

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

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|--|--|--|
| 1. Name and Address of Reporting Person*<br><u>Clark William D</u><br>(Last) (First) (Middle)<br>CAMBRIDGE DISCOVERY PARK<br>100 ACORN PARK DRIVE, 5TH FLOOR<br>(Street)<br>CAMBRIDGE MA 02140<br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>GENOCEA BIOSCIENCES, INC.</u> [ GNCA ] | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br><input checked="" type="checkbox"/> Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br>President and CEO |
|  | 3. Date of Earliest Transaction (Month/Day/Year)<br>06/21/2018                           |  |
| 4. If Amendment, Date of Original Filed (Month/Day/Year)   |  |  |

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) |   | 4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5) |            |       | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|------------|-------|---|--|---|
|                                 |                                      |  | Code                           | V | Amount  | (A) or (D) | Price |   |  |   |

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)**

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |     | 6. Date Exercisable and Expiration Date (Month/Day/Year) |                 | 7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4) | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |       |
|--|--|--------------------------------------|--|--------------------------------|--|-----|--|-----------------|---|--|--|---|--|-------|
|  |  |                                      |  |                                | (A)  | (D) | Date Exercisable   | Expiration Date |   |  |  |   |  | Title |
| Stock Option (Right to Buy)                | \$0.98   | 06/21/2018                           |  | A                              | 468,000  |     | (I)  | 02/07/2028      | Common Stock  | 468,000                                    | \$0  | 864,000   | D  |       |

**Explanation of Responses:**

1. The Company's Board of Directors approved these options on February 8, 2018, subject to stockholder approval of an amendment to the Company's 2014 Equity Incentive Plan (the "Plan"); such stockholder approval for the amendment of the Plan was obtained on June 21, 2018. The options commence vesting on February 8, 2018 (the "Vesting Commencement Date") and will vest as to 1/4th of the shares subject to the option on the first anniversary of the Vesting Commencement Date and thereafter as to 1/36th of the shares on each subsequent monthly anniversary of the Vesting Commencement Date (rounded down to the nearest whole share, except for the final vesting period, with respect to which all remaining shares will vest), subject to each individual's continued employment with the Company on each such vesting date.

**Remarks:**

/s/William Clark 06/25/2018  
 \*\* Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

\* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.