
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

**FORM S-3
REGISTRATION STATEMENT**
*UNDER
THE SECURITIES ACT OF 1933*

FIVE PRIME THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

26-0038620
(I.R.S. Employer
Identification Number)

**111 Oyster Point Boulevard
South San Francisco, California 94080
(415) 365-5600**
(Address, including zip code, and telephone number, including area code of registrant's principal executive offices)

**Aron M. Knickerbocker
President and Chief Executive Officer
Five Prime Therapeutics, Inc.
111 Oyster Point Boulevard
South San Francisco, California 94080
(415) 365-5600**
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

**Laura A. Berezin
Jaime L. Chase
Cooley LLP
3175 Hanover Street
Palo Alto, CA 94304
(650) 843-5000**

**Francis W. Sarena
Chief Strategy Officer and Secretary
Five Prime Therapeutics, Inc.
111 Oyster Point Boulevard
South San Francisco, California 94080
(415) 365-5600**

From time to time after the effective date of this registration statement
(Approximate date of commencement of proposed sale to the public)

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities

Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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 7(a)(2)(B) of the Securities Act.

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered	Proposed Maximum Aggregate Offering Price(1)	Amount of Registration Fee(1)
Common Stock, par value \$0.001 per share(2)	\$250,000,000	\$30,300.00

- (1) Calculated pursuant to Rule 457(o) under the Securities Act of 1933, as amended, or the Securities Act.
- (2) There are being registered hereunder such indeterminate number of shares of common stock to be sold by the registrant from time to time at unspecified prices which shall have an aggregate initial offering price not to exceed \$250,000,000. The proposed maximum offering price per share will be determined, from time to time, by the registrant in connection with the issuance by the registrant of the securities registered hereunder.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

[Table of Contents](#)

The information in this prospectus is not complete and may be changed. We may not sell these securities or accept an offer to buy these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and it is not soliciting offers to buy these securities in any state where such offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED NOVEMBER 6, 2018

PROSPECTUS



\$250,000,000

Common Stock

From time to time, we may offer and sell up to an aggregate amount of \$250,000,000 of shares of our common stock in one or more offerings.

We will provide specific terms of these offerings in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before you invest in any of the shares of common stock being offered.

This prospectus may not be used to consummate a sale of our common stock unless accompanied by a prospectus supplement.

Our common stock is listed on The Nasdaq Global Select Market, or Nasdaq, under the symbol "FPRX." On November 2, 2018, the last reported sale price of our common stock was \$12.83 per share. The applicable prospectus supplement will contain information, where applicable, as to any other listing on Nasdaq or any securities market or other exchange of the shares of common stock, if any, covered by the prospectus supplement.

We will sell shares of our common stock directly to investors, through agents designated from time to time or to or through underwriters or dealers, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section titled "Plan of Distribution" in this prospectus. If any agents or underwriters are involved in the sale of any shares of our common stock with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts or over-allotment options will be set forth in a prospectus supplement. The price to the public of such shares of our common stock and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Investing in shares of our common stock involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading "[Risk Factors](#)" contained in the applicable prospectus supplement and any related free writing prospectus and under similar headings in the other documents that are incorporated by reference into this prospectus as described on page 3 of this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2018.

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS	ii
PROSPECTUS SUMMARY	1
RISK FACTORS	3
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	4
USE OF PROCEEDS	6
DESCRIPTION OF CAPITAL STOCK	7
PLAN OF DISTRIBUTION	11
LEGAL MATTERS	13
EXPERTS	13
WHERE YOU CAN FIND MORE INFORMATION	13
INCORPORATION OF CERTAIN INFORMATION BY REFERENCE	13

ABOUT THIS PROSPECTUS

This prospectus is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under this shelf registration process, we may, from time to time, offer and sell in one or more offerings up to a total dollar amount of \$250,000,000 of shares of our common stock, as described in this prospectus.

Each time we offer shares of our common stock under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in any documents that we have incorporated by reference into this prospectus. You should read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the heading “Incorporation of Certain Information by Reference,” before investing in any of the shares of our common stock offered.

This prospectus may not be used to consummate a sale of shares of our common stock unless it is accompanied by a prospectus supplement.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. We have not authorized anyone to provide you with any information other than that contained or incorporated by reference in this prospectus and any applicable prospectus supplement, along with the information contained in any free writing prospectuses we have authorized for use in connection with a specific offering. You must not rely upon any information or representation that is not contained or incorporated by reference in this prospectus, the accompanying prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus is an offer to sell only the shares of our common stock offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so.

The information appearing in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document, and any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

This prospectus contains and incorporates by reference market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe that these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. Although we are not aware of any misstatements regarding the market and industry data presented in this prospectus or the documents incorporated herein by reference, these estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the section titled “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

This prospectus and the information incorporated herein by reference contains summaries of certain provisions contained in some of the documents described herein, but you should refer to the actual documents for complete information. All the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits

[Table of Contents](#)

to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “Where You Can Find More Information.”

Unless the context indicates otherwise, references in this prospectus to “Five Prime,” “the Company,” “we,” “us,” “our” and similar references refer to Five Prime Therapeutics, Inc. The Five Prime logo is our registered trademark. This prospectus also contains registered marks, trademarks and trade names of other companies. All other trademarks, registered marks and trade names appearing in this prospectus are the property of their respective holders.

PROSPECTUS SUMMARY

The following summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our shares of common stock discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Our Company

We are a clinical-stage biotechnology company focused on discovering and developing innovative protein therapeutics to improve the lives of patients with serious diseases. Each of our product candidates has an innovative mechanism of action and addresses patient populations for which better therapies are needed. Our primary focus is in immuno-oncology, an area in which we have clinical, preclinical, research and discovery programs and collaborations. In addition, we plan to use companion diagnostics where appropriate to allow us to select patients most likely to benefit from treatment with our product candidates. The most advanced product candidates that we or our partners are advancing are identified below.

- **Bemarituzumab (FPA144)** is an antibody that inhibits fibroblast growth factor receptor 2b, or FGFR2b, that we are studying in a clinical trial in combination with 5-fluorouracil (5-FU), leucovorin and oxaliplatin, a standard-of-care chemotherapy regimen known as mFOLFOX6, as front-line treatment of patients with gastric (stomach) or gastroesophageal junction cancer that overexpresses FGFR2b. In December 2017, we entered into a license and collaboration agreement, or the China collaboration agreement, with Zai Lab (Shanghai) Co., Ltd., or Zai Lab, pursuant to which we granted Zai Lab an exclusive license to develop and commercialize bemarituzumab in China, Hong Kong, Macau and Taiwan.
- **Cabiralizumab (FPA008)** is an antibody that inhibits colony stimulating factor-1, or CSF1, receptor, or CSF1R, that we and our partner Bristol-Myers Squibb Company, or BMS, are studying in clinical trials in multiple cancers in combination with BMS’s PD-1 immune checkpoint inhibitor, *Opdivo*[®] (nivolumab). In October 2015, we entered into a license and collaboration agreement, or the cabiralizumab collaboration agreement, with BMS pursuant to which we granted BMS an exclusive worldwide license for the development and commercialization of cabiralizumab.
- **FPA150** is a CD8 T cell checkpoint inhibitor antibody that targets B7-H4 that we are studying in a clinical trial as monotherapy in multiple cancers.
- **FPT155** is a soluble CD80 fusion protein that activates T cells through multiple pathways that we are studying in a clinical trial as monotherapy in multiple cancers.
- **BMS-986258** is an anti-T cell immunoglobulin and mucin domain-3, or TIM-3, antibody, that our partner, BMS, is studying in a clinical trial as a single agent and in combination with each of *Opdivo* and Halozyme Therapeutics, Inc.’s recombinant human hyaluronidase enzyme (rHuPH20) in patients with advanced malignant tumors.

Our differentiated target discovery platform and protein therapeutic capabilities position us to explore pathways in cancer and inflammation and their intersection in immuno-oncology, an area of oncology with significant therapeutic potential and the focus of our activities. We apply our biologics discovery platform to identify and validate targets that we believe could be useful in immuno-oncology and generate and preclinically test therapeutic proteins, including antibodies and fusion proteins, directed to or containing the targets we identify and validate. We plan to continue to advance selected therapeutic candidates into clinical development.

Corporate Information

We were incorporated under the laws of the State of Delaware in December 2001. Our principal executive office is located at 111 Oyster Point Boulevard, South San Francisco, California 94080, and our telephone number is (415) 365-5600. Our website address is www.fiveprime.com. Our website and the information contained on, or that can be accessed through, our website will not be deemed to be incorporated by reference in, and are not considered part of, this prospectus or any prospectus supplement or free writing prospectus. You should not rely on any such information in making your decision whether to purchase our common stock.

The Shares of Common Stock We May Offer

We may offer shares of our common stock up to a total aggregate offering price of \$250,000,000 from time to time in one or more offerings under this prospectus, together with any applicable prospectus supplement and any related free writing prospectus, at prices and on terms to be determined by market conditions at the time of the relevant offering. Each time we offer shares of our common stock under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of offering.

The applicable prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security other than shares of our common stock.

This prospectus may not be used to consummate a sale of our common stock unless it is accompanied by a prospectus supplement.

We may sell shares of our common stock directly to investors or through underwriters, dealers or agents. We, and our underwriters or agents, reserve the right to accept or reject all or part of any proposed purchase of shares of our common stock. If we do offer shares of our common stock through underwriters or agents, we will include in the applicable prospectus supplement:

- the names of those underwriters or agents;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the estimated net proceeds to us.

We may issue shares of our common stock from time to time. Each holder of common stock is entitled to one vote for each share of common stock that holder owns on all matters submitted to a vote of the stockholders and does not have cumulative voting rights. Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose. In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock. Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. We urge you, however, to read the applicable prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) related to any common stock being offered.

RISK FACTORS

Investing in shares of our common stock involves a high degree of risk. You should carefully review the risks and uncertainties described under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in our Annual Report on Form 10-K for the year ended December 31, 2017 and in our most recent Quarterly Report on Form 10-Q, as updated by our subsequent filings, which are incorporated by reference into this prospectus, before deciding whether to purchase any shares of our common stock being registered pursuant to the registration statement of which this prospectus is a part. Each of these risk factors could adversely affect our business, results of operations, financial condition and cash flows, as well as adversely affect the value of an investment in shares of our common stock, and the occurrence of any of these risks might cause you to lose all or part of your investment. Additional risks not presently known to us or that we currently believe are immaterial may also significantly impair our business operations.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference contain forward-looking statements. These are based on our management's current beliefs, expectations and assumptions about future events, conditions and results and on information currently available to us. Discussions containing these forward-looking statements may be found, among other places, in the sections titled "Business," "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference from our Annual Report on Form 10-K for the year ended December 31, 2017 and in our most recent Quarterly Report on Form 10-Q, as well as any amendments thereto, filed with the SEC.

Any statements in this prospectus, or incorporated herein, about our expectations, beliefs, plans, objectives, assumptions or future events or performance are not historical facts and are forward-looking statements. Within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, these forward-looking statements include statements regarding:

- our estimates regarding our expenses, revenues, anticipated capital requirements and our needs for additional financing;
- our receipt of future milestone payments or royalties, and the timing of such payments;
- our and our partners' ability to timely advance drug candidates into and through clinical data readouts and successful completion of clinical trials;
- the timing, progress and results of preclinical studies and research and development programs;
- our expectations regarding the potential safety, efficacy or clinical utility of our product candidates;
- the implementation, timing and likelihood of success of our plans to develop companion diagnostics for our product candidates;
- our ability to establish and maintain collaborations and necessary licenses;
- the implementation of our business model and strategic plans for our business, product candidates and technology;
- the size of patient populations targeted by products we or our partners develop and market adoption of such products by physicians and patients;
- the timing or likelihood of regulatory filings and approvals for products we or our partners develop;
- the ability to negotiate adequate reimbursement and pricing for our drug candidates by third parties and government authorities;
- developments relating to our competitors and our industry; and
- our expectations regarding licensing, acquisitions and strategic operations.

In some cases, you can identify forward-looking statements by terminology such as "anticipate," "believe," "could," "estimate," "expects," "intend," "may," "plan," "potential," "predict," "project," "should," "will," "would," or the negative or plural of any of these terms, and similar expressions intended to identify statements about the future, although not all forward-looking statements contain these words. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements.

You should refer to the "Risk Factors" section contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus, for a discussion of important factors that may cause our actual results to differ

[Table of Contents](#)

materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all.

Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to revise any forward-looking statements to reflect events or developments occurring after the date of this prospectus, even if new information becomes available in the future.

USE OF PROCEEDS

Except as described in any applicable prospectus supplement or in any free writing prospectuses that we may authorize to be provided to you in connection with a specific offering, we currently intend to use the net proceeds from the sale of our shares of common stock offered hereby, if any, for general corporate purposes and working capital requirements. As a result, unless otherwise indicated in any applicable prospectus supplement, our management will have broad discretion to allocate the net proceeds of the offerings. Pending the use of the net proceeds, we intend to invest the net proceeds in a variety of securities, including commercial paper, government and non-government debt securities and/or money market funds that invest in such securities.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our amended and restated certificate of incorporation and amended and restated bylaws are summaries. You should also refer to our amended and restated certificate of incorporation and our amended and restated bylaws, which we have filed with the SEC. See the sections of this prospectus titled “Where You Can Find More Information” and “Incorporation of Certain Information by Reference.”

General

Under our amended and restated certificate of incorporation, we are authorized to issue up to 100,000,000 shares of common stock, par value \$0.001 per share, and 10,000,000 shares of preferred stock, par value \$0.001 per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time.

Common Stock

Voting Rights

Each holder of common stock is entitled to one vote for each share on all matters submitted to a vote of the stockholders. The affirmative vote of holders of at least 66 2/3% of the voting power of all of the then-outstanding shares of capital stock, voting as a single class, will be required to amend certain provisions of our amended and restated certificate of incorporation, including provisions relating to amending our amended and restated bylaws, the classified board, the size of our board, removal of directors, director liability, vacancies on our board, special meetings, stockholder notices, actions by written consent and exclusive jurisdiction.

Dividends

Subject to preferences that may apply to any outstanding preferred stock, holders of our common stock are entitled to receive ratably any dividends that our board of directors may declare out of funds legally available for that purpose on a non-cumulative basis.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and the liquidation preference of any outstanding preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion, subscription or other rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our preferred stock that we may designate in the future.

Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by our stockholders, to issue up to 10,000,000 shares of preferred stock in one or more series and to fix the number, rights, preferences, privileges and restrictions thereof. These rights, preferences and privileges could include dividend rights, conversion rights, voting rights, terms of redemption, liquidation preferences and sinking fund terms, and the number of shares constituting any series or the designation of such

[Table of Contents](#)

series, any or all of which may be greater than the rights of holders of our common stock. The issuance of our preferred stock could adversely affect the voting power of holders of common stock and the likelihood that such holders would receive dividend payments and payments upon liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change of control or other corporate action, or make the removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

Anti-Takeover Provisions

Section 203 of the General Corporation Law of the State of Delaware

We are subject to Section 203 of the General Corporation Law of the State of Delaware, or the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, unless any of the following exceptions apply:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding, but not the outstanding voting stock owned by the interested stockholder, those shares owned (i) by persons who are directors and also officers of the applicable corporation and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a “business combination” to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the entity or person’s affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Among other things, our amended and restated certificate of incorporation and amended and restated bylaws will:

- permit our board of directors to issue up to 10,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change in control;
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that our board of directors will be classified into three classes of directors;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may only be removed for cause, which removal may be effected, subject to any limitation imposed by law, by the holders of at least a majority of the voting power of all of our then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and may not be taken by written consent or electronic transmission;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of our stockholders may be called only by the chairman of our board of directors, our chief executive officer or president or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors; and
- not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The amendment of any of these provisions would require approval by the holders of at least 66 2/3% of the voting power of all our then-outstanding common stock entitled to vote generally in the election of directors, voting together as a single class.

The combination of these provisions will make it more difficult for our stockholders to replace our board of directors as well as for a third party to obtain control of us by replacing our board of directors. Because our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for our stockholders or a third party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce our vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and may have the effect of delaying changes in our control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts. We believe that the benefits of these provisions, including increased protection of our potential ability to negotiate with the proponent of an unfriendly or

[Table of Contents](#)

unsolicited proposal to acquire or restructure our company, outweigh the disadvantages of discouraging takeover proposals, because negotiation of takeover proposals could result in an improvement of their terms.

Choice of Forum

Our amended and restated certificate of incorporation provides that unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the exclusive forum for (1) any derivative action or proceeding brought on our behalf, (2) any action asserting a breach of fiduciary duty owed by, or other wrongdoing by, any director, officer, employee or agent to us or our stockholders, (3) any action asserting a claim against us arising pursuant to the DGCL or our certificate of incorporation or bylaws, (4) any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws, or (5) any action asserting a claim against us that is governed by the internal affairs doctrine.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Computershare Trust Company, N.A. The transfer agent's address is P.O. Box 505000, Louisville, KY 40233-5000.

Listing

Our common stock is listed on Nasdaq under the symbol "FPRX."

PLAN OF DISTRIBUTION

We may sell the shares of our common stock from time to time pursuant to underwritten public offerings, direct sales to the public, negotiated transactions, block trades or a combination of these methods. We may sell the shares of our common stock to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute the shares from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We may also sell shares of common stock covered by this registration statement in an “at-the-market offering,” as defined in Rule 415 of the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of Nasdaq or any other securities exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- other than on Nasdaq or such other securities exchanges or quotation or trading services.

Such at-the-market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the shares of our common stock, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the shares of our common stock and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional shares of our common stock from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchange or market on which the shares of our common stock may be listed.

Only underwriters named in the applicable prospectus supplement are underwriters of the shares of our common stock offered by such prospectus supplement.

If underwriters are used in the sale, they will acquire the shares of our common stock for their own account and may resell the shares of our common stock from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the shares of our common stock will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the shares of our common stock to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all the shares of our common stock offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will identify any such underwriter in the prospectus supplement and describe the nature of such relationship.

[Table of Contents](#)

We may sell shares of our common stock directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of shares of our common stock and describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase shares of our common stock from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to this offering, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short-covering transactions involve purchases of the shares of our common stock in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the shares of our common stock originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the shares of our common stock to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on Nasdaq may engage in passive market making transactions in the securities on Nasdaq in accordance with Rule 103 of Regulation M during the business day prior to the pricing of the offering or before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the shares of our common stock at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

LEGAL MATTERS

Cooley LLP, Palo Alto, California, will pass upon the validity of the shares of common stock offered hereby. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we name in the applicable prospectus supplement.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2017, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and does not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus to any of our contracts, agreements or other documents, the reference may not be complete and you should refer to the exhibits that are a part of the registration statement or the exhibits to the reports or other documents incorporated by reference into this prospectus for a copy of such contract, agreement or other document. We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. We maintain a website at www.fiveprime.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-36070. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on February 27, 2018, and as amended on March 12, 2018;
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2017 from our Definitive Proxy Statement on Schedule 14A, filed with the SEC on March 30, 2018;
- our Quarterly Reports on Form 10-Q for the fiscal quarters ended March 31, 2018, June 30, 2018 and September 30, 2018, filed with the SEC on May 8, 2018, August 8, 2018 and November 6, 2018, respectively;
- our Current Reports on Form 8-K filed with the SEC on January 23, 2018, January 25, 2018 (two reports), March 13, 2018, April 9, 2018, April 10, 2018, April 17, 2018, May 11, 2018, June 4, 2018 and November 5, 2018, to the extent the information in such reports is filed and not furnished; and
- the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on September 16, 2013, including any amendments or reports filed for the purposes of updating this description.

[Table of Contents](#)

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits that are specifically incorporated by reference into such documents. You should direct any requests for documents to Five Prime Therapeutics, Inc., Attn: Investor Relations, 111 Oyster Point Boulevard, South San Francisco, California 94080; telephone: (415) 365-5737.

PART II
INFORMATION NOT REQUIRED IN THE PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth the costs and expenses, other than underwriting discounts and commissions, payable by us in connection with the offering of the securities being registered. All the amounts shown are estimates, except for the SEC registration fee and FINRA filing fee.

SEC registration fee	\$ 31,125
FINRA filing fee	38,000
Accounting fees and expenses	20,000
Legal fees and expenses	100,000
Transfer agent, printing and miscellaneous expenses	25,875
Total	<u>\$215,000</u>

Item 15. Indemnification of Officers and Directors

Under Section 145 of the DGCL, we have broad powers to indemnify our directors and officers against liabilities they may incur in such capacities, including liabilities under the Securities Act. Section 145 of the DGCL generally provides that a Delaware corporation has the power to indemnify its present and former directors, officers, employees and agents against expenses incurred by them in connection with any suit to which they are, or are threatened to be made, a party by reason of their serving in such positions, so long as they acted in good faith and in a manner they reasonably believed to be in or not opposed to the best interests of the corporation and, with respect to any criminal action, they had no reasonable cause to believe their conduct was unlawful.

Our amended and restated certificate of incorporation and amended and restated bylaws provide that we will limit the liability of our directors and may indemnify our directors and officers to the maximum extent permitted by the DGCL. The DGCL provides that directors of a corporation will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except for liability for any:

- breach of their duty of loyalty to the corporation or its stockholders;
- act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or redemption of shares; or
- transaction from which the directors derived an improper personal benefit.

These limitations of liability do not apply to liabilities arising under federal securities laws and do not affect the availability of equitable remedies such as injunctive relief or rescission.

We enter into separate indemnification agreements with our directors and officers in addition to the indemnification provided for in our amended and restated bylaws. These indemnification agreements provide, among other things, that we will indemnify our directors and officers for certain expenses, including damages, judgments, fines, penalties, settlements and costs and attorneys' fees and disbursements, incurred by a director or officer in any claim, action or proceeding arising in his or her capacity as a director or officer of our company or in connection with service at our request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that a director or officer makes a claim for indemnification.

We also maintain a directors' and officers' insurance policy pursuant to which our directors and officers are insured against liability for actions taken in their capacities as directors and officers.

Table of Contents

Item 16. Exhibits and Financial Statement Schedules

<u>Exhibit Number</u>	<u>Description of Document</u>
3.1	<u>Amended and Restated Certificate of Incorporation (incorporated herein by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K (File No. 001-36070), filed with the SEC on September 23, 2013).</u>
3.2	<u>Amended and Restated Bylaws (incorporated herein by reference to Exhibit 3.4 to the Company's Registration Statement on Form S-1 (File No. 333-190194), filed with the SEC on July 26, 2013).</u>
4.1	<u>Form of Common Stock Certificate of the Company (incorporated herein by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-1/A (File No. 333-190194), filed with the SEC on September 4, 2013).</u>
5.1	<u>Opinion of Cooley LLP.</u>
23.1	<u>Consent of Independent Registered Public Accounting Firm.</u>
23.2	<u>Consent of Cooley LLP (included in Exhibit 5.1).</u>
24.1	<u>Power of Attorney (included on signature page).</u>

Item 17. Undertakings

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) to include any prospectus required by Section 10(a)(3) of the Securities Act of 1933, as amended, or the Securities Act;
 - (ii) to reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
 - (iii) to include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that the undertakings set forth in paragraphs (1)(i), (1)(ii) and (1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Exchange Act of 1934, as amended, or the Exchange Act, that are incorporated by reference in this registration statement or are contained in a form of prospectus filed pursuant to Rule 424(b) that is part of this registration statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

[Table of Contents](#)

- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for the purpose of determining liability under the Securities Act to any purchaser:
- (i) each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof; *provided, however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; or
 - (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (7) That, for purposes of determining any liability under the Securities Act:
- (i) the information omitted from the form of prospectus filed as part of the registration statement in reliance upon Rule 430A and contained in the form of prospectus filed by the registrant pursuant to

[Table of Contents](#)

Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be a part of the registration statement as of the time it was declared effective; and

- (ii) each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, State of California, on the 6th day of November, 2018.

FIVE PRIME THERAPEUTICS, INC.

By: /s/ Aron M. Knickerbocker
Aron M. Knickerbocker
President and Chief Executive Officer

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Aron M. Knickerbocker and Francis W. Sarena, and each of them, his true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments (including post-effective amendments) to this registration statement together with all schedules and exhibits thereto and any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith, (iii) act on and file any supplement to any prospectus included in this registration statement or any such amendment or any subsequent registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, and (iv) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Aron M. Knickerbocker</u> Aron M. Knickerbocker	Chief Executive Officer, President and Director (Principal Executive Officer)	November 6, 2018
<u>/s/ Linda Rubinstein</u> Linda Rubinstein	Interim Chief Financial Officer (Principal Financial and Accounting Officer)	November 6, 2018
<u>/s/ Lewis T. Williams, M.D., Ph.D.</u> Lewis T. Williams, M.D., Ph.D.	Executive Chairman and Director	November 6, 2018
<u>/s/ Franklin M. Berger</u> Franklin M. Berger	Director	November 6, 2018
<u>/s/ Kapil Dhingra, M.B.B.S.</u> Kapil Dhingra, M.B.B.S.	Director	November 6, 2018
<u>/s/ Gary Nicholson</u> Gary Nicholson	Director	November 6, 2018
<u>/s/ Sheila Gujrathi, M.D.</u> Sheila Gujrathi, M.D.	Director	November 6, 2018
<u>/s/ Peder K. Jensen, M.D.</u> Peder K. Jensen, M.D.	Director	November 6, 2018

[Table of Contents](#)

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<hr/> /s/ Mark McDade Mark McDade	Director	November 6, 2018
<hr/> /s/ William Ringo William Ringo	Director	November 6, 2018



Laura A. Berezin
+1 650 843 5128
lberezin@cooley.com

November 6, 2018

Five Prime Therapeutics, Inc.
Two Corporate Drive
South San Francisco, CA 94080

Ladies and Gentlemen:

We have acted as counsel to Five Prime Therapeutics, Inc., a Delaware corporation (the "**Company**"), in connection with the filing of a Registration Statement on Form S-3 (the "**Registration Statement**") by the Company under the Securities Act of 1933, as amended (the "**Securities Act**"). The Registration Statement includes a prospectus (the "**Base Prospectus**") that provides it will be supplemented in the future by one or more prospectus supplements (each, a "**Prospectus Supplement**"). The Registration Statement, including the Base Prospectus as supplemented from time to time by one or more Prospectus Supplements, will provide for the registration by the Company of the offer and sale of shares of common stock, par value \$0.001 per share, of the Company (the "**Common Stock**"). The Common Stock is being registered for offer and sale from time to time pursuant to Rule 415 under the Securities Act.

In connection with this opinion, we have examined and relied upon originals, or copies certified to our satisfaction, of such records, documents, certificates, opinions, memoranda and other instruments as in our judgment are necessary or appropriate to enable us to render the opinion expressed below. As to certain factual matters, we have relied upon a certificate of an officer of the Company and have not independently verified such matters.

In rendering this opinion, we have assumed the genuineness and authenticity of all signatures on original documents; the authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as copies; the accuracy, completeness and authenticity of certificates of public officials; and the due authorization, execution and delivery of all documents where authorization, execution and delivery are prerequisites to the effectiveness of such documents. We have assumed that, at the time of issuance and sale, a sufficient number of shares of Common Stock is authorized and available for issuance and that the consideration for the issuance and sale of the Common Stock is in an amount that is not less than the par value of the Common Stock.

Our opinion herein is expressed solely with respect to the General Corporation Law of the State of Delaware. Our opinion is based on these laws as in effect on the date hereof. We express no opinion to the extent that any other laws are applicable to the subject matter hereof and express no opinion and provide no assurance as to compliance with any federal or state securities law, rule or regulation.

On the basis of the foregoing and in reliance thereon, and subject to the qualifications herein stated, we are of the opinion that, provided that (i) the Registration Statement and any required



Five Prime Therapeutics, Inc.
Page Two

post-effective amendment thereto have become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the issuance of the Common Stock has been duly authorized by all necessary corporate action on the part of the Company; (iii) the issuance and sale of the Common Stock do not violate any applicable law, are in conformity with the Company's then operative certificate of incorporation and bylaws do not result in a default under or breach of any agreement or instrument binding upon the Company and comply with any applicable requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (iv) the certificates, if any, for the Common Stock have been duly executed by the Company, countersigned by the transfer agent therefor and duly delivered to the purchasers thereof against payment therefor, then the Common Stock, when issued and sold as contemplated in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s), and in accordance with a duly authorized, executed and delivered purchase, underwriting or similar agreement, will be validly issued, fully paid and non-assessable.

[SIGNATURE PAGE FOLLOWS]



Five Prime Therapeutics, Inc.
Page Three

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption “Legal Matters” in the Base Prospectus. We further consent to the incorporation by reference of this opinion into any registration statement or post-effective amendment thereto filed pursuant to Rule 462(b) under the Securities Act with respect to additional Securities, and any such additional Securities will also be covered by this opinion.

Our opinion set forth above is limited to the matters expressly set forth in this letter, and no opinion is implied or may be inferred beyond the matters expressly stated. This opinion speaks only as to law and facts in effect or existing as of the date hereof, and we undertake no obligation or responsibility to update or supplement this opinion to reflect any facts or circumstances that may hereafter come to our attention or any changes in law that may hereafter occur. Sincerely,

Cooley LLP

By: /s/ Laura A. Berezin

LAURA A. BEREZIN

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form S-3) and related Prospectus of Five Prime Therapeutics, Inc. for the registration of up to \$250,000,000 of common stock and to the incorporation by reference therein of our report dated February 27, 2018 with respect to the financial statements of Five Prime Therapeutics included in its Annual Report (Form 10-K) for the year ended December 31, 2017, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Francisco, California
November 6, 2018