FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL 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* Hewes L. Becker | | | | | | 2. Issuer Name and Ticker or Trading Symbol Blueprint Medicines Corp [BPMC] | | | | | | | | | all app | tor | ng Per | 10% Ov | vner |
|--|--|--|-----------------|---|--|---|-------------------------------------|---|--|-----------------------------|--------------------------------------|---|--|---|--|--|--------|--|---------------------------------------|
| (Last) | ` | (First) (Middle) | | | | 3. Date of Earliest Transaction (Month/Day/Year) 06/04/2024 | | | | | | | | | belov | er (give title v) EF MEDI | CAL | Other (s below) OFFICEI | ` |
| 45 SIDNEY STREET | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | |
| (Street) CAMBRIDGE MA 02139 | | | | | | Form filed by One Reporting Person Form filed by More than One Report Person | | | | | | | | | | | - 1 | | |
| (City) (State) (Zip) | | | | | Rule 10b5-1(c) Transaction Indication Check this box to indicate that a transaction was made pursuant to a contract, instruction or written plan that is intended to satisfy the affirmative defense conditions of Pula 10b5-1(c). See Instruction 10 | | | | | | | | | | | | | | |
| | Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transact Date (Month/Day | | | | | | Execu | eemed ition Date, h/Day/Year) | | 3. Transaction Code (Instr. 8) 4. Securities Disposed O 5) | | s Acquired (A) f (D) (Instr. 3, 4 | | nd Securi Benefi Owned | | ties cially I Following | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | | 7. Nature of Indirect Beneficial Ownership | |
| | | | | | | | | | Code | v | Amount | (A) o (D) | r Price | | Reported Transaction(s) (Instr. 3 and 4) | | | | (Instr. 4) |
| Common Stock 06/04/20 | | | | | 024 | | | | S ⁽¹⁾ | | 2,424 | D | \$104 | .91 29, | | 9,514 | | D | |
| | 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) | Execu if any | 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) | | Exerc tion Da h/Day/\ | | 7. Title and Amount of Securities Underlying Derivative Security (Inst 3 and 4) | | Der | Price of ivative curity etr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction ((Instr. 4) | y G | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership (Instr. 4) |
| | | | | | Code | v | (A) | (D) | Date Exercis | sable | Expiration Date | Title | Amount or Number of Shares | | | | | | |

Explanation of Responses:

1. Effected pursuant to a trading plan adopted on March 1, 2024 pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

/s/ Melissa Masse

06/06/2024

** 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.