UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of Earliest Event Reported): **March 1, 2016**

Blueprint Medicines Corporation

(Exact name of registrant as specified in its charter)

Delaware	**001-37359**	**26-3632015**
(State or other jurisdiction of incorporation)	(Commission File Number)	(I.R.S. Employer Identification No.)

38 Sidney Street, Suite 200 **Cambridge, Massachusetts**	**02139**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(617) 374-7580**

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 1.01 Entry into a Material Definitive Agreement.

On March 1, 2016, Blueprint Medicines Corporation (the "Company") entered into a Master Collaboration Agreement, effective March 1, 2016, and a project schedule (collectively, the "Agreement"), with Ventana Medical Systems, Inc. ("Ventana"), a member of the Roche Group. Pursuant to the Agreement, Ventana has agreed to develop and commercialize an assay as a companion diagnostic test to identify hepatocellular carcinoma ("HCC") patients with aberrantly active FGFR4 signaling as indicated by FGF19 protein overexpression for use with BLU-554, one of the Company's lead drug candidates. FGF19 is a ligand that activates FGFR4, a kinase that is aberrantly activated and is a driver of disease in a subset of patients with HCC. The parties anticipate using Ventana's investigational immunohistochemistry assay to initially develop the companion diagnostic test.

Under the Agreement, Ventana is responsible for developing, and obtaining and maintaining regulatory approvals for, the companion diagnostic test in the United States, specified countries in the European Union, any other countries that recognize the CE/*in vitro* diagnostic self-registration process and such other countries as the parties may mutually agree. If despite using commercially reasonable efforts Ventana fails, or refuses to seek, obtain or maintain regulatory approvals for, the companion diagnostic test in any country in which Ventana is responsible for obtaining and maintaining regulatory approvals, or in the case of certain specified supply failures or failures to commercialize the companion diagnostic test in any such country, then the parties will negotiate in good faith to select, agree upon and implement one or more alternative arrangements that are reasonably acceptable to the parties for the companion diagnostic test in such country or countries.

Pursuant to the Agreement, the parties will form a joint steering committee comprised of an equal number of representatives from each of the Company and Ventana. The joint steering committee will oversee the activities under the Agreement and any project schedule. Upon the request of either party, the joint steering committee will form one or more of the following committees: a joint development committee, joint commercialization committee or joint patent committee.

Under the Agreement, each party has granted the other party specified intellectual property licenses to enable the other party to perform its obligations and exercise its rights under the Agreement, including license grants to enable Ventana to develop and commercialize companion diagnostic tests for use with any of the Company's products that are the subject of the Agreement and to enable the Company to develop and commercialize its products with any companion diagnostic test developed by Ventana under the Agreement. Certain of the license rights granted by each party generally survive termination of the Agreement. Ventana remains free to develop its companion diagnostic tests for use with a third party's therapeutic products, and the Company remains free to engage a third party to develop other companion diagnostic tests for use with BLU-554 and any of its other drug candidates.

Subject to the terms of the Agreement, the Company will pay Ventana an aggregate amount of up to approximately $12.3 million over the term of the development program for the companion diagnostic test for BLU-554. In addition, the Company will reimburse Ventana for certain pass through costs and will be obligated to pay Ventana up to an additional $2.0 million if the Company elects to have Ventana perform additional optional validation studies specified in the Agreement. These amounts are subject to adjustment if the parties determine that changes in the scope of the development program are required. In addition, Ventana will retain all proceeds from the commercialization of the companion diagnostic test.

The Agreement will continue until terminated by either party in accordance with its terms. If all projects under the Agreement have been terminated in accordance with the terms of the Agreement, either party may terminate the Agreement for convenience upon 30 days' prior written notice to the other party. The Company is permitted to terminate any project under the Agreement upon 30 days' prior written notice to Ventana in the event the Company ceases to continue developing or commercializing the applicable Company product or for convenience and, under specified circumstances, payment of a termination fee and wind-down costs. Ventana is permitted to terminate any project under the Agreement upon 30 or 180 days' prior written notice to the Company depending on the circumstances of such termination. Either party may terminate the Agreement upon a material breach of the other party that is not cured within 60 days after written notice of such breach or immediately upon the bankruptcy or insolvency of the other party.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

BLUEPRINT MEDICINES CORPORATION

Date: March 7, 2016

By: /s/ Jeffrey W. Albers
Jeffrey W. Albers
Chief Executive Officer