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): August 22, 2016

Blueprint Medicines Corporation

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation)

001-37359 (Commission File Number)

26-3632015 (I.R.S. Employer Identification No.)

38 Sidney Street, Suite 200
Cambridge, Massachusetts
(Address of principal executive offices)

02139 (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 August 22, 2016, Blueprint Medicines Corporation (the "Company") entered into a Master Collaboration Agreement and a project schedule (collectively, the "Agreement"), with QIAGEN Manchester Limited ("QIAGEN"). Pursuant to the Agreement, QIAGEN has agreed to develop and commercialize an assay as a companion diagnostic test to identify gastrointestinal stromal tumor ("GIST") patients with the PDGFR α D842V mutation for use with BLU-285, one of the Company's lead drug candidates.

Under the Agreement, QIAGEN is responsible for developing, and obtaining and maintaining regulatory approvals for, the companion diagnostic test in the United States, the European Union, Canada and such other countries as the parties may mutually agree. In addition, QIAGEN has agreed to use commercially reasonable efforts to manufacture the companion diagnostic test and to make the companion diagnostic test commercially available in the United States, the major European markets, Canada and such other countries as the parties may mutually agree. Under the Agreement, QIAGEN has agreed to undertake specified actions to minimize the risk of an inability of supply occurring for the manufacture of the companion diagnostic test, and if QIAGEN elects not to commercialize the companion diagnostic test itself in any country, QIAGEN has agreed to procure alternative distribution channels or otherwise supply the companion diagnostic test to the Company in such quantities and upon commercially reasonable terms as necessary in order to enable the Company to market BLU-285 for GIST patients with the PDGFR α D842V mutation in combination with the companion diagnostic test. QIAGEN 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-285 and any of the Company's other drug candidates.

Subject to the terms of the Agreement and upon achievement of specified technical and development milestones, the Company will pay QIAGEN an aggregate amount of up to approximately \$6.1 million over the term of the development program for the companion diagnostic test for BLU-285. In addition, the Company will reimburse QIAGEN for certain pass-through costs. These amounts are subject to adjustment if the parties determine that changes in the scope of the development program are required. In addition, QIAGEN will retain all proceeds from the commercialization of the companion diagnostic test

The Agreement expires on the later to occur of (i) the fifth anniversary of the Agreement and (ii) the term of any project schedule executed under the Agreement. The Company may terminate the Agreement or a project schedule (i) upon 30 days' prior written notice to QIAGEN if such termination is due to the Company's cessation of further development of BLU-285 or any other drug candidate covered by a project schedule executed under the Agreement and (ii) for convenience upon 120 day's prior written notice to QIAGEN. Either party may terminate the Agreement or any project schedule executed under the Agreement, as applicable, upon a material breach of the other party that is not cured within 30 days after written notice of such breach or immediately upon the bankruptcy or insolvency of the other party. In the event of a termination of the Agreement by the Company, the Company will be obligated to pay QIAGEN wind-down and other costs and final payments.

The foregoing description of the material terms of the Agreement is qualified in its entirety by reference to the complete text of the Agreement, which the Company intends to file, with confidential terms redacted, with the Securities and Exchange Commission as an exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2016.

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

By: /s/ Jeffrey W.
Albers Date: August 23, 2016

Jeffrey W. Albers Chief Executive Officer