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): **July 26, 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 1.02 Termination of a Material Definitive Agreement.

On July 26, 2017, Blueprint Medicines Corporation (the "Company") received written notice from Alexion Pharma Holding ("Alexion") of Alexion's election to terminate for convenience the research, development and commercialization agreement, dated March 2, 2015, between Alexion and the Company (the "Agreement"). In accordance with the Agreement, the termination will become effective on October 24, 2017, which is 90 days following the date of receipt of the notice by the Company.

Under the terms of the Agreement, the Company and Alexion agreed to collaborate to research, develop and commercialize one or more drug candidates targeting the ALK2 kinase for the treatment of fibrodysplasia ossificans progressiva ("FOP"). FOP is a rare genetic disease caused by mutations in the ALK2 gene, ACVR1. Pursuant to the Agreement, the Company was responsible for research and preclinical development activities related to any drug candidates, and Alexion was responsible for all clinical development, manufacturing and commercialization activities related to any drug candidates. In addition, Alexion was responsible for funding 100% of the Company's research and development costs incurred under the research plan, including pass-through costs and a negotiated yearly rate per full-time equivalent for the Company's employees' time and their associated overhead expenses.

Effective upon the termination, the Company's exclusivity obligations under the Agreement will terminate, including without limitation, the Company's exclusivity obligations with respect to (i) the treatment of FOP, heterotopic ossification or diffuse intrinsic pontine glioma, (ii) ALK2, including both wild type and mutated forms, and (iii) certain molecules related to the foregoing. In addition, the research term and all licenses granted to Alexion will terminate, and certain licenses granted by Alexion to the Company will survive and become perpetual, irrevocable and non-terminable. Alexion will remain responsible for the Company's non-FTE expenses that were incurred or irrevocably committed to under the research plan up to the date of receipt of the notice of termination by the Company, provided that the Company is obligated to use diligent efforts to mitigate such costs to the extent practicable, and for the Company's FTE expenses for the three month period following the date of receipt of the notice of termination by the Company for personnel that, despite having used diligent efforts, the Company is not able to reallocate from research plan activities to alternative projects. Prior to receipt by the Company of the notice of termination, the Company had received an aggregate amount of $18.8 million in upfront and milestone payments. The Company will not be entitled to receive payment for milestones, if any, achieved after the receipt of the notice of termination but before the effective date of termination.

The Company plans to evaluate opportunities to advance the research program that was the subject of the collaboration with Alexion. Under the terms of the Agreement, the Company has the option to elect to negotiate a transition agreement with Alexion, which under the terms of the Agreement, may cover, among other things, the reversion to the Company of all rights to any compounds that were the subject of the collaboration, the payment by the Company of any fees associated with such reversion, the grant by Alexion of licenses to certain patents, know-how and marks controlled by Alexion and the allocation between the parties of certain wind-down and transfer costs and expenses.

Item 7.01 Regulation FD Disclosure.

On July 27, 2017, the Company issued a press release announcing Alexion's decision to terminate the Agreement for convenience. 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, 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 the Company's strategy, plans and timing for its preclinical program related to FOP; the Company's plans with respect to the reversion of rights to compounds that were the subject of the collaboration; the negotiation of a transition agreement; and the payment of any fees, costs or expenses associated with such transition agreement. 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 Company advancing its preclinical program related to FOP and the Company's advancement of multiple other early-stage efforts; Blueprint Medicines' ability to successfully demonstrate the efficacy and safety of its drug candidates; the preclinical and clinical results for Blueprint Medicines' 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. 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 March 31, 2017, as filed with the Securities and Exchange Commission ("SEC") on May 3, 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 July 27, 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: July 27, 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 July 27, 2017

Blueprint Medicines to Evaluate Opportunities to Advance Rare Disease Discovery Program in Fibrodysplasia Ossificans Progressiva Following Discontinuation of Collaboration with Alexion

CAMBRIDGE, Mass., July 27, 2017 /PRNewswire/ – Blueprint Medicines Corporation (NASDAQ: BPMC), a leader in discovering and developing targeted kinase medicines for patients with genomically defined diseases, today announced plans to evaluate opportunities to advance its rare disease discovery program in fibrodysplasia ossificans progressiva (FOP), which was the subject of Blueprint Medicines' collaboration with Alexion Pharma Holding (Alexion). On July 26, 2017, Blueprint Medicines received written notice from Alexion of its decision to discontinue the collaboration following a strategic review of Alexion's business and research and development portfolio.

"We believe our discovery research program in fibrodysplasia ossificans progressiva represents a potential opportunity to improve the understanding and treatment of this severe rare disease, and we intend to evaluate options to advance preclinical activities within our disciplined portfolio strategy," said Jeff Albers, Chief Executive Officer of Blueprint Medicines. "We thank Alexion and its research team for their support over the last two years, and we wish them well as they chart a new course for their research and development programs. We are also deeply grateful to the patients and families, advocacy group leaders and academic scientists who have contributed to our efforts by offering insights and encouragement."

"We thank Blueprint Medicines for a productive and scientifically driven partnership. Under a refocused research and development strategy across our portfolio, Alexion plans to prioritize key therapeutic categories aligned with our core expertise and capabilities," said James Loerop, Senior Vice President, Global Business Development at Alexion.

In March 2015, Blueprint Medicines and Alexion entered into a research, development and commercialization agreement related to the development of one or more drug candidates for the treatment of FOP. Under the terms of the agreement, Blueprint Medicines was responsible for all research and preclinical development activities related to any drug candidates, and Alexion was responsible for all clinical development, manufacturing and commercialization activities related to any drug candidates. Prior to the notice by Alexion, the parties were evaluating multiple compounds in preclinical development for the treatment of FOP.

Pending its evaluation of opportunities to advance this program, Blueprint Medicines continues to believe its existing cash, cash equivalents and investments, excluding any potential option fees and milestone payments under its existing collaboration with Roche, will be sufficient to enable it to fund its operating expenses and capital expenditure requirements into the second half of 2019.

About Fibrodysplasia Ossificans Progressiva

FOP is a heritable, ultra-rare disorder of the connective tissue that is characterized by the abnormal transformation of skeletal muscle, ligaments and tendons into bone. As the disease progresses, the extra-skeletal bone increasingly restricts joints and other parts of the body. This inevitably leads to severe disability and breathing difficulties due to restricted chest wall expansion, which can be fatal in some

instances. Currently, approved therapies are limited to ameliorating disease symptoms through the administration of steroids.

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 diseases 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.

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 strategy, plans and timing for Blueprint Medicines' preclinical program related to FOP; 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 Blueprint Medicines' advancement of its preclinical program related to FOP and multiple other early-stage efforts; Blueprint Medicines' ability to successfully demonstrate the efficacy and safety of its drug candidates; the preclinical and clinical results for Blueprint Medicines' drug candidates, which may not support further development of such drug candidates; actions of regulatory agencies, which may affect the initiation, timing and progress of clinical trials. 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 March 31, 2017, as filed with the Securities and Exchange Commission (SEC) on May 3, 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.

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