

| OMB APPROVAL                                 |           |
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**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

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*<br><u>Florence Anthony A. Jr.</u><br><br>(Last) (First) (Middle)<br>5425 WISCONSIN AVENUE<br>SUITE 800<br><br>(Street)<br>CHEVY MD 20815<br>CHASE<br><br>(City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol<br><u>SYNLOGIC, INC. [ SYBX ]</u> | 5. Relationship of Reporting Person(s) to Issuer<br>(Check all applicable)<br><br>Director <input checked="" type="checkbox"/> 10% Owner<br><br>Officer (give title below) Other (specify below) |
|  | 3. Date of Earliest Transaction (Month/Day/Year)<br>08/28/2017                |  |
|  |   | 6. Individual or Joint/Group Filing (Check Applicable Line)<br><br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br><br>Form filed by More than One Reporting Person    |

**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 |   |  |   |
| Common Stock                    | 08/28/2017                           |  | A                              |   | 3,394,439   | A          | (1)   | 3,818,940   | I  | See Note 2(2)   |

**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) |
|--|--|--------------------------------------|--|--------------------------------|---|--|-----|--|-----------------|---|--|--|---|--|
|  |  |                                      |  | Code                           | V | (A)  | (D) | Date Exercisable   | Expiration Date |   |  |  |   |  |

**Explanation of Responses:**

- Shares of capital stock of the corporation then known as Synlogic, Inc. ("Old Synlogic") were converted into shares of the Issuer pursuant to that certain Agreement and Plan of Merger and Reorganization, dated as of May 15, 2017, by and among the Issuer, Meerkat Merger Sub, Inc. and Old Synlogic (the "Merger Agreement"). Pursuant to the terms of the Merger Agreement, each share of capital stock was exchanged for 0.5532 shares of the Issuer's common stock, giving effect to a reverse split of the Issuer's common stock of 7-to-1.
- The Reporting Person is a director of NEA 14 GP, LTD, which is the sole general partner of NEA Partners 14, L.P. ("NEA Partners 14"). NEA Partners 14 is the sole general partner of New Enterprise Associates 14, L.P. ("NEA 14"), which is the direct beneficial owner of the securities. The Reporting Person disclaims beneficial ownership, within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, or otherwise of such portion of the NEA 14 shares in which the Reporting Person has no pecuniary interest.

**Remarks:**

/s/ Sasha Keough, attorney-in-fact 08/30/2017

\*\* 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.