FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

| STATEMENT | OF (| CHANGES | IN RENE | FICΙΔΙ | OWNERS | ΗΙΡ |
|-----------|------|---------|---------|--------|--------|-----|
| STATEMENT | OF (| SHANGES | | FICIAL | OWNERS | ПІГ |

| OMB APPRO | VAL | | | |
|------------------------|-----------|--|--|--|
| OMB Number: | 3235-0287 | | | |
| Estimated average burd | en | | | |
| hours per response: | 0.5 | | | |

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* <u>Lydon Nicholas</u> | | | | | 2. Issuer Name and Ticker or Trading Symbol Blueprint Medicines Corp [BPMC] | | | | | | | | | heck all | nship of Ro applicable Director | | Person(s) to I | | |
|--|--|----------|------------------------------|--------|--|--|------------------|-----|---|------|--------------------|---|---|---|---|--|----------------|----------------|---------------|
| (Last) (First) (Middle) C/O BLUEPRINT MEDICINES CORPORATION | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 03/14/2017 | | | | | | | | | | Officer (giv elow) | e title | Other below | (specify) |
| 38 SIDNEY STREET, SUITE 200 (Street) CAMBRIDGE MA 02139 | | | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | ne) X F F | | | | | |
| (City) | (| State) (| Zip) | | | | | | | | | | | | | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transacti Date (Month/Day | | | | | Execution Date, | | | | es Acquired (A) or Of (D) (Instr. 3, 4 a | | | 5) Se Be Or | Amount or ecurities eneficially wned Follo | | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership | | | |
| | | | | | | Cı | | | Code | v | Amount | (A) (D) | or P | rice | Tr | Reported Transaction(s) (Instr. 3 and 4) | | | (Instr. 4) |
| Common | Stock | | | 03/14/ | 2017 | | S ⁽¹⁾ | | 68,600 | Г | 1 | \$40.06(2) | | 204,127 | | D | | | |
| Common Stock 03/14/20 | | | | | 2017 | | S ⁽¹⁾ | | 1,400 | Г | 1 | 39.72(3) | | 202,727 | | D | | | |
| | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | | | | | | | |
| Derivative Conversion Date Execution Date, if any | | | 4. Transa Code (8) | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) | | tr. 3 | 8. Price Derivati Security (Instr. 5 | ive derivative y Securities | ative rities ficially ed wing orted saction(s | Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | | |
| | | | | | Code | v | (A) | (D) | Date Exercis | able | Expiration Date | Title | Amo or Num of Shar | ber | | | | | |

Explanation of Responses:

- 1. The sales reported on this Form 4 were effected pursuant to a trading plan adopted pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.
- 2. The price reported is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$39.80 to \$40.78 per share. The Reporting Person undertakes to provide to the Issuer, any security holder of the Issuer or the staff of the Securities and Exchange Commission, upon request, full information regarding the number of shares sold at each separate price within the ranges set forth in footnotes (2) and (3) to this Form 4.
- 3. The price reported is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$39.70 to \$39.76 per share.

/s/ Christopher Frankenfield, 03/16/2017 Attorney-in-Fact

** 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.