FORM 4

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 | | | | | | | |

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* Hurley Ariel | | | | | | 2. Issuer Name and Ticker or Trading Symbol Blueprint Medicines Corp [BPMC] | | | | | | | (Che | eck all applic Directo | | | on(s) to Issu 10% Ov Other (s | vner | |
|--|---|--|--|---------|--------------------------------------|---|---|------------------|--|--|-----------------------|--|--|--|---|---|--|--|--|
| (Last) (First) (Middle) C/O BLUEPRINT MEDICINES CORPORATION 45 SIDNEY STREET | | | | | 03 | 3. Date of Earliest Transaction (Month/Day/Year) 03/01/2021 | | | | | | | | X Officer (give title Other (specify below) Principal Accounting Officer | | | | | |
| (Street) CAMBRIDGE MA 02139 | | | | | _ | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | |
| (City) | (5 | State) | (Zip) | | | | | | | | | | | | | | | | |
| | | Та | ble I - No | on-Deri | ivativ | e S | ecuritie | es Ac | quired | l, Dis | sposed o | f, or Ber | eficiall | y Owned | | | | | |
| Date | | | 2. Trans Date (Month/l | | Execu ay/Year) if any | | A. Deemed recution Date, any lonth/Day/Year) | | iction Instr. | 4. Securities Acquired (A) of Disposed Of (D) (Instr. 3, 4 | | | Beneficia | es For ally (D) Following (I) (| | : Direct I Indirect I str. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | | |
| | | | | | | | | | Code | v | Amount | (A) or (D) | Price | Transact | Transaction(s) (Instr. 3 and 4) | | | (111311. 4) | |
| Common Stock | | | 03/01 | 1/2021 | 1 | | | A | | 3,187 | Α | \$0 | 13,171(1) | | | D | | | |
| Common Stock | | | 03/01 | 1/2021 | 1 | | | M ⁽²⁾ | | 1,400 | A | \$1.87 | 14, | 14,571 | | D | | | |
| Common Stock 0. | | | | 03/01 | 1/2021 | 2021 | | | | | 300 | A | \$8.8 | 14, | 14,871 | | D | | |
| Common Stock 03/0 | | | 03/01 | 1/2021 | 2021 | | S ⁽²⁾ | | 1,700 | D | \$99.51(3) | | ,171 | | D | | | | |
| | | | Table II | | | | | | | | osed of, convertib | | | Owned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deem Execution if any (Month/Da | Date, | 4. Transactic Code (Inst 8) | | | | 6. Date Exercisable and Expiration Date (Month/Day/Year) | | ate | 7. Title an Amount o Securities Underlyin Derivative (Instr. 3 an | f g Security | 8. Price of Derivative Security (Instr. 5) | 9. Number derivative Securities Beneficial Owned Following Reported Transactio | s Illy | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership ct (Instr. 4) | |
| | | | | | Code | v | (A) | (D) | Date Exercis | sable | Expiration Date | Title | Amount or Number of Shares | | (Instr. 4) | | | | |
| Stock Option (Right to Buy) | \$100.13 | 03/01/2021 | | | A | | 6,375 | | (4) | | 03/01/2031 | Common Stock | 6,375 | \$0 | 6,375 | | D | | |
| Stock Option (Right to Buy) | \$1.87 | 03/01/2021 | | | M | | | 1,400 | (5) | | 10/08/2024 | Common Stock | 1,400 | \$0 | 5,754 | | D | | |

Explanation of Responses:

\$8.8

Stock Option

Buv)

(Right to

- 1. The reported transaction involved the Reporting Person's receipt of a grant of 3,187 restricted stock units under Issuer's 2015 Stock Option and Incentive Plan.
- 2. Effected pursuant to a trading plan adopted on March 17, 2020 pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

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3. The price reported is a weighted average price. These shares were sold in multiple transactions at prices ranging from \$99.40 to \$100.00 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 in this footnote.

300

- 4. This option vests with respect to 1/48th of the shares underlying the option on April 1, 2021 and as to an additional 1/48th of the shares underlying the option each month thereafter
- 5. This option was granted on October 8, 2014 and is fully vested as of the date hereof.

03/01/2021

6. This option was granted on February 10, 2015 and is fully vested as of the date hereof.

/s/ Christopher Frankenfield, Attorney-in-Fact

300

\$0

Common

Stock

02/10/2025

03/03/2021

2 664

D

** 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.