

GENOCEA BIOSCIENCES, INC.  
Form S-8  
February 17, 2016

Registration No. 333-  
As filed with the Securities and Exchange Commission on February 17, 2016

UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, DC 20549

FORM S-8

REGISTRATION STATEMENT UNDER THE  
SECURITIES ACT OF 1933

GENOCEA BIOSCIENCES, INC.  
(Exact name of registrant as specified in its charter)  
Delaware  
(State or other jurisdiction of  
incorporation or organization)  
100 Acorn Park Drive, 5th Floor, Cambridge, MA  
(Address of Principal Executive Offices)

51-0596811  
(IRS Employer  
Identification No.)  
02140  
(Zip Code)

2014 Equity Incentive Plan  
(Full titles of the plans)

William Clark  
President and Chief Executive Officer  
100 Acorn Park Drive, 5th Floor  
Cambridge, MA 02140  
(Name and address of agent for service)

(617) 876-8191  
(Telephone number, including area code, of agent for service)

Please send copies of all communications to:

Marc A. Rubenstein  
Ropes & Gray LLP  
Prudential Tower  
800 Boylston Street  
Boston, MA 02199-3600  
617-951-7000

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer

Accelerated filer

Non-accelerated filer   
 (Do not check if a smaller reporting company)

Smaller reporting company

#### CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Amount to be Registered (1)	Proposed Maximum Offering Price Per Share	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
Common Stock, \$0.001 par value per share	1,126,064 shares	(2) \$ 2.95	(3) \$ 3,321,889	\$ 335
TOTAL	1,126,064 shares		\$ 3,321,889	\$ 335

Pursuant to Rule 416(a) under the Securities Act of 1933, this Registration Statement also covers such additional (1) shares of Common Stock as may issued to prevent dilution from stock splits, stock dividends and similar transactions.

Represents 1,126,064 shares of Common Stock that were automatically added to the shares authorized for issuance under the registrant's 2014 Equity Incentive Plan (the "2014 Plan") on January 1, 2016 pursuant to an "evergreen" provision contained in the 2014 Plan. The "evergreen" provision provides that on each January<sup>st</sup> from January 1, (2) 2015 through January 1, 2024, the number of shares of Common Stock available for issuance under the 2014 Plan will automatically increase annually in an amount equal to the lesser of 4% of outstanding shares of the registrant's Common Stock as of the close of business on the immediately preceding December 31<sup>st</sup> or the number of shares determined by the registrant's board of directors.

Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(h) based on the (3) average high and low prices of the registrant's Common Stock as reported by the NASDAQ Global Market on February 10, 2016 to be \$2.72 and \$3.18, respectively.

EXPLANATORY NOTE

This Registration Statement on Form S-8 is being filed to register an additional 1,126,064 shares under the registrant's 2014 Equity Incentive Plan. Pursuant to Instruction E to Form S-8, the Registrant incorporates by reference, except to the extent supplemented, amended or superseded by the information set forth herein, into this Registration Statement the entire contents of its Registration Statement on Form S-8 (File No.333-194021) filed with the Securities and Exchange Commission on February 19, 2014.

PART II  
INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 8. Exhibits.  
See the Exhibit Index following the signature page.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on this 17th day of February, 2016.

GENOCEA BIOSCIENCES, INC.  
 By: /s/ Jonathan Poole  
 Name: Jonathan Poole  
 Title: Chief Financial Officer

POWER OF ATTORNEY

Each person whose signature appears below constitutes and appoints William Clark and Jonathan Poole, and each of them acting individually, his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement on Form S-8 to be filed by Genoceca Biosciences, Inc., and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents full power and authority to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitutes, may lawfully do or cause to be done by virtue hereof.

\* \* \* \*

Pursuant to the requirements of the Securities Act of 1933, as amended, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ William Clark William Clark	President and Chief Executive Officer and Director (Principal Executive Officer)	February 17, 2016
/s/ Jonathan Poole Jonathan Poole	Chief Financial Officer (Principal Financial Officer & Principal Accounting Officer)	February 17, 2016
/s/ Kevin Bitterman Kevin Bitterman, Ph.D.	Director	February 17, 2016
/s/ Katrine Bosley Katrine Bosley	Director	February 17, 2016
/s/ Kenneth Bate Kenneth Bate	Director	February 17, 2016
/s/ Michael Higgins Michael Higgins	Director	February 17, 2016
/s/ Stephen Hoffman	Director	February 17, 2016

Stephen Hoffman, M.D., Ph.D.

/s/ George Siber  
George Siber, M.D.

Director

February 17, 2016

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EXHIBIT INDEX

Exhibit Number	Exhibit
4.1	Fifth Amended and Restated Certificate of Incorporation (previously filed as Exhibit 3.1 to the current report on Form 8-K filed on February 12, 2014 (File No. 001-36289) and incorporated herein by reference).
4.2	Amended and Restated By-laws (previously filed as Exhibit 3.2 to the current report on Form 8-K filed on February 12, 2014 (File No. 001-36289) and incorporated herein by reference).
4.3	Form of Common Stock Certificate (previously filed as Exhibit 4.1 to the registration statement on Form S-1 (File No. 333-193043) and incorporated herein by reference).
4.4	Genocea Biosciences, Inc. 2014 Equity Incentive Plan (previously filed as Exhibit 10.15 to the registration statement on Form S-1 (File No. 333-193043) and incorporated herein by reference).
5.1	Opinion of Ropes & Gray LLP (filed herewith).
23.1	Consent of Ernst & Young LLP (filed herewith).
23.2	Consent of Ropes & Gray LLP (included in the opinion filed as Exhibit 5.1).
24.1	Powers of Attorney (included on the signature page in Part II).