata interest, as a member of PVM V, in 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 (appears at page 13 of this statement)

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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: May 14, 2015

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

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POLARIS VENTURE MANAGEMENT CO.

V, L.L.C.

By: *

Managing Member

JONATHAN A. FLINT

By: /s/ Jonathan A. Flint

Jonathan A. Flint

TERRANCE G. MCGUIRE

By: /s/ Terrance G. McGuire

Terrance G. McGuire

KEVIN BITTERMAN

By: /s/ Kevin Bitterman Kevin Bitterman

*By: /s/ John Gannon Name: John Gannon 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.]