FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

| Washington, | D.C. | 20549 |
|-------------|------|-------|
|-------------|------|-------|

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPRO              | OVAL      |
|------------------------|-----------|
| OMB Number:            | 3235-0287 |
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

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

| 1. Name and Address of Reporting Person*  LEWIS ALAN  (Last) (First) (Middle)  C/O ASSEMBLY BIOSCIENCES, INC.,                                                                                                          |         |                        |                                                                                                  | 2. Issuer Name and Ticker or Trading Symbol ASSEMBLY BIOSCIENCES, INC. [ ASMB ]  3. Date of Earliest Transaction (Month/Day/Year) 06/01/2017 |                                            |                                                                                                              |                                 |           |                                                         |    |                                            | ck all appli    | cable)<br>or<br>(give title                                                        | g Per                                                                               | son(s) to Iss<br>10% Ov<br>Other (s<br>below)                            | vner                                                               |                                                                   |   |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------------------------|--------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------------------|---------------------------------|-----------|---------------------------------------------------------|----|--------------------------------------------|-----------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------|-------------------------------------------------------------------|---|--|
| 11711 N. MERIDIAN STREET, SUITE 310  (Street)  CARMEL IN 46032  (City) (State) (Zip)                                                                                                                                    |         |                        |                                                                                                  |                                                                                                                                              |                                            | 4. If Amendment, Date of Original Filed (Month/Day/Year)  ative Securities Acquired, Disposed of, or Benefic |                                 |           |                                                         |    |                                            |                 | Line)                                                                              | X Form filed by One Reporting Person  Form filed by More than One Reporting  Person |                                                                          |                                                                    |                                                                   |   |  |
| 1. Title of Security (Instr. 3)  2. Transac Date (Month/Date)                                                                                                                                                           |         |                        |                                                                                                  | action 2A. Deemed Execution Date,                                                                                                            |                                            |                                                                                                              | 3.<br>Transac                   | ction     | 4. Securities Acquired (A Disposed Of (D) (Instr. 3, 5) |    |                                            | ) or            | 5. Amou<br>Securitie<br>Benefici<br>Owned F<br>Reporter<br>Transact<br>(Instr. 3 a | Form (D) o (I) (In on(s)                                                            |                                                                          | n: Direct<br>r Indirect<br>istr. 4)                                | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |   |  |
| 1. Title of Derivative Security (Instr. 3)  2. Conversion or Exercise Price of Derivative Security  (Instr. 3)  3. Transaction Date (Month/Day/Year) (Month/Day/Year)  4. Execution Date, if any (Month/Day/Year)  8. 8 |         | uts, (<br>4.<br>Transa | ransaction ode (Instr. Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) |                                                                                                                                              | nber<br>tive<br>ties<br>red<br>sed<br>3, 4 |                                                                                                              | S, C<br>ercisa<br>Date<br>y/Yea | Amount of |                                                         |    | 8. Price of Derivative Security (Instr. 5) |                 | 9. Number of                                                                       |                                                                                     | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |                                                                   |   |  |
| Stock<br>Option<br>(Right to<br>Buy)                                                                                                                                                                                    | \$25.96 | 06/01/2017             |                                                                                                  |                                                                                                                                              | Α                                          |                                                                                                              | 7,500                           |           | (1)                                                     | 00 | 6/01/2027                                  | Common<br>Stock | 7,5                                                                                | 500                                                                                 | \$0                                                                      | 7,500                                                              |                                                                   | D |  |

## **Explanation of Responses:**

1. The shares of Common Stock underlying the option will vest upon the earlier of (i) June 1, 2018 and (ii) the date of the Issuer's 2018 annual meeting of stockholders.

/s/ Elizabeth Lacy, Attorney-in-06/05/2017 Fact

\*\* Signature of Reporting Person

Date

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

- $^{\ast}$  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.