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): **November 10, 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 2.02 Results of Operations and Financial Condition.

On November 10, 2016, Blueprint Medicines Corporation (the "Company") announced its financial results for the quarter ended September 30, 2016. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated by reference herein.

The information in 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.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

The following exhibit relating to Item 2.02 of this Current Report on Form 8-K shall be deemed to be furnished and not filed:

Exhibit No.	Description
99.1	Press release issued by Blueprint Medicines Corporation on November 10, 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

Date: November 10, 2016

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

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press release issued by Blueprint Medicines Corporation on November 10, 2016

Blueprint Medicines Reports Third Quarter 2016 Financial Results

– Preliminary data from BLU-285 in systemic mastocytosis (SM) to be presented at 2016 ASH Annual Meeting –
– Preliminary data from BLU-285 in gastrointestinal stromal tumors (GIST) and BLU-554 in hepatocellular carcinoma (HCC) to be presented at EORTC-NCI-AACR Symposium –

CAMBRIDGE, Mass., November 10, 2016 – Blueprint Medicines Corporation (NASDAQ: BPMC), a leader in discovering and developing targeted kinase medicines for patients with genomically defined diseases, today reported financial results and provided a business update for the third quarter ended September 30, 2016.

"During the third quarter of 2016, we made significant progress on our pipeline and were pleased to announce our newest drug discovery program for the treatment of fibrolamellar carcinoma, a rare liver cancer with a recognized genomic driver. This program highlights how quickly our science is moving to identify new and promising kinase drug targets, and our continued commitment to patients who need new treatment options," said Jeff Albers, Chief Executive Officer of Blueprint Medicines. "We believe the breadth of our pipeline is unique for a company of our size, and we are looking forward to announcing the early stage data on our three Phase 1 clinical trials before year-end."

Corporate Highlights:

- **Announced a new drug discovery program targeting PRKACA kinase fusions for the treatment of fibrolamellar carcinoma (FLC):** In September 2016, at the 10th International Liver Cancer Association (ILCA) Annual Conference, Blueprint Medicines announced a new drug discovery program targeting PRKACA fusions for the treatment of FLC. Blueprint Medicines estimates that more than ninety percent of patients with FLC harbor the PRKACA fusion, which is the only known recurrent genomic event in FLC and considered the driver gene of the disease.
- **Granted Fast Track Designation for BLU-285:** In October 2016, the U.S. Food & Drug Administration (FDA) granted Fast Track designation to BLU-285 for the treatment of patients with unresectable or metastatic GIST that progressed following treatment with imatinib and a second tyrosine kinase inhibitor and for the treatment of patients with unresectable or metastatic GIST with the PDGFRα D842V mutation regardless of prior therapy. The FDA's Fast Track Drug Development Program is designed to expedite clinical development and submission of New Drug Applications (NDA) for medicines with the potential to treat serious or life-threatening conditions and address unmet medical needs.
- **Entered into a companion diagnostic collaboration with QIAGEN:** In August 2016, Blueprint Medicines entered into a collaboration with QIAGEN Manchester Limited to develop and commercialize a companion diagnostic test to identify GIST patients with the PDGFRα D842V mutation for use with BLU-285.
- **Strengthened executive leadership team:** In September 2016, Blueprint Medicines announced the appointment of Tracey McCain as Chief Legal Officer and Executive Vice President.

Clinical Programs:

Blueprint Medicines' lead drug candidates are BLU-285, a targeted inhibitor of both Exon 17 mutant KIT and D842V mutant PDGFRα, and BLU-554, a targeted inhibitor of the FGFR4 receptor. Enrollment continues to progress in Blueprint Medicines' Phase 1 clinical trials for BLU-285 in unresectable, treatment-resistant GIST and advanced SM and BLU-554 in advanced HCC.

A poster presentation of preliminary data from the dose escalation portion of Blueprint Medicines' Phase 1 clinical trial for BLU-554 in HCC will be presented at the 28th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics in Munich, Germany. The presentation, "First-in-Human Study of BLU-554, a Potent, Highly-Selective FGFR4 Inhibitor Designed for Hepatocellular Carcinoma (HCC) with FGFR4 Pathway Activation," will be presented on November 29, 2016.

A late-breaking oral presentation of preliminary data from the dose escalation portion of Blueprint Medicines' Phase 1 clinical trial for BLU-285 in GIST will also be presented at the 28th EORTC-NCI-AACR Symposium on Molecular Targets and Cancer Therapeutics. The presentation, "Preliminary Safety and Activity in a First-in-Human Phase 1 Study of BLU-285, a Potent, Highly-Selective Inhibitor of KIT and PDGFRα Activation Loop Mutants in Advanced Gastrointestinal Stromal Tumor (GIST)," will be presented on December 1, 2016.

An oral presentation of preliminary data from the dose escalation portion of Blueprint Medicines' Phase 1 clinical trial for BLU-285 in advanced SM will be presented at the 2016 American Society of Hematology (ASH) Annual Meeting in San Diego, CA. The presentation, "Preliminary Safety and Activity in a Phase 1 Study of BLU-285, a Potent, Highly-Selective Inhibitor of KIT D816V in Advanced Systemic Mastocytosis (SM)," will be presented on December 4, 2016.

Third Quarter 2016 Financial Results:

- **Cash Position**: As of September 30, 2016, cash, cash equivalents, and investments were $152.5 million, as compared to $162.7 million as of December 31, 2015. This decrease was primarily related to cash used in operating activities, partially offset by the $45.0 million upfront payment received in March 2016 under Blueprint Medicines' cancer immunotherapy collaboration with F. Hoffmann-La Roche Ltd and Hoffmann-La Roche Inc. (collectively, Roche).
- **Collaboration Revenue**: Collaboration revenues were $6.2 million for the third quarter of 2016, as compared to $3.4 million for the third quarter of 2015. This increase was due to increased activity in Blueprint Medicines' collaboration with Alexion and Blueprint Medicines entering into a collaboration with Roche in March 2016.
- **R&D Expenses**: Research and development expenses were $18.2 million for the third quarter of 2016, as compared to $11.7 million for the same period in 2015. This increase was primarily attributable to increased manufacturing and clinical expenses associated with advancing BLU-285 and BLU-554 into clinical trials, continuing to build Blueprint Medicines' platform and advance its discovery pipeline, and increased personnel-related expenses, including stock-based compensation expenses.
- **G&A Expenses**: General and administrative expenses were $4.9 million for the third quarter of 2016, as compared to $4.2 million for the same period in 2015. This increase was primarily attributable to increased personnel-related expenses, including stock-based compensation expense.

- **Net Loss**: Net loss was $16.8 million for the third quarter of 2016, or a basic and diluted net loss per share available to common stockholders of $0.62, as compared to a net loss of $12.6 million for the same period in 2015, or a basic and diluted net loss per share available to common stockholders of $0.47.

Financial Guidance:

Blueprint Medicines expects that its cash, cash equivalents and investments balance will be at least $120 million at December 31, 2016. Blueprint Medicines expects that its existing cash, cash equivalents and investments will be sufficient to enable it to fund its operating expenses and capital expenditure requirements into early 2018.

Conference Call Information

Blueprint Medicines will host a live conference call and audio webcast today at 8:30 a.m. ET. The conference call may be accessed by dialing 855-728-4793 (domestic) or 503-343-6666 (international) and referring to conference ID 98230163. An audio webcast of the conference call will also be available in the Investors section of Blueprint Medicines' website at http://ir.blueprintmedicines.com. The archived webcast will be available on Blueprint Medicines' website approximately two hours after the conference call and will be available for 30 days following the call.

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. The Company's approach is rooted in a deep understanding of the genetic blueprint of cancer and other diseases driven by the abnormal activation of kinases. Blueprint Medicines is advancing three programs in clinical development for subsets of patients with gastrointestinal stromal tumors, hepatocellular carcinoma and systemic mastocytosis, as well as multiple programs in research and preclinical development. For more information, please visit www.blueprintmedicines.com.

Cautionary Note Regarding Forward-Looking Statements

This press release 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 clinical development of BLU-285 and BLU-554; the timing of clinical data or proof of concept for preclinical and clinical programs, including, without limitation, the timing of preliminary clinical data for Blueprint Medicines' Phase 1 clinical trials for BLU-285 and BLU-554; the potential benefits of Blueprint Medicines' new drug discovery program targeting protein kinase cAMP-activated catalytic subunit alpha fusions for the treatment of fibrolamellar carcinoma; the potential benefits of Blueprint Medicines' companion diagnostic collaboration with QIAGEN Manchester Limited (QIAGEN); expectations regarding Blueprint Medicines' existing cash, cash equivalents and investments; and Blueprint Medicines' strategy, business plans and focus. 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 press release 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 press release, including, without limitation, risks and uncertainties related to the delay of any current or planned clinical trials or the development of Blueprint Medicines' drug product candidates, including BLU-285 and BLU-554; Blueprint Medicines' advancement of multiple early-stage efforts; Blueprint Medicines' ability to successfully demonstrate the efficacy and safety of its drug product candidates; the preclinical and clinical results for Blueprint Medicines' drug product candidates, which may not support further development of such drug product candidates; and actions of regulatory agencies, which may affect the initiation, timing and progress of clinical trials; Blueprint Medicines' ability to develop and commercialize companion diagnostics for its current and future drug candidates, including companion diagnostics for BLU-554 with Ventana Medical Systems, Inc. and for BLU-285 with QIAGEN; and the success of Blueprint Medicines' rare genetic disease collaboration with Alexion Pharma Holding and its 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, 2016, as filed with the Securities and Exchange Commission (SEC) on August 9, 2016, 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.

Blueprint Medicines Corporation
Selected Condensed Consolidated Balance Sheet Data
(in thousands)
(unaudited)

	September 30, 2016	December 31, 2015
Cash, cash equivalents and investments	$ 152,544	$ 162,707
Unbilled accounts receivable	3,455	3,414
Working capital (1)	135,068	151,776
Total assets	167,849	178,898
Deferred revenue	51,347	13,640
Term loan payable	4,887	7,338
Lease incentive obligation	3,515	3,948
Total stockholders' equity	97,710	143,979

(1) Blueprint Medicines defines working capital as current assets less current liabilities.

Blueprint Medicines Corporation
Condensed Consolidated Statements of Operations Data
(in thousands, except per share data)
(unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2016	**2015**	**2016**	**2015**
Collaboration revenue	$ 6,160	$ 3,426	$ 20,081	$ 6,765
Operating expenses:				
Research and development	18,150	11,681	57,058	32,157
General and administrative	4,893	4,222	14,227	10,832
Total operating expenses	23,043	15,903	71,285	42,989
Other income (expense):				
Other income (expense), net	158	6	350	(435)
Interest expense	(109)	(171)	(378)	(535)
Total other income (expense)	49	(165)	(28)	(970)
Net loss	$ (16,834)	$ (12,642)	$ (51,232)	$ (37,194)
Convertible preferred stock dividends	—	—	—	(3,153)
Net loss applicable to common stockholders	$ (16,834)	$ (12,642)	$ (51,232)	$ (40,347)
Net loss per share applicable to common stockholders — basic and diluted	$ (0.62)	$ (0.47)	$ (1.89)	$ (2.64)
Weighted-average number of common shares used in net loss per share applicable to common stockholders — basic and diluted	27,251	26,835	27,170	15,298

Contact:

Investor Relations:
Kristin Williams
Blueprint Medicines Corporation
617-714-6674
KWilliams@blueprintmedicines.com

Media Relations:
Rachel Hutman
W20 Group
301-801-5540
rhutman@wcgworld.com