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 21, 2017**

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:

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

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company ☑

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☑

Item 7.01 Regulation FD Disclosure.

On August 21, 2017, Blueprint Medicines Corporation (the "Company") issued a press release announcing that updated data from its ongoing Phase 1 clinical trial evaluating BLU-554 in patients with advanced hepatocellular carcinoma will be presented in oral presentations at the European Society for Medical Oncology 2017 Congress ("ESMO") on September 10, 2017 in Madrid, Spain and at the 11th International Liver Cancer Association Annual Conference ("ILCA") on September 17, 2017 in Seoul, South Korea. In addition, the Company reported that as of the most recent data cutoff date of August 18, 2017, 38 patients with FGFR4 pathway activation, as indicated by FGF19 overexpression, were evaluable for clinical activity, and an objective response rate of 16% (95% confidence interval 6-31%) was observed in this population. At ESMO and ILCA, the Company anticipates presenting additional safety and clinical activity data from the clinical trial. A copy of the press release is furnished as Exhibit 99.1 to this Current Report on Form 8-K.

The information in Item 7.01 of this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

Cautionary Note Regarding Forward-Looking Statements

This Current Report on Form 8-K contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, as amended, including, without limitation, statements regarding plans and timelines for the Company's presentation of updated clinical data from the ongoing Phase 1 clinical trial of BLU-554; expectations regarding the data cutoff date for such presentations; and plans and timelines for further development of BLU-554. The words "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "predict," "project," "potential," "continue," "target" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements in this Current Report on Form 8-K are based on management's current expectations and beliefs and are subject to a number of risks, uncertainties and important factors that may cause actual events or results to differ materially from those expressed or implied by any forward-looking statements contained in this Current Report on Form 8-K, including, without limitation, risks and uncertainties related to the delay of any current or planned clinical trials or the development of the Company's drug candidates, including BLU-285, BLU-554 and BLU-667; the Company's advancement of multiple early-stage efforts; the Company's ability to successfully demonstrate the efficacy and safety of its drug candidates; the preclinical and clinical results for the Company's drug candidates, which may not support further development of such drug candidates; and actions of regulatory agencies, which may affect the initiation, timing and progress of clinical trials; the Company's ability to develop and commercialize companion diagnostic tests for its current and future drug candidates, including companion diagnostic tests for BLU-554 with Ventana Medical Systems, Inc. and for BLU-285 with QIAGEN Manchester Limited; and the success of the Company's cancer immunotherapy collaboration with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. These and other risks and uncertainties are described in greater detail in the section entitled "Risk Factors" in the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, as filed with the Securities and Exchange Commission ("SEC") on August 2, 2017, and other filings that the Company may make with the SEC in the future. Any forward-looking statements contained in this Current Report on Form 8-K represent the Company's views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. The Company explicitly disclaims any obligation to update any forward-looking statements.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
99.1	Press release issued by Blueprint Medicines Corporation on August 21, 2017

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: August 21, 2017

By: /s/ Tracey L. McCain
Tracey L. McCain
Chief Legal Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release issued by Blueprint Medicines Corporation on August 21, 2017

Blueprint Medicines to Present Updated Data from Ongoing Phase 1 Clinical Trial of BLU-554 in Patients with Advanced Hepatocellular Carcinoma at ESMO 2017 Congress and 11th ILCA Annual Conference

— Blueprint Medicines to Host Investor Conference Call and Webcast on September 11, 2017 —

CAMBRIDGE, Mass., August 21, 2017 – Blueprint Medicines Corporation (NASDAQ:BPMC), a leader in discovering and developing targeted kinase medicines for patients with genomically defined diseases, today announced that updated data from its ongoing Phase 1 clinical trial evaluating BLU-554 in patients with advanced hepatocellular carcinoma (HCC) will be presented in oral presentations at the European Society for Medical Oncology (ESMO) 2017 Congress on September 10, 2017 in Madrid, Spain and at the 11th International Liver Cancer Association (ILCA) Annual Conference on September 17, 2017 in Seoul, South Korea. BLU-554 is a potent and highly selective inhibitor of FGFR4.

At ESMO and ILCA, Blueprint Medicines anticipates presenting updated safety and clinical activity data from its ongoing Phase 1 clinical trial of BLU-554. As of the most recent data cutoff date of August 18, 2017, 38 patients with FGFR4 pathway activation, as indicated by FGF19 overexpression, were evaluable for clinical activity, and an objective response rate of 16 percent (95 percent confidence interval 6-31 percent) was observed in this population.

“The preliminary BLU-554 data announced today continue to provide support for selective FGFR4 inhibition as a novel targeted treatment approach in biomarker-selected patients with hepatocellular carcinoma,” said Andy Boral, M.D., Ph.D., Chief Medical Officer of Blueprint Medicines. “As we evaluate the results for BLU-554 in the context of historical data for currently approved therapies showing response rates of less than 10 percent, we are encouraged that radiographic tumor reductions were observed in a refractory population with progressive disease and few or no remaining therapeutic options. We look forward to sharing a comprehensive update on the ongoing BLU-554 clinical trial, as well as the path forward for further development, in September.”

Details of the presentations are as follows:

2017 ESMO Congress

Presentation Title: Phase 1 Safety and Clinical Activity of BLU-554 in Advanced Hepatocellular Carcinoma (HCC)
Session Title: Developmental Therapeutics
Date & Time: Sunday, September 10, 2017 from 5:30 - 5:45 p.m. CET (11:30 – 11:45 a.m. ET)
Abstract ID: 365O
Location: Cordoba Auditorium, IFEMA, Feria de Madrid

11th ILCA Annual Conference

Presentation Title: Clinical Activity Of BLU-554, A Potent, Highly-Selective FGFR4 Inhibitor In Advanced Hepatocellular Carcinoma (HCC) With FGFR4 Pathway Activation
Session Title: General Session 5
Date & Time: Sunday, September 17, 2017 from 11:30 a.m. – 1:00 p.m. KST (Saturday, September 16, 2017 from 10:30 p.m. – 12:00 a.m. ET)
Abstract No: O-032
Location: Grand Hyatt Seoul

Conference Call and Webcast Information

Blueprint Medicines will host a conference call and webcast on Monday, September 11, 2017 at 7:00 a.m. ET to discuss the updated clinical data for BLU-554 in HCC. To participate in the conference call, please dial 1-855-728-4793 (domestic) or 1-503-343-6666 (international) and refer to conference ID 73748225. A live webcast of the presentation will be available under "Events & Presentations" in the Investors section of Blueprint Medicines' website at www.blueprintmedicines.com. A replay of the webcast will be available approximately two hours after the event and will be available for 30 days following the event.

About Blueprint Medicines

Blueprint Medicines is developing a new generation of targeted and potent kinase medicines to improve the lives of patients with genomically defined diseases. Its approach is rooted in a deep understanding of the genetic blueprint of cancer and other disease driven by the abnormal activation of kinases. Blueprint medicines is advancing four programs in clinical development for subsets of patients with gastrointestinal stromal tumors, hepatocellular carcinoma, systemic mastocytosis, non-small cell lung cancer, medullary thyroid cancer and other advanced solid tumors, as well as multiple programs in research and preclinical development. For more information, please visit www.blueprintmedicines.com.

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timing and progress of clinical trials; Blueprint Medicines' ability to develop and commercialize companion diagnostic tests for its current and future drug candidates, including companion diagnostic tests for BLU-554 with Ventana Medical Systems, Inc. and for BLU-285 with QIAGEN Manchester Limited; and the success of Blueprint Medicines' cancer immunotherapy collaboration with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. These and other risks and uncertainties are described in greater detail in the section entitled "Risk Factors" in Blueprint Medicines' Quarterly Report on Form 10-Q for the quarter ended June 30, 2017, as filed with the Securities and Exchange Commission (SEC) on August 2, 2017, and other filings that Blueprint Medicines may make with the SEC in the future. Any forward-looking statements contained in this press release represent Blueprint Medicines' views only as of the date hereof and should not be relied upon as representing its views as of any subsequent date. Blueprint Medicines explicitly disclaims any obligation to update any forward-looking statements.

Media and Investor Relations Contacts

Kristin Hodous
617-714-6674
khodous@blueprintmedicines.com

Jim Baker
617-844-8236
jbaker@blueprintmedicines.com