FORM 4

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

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

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

| STATEMENT | OF CHANGES | IN BENEFICIAL | OWNERSHIP |
|-----------|------------|---------------|-----------|
| | | | |

| OMB APPROVAL | | | | | | | | | |
|--------------------------|-----------|--|--|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | | | |
| Estimated average burden | | | | | | | | | |
| hours per response: | 0.5 | | | | | | | | |

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

| Name and Address of Reporting Person* Durso-Bumpus Debra | | | | | | 2. Issuer Name and Ticker or Trading Symbol Blueprint Medicines Corp [BPMC] | | | | | | | | | ationship of Reporting k all applicable) Director Officer (give title | | 10% Ow Other (s | | ner | |
|--|---|--------------|---|------------|---|--|------|------------------|-----------------------------------|--------|------------------------------|--|--|------------------------|---|--|--------------------|--|--|--|
| | ` | MEDICINES CC | (Middle) ORPORA | ATION | 3. Date of Earliest Transaction (Month/Day/Year) 06/22/2020 | | | | | | | | | X | below) below) Chief People Officer | | | | | |
| (Street) CAMBR (City) | | tate) | 02139 (Zip) | | , | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | Li | ne) X | X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| 1 Title of 9 | Security (Ins | | le I - No | 2. Transac | | | Deen | | quired | i, Di | sposed o | of, or Be es Acquired | | | 5. Amou | | 6. Ov | wnership | 7. Nature | |
| Date | | | | Date | | | | Execution Date, | | | Disposed Of (D) (Instr. 3, 4 | | | l and 5) Secu Bene | | urities eficially led Following | | n: Direct or Indirect I nstr. 4) | of Indirect Beneficial Ownership | |
| | | | | | | | | Code | v | Amount | (A) or (D) | Price | - 1 | | rted action(s) . 3 and 4) | | | (Instr. 4) | | |
| Common Stock 06/22 | | | | | 2020 | | | | M ⁽¹⁾ | | 2,300 | A | \$36.0 | 05 | 5 21,805 | | D | | | |
| Common | Common Stock 06/22/2 | | | | 2020 | 020 | | S ⁽¹⁾ | | 2,300 | D | \$80.0 | 7 ⁽²⁾ | ⁷⁽²⁾ 19,505 | | | D | | | |
| | | 7 | able II | | | | | | | | posed of converti | | | | wned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | | 3A. Deer Execution if any (Month/I | on Date, | 4. Transa Code (I 8) | | | | 6. Date I Expirati (Month/I | on Da | | 7. Title and Amount of Securities Underlying Derivative Secu (Instr. 3 and 4) | | Der Sec (Ins | Price of rivative curity str. 5) | 9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4) | ly | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | Code | v | (A) | (D) | Date Exercisa | able | Expiration Date | Title | Amount or Number of Shares | | | | | | | |
| Stock Option (Right to Buy) | \$36.05 | 06/22/2020 | | | M ⁽¹⁾ | | | 2,300 | (3) | | 02/16/2027 | Common Stock | 2,300 | | \$0 | 30,200 | | D | | |

Explanation of Responses:

- 1. Effected pursuant to a trading plan adopted on May 15, 2020 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 \$80.00 to \$80.19 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 range set forth
- 3. This option vested with respect to 1/48th of the shares underlying the option on March 16, 2017 and vests as to an additional 1/48th of the shares underlying the option each month thereafter.

/s/ Christopher Frankenfield, 06/24/2020 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.