

FATE THERAPEUTICS INC
Form 424B5
September 21, 2018
[Table of Contents](#)

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-224680

PROSPECTUS SUPPLEMENT

(to Prospectus dated May 14, 2018)

9,259,260 Shares

Fate Therapeutics, Inc.

Common Stock

We are offering 9,259,260 shares of our common stock. Our common stock is listed on The Nasdaq Global Market under the symbol FATE. On September 20, 2018, the last reported sale price of our common stock on The Nasdaq Global Market was \$14.03 per share.

We are an emerging growth company under applicable Securities and Exchange Commission rules and are subject to reduced public company reporting requirements.

Investing in our common stock involves a high degree of risk. See [Risk Factors](#) beginning on page S-6 of this prospectus supplement, on page 2 of the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement.

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

	PER SHARE	TOTAL
Public offering price	\$ 13.50	\$ 125,000,010
Underwriting discounts and commissions ⁽¹⁾	\$ 0.81	\$ 7,500,001
Proceeds to Fate Therapeutics, Inc., before expenses	\$ 12.69	\$ 117,500,009

(1) See Underwriting for a description of the compensation payable to the underwriters. Entities affiliated with Redmile Group, LLC (collectively, Redmile), which are existing stockholders, have agreed to purchase an aggregate of 3,703,704 shares of our common stock in this offering at the public offering price and on the same terms as the other purchasers in this offering. The underwriters will receive the same underwriting discount on any shares purchased by Redmile as they will on any other shares sold to the public in this offering. Michael Lee, one of our directors, is an affiliate of Redmile.

Delivery of the shares of common stock is expected to be made on or about September 25, 2018. We have granted the underwriters an option for a period of 30 days to purchase an additional 1,388,889 shares of our common stock. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be \$8,625,001, and the total proceeds to us, before expenses, will be \$135,125,011.

Joint Book-Running Managers

Jefferies

Piper Jaffray
Co-Manager

Wells Fargo Securities

Wedbush PacGrow

Prospectus Supplement dated September 20, 2018

Table of Contents

TABLE OF CONTENTS

	PAGE
Prospectus Supplement	
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	S-ii
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	S-1
<u>RISK FACTORS</u>	S-6
<u>CAUTIONARY STATEMENT ON FORWARD-LOOKING STATEMENTS</u>	S-9
<u>USE OF PROCEEDS</u>	S-11
<u>CAPITALIZATION</u>	S-12
<u>DILUTION</u>	S-13
<u>PRICE RANGE OF OUR COMMON STOCK</u>	S-15
<u>DIVIDEND POLICY</u>	S-16
<u>MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS</u>	S-17
<u>UNDERWRITING</u>	S-21
<u>LEGAL MATTERS</u>	S-29
<u>EXPERTS</u>	S-30
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	S-31
<u>INFORMATION INCORPORATED BY REFERENCE</u>	S-32
Prospectus	
<u>ABOUT THIS PROSPECTUS</u>	1
<u>RISK FACTORS</u>	2
<u>CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS</u>	3
<u>THE COMPANY</u>	5
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	6
<u>USE OF PROCEEDS</u>	7
<u>SECURITIES WE MAY OFFER</u>	8
<u>DESCRIPTION OF CAPITAL STOCK</u>	9
<u>DESCRIPTION OF DEBT SECURITIES</u>	15
Table of Contents	3

<u>DESCRIPTION OF WARRANTS</u>	22
<u>DESCRIPTION OF UNITS</u>	23
<u>PLAN OF DISTRIBUTION</u>	26
<u>LEGAL MATTERS</u>	29
<u>EXPERTS</u>	30
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	31
<u>INCORPORATION BY REFERENCE</u>	32

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document contains two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and also supplements and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information, some of which may not apply to this offering. If the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or in any document incorporated by reference herein or therein that was filed with the Securities and Exchange Commission (SEC) before the date of this prospectus supplement, you should rely on the information set forth in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a subsequently filed document deemed incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

You should rely only on the information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus. We have not, and the underwriters have not, authorized anyone to provide you with information that is in addition to or different from that contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus or contained in any permitted free writing prospectus we have authorized for use in connection with this offering. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may provide.

We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where such offers and sales are permitted. The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of the date of this prospectus supplement or the date of the accompanying prospectus, and the information in the documents incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate only as of the dates of those respective documents, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or of any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since those dates. It is important for you to read and consider all information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled **Where You Can Find More Information** and **Information Incorporated By Reference**.

Unless otherwise indicated or the context otherwise requires, references in this prospectus supplement and the accompanying prospectus to the Company, we, us and our refer to Fate Therapeutics, Inc. and its consolidated subsidiaries.

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference contain estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

For investors outside the United States: We have not and the underwriters have not done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

S-ii

Table of Contents**PROSPECTUS SUPPLEMENT SUMMARY**

*This summary highlights selected information contained elsewhere or incorporated by reference into this prospectus supplement and the accompanying prospectus and does not contain all of the information that you should consider before investing in our securities. Before investing in our common stock, you should carefully read this entire prospectus supplement and the accompanying prospectus, including the section titled *Risk Factors* in this prospectus supplement and the accompanying prospectus and the section titled *Risk Factors* and the financial statements and accompanying notes and other information incorporated by reference into this prospectus supplement and the accompanying prospectus.*

Our Company

We are a clinical-stage biopharmaceutical company dedicated to the development of programmed cellular immunotherapies for cancer and immune disorders. We are developing first-in-class cell therapy product candidates based on a simple notion: we believe that better cell therapies start with better cells.

To create better cell therapies, we use a therapeutic approach that we generally refer to as cell programming. For certain of our cell therapy product candidates, we use pharmacologic modulators, such as small molecules, to enhance the biological properties and therapeutic function of cells *ex vivo* before our product candidates are administered to a patient. In other cases, we use human induced pluripotent stem cells (iPSCs) to generate a clonal master iPSC line having preferred biological properties and direct the fate of the clonal master iPSC line to create a homogeneous population of our cell therapy product candidate. We believe the use of clonal master iPSC lines may enable the creation of cell therapy product candidates that are well-defined and uniform in composition; that can be reproducibly manufactured at significant scale; and that can be effectively used to treat a large number of patients in an off-the-shelf manner.

Utilizing these therapeutic approaches, we program cells of the immune system, including natural killer (NK) cells, T cells and CD34+ cells, and are advancing a pipeline of programmed cellular immunotherapies in the therapeutic areas of immuno-oncology and immuno-regulation.

The following table summarizes our programmed cellular immunotherapies currently under development and our cell programming partnerships:

PROGRAM	STAGE OF DEVELOPMENT	THERAPEUTIC AREA	COMMERCIAL RIGHTS
<i>Immuno-Oncology</i>			
FATE-NK100	Phase 1	Relapsed / Refractory AML	Worldwide
FATE-NK100	Phase 1	Recurrent Ovarian Cancer	Worldwide
FATE-NK100	Phase 1	Advanced Solid Tumors	Worldwide
FT500	IND Submitted	Advanced Solid Tumors	Worldwide
FT516	Preclinical		Worldwide

		Hematologic / Solid Tumors	
FT819	Preclinical	Hematologic Malignancies	Worldwide
FT-ONO1	Research	Hematologic Malignancies	Joint ¹
FT-ONO2	Research	Advanced Solid Tumors	Joint ¹
<i>Immuno-Regulation</i>			
ProTmune	Phase 2	Prevention of Acute GvHD	Worldwide
ToleraCyte	Preclinical	Type 1 Diabetes	Worldwide
FT300	Preclinical	Immune Disorders	Worldwide
<i>Cell Programming Partnership</i>			
Engineered CAR / TCR T Cells ²	Preclinical	Hematologic / Solid Tumors	Juno Therapeutics

¹ Subject to the Collaboration Agreement (as defined below).

² Collaboration excludes all cell types derived from induced pluripotent stem cells including engineered T cells.

Table of Contents**Recent Developments**

Collaboration with ONO Pharmaceutical. On September 14, 2018, we entered into a Collaboration and Option Agreement (the Collaboration Agreement), with Ono Pharmaceutical Co. Ltd. (Ono), for the joint development and commercialization of two off-the-shelf, iPSC-derived chimeric antigen receptor (CAR) T-cell product candidates. The first iPSC-derived CAR T-cell candidate (Candidate 1) targets an antigen expressed on certain lymphoblastic leukemias, and the second candidate (Candidate 2) targets a novel antigen identified by Ono expressed on certain solid tumors. Pursuant to the Collaboration Agreement, we and Ono will jointly conduct research and development activities under a joint development plan, with the goal of advancing each candidate to a pre-defined preclinical milestone. We have granted to Ono an option to obtain an exclusive license under certain intellectual property rights related to our iPSC product platform to develop and commercialize (a) Candidate 1 in Asia, with us retaining rights for development and commercialization in all other territories of the world and (b) Candidate 2 in all territories of the world, with us retaining the right to co-develop and co-commercialize Candidate 2 in the United States and Europe. We have maintained worldwide manufacturing rights for both candidates.

Exclusive License Agreement with the J. David Gladstone Institutes. On September 11, 2018, we entered into an exclusive license agreement with the J. David Gladstone Institutes under which we obtained an exclusive license to certain patents and patent applications (the Patent Rights) for the research, development, manufacturing, and commercialization of human therapeutics derived from iPSCs. The Patent Rights cover the use of the clustered regularly interspaced short palindromic repeat (CRISPR) and engineered nuclease-deactivated CRISPR-associated protein-9 system, known as the CRISPR activation system, for cellular reprogramming and iPSC generation.

ProTmune. On August 6, 2018, we reported that 20 subjects had been treated in the randomized, controlled and double-blinded Phase 2 PROTECT study. We have submitted an abstract to present clinical data from the seven subjects that were administered ProTmune in the Phase 1 stage of PROTECT, including data on a key secondary endpoint assessing freedom from chronic graft-versus-host disease (GvHD), cancer relapse and death at 1-year following hematopoietic cell transplantation, at the 2018 ASH Annual Meeting.

FATE-NK100. Subjects have been treated with FATE-NK100 in the Phase 1 VOYAGE study and the Phase 1 APOLLO study at the Masonic Cancer Center, University of Minnesota, and in the Phase 1 DIMENSION study at the Baylor Charles A. Sammons Cancer Center in Dallas and the Masonic Cancer Center, University of Minnesota. We plan to present additional clinical data for FATE-NK100 in the fourth quarter of 2018.

FT500. In July 2018, we submitted an Investigational New Drug (IND) application to the U.S. Food and Drug Administration (FDA) for FT500, the first product candidate emerging from our industry-leading iPSC product platform. We plan to clinically investigate FT500, a universal, off-the-shelf NK cell product, in combination with FDA-approved checkpoint inhibitors. In August 2018, the FDA issued a letter informing us of a deficiency in our IND submission that requires resolution before we can proceed with human clinical investigation of FT500. Specifically, the FDA requested that we conduct, and submit results that are satisfactory to the FDA from, adventitious agents testing of the master iPSC bank used for the production of FT500. We are currently conducting adventitious agents testing of the master iPSC bank, and expect to submit our response to the FDA in the fourth quarter of 2018.

Collaboration with Memorial Sloan Kettering Cancer Center. In May 2018, we expanded our existing license agreement with Memorial Sloan Kettering Cancer Center to further enable the development of off-the-shelf, iPSC-derived CAR T-cell immunotherapies, including our universal, off-the-shelf CAR19 T-cell product candidate FT819. The newly-licensed portfolio of intellectual property covers certain patents and patent applications relating to novel CAR constructs and off-the-shelf CAR T cells, including the use of CRISPR and other innovative technologies for their production.

S-2

Table of Contents

Corporate Information

We were incorporated in Delaware in 2007, and are headquartered in San Diego, CA. Our principal executive office is located at 3535 General Atomics Court, Suite 200, San Diego, CA 92121, and our telephone number is (858) 875-1800. Our website address is www.fatetherapeutics.com. We do not incorporate the information on or accessible through our website into this prospectus supplement, and you should not consider any information on, or that can be accessed through, our website a part of this prospectus supplement.

We own various U.S. federal trademark registrations and applications, and unregistered trademarks, including the following marks referred to in this document: Fate Therapeutics®, our corporate logo, ProTmune™ and ToleraCyte™. All other trademarks or trade names referred to in this document are the property of their respective owners. Solely for convenience, the trademarks and trade names in this document are referred to without the symbols® and ™, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

On October 4, 2013, we completed our initial public offering. We qualify as an emerging growth company as defined in the Jumpstart Our Business Startups Act of 2012, as amended. As an emerging growth company, we may take advantage of specified reduced disclosure and other requirements that are otherwise applicable generally to public companies. We will cease to be an emerging growth company on the date that is the earliest of: (i) the last day of the fiscal year in which we have total annual gross revenues of \$1.07 billion or more; (ii) December 31, 2018; (iii) the date on which we have issued more than \$1 billion in nonconvertible debt during the previous three years; or (iv) the date on which we are deemed to be a large accelerated filer under the rules of the SEC.

Table of Contents

THE OFFERING

Common stock offered by us	9,259,260 shares
Common stock to be outstanding immediately after this offering	62,647,680 shares
Option to purchase additional shares	We have granted the underwriters a 30-day option to purchase up to an additional 1,388,889 shares of common stock at the public offering price, less the underwriting discounts and commissions.
Use of proceeds	We expect to receive net proceeds from this offering of approximately \$117.2 million (or approximately \$134.8 million if the underwriters exercise their option to purchase additional shares in full), after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We currently intend to use the net proceeds from this offering to fund clinical trials and nonclinical studies, the manufacture of clinical product candidates and the conduct of preclinical research and development, and for general corporate purposes. See Use of Proceeds.
Risk factors	Investing in our securities involves risks. See Risk Factors beginning on page S-6 of this prospectus supplement and the risk factors described in the accompanying prospectus and in the documents incorporated by reference herein and therein for a discussion of the factors you should carefully consider before deciding to invest in our common stock.

Nasdaq Global Market symbol

FATE

Unless otherwise indicated, all information in this prospectus supplement relating to the number of shares of our common stock to be outstanding immediately after this offering is based on 53,388,420 shares of common stock outstanding as of June 30, 2018, and excludes, in each case as of that date:

14,097,745 shares of common stock issuable upon the conversion of 2,819,549 shares of our Class A convertible preferred stock;

7,173,509 shares of common stock issuable upon the exercise of stock options outstanding at a weighted-average exercise price of \$4.56 per share;

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188,625 shares of common stock issuable upon the vesting and settlement of outstanding restricted stock units (RSUs) under our equity incentive plans at a weighted-average grant date fair value of \$4.89 per share;

176,557 shares of common stock issuable upon the exercise of warrants outstanding at a weighted-average exercise price of \$4.31 per share;

3,780,920 shares of common stock available for issuance under our Amended and Restated 2013 Stock Option and Incentive Plan (2013 Plan) as well as any future increases in the number of shares of our common stock reserved for issuance under the 2013 Plan pursuant to evergreen provisions;

729,000 shares of common stock available for issuance under our 2013 Employee Stock Purchase Plan (ESPP) as well as any future increases in the number of shares of our common stock reserved for issuance under the ESPP pursuant to evergreen provisions; and

500,000 shares of common stock available for issuance under our Inducement Equity Plan (Inducement Plan).

Table of Contents

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of their option to purchase up to an additional 1,388,889 shares of our common stock.

Entities affiliated with Redmile, which are existing stockholders, have agreed to purchase an aggregate of 3,703,704 shares of our common stock in this offering at the public offering price and on the same terms as the other purchasers in this offering. The underwriters will receive the same underwriting discount on any shares purchased by Redmile as they will on any other shares sold to the public in this offering. Michael Lee, one of our directors, is an affiliate of Redmile.

S-5

Table of Contents**RISK FACTORS**

Investing in our common stock involves a high degree of risk. Before making an investment decision, you should carefully consider the risks described below and in our Annual Report on Form 10-K for the year ended December 31, 2017 (2017 10-K) and our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2018 and June 30, 2018, each incorporated by reference into this prospectus supplement and the accompanying prospectus, any amendment or update thereto reflected in our subsequent filings with the SEC, and all of the other information into this prospectus supplement and the accompanying prospectus, including our financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus. If any of these risks is realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the trading price of our common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties that are not yet identified or that we currently believe to be immaterial may also materially harm our business, operating results and financial condition and could result in a complete loss of your investment.

Risks Related to This Offering and Our Common Stock

We have broad discretion in the use of the net proceeds from this offering and our existing cash and may not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section titled Use of Proceeds, as well as our existing cash, and you will be relying on the judgment of our management regarding such application. You will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Our management might not apply the net proceeds or our existing cash in ways that ultimately increase the value of your investment. If we do not invest or apply the net proceeds from this offering or our existing cash in ways that enhance stockholder value, we may fail to achieve expected results, which could cause our stock price to decline. Pending their use, we may invest the net proceeds from this offering in short-term, interest-bearing instruments. These investments may not yield a favorable return to our stockholders.

If you purchase our common stock in this offering, you will incur immediate and substantial dilution in the book value of your shares. You will experience further dilution if we issue additional equity securities in the future.

Since the price per share of our common stock being offered is substantially higher than the net tangible book value per share of our common stock, you will suffer substantial dilution with respect to the net tangible book value of the common stock you purchase in this offering. Our net tangible book value as of June 30, 2018 was approximately \$51.8 million, or \$0.97 per share of our common stock, based upon 53,388,420 shares of common stock outstanding on June 30, 2018. Based on the public offering price of \$13.50 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2018, would have been approximately \$169.0 million, or approximately \$2.70 per share of our common stock. As a result, investors purchasing shares of common stock in this offering will incur immediate dilution of \$10.80 per share. See Dilution for a more detailed discussion of the dilution you will incur if you purchase common stock in this offering.

In addition, we have a significant number of stock options, RSUs, warrants and shares of preferred stock outstanding. To the extent that outstanding stock options, RSUs, warrants or shares of preferred stock have been or may be exercised, settled or converted or other shares issued, investors purchasing our common stock in this offering may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic

considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders or result in downward pressure on the price of our common stock.

Sales of a substantial number of shares of our common stock in the public market could cause our stock price to fall.

Sales of a substantial number of shares of our common stock in the public market or the perception that these sales might occur could depress the market price of our common stock and could impair our ability to raise capital

Table of Contents

through the sale of additional equity securities. We are unable to predict the effect that sales may have on the prevailing market price of our common stock. In addition, the sale of substantial amounts of our common stock could adversely impact its price. As of June 30, 2018, we had outstanding 53,388,420 shares of our common stock, options to purchase 7,173,509 shares of our common stock, 188,625 shares of our common stock underlying RSUs, warrants to purchase 176,557 shares of our common stock, and 14,097,745 shares of common stock issuable upon the conversion of all of our outstanding shares of Class A convertible preferred stock. The sale or the availability for sale of a large number of shares of our common stock in the public market could cause the price of our common stock to decline.

We, our executive officers and directors have agreed, subject to specified exceptions, not to directly or indirectly:

sell, offer, contract or grant any option to sell (including any short sale), pledge, transfer, establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended (Exchange Act),

otherwise dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially, or

publicly announce an intention to do any of the foregoing for a period of 60 days after the date of this prospectus supplement without the prior written consent of Jefferies LLC.

This restriction terminates after the close of trading of the common stock on and including the 60th day after the date of this prospectus supplement. Jefferies LLC may, in its sole discretion and at any time or from time to time before the termination of the 60-day period release all or any portion of the securities subject to lock-up agreements.

These lock-up agreements affect approximately 3,576,555 shares of our common stock currently outstanding. Sales of stock by any of our executive officers or directors could have a material adverse effect on the trading price of our common stock.

We do not intend to pay dividends on our common stock. Until such time as we pay cash dividends, our stockholders must rely on increases in our stock price for appreciation.

We have never declared or paid dividends on our capital stock. We do not anticipate paying any dividends on our capital stock in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. In addition, the terms of our loan and security agreement with Silicon Valley Bank (as amended, the SVB Term Loan) restrict our ability to pay dividends. Any future determination to declare dividends will be subject to the discretion of our board of directors and will depend on various factors, including applicable laws, our results of operations, financial condition, future prospects and any other factors deemed relevant by our board of directors. Until such time as we determine to pay cash dividends on our common stock, our stockholders must rely on increases in the market price of our common stock for appreciation of their respective investments

Our principal stockholders exercise significant control over our company.

As of September 17, 2018, our executive officers, directors and entities affiliated with our five percent stockholders beneficially own, in the aggregate, shares representing approximately 47% of our outstanding voting stock. Additionally, as of September 17, 2018, if, in accordance with the CoD (as such term is defined in Note 6 to our consolidated financial statements included in our 2017 10-K, which is incorporated by reference herein) relating to our Class A convertible preferred stock, Redmile elects to remove certain limitations on the percentage of our outstanding common stock that it may own such that the 2,819,549 shares of Class A convertible preferred stock currently held by Redmile become fully convertible at Redmile's option into 14,097,745 shares of common stock, the beneficial ownership of our executive officers, directors and entities affiliated with our five percent stockholders would increase to approximately 58%.

Entities affiliated with Redmile, which are existing stockholders, have agreed to purchase an aggregate of 3,703,704 shares of our common stock in this offering at the public offering price and on the same terms as the other purchasers in this offering. Upon the closing of this offering and the purchase of an aggregate of 3,703,704 shares of our common stock by Redmile in the offering, Redmile will, in the aggregate, beneficially own

Table of Contents

approximately 17% of our outstanding common stock. Additionally, upon the consummation of this offering, our executive officers, directors and entities affiliated with our five percent stockholders will beneficially own, in the aggregate, shares representing approximately 46% of our outstanding voting stock, and if, in accordance with the CoD relating to our Class A convertible preferred stock, Redmile elected to remove certain limitations on the percentage of our outstanding common stock that it may own such that the 2,819,549 shares of Class A convertible preferred stock currently held by Redmile become fully convertible at Redmile's option into 14,097,745 shares of common stock, the beneficial ownership of our executive officers, directors and entities affiliated with our five percent stockholders would increase to approximately 56%.

Redmile and our other principal stockholders may have interests different than yours. Although we are not aware of any voting arrangements in place among these stockholders, if these stockholders were to choose to act together, as a result of their stock ownership, they would be able to influence our management and affairs and control all matters submitted to our stockholders for approval, including the election of directors and approval of any merger, consolidation or sale of all or substantially all of our assets. This concentration of ownership may also have the effect of delaying or preventing a change in control of our company or affecting the liquidity and volatility of our common stock, and might affect the market price of our common stock.

Comprehensive tax reform legislation could adversely affect our business and financial condition.

On December 22, 2017, the U.S. government enacted the Tax Cuts and Jobs Act of 2017 (the Tax Act), that includes significant changes to the taxation of business entities. These changes include, among others, a permanent reduction to the corporate income tax rate, limiting interest deductions, limiting the deduction for net operating losses and eliminating net operating loss carrybacks (though any such tax losses may be carried forward indefinitely), in each case, for losses arising in our taxable years beginning after December 31, 2017, allowing for the expensing of capital expenditures and modifying or repealing many business deductions and credits (including reducing the business tax credit for certain clinical testing expenses incurred in the testing of certain drugs for rare diseases or conditions generally referred to as orphan drugs). We continue to examine the impact this tax reform legislation may have on our business. However, the effect of the Tax Act on our business, whether adverse or favorable, is uncertain, and may not become evident for some period of time. We urge you to consult with your own legal and tax advisors with respect to applicable tax laws, including this legislation, and the potential tax consequences of investing in our common stock.

Our ability to use our net operating loss carryforwards and certain other tax benefits may be limited and, as a result, our future tax liability may increase.

As of December 31, 2017, we had federal and California net operating loss carryforwards of \$121.2 million and \$120.8 million, respectively, which begin to expire in various amounts in 2027. As of December 31, 2017, we also had federal and California research and development tax credit carryforwards of \$5.7 million and \$4.2 million, respectively. The federal research and development tax credit carryforwards will begin to expire in 2035 unless previously utilized, while the California carryforwards will carry forward indefinitely. These net operating loss and tax credit carryforwards could expire unused and be unavailable to offset future income tax liabilities. In addition, in general, under Sections 382 and 383 of the Internal Revenue Code of 1986, as amended, a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating losses or tax credits, or NOLs or credits, to offset future taxable income or taxes. Generally, a change of more than 50 percentage points in the ownership of a corporation's stock, by value, over a three-year period constitutes an ownership change for U.S. federal income tax purposes. We have determined that we triggered an ownership change limitation in November 2009 and again in May 2015. We have determined that there we do not believe there were any ownership changes from May 2015 through December 2017. We have not analyzed periods subsequent to December 2017. We may experience additional ownership changes as a result of shifts in our stock ownership in the future. Limits on our ability

to use our pre-change NOLs or credits to offset U.S. federal taxable income could potentially result in increased future tax liability to us if we earn net taxable income in the future. In addition, under the Tax Act the amount of NOLs generated in taxable periods beginning after December 31, 2017, that we are permitted to deduct in any taxable year is limited to 80% of our taxable income in such year, where taxable income is determined without regard to the NOL deduction itself. The Tax Act generally eliminates the ability to carry back any NOL to prior taxable years, while allowing post-2017 unused NOLs to be carried forward indefinitely.

S-8

Table of Contents

CAUTIONARY STATEMENT ON FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents that we incorporate by reference, contain forward-looking statements that involve risks and uncertainties, as well as assumptions that, even if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. We make such forward-looking statements pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 and other federal securities laws. All statements other than statements of historical facts contained in this prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference herein and therein, are forward-looking statements. In some cases, you can identify forward-looking statements by words such as anticipate, believe, contemplate, continue, could, expect, intend, may, plan, potential, predict, project, seek, should, target, will, would, or the other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

the initiation, timing, progress and results of our ongoing and planned clinical trials, preclinical studies, and research and development programs;

our ability to advance our product candidates into clinical development, including under the IND application for our FT500 product candidate, and to successfully conduct and complete clinical trials;

the timing and likelihood of, and our ability to obtain and maintain regulatory approval of our product candidates;

the potential benefits of strategic collaboration agreements and our ability, and the ability of our collaborators, to successfully develop product candidates under the respective collaborations, including the recent collaboration agreement entered into with Ono;

our ability to enroll patients in our ongoing and planned clinical trials in a timely manner;

the performance of third parties in connection with the development and manufacture of our product candidates, including third parties conducting our clinical trials as well as third-party suppliers and manufacturers;

our ability to manufacture our product candidates for clinical development and, if approved, for commercialization, and the timing and costs of such manufacture;

our ability to develop sales and marketing capabilities, whether alone or with actual or potential collaborators, to commercialize our product candidates, if approved;

our ability to successfully commercialize our product candidates, if approved;

the size and growth of the potential markets for our product candidates and our ability to serve those markets;

regulatory developments and approval pathways in the United States and foreign countries for our product candidates;

the potential scope and value of our intellectual property rights;

our ability, and the ability of our licensors, to obtain, maintain, defend and enforce intellectual property rights protecting our product candidates, and our ability to develop and commercialize our product candidates without infringing the proprietary rights of third parties;

our ability to retain and recruit key personnel;

our ability to obtain funding for our operations;

the implementation of our business model, strategic plans for our business, product candidates and technology;

the accuracy of our estimates regarding our expenses, ongoing losses, capital requirements and revenues;

developments relating to our competitors and our industry; and

other risks and uncertainties, including those described or incorporated by reference under the caption "Risk Factors" in this prospectus supplement and the accompanying prospectus.

Any forward-looking statements in this prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference herein and therein, reflect our current views with respect to future events or to our

Table of Contents

future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by these forward-looking statements. Factors that may cause actual results to differ materially from current expectations include, among other things, those referenced in the section **Risk Factors** and elsewhere in this prospectus and the documents that we incorporate by reference. Given these uncertainties, you should not place undue reliance on these forward- looking statements. Except as required by law, we assume no obligation to update or revise these forward-looking statements for any reason, even if new information becomes available in the future.

This prospectus supplement, the accompanying prospectus and the documents that we incorporate by reference herein and therein, contain estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets, and the incidence and prevalence of certain medical conditions. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market and other data from reports, research surveys, studies and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data and similar sources.

Table of Contents

USE OF PROCEEDS

We estimate that the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$117.2 million (or approximately \$134.8 million if the underwriters exercise their option to purchase additional shares in full).

We currently intend to use the net proceeds of this offering to fund the conduct of clinical trials and nonclinical studies, the manufacture of our clinical product candidates and the conduct of preclinical research and development, and for general corporate purposes including the expansion of our corporate facilities and of our manufacturing capacity. The expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures depend on numerous factors, including the progress of our nonclinical development efforts, the ongoing status of and results from our clinical trials and other studies and any unforeseen cash needs. As a result, our management will have broad discretion in applying the net proceeds from this offering. Pending the use of the net proceeds from this offering, we may invest these proceeds in short-term, interest-bearing instruments.

S-11

Table of Contents**CAPITALIZATION**

The following table sets forth our capitalization as of June 30, 2018 on:

an actual basis; and

an as adjusted basis to reflect the sale by us of 9,259,260 shares of our common stock in this offering at the public offering price of \$13.50 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

You should read the data set forth in the table below in conjunction with our financial statements, including the related notes, and Management's Discussion and Analysis of Financial Condition and Results of Operations in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018, which is incorporated by reference into this prospectus supplement.

	AS OF JUNE 30, 2018	
	ACTUAL	AS ADJUSTED
	(unaudited)	
	(in thousands, except share data)	
Cash, cash equivalents and short-term investments	\$ 78,019	\$ 195,212
Long-term debt (including current portion)	\$ 14,846	\$ 14,846
Stockholders' equity:		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized, 2,819,549 shares issued and outstanding, actual and as adjusted	\$ 3	\$ 3
Common stock, \$0.001 par value; 150,000,000 shares authorized, 53,388,420 shares issued and outstanding, actual; 62,647,680 shares issued and outstanding, as adjusted	53	63
Additional paid-in capital	304,371	421,554
Accumulated other comprehensive loss	(15)	(15)
Accumulated deficit	(252,587)	(252,587)
Total stockholders' equity	51,825	169,018
Total capitalization	\$ 66,671	\$ 183,864

S-12

Table of Contents**DILUTION**

If you invest in our common stock in this offering, your ownership interest will be diluted to the extent of the difference between the public offering price per share of our common stock in this offering and the as adjusted net tangible book value per share of our common stock immediately after this offering.

As of June 30, 2018, we had net tangible book value of approximately \$51.8 million, or \$0.97 per share of our common stock, based upon 53,388,420 shares of our common stock outstanding as of that date. Historical net tangible book value per share is equal to our total tangible assets, less total liabilities, divided by the number of outstanding shares of our common stock. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of 9,259,260 shares of common stock in this offering at the public offering price of \$13.50 per share, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2018 would have been approximately \$169.0 million, or approximately \$2.70 per share of common stock. This represents an immediate increase in as adjusted net tangible book value of \$1.73 per share to our existing stockholders and an immediate dilution of \$10.80 per share to investors participating in this offering at the public offering price.

Dilution per share to new investors is determined by subtracting net tangible book value per share after this offering from the public offering price per share paid by new investors. The following table illustrates this per share dilution to new investors (assuming the underwriters do not exercise in full their option to purchase additional shares):

Public offering price per share	\$ 13.50
Historical net tangible book value	