

FATE THERAPEUTICS INC

Form 424B5

December 13, 2017

Table of Contents

**FILED PURSUANT TO RULE 424(b)(5)
REG. STATEMENT NO. 333-219987**

PROSPECTUS SUPPLEMENT

(To Prospectus dated August 25, 2017)

9,525,000 Shares

Common Stock

We are offering 9,525,000 shares of our common stock. Our common stock is listed on The NASDAQ Global Market under the symbol FATE . On December 12, 2017, the last reported sale price for our common stock on The NASDAQ Global Market was \$4.435 per share.

Entities affiliated with Redmile Group, LLC (collectively, Redmile), which are existing stockholders, have agreed to purchase an aggregate of 5,236,904 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.

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. Please read Risk Factors on page S-7 of this prospectus supplement and the documents incorporated by reference into this prospectus supplement.

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

	Per Share	Total
Public offering price	\$ 4.200	\$ 40,005,000
Underwriting discounts and commissions(1)	\$ 0.252	\$ 2,400,300
Proceeds, before expenses, to us	\$ 3.948	\$ 37,604,700

(1) We have agreed to reimburse the underwriters for certain expenses. See Underwriting. We have granted the underwriters an option for 30 days from the date of this prospectus supplement to purchase up to 1,428,750 additional shares of our common stock. See Underwriting for more information.

The underwriters expect to deliver the shares to the investors on or about December 15, 2017.

Joint Book-Running Managers

Leerink Partners

Piper Jaffray

Co-Manager

Wedbush PacGrow

December 12, 2017

Table of Contents

TABLE OF CONTENTS

	Page
Prospectus Supplement	
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	S-iii
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	S-1
<u>RISK FACTORS</u>	S-7
<u>FORWARD-LOOKING STATEMENTS</u>	S-9
<u>USE OF PROCEEDS</u>	S-10
<u>PRICE RANGE OF COMMON STOCK</u>	S-11
<u>DIVIDEND POLICY</u>	S-12
<u>CAPITALIZATION</u>	S-13
<u>DILUTION</u>	S-15
<u>MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS</u>	S-17
<u>UNDERWRITING</u>	S-21
<u>LEGAL MATTERS</u>	S-26
<u>EXPERTS</u>	S-26
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	S-26
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	S-26

Page

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>Selling Stockholder</u>	8
<u>Securities We May Offer</u>	10
<u>Description of Capital Stock</u>	10
<u>Description of Debt Securities</u>	16
<u>Description of Warrants</u>	23
<u>Description of Units</u>	24
<u>Plan of Distribution</u>	27
<u>Legal Matters</u>	32
<u>Experts</u>	32
<u>Where You Can Find More Information</u>	32
<u>Incorporation by Reference</u>	32

We have not, and the underwriters have not, authorized anyone to provide you with information different than that which is contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering.

We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since

S-i

Table of Contents

those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an 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 **Incorporation of Certain Information by Reference**.**

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.

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to 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, the accompanying prospectus dated August 25, 2017, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information 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 document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement. You should assume that the information contained in this prospectus supplement is accurate as of the date on the front cover of this prospectus supplement only and that any information we have incorporated by reference or included in the accompanying prospectus is accurate only as of the date given in the document incorporated by reference or as of the date of the prospectus, as applicable, regardless of the time of delivery of this prospectus supplement or the accompanying prospectus or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

Unless the context indicates otherwise, as used in this prospectus supplement, the terms Fate, Fate Therapeutics, Company, we, us and our refer to Fate Therapeutics, Inc. and its 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 indications, 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

PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary does not contain all the information you should consider before investing in our common stock. You should read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the factors described under the heading **Risk Factors** in this prospectus supplement and the financial statements, notes to financial statements, financial and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, as well as the information included in any free writing prospectus that we have authorized for use in connection with this offering, before making an investment decision.*

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, or *iPSCs*, 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, or *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.

Recent Developments

FATE-NK100 Clinical Progress

We recently provided clinical updates on our development of FATE-NK100, a first-in-class, donor-derived natural killer (NK) cell cancer immunotherapy comprised of adaptive memory NK cells.

APOLLO Study. APOLLO is an open-label, accelerated dose-escalation, Phase 1 clinical trial of FATE-NK100 in women with ovarian, fallopian tube or primary peritoneal cancer resistant to, or recurrent on, platinum-based treatment. The clinical trial is designed to evaluate the safety and determine the maximum dose of a single infusion of FATE-NK100 as a monotherapy when administered via intraperitoneal catheter after outpatient chemotherapy followed by sub-cutaneous IL-2 administration. Up to three dose levels of FATE-NK100 are intended to be assessed. In the event a dose limiting toxicity (DLT) is observed, the clinical trial will convert to a 3+3 design. A ten-subject expansion cohort is expected to be enrolled at the maximum dose level. Other endpoints include objective response rate at 28 days, and progression-free and overall survival at six months. The clinical trial is being conducted at the Masonic Cancer Center, University of Minnesota as an investigator-initiated study.

Edgar Filing: FATE THERAPEUTICS INC - Form 424B5

On December 8, 2017, we announced that the first subject had been treated with FATE-NK100 in the ongoing APOLLO study.

S-1

Table of Contents

VOYAGE Study. VOYAGE is an open-label, accelerated dose-escalation, Phase 1 clinical trial designed to evaluate the safety and determine the maximum dose of a single intravenous infusion of FATE-NK100 as a monotherapy when administered after lymphodepleting chemotherapy followed by sub-cutaneous IL-2 administration in subjects with refractory or relapsed acute myelogenous lymphoma (AML). Up to three dose levels of FATE-NK100 are intended to be assessed. In the event a DLT is observed, the clinical trial will convert to a 3+3 design. A ten-subject expansion cohort is expected to be enrolled at the maximum dose level. Other endpoints include rates of complete response, disease-free and overall survival. The clinical trial is being conducted at the Masonic Cancer Center, University of Minnesota as an investigator-initiated study.

On November 10, 2017, we reported initial clinical data from the ongoing VOYAGE study. The subject in the first dose cohort of VOYAGE presented in primary induction failure with 87% leukemic blasts in the bone marrow. Two weeks following a single infusion of FATE-NK100, a bone marrow biopsy showed residual AML with 48% leukemic blasts in the bone marrow. The subject in the second dose cohort presented in relapse, was refractory to conventional NK cell therapy and had 50% leukemic blasts in the bone marrow. Two weeks following a single infusion of FATE-NK100, a bone marrow biopsy showed a morphologic leukemia-free state, which response was transient. No reports of dose limiting toxicities were reported in either the first or the second dose cohort. The third dose cohort is currently enrolling.

ProTmune Clinical Progress

On December 11, 2017, we reported clinical data from the Phase 1 stage of the PROTECT clinical trial of ProTmune, our next-generation hematopoietic cell graft. The PROTECT study is an ongoing combined open-label Phase 1 / blinded Phase 2 clinical trial designed to assess the safety and efficacy of ProTmune in patients with hematologic malignancies undergoing matched unrelated donor hematopoietic cell transplantation (HCT) following myeloablative conditioning.

The Phase 1 stage of PROTECT included seven subjects. Underlying hematologic diseases included three subjects with acute lymphoblastic leukemia (ALL), three with acute myeloid leukemia (AML) and one with myelodysplastic syndrome (MDS).

Day 28 Post-HCT. All seven subjects receiving ProTmune met the safety objectives of neutrophil engraftment and survival at Day 28 following HCT. There were no events of graft failure and no serious adverse events related to ProTmune reported by investigators. The median time to neutrophil engraftment was 18 days [14-22 days].

Table of Contents

Day 100 Post-HCT. All seven subjects receiving ProTmune were alive and relapse-free at Day 100 following HCT. Acute GvHD was reported by Day 100 following HCT in three subjects, all of whom responded to standard-of-care steroid treatment. There were no events of graft failure and no serious adverse events related to ProTmune reported by investigators.

Subject	PROTECT Day 100 Clinical Data						
	1	2	3	4	5	6	7
Hematologic Malignancy	MDS	AML	AML	ALL	ALL	ALL	AML
CD34+ cell dose (x106/kg)	10.3	4.6	10.9	4.8	3.2	3.0	9.4
CD3+ cell dose (x108/kg)	3.1	1.8	2.6	2.8	2.0	1.2	2.8
ProTmune-related SAEs	None	None	None	None	None	None	None
Day of Neutrophil Engraftment (1)	Day 14	Day 18	Day 22	Day 15	Day 16	Day 18	Day 19
Acute GvHD / Grade (CIBMTR)	None	None	Grade 2	None	Grade 2	Grade 3	None
Treatment Responsive			Yes		Yes	Yes	
Time to Resolution of Maximum Grade			7 days		8 days	5 days	
Cancer Relapse-free	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Survival	Yes	Yes	Yes	Yes	Yes	Yes	Yes

(1) As measured from the day following HCT

Post-Day 100 Follow-Up. All subjects receiving ProTmune in the Phase 1 stage of PROTECT are being followed for a period of two years following HCT. As of a November 29, 2017 data cut-off, all subjects remained relapse-free, and there were no events of graft failure and no serious adverse events related to ProTmune reported by investigators. Non-relapse mortality was reported in two subjects (Subject 1 on Day 228; Subject 3 on Day 151). Five of seven subjects remained on study with median time on study of 154 days [Day 106 – 254].

iPSC-derived Product Platform

On December 9, 2017, we provided an update on our collaboration with Memorial Sloan Kettering Cancer Center for the development of off-the-shelf T-cell product candidates using clonal master iPSC lines. Under the collaboration, scientists have demonstrated the generation of CD8ab+ T cells from a clonal engineered master iPSC line with a CD19-targeted CAR inserted into the TRAC locus and complete elimination of TCR expression. Data from the collaboration shows that the CAR-targeted, TCR-null CD8ab+ T cells display antigen-specific anti-tumor potency, including cytokine release and targeted cellular cytotoxicity. We also announced our plans to develop FT819, a CAR19 T-cell product candidate derived from a clonal engineered master iPSC line with complete elimination of TCR expression and TRAC-regulated CAR expression.

On December 11, 2017, we provided an update on our collaboration with the University of Minnesota for the development and clinical translation of FT500, an off-the-shelf natural killer (NK) cell product candidate derived from a clonal master iPSC line. In preclinical studies conducted under the collaboration, FT500 displays multiple potential mechanisms by which it may synergize with T cells to activate the immune system in patients with tumors that are non-responsive to checkpoint inhibitors alone. We also announced that the IND-enabling production of FT500 has commenced at University of Minnesota, Molecular and Cellular Therapeutics, a state-of-the-art, FDA-registered Good Manufacturing Practice (GMP) facility. In addition, we have received a Type B Pre-IND meeting written response from the U.S. Food & Drug Administration (FDA) for FT500. Based on the written response and subsequent FDA correspondence, we expect to file an Investigational New Drug application for the clinical testing of multiple dosing

cycles of FT500 in combination with FDA-approved checkpoint inhibitor therapies for advanced solid tumors in the outpatient setting.

S-3

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, or the JOBS Act. 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 would 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	9,525,000 shares
Common stock to be outstanding immediately after this offering	50,982,155 shares
Option to purchase additional shares	We have granted the underwriters an option to purchase up to 1,428,750 additional shares of our common stock. This option is exercisable, in whole or in part, for a period of 30 days from the date of this prospectus supplement.
Use of proceeds	We expect to receive net proceeds from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, of approximately \$37.3 million, or \$42.9 million if the underwriters exercise their option to purchase 1,428,750 additional shares from us in full. We intend to use the net proceeds from this offering for the clinical development of ProTmune and FATE-NK100, research and development of our immuno-oncology and immuno-regulatory programs and under our research and collaboration agreements and working capital and other general corporate purposes. See Use of Proceeds.
Risk factors	Investing in our common stock involves a high degree of risk. See the description of risks set forth under Risk Factors in this prospectus supplement and otherwise incorporated by reference into this prospectus supplement and the accompanying prospectus for a description of factors to consider before deciding to purchase shares of our common stock.
NASDAQ Global Market Symbol	Our common stock is listed on The NASDAQ Global Market under the symbol FATE.
The number of shares of our common stock to be outstanding immediately after this offering is based on 41,457,155 shares outstanding as of September 30, 2017, and excludes as of that date:	

5,719,110 shares of common stock issuable upon the exercise of outstanding stock options under our equity incentive plans, with a weighted-average exercise price of \$3.49 per share;

Edgar Filing: FATE THERAPEUTICS INC - Form 424B5

450,250 shares of common stock issuable upon the vesting and settlement of outstanding restricted stock units under our equity incentive plans, with a weighted-average grant date fair value of \$4.89 per share;

91,463, 98,039 and 36,074 shares of common stock issuable upon the exercise of warrants outstanding, with weighted-average exercise prices of \$3.28, \$4.08 and \$7.21 per share, respectively;

3,311,116 shares of common stock available for issuance under our 2013 Stock Option and Incentive Plan, or 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, or 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;

S-5

Table of Contents

100,000 shares of common stock available for issuance under our Inducement Equity Plan, or Inducement Plan; and

14,097,745 shares of common stock issuable upon the conversion of 2,819,549 shares of our Class A Convertible Preferred Stock.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriters of their option to purchase additional shares and assumes no exercise or settlement, as applicable, of the outstanding stock options, restricted stock units and warrants described above.

Entities affiliated with Redmile Group, LLC, which are existing stockholders, have agreed to purchase an aggregate of 5,236,904 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.

Table of Contents

RISK FACTORS

Investing in our common stock involves a high degree of risk. Our business, prospects, financial condition or operating results could be materially adversely affected by the risks identified below, as well as other risks not currently known to us or that we currently consider immaterial. The trading price of our common stock could decline due to any of these risks, and you may lose all or part of your investment. In assessing the risks described below, you should also refer to the information contained in our Annual Report on Form 10-K for the year ended December 31, 2016, our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, including the sections titled Risk Factors, and in the other documents which are incorporated by reference in this prospectus supplement and the accompanying prospectus in their entirety.

Risks Related to this Offering

Management will have broad discretion as to the use of the net proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates, and cause the price of our common stock to decline.

If you purchase the common stock sold in this offering, you will experience immediate and substantial dilution in your investment. 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. Based on the public offering price of \$4.20 per share and our net tangible book value as of September 30, 2017, if you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$2.57 per share with respect to the net tangible book value of the common stock. 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, restricted stock units, warrants and shares of preferred stock outstanding. To the extent that outstanding stock options, restricted stock units, 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 by our existing stockholders in the public market could cause our stock price to fall.

If our existing stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the trading price of our common stock could decline. In addition, a substantial number of shares of common stock are subject to outstanding options or will become eligible for sale in the public market to the extent permitted by the provisions of various vesting schedules. If these additional shares of common stock are sold, or if it is

perceived that they will be sold, in the public market, the trading price of our common stock could decline.

For example, we registered all of the 5,250,000 shares of common stock issued by us in our August 2016 private placement transaction for resale on a Form S-3, which was declared effective by the SEC in September 2016. We

S-7

Table of Contents

also registered all of the 6,766,915 shares of common stock issued by us and all 14,097,745 shares of common stock issuable upon the conversion of an aggregate of 2,819,549 shares of Class A Convertible Preferred Stock issued by us in our November 2016 private placement transaction for resale on a Form S-3, which was declared effective by the SEC in January 2017. In addition, we registered for resale by Juno Therapeutics, Inc. up to 1,000,000 shares of common stock held by Juno pursuant to the Stock Purchase Agreement entered into in May 2015 pursuant to a registration statement on Form S-3, which was declared effective by the SEC in August 2017. As a result, all of these shares are currently available for resale to the public, which may result in dilution to our stockholders. Any sales of securities by these stockholders could have a material adverse effect on the trading price of our common stock.

Our executive officers and directors have agreed that, subject to certain exceptions, during the period ending 45 days after the date of this prospectus supplement, they will not offer, sell, contract to sell, pledge or otherwise dispose of, directly or indirectly, any shares of our common stock or securities convertible into or exchangeable or exercisable for any shares of our common stock, enter into a transaction that would have the same effect, or enter into any swap, hedge or other arrangement that transfers, in whole or in part, any of the economic consequences of ownership of our common stock, whether any of these transactions are to be settled by delivery of our common stock or other securities, in cash or otherwise, or publicly disclose the intention to make any offer, sale, pledge or disposition, or to enter into any transaction, swap, hedge or other arrangement, without, in each case, the prior written consent of Leerink Partners LLC and Piper Jaffray & Co., who may release any of the securities subject to these lock-up agreements at any time without notice. Exceptions to the lock-up restrictions are described in more detail in this prospectus supplement under the caption Underwriting.

Concentration of ownership of our common stock in one of our principal stockholders may prevent new investors from influencing significant corporate decisions.

Upon the closing of this offering, entities affiliated with Redmile Group LLP, which are existing stockholders, will, in the aggregate, beneficially own approximately 13% of our outstanding common stock. In addition, Redmile, with 60 days notice, has the right to convert shares of our Class A Convertible Preferred Stock into common stock. If Redmile elects to do so, the percentage of shares of common stock that it, together with its affiliates, may beneficially own of our common stock will be approximately 32%. As a result, Redmile may be able to significantly influence all matters requiring stockholder approval, including the election and removal of directors, any merger, consolidation, sale of all or substantially all of our assets, or other significant corporate transactions.

Redmile may have interests different than yours. For example, because Redmile purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders.

Possible tax reform legislation could impact our business and operations.

The Trump Administration and the U.S. Congress are considering substantial revisions to U.S. federal income tax law, and such revisions could significantly impact our business and our operations. There is substantial uncertainty around the likelihood, timing and details of any such tax reform being enacted, but any such reform, if enacted, could have a significant impact on our business and stockholders. Potential investors should consult their tax advisors about such developments, and their potential impact on making an investment in us.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein and therein contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, that involve a number of risks and uncertainties. Although our forward-looking statements reflect the good faith judgment of our management, these statements can only be based on facts and factors currently known by us. Consequently, these forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements.

Forward-looking statements can be identified by the use of forward-looking words such as believes, expects, hopes, may, will, plan, intends, estimates, could, should, would, continue, seeks, pro forma, or anticipated words (including their use in the negative), or by discussions of future matters such as the therapeutic potential of our product candidates, our clinical development plans, the timing for the commencement, receipt of data from, and completion of our preclinical studies and clinical trials, the development of new product candidates based on our research programs, our ability to develop product candidates and to receive payments under our collaboration and/or license agreements, possible changes in regulatory pathways and legislation and other statements that are not historical. These statements include but are not limited to statements under the captions Business, Risk Factors and Management's Discussion and Analysis of Financial Condition and Results of Operations and in other sections incorporated by reference from our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q, as applicable, as well as our other filings with the SEC. You should be aware that the occurrence of any of the events discussed under the heading Risk Factors in this prospectus supplement and any documents incorporated by reference herein or therein could substantially harm our business, operating results and financial condition and that if any of these events occurs, it could adversely affect the value of an investment in our securities.

We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements. Unless required by law, we undertake no obligation to update or revise any forward-looking statements to reflect new information or future events or developments. Thus, you should not assume that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements. Before deciding to purchase our common stock, you should carefully consider the risk factors incorporated by reference herein, in addition to the other information set forth in this prospectus supplement, the accompanying prospectus and in the documents incorporated by reference herein.

Table of Contents

USE OF PROCEEDS

We estimate that we will receive net proceeds of approximately \$37.3 million (or approximately \$42.9 million if the underwriters' option to purchase additional shares is exercised in full) from the sale of the shares of common stock offered by us in this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds from this offering for:

our ongoing Phase 1/2 clinical trial of ProTmune and the initiation and conduct of any additional clinical trials of ProTmune in adult patients with hematologic malignancies undergoing allogeneic HCT;

our ongoing and planned additional clinical trials of FATE-NK100, including under investigator-initiated clinical trial agreements with the University of Minnesota and under our own Investigational New Drug application, in cancer;

preclinical research, process development and clinical translation activities to investigate the therapeutic potential of our immuno-oncology and immuno-regulatory programs;

research, preclinical development, process development and clinical translation activities under our sponsored research and collaboration agreements; and.

working capital and general corporate purposes, which may include in-licensing or acquiring other products or technologies.

The amounts and timing of these expenditures will depend on a number of factors, such as the timing, progress and results of our clinical trials and research and development efforts, the timing and progress of any collaborative activities, including those under our collaboration and/or license agreements, and the competitive environment for our product candidates. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses for the net proceeds to us from this offering. Accordingly, our management will have broad discretion in the application of these proceeds. Pending these uses, we intend to invest the net proceeds in high quality, investment grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government, or hold as cash.

Table of Contents**PRICE RANGE OF COMMON STOCK**

Our common stock is listed on The NASDAQ Global Market under the symbol FATE. The following table sets forth the high and low sale prices per share of our common stock, as reported on The NASDAQ Global Market, for the periods indicated:

	High	Low
Year ending December 31, 2017		
Fourth quarter (through December 12, 2017)	\$ 5.00	\$ 3.50
Third quarter	4.43	2.52
Second quarter	4.77	2.92
First quarter	5.68	2.44
Year ended December 31, 2016		
Fourth quarter	3.35	1.80
Third quarter	3.82	1.55
Second quarter	2.37	1.47
First quarter	3.54	1.46
Year ended December 31, 2015		
Fourth quarter	6.71	3.12
Third quarter	8.37	4.61
Second quarter	8.78	4.46
First quarter	\$ 5.50	\$ 4.54

On December 12, 2017, the last reported sale price of our common stock as reported on The NASDAQ Global Market was \$4.435 per share. As of December 8, 2017, we had approximately 47 holders of record of our common stock. The actual number of stockholders is greater than this number of record holders and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees. This number of holders of record also does not include stockholders whose shares may be held in trust by other entities.

Table of Contents

DIVIDEND POLICY

We have never declared or paid any dividends on our capital or common stock. We currently intend to retain all available funds and any future earnings, if any, to fund the development and expansion of our business and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to pay dividends will be made at the discretion of our board of directors.

S-12

Table of Contents**CAPITALIZATION**

The following table sets forth our cash and cash equivalents, short-term investments and capitalization as of September 30, 2017:

on an actual basis; and

on an as adjusted basis to give effect to our issuance and sale of 9,525,000 shares of our common stock in this offering at the public offering price of \$4.20 per share.

You should read the following table together with the Use of Proceeds, our condensed consolidated financial statements and other financial data incorporated by reference in this prospectus supplement from our Annual Report on Form 10-K for the year ended December 31, 2016 and our Quarterly Report on Form 10-Q for the quarter ended September 30, 2017. All information is in thousands.

(in thousands, except share and per share data)	As of September 30, 2017	
	Actual	As Adjusted
Cash and cash equivalents	\$ 43,231	\$ 80,491
Short-term investments and related maturity receivables	25,983	25,983
Capitalization:		
Long-term debt (including current portion)	\$ 14,789	\$ 14,789
Stockholders' equity:		
Preferred stock, \$0.001 par value; authorized shares 5,000,000; actual issued and outstanding shares Class A Convertible Preferred actual issued and outstanding shares 2,819,549; Class A Convertible Preferred as adjusted issued and outstanding shares 2,819,549	3	3
Common stock, \$0.001 par value; authorized shares 150,000,000; actual issued and outstanding shares 41,457,155; As adjusted issued and outstanding shares 50,982,155	41	51
Additional paid-in capital	252,019	289,269
Accumulated other comprehensive loss	(13)	(13)
Accumulated deficit	(206,301)	(206,301)
Total stockholders' equity	45,749	83,009
Total capitalization	\$ 60,538	\$ 97,798

The table above does not include, as of September 30, 2017:

5,719,110 shares of common stock issuable upon the exercise of outstanding stock options under our equity incentive plans, with a weighted-average exercise price of \$3.49 per share;

450,250 shares of common stock issuable upon the vesting and settlement of outstanding restricted stock units under our equity incentive plans, with a weighted-average grant date fair value of \$4.89 per share;

91,463, 98,039 and 36,074 shares of common stock issuable upon the exercise of warrants outstanding, with weighted-average exercise prices of \$3.28, \$4.08 and \$7.21 per share, respectively;

3,311,116 shares of common stock available for issuance under our 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 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;

S-13

Table of Contents

100,000 shares of common stock available for issuance under our Inducement Plan; and

14,097,745 shares of common stock issuable upon the conversion of 2,819,549 shares of our Class A Convertible Preferred Stock.

S-14

Table of Contents**DILUTION**

Investors purchasing shares of our common stock in this offering will experience immediate and substantial dilution in the pro forma net tangible book value of their shares of common stock. Dilution in net tangible book value represents the difference between the public offering price per share and the as adjusted net tangible book value per share of our common stock immediately after the offering.

The historical net tangible book value of our common stock as of September 30, 2017 was \$45.7 million, or \$1.10 per share. Historical net tangible book value per share of our common stock represents our total tangible assets (total assets less intangible assets) less total liabilities, divided by 41,457,155 shares of common stock outstanding as of that date.

After giving effect to (1) the issuance of 9,525,000 shares of common stock in this offering and (2) the receipt of the net proceeds from the sale of 9,525,000 shares of common stock in this offering at the public offering price of \$4.20 per share, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2017 would have been approximately \$83.0 million, or \$1.63 per share of common stock. This represents an immediate increase in net tangible book value of \$0.53 per share to existing stockholders and an immediate dilution of \$2.57 in net tangible book value per share to new investors purchasing our common stock in this offering.

The following table illustrates this dilution on a per share basis to new investors:

Public offering price per share	\$ 4.20
Historical net tangible book value per share as of September 30, 2017	\$ 1.10
Increase in net tangible book value per share attributable to new investors purchasing shares in this offering	\$ 0.53
As adjusted net tangible book value per share after giving effect to this offering	\$ 1.63
Dilution per share to new investors participating in this offering	\$ 2.57

If the underwriters exercise their option in full to purchase an additional 1,428,750 shares of common stock in this offering, the as adjusted net tangible book value per share after the offering would be \$1.69 per share, the increase in the net tangible book value per share to existing stockholders would be \$0.59 per share and the dilution to new investors purchasing our common stock in this offering would be \$2.51 per share.

The above discussion does not include as of September 30, 2017:

5,719,110 shares of common stock issuable upon the exercise of outstanding stock options under our equity incentive plans, with a weighted-average exercise price of \$3.49 per share;

450,250 shares of common stock issuable upon the vesting and settlement of outstanding restricted stock units under our equity incentive plans, with a weighted-average grant date fair value of \$4.89 per share;

91,463, 98,039 and 36,074 shares of common stock issuable upon the exercise of warrants outstanding, with weighted-average exercise prices of \$3.28, \$4.08 and \$7.21 per share, respectively;

3,311,116 shares of common stock available for issuance under our 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 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;

100,000 shares of common stock available for issuance under our Inducement Plan; and

S-15

Table of Contents

14,097,745 shares of common stock issuable upon the conversion of 2,819,549 shares of our Class A Convertible Preferred Stock.

The foregoing table and calculations assume no exercise or settlement, as applicable, of the outstanding stock options, restricted stock units and warrants described above. To the extent that outstanding exercisable options or warrants are exercised or outstanding restricted stock units vest and are settled, you 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 we raise additional capital by issuing equity securities or convertible debt, your ownership will be further diluted.

To the extent that new stock options, restricted stock units, warrants or common stock are issued in the future, there will be further dilution to investors participating in this offering.

Table of Contents

MATERIAL UNITED STATES FEDERAL INCOME TAX

CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a summary of the material U.S. federal income tax considerations of the ownership and disposition of our common stock to non-U.S. holders (as defined below), but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed or subject to differing interpretations, possibly with retroactive effect, so as to result in U.S. federal income tax consequences different from those set forth below. In addition, the Trump Administration has proposed significant changes to U.S. federal income tax laws, and Congress is currently considering these and other tax reform proposals. We cannot assure you that a change in law will not impact the tax considerations that we describe in this summary. We have not sought any ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any U.S. state or local or any non-U.S. jurisdiction, U.S. federal estate or gift tax laws, the Medicare tax on net investment income or any alternative minimum tax consequences. In addition, this discussion does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

banks, insurance companies or other financial institutions;

tax-exempt or governmental organizations;

brokers or dealers in securities or currencies;

traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;

persons that own, or are deemed to own, more than five percent of our capital stock;

certain former citizens or long-term residents of the United States;

persons who hold our common stock as a position in a hedging transaction, straddle, conversion transaction or other risk reduction transaction;

persons who do not hold our common stock as a capital asset within the meaning of Section 1221 of the Code (generally, for investment purposes);

S corporations, partnerships, or other entities or arrangements treated as pass-through entities for U.S. federal income tax purposes (or investors in any such entities);

persons deemed to sell our common stock under the constructive sale provisions of the Code;

regulated investment companies or real estate investment trusts;

pension plans;

controlled foreign corporations;

passive foreign investment companies; or

persons that acquire our common stock as compensation for services.

In addition, if a partnership, including any entity or arrangement classified as a partnership for U.S. federal income tax purposes, holds our common stock, the tax treatment of a partner in the partnership generally will depend on the status of the partner, the activities of the partnership, and certain determinations at the partner level. Accordingly, partnerships that hold our common stock, and partners in such partnerships, should consult their tax advisors.

Table of Contents

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal estate or gift tax rules or under the laws of any U.S. state or local or any non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

Non-U.S. Holder Defined

For purposes of this discussion, you are a non-U.S. holder if you are a beneficial owner of our common stock that is for U.S. federal income tax purposes (i) a foreign corporation or any other foreign organization taxable as a corporation for U.S. federal income tax purposes, (ii) a nonresident alien individual, or (iii) a foreign estate or trust that in either case is not subject to U.S. federal income tax on a net-income basis on income or gain from a note or share of common stock.

Distributions

As discussed under Dividend Policy, above, we do not anticipate paying any dividends on our common stock in the foreseeable future. If we were to make distributions on our common stock, those payments will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock, subject to the tax treatment described in the discussion below regarding taxable dispositions of our common stock. Any such distributions would also be subject to the discussions below regarding backup withholding and FATCA.

Subject to the discussion below regarding a dividend received by you that is effectively connected with the conduct of a U.S. trade or business, a dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN (generally including a U.S. taxpayer identification number), IRS Form W-8-BEN-E or another appropriate version of IRS Form W-8 (or a successor form), in each case, certifying qualification for the reduced rate. You are urged to consult your tax advisor regarding your entitlement to benefits under a relevant income tax treaty.

Dividends received by you that are treated as effectively connected with the conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, are attributable to a permanent establishment maintained by you in the United States) generally are exempt from such withholding tax. In order to obtain this exemption, you must provide us with an IRS Form W-8ECI or successor form or other applicable IRS Form W-8 properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons (as defined in the Code), net of certain deductions and credits, subject to an applicable income tax treaty providing otherwise. In addition, if you are a corporate non-U.S. holder, you may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty on your earnings and profits in respect of such effectively connected dividend income.

If you are eligible for a reduced rate of withholding tax pursuant to a tax treaty, you may be able to obtain a refund or credit of any excess amounts currently withheld if you timely file an appropriate claim for refund with the IRS.

Table of Contents

Gain on Sale or Other Taxable Disposition of Common Stock

Subject to the discussions below regarding backup withholding and FATCA, a non-U.S. holder generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our common stock unless:

the gain is effectively connected with the conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, the gain is attributable to a permanent establishment maintained by you in the U.S.), in which case you will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates applicable to U.S. persons *as defined in the Code), and for a non-U.S. holder that is a corporation, such non-U.S. holder may be subject to the branch profits tax on any earnings and profits attributable to such gains at a 30% rate or such lower rate as may be specified by an applicable income tax treaty;

you are an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met, in which case you will be required to pay a flat 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and your country of residence) on the gain derived from the sale, which tax may be offset by U.S. source capital losses in the taxable year of disposition (even though you are not considered a resident of the United States); or

our common stock constitutes a U.S. real property interest by reason of our status as a U.S. real property holding corporation for U.S. federal income tax purposes, a USRPHC, at any time within the shorter of the five-year period preceding the disposition or your holding period for our common stock. Generally, a corporation is a USRPHC only if the fair market value of its U.S. real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we are not currently and will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we are not currently or will not become a USRPHC in the future. Even if we are or were to become a USRPHC, however, as long as our common stock is regularly traded on an established securities market (as determined under the Code), such common stock will be treated as U.S. real property interests only if you actually or constructively hold more than five percent of such regularly traded common stock at any time during the applicable period that is specified in the Code. If we are determined to be a USRPHC and the foregoing exception does not apply, then a purchaser will generally be required to withhold 15% of the proceeds payable to you from a sale of our common stock and you generally will be taxed on your net gain derived from the disposition at the graduated U.S. federal income tax rates applicable to U. S. persons (as defined in the Code).

Backup Withholding and Information Reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address, and the amount of tax withheld, if any. A similar report will generally be sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends or of proceeds on the disposition of stock made to you may be subject to additional information reporting and backup withholding at the then applicable rate unless you establish an exemption, for

example by properly certifying your non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E or another appropriate version of IRS Form W-8 (or a successor form). Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of

Table of Contents

taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign account tax compliance act (FATCA)

Provisions commonly referred to as FATCA may impose withholding tax on certain types of payments made to foreign financial institutions and certain other non-U.S. entities. FATCA imposes a 30% withholding tax on dividends on, or gross proceeds from the sale or other disposition of, our common stock paid to a foreign financial institution or to certain non-financial foreign entities, unless (i) the foreign financial institution undertakes certain diligence and reporting obligations, (ii) the non-financial foreign entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner and such entity meets certain other specified requirements, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the requirements in (i) above, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S.-owned foreign entities, annually report certain information about such accounts, and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. If the country in which a payee is resident has entered into an intergovernmental agreement with the United States regarding FATCA, such intergovernmental agreement may permit the payee to report to that country rather than to the U.S. Treasury. Under final Treasury regulations and published guidance, the obligation to withhold from payments made to a foreign financial institution or a foreign non-financial entity under the new legislation with respect to dividends on our common stock are currently in effect, but the obligation to withhold with respect to the gross proceeds of a sale or other disposition of our common stock will not begin until January 1, 2019. Prospective investors should consult their tax advisors regarding FATCA.

The preceding discussion of U.S. federal income tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

Table of Contents**UNDERWRITING**

Leerink Partners LLC and Piper Jaffray & Co. are acting as joint book-running managers for this offering and as representatives of each of the underwriters named below. Subject to the terms and conditions set forth in the underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock set forth opposite its name below.

Underwriter	Number of Shares
Leerink Partners LLC	4,762,500
Piper Jaffray & Co.	3,810,000
Wedbush Securities Inc.	952,500
Total	9,525,000

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares sold under the underwriting agreement if any of the shares are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, and other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Entities affiliated with Redmile Group, LLC, which are existing stockholders, have agreed to purchase an aggregate of 5,236,904 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.

Commissions and Discounts

The representatives have advised us that the underwriters propose initially to offer the shares to the public at the public offering price set forth on the cover page of this prospectus supplement and to dealers at that price less a concession not in excess of \$0.1512 per share. After the initial offering of the shares, the public offering price, concession or any other term of the offering may be changed by the representatives.

The following table shows the public offering price, underwriting discounts and commissions and proceeds before expenses to us. The information assumes either no exercise or full exercise by the underwriters of their option to purchase additional shares of our common stock.

	Per Share	Total	
		Without Option	With Option
Public offering price	\$ 4.200	\$ 40,005,000	\$ 46,005,750
Underwriting discounts and commissions	\$ 0.252	\$ 2,400,300	\$ 2,760,345
Proceeds, before expenses, to us	\$ 3.948	\$ 37,604,700	\$ 43,245,405

S-21

Table of Contents

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$320,000. We also have agreed to reimburse the underwriters for up to \$10,000 for their FINRA counsel fee. In accordance with FINRA Rule 5110, this reimbursed fee is deemed underwriting compensation for this offering.

Option to Purchase Additional Shares

We have granted an option to the underwriters, exercisable for 30 days after the date of this prospectus supplement, to purchase up to 1,428,750 additional shares at the public offering price, less the underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to conditions contained in the underwriting agreement, to purchase a number of additional shares proportionate to that underwriter's initial amount reflected in the above table.

No Sales of Similar Securities

We and our executive officers and directors have agreed not to sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for 45 days after the date of this prospectus supplement without first obtaining the written consent of Leerink Partners LLC and Piper Jaffray & Co. on behalf of the underwriters. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

offer, pledge, sell or contract to sell any common stock;

sell any option or contract to purchase any common stock;

purchase any option or contract to sell any common stock;

grant any option, right or warrant for the sale of any common stock;

otherwise dispose of or transfer any common stock;

request or demand that we file a registration statement related to the common stock; or

enter into any swap or other agreement or any transaction that transfers, in whole or in part, the economic consequence of ownership of any common stock, whether any such swap, agreement or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition.

NASDAQ Global Market Listing

Our common stock is listed on The NASDAQ Global Market under the symbol FATE.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with the offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater

Table of Contents

than the underwriters' option described above. The underwriters may close out any covered short position by either exercising their option or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option granted to them.

Naked short sales are sales in excess of such option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the closing of the offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on The NASDAQ Global Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

The underwriters may also engage in passive market making transactions in our common stock on The NASDAQ Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Electronic Distribution

In connection with the offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Some of the underwriters and certain of their affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us and our affiliates, for which they may in the future receive customary fees, commissions and expenses.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

S-23

Table of Contents

Selling Restrictions

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area (each, a Relevant Member State), no offer of shares may be made to the public in that Relevant Member State other than:

- A. to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- B. to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives; or
- C. in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares shall require the Company or the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive.

Each person in a Relevant Member State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that it is a qualified investor within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the representatives has been obtained to each such proposed offer or resale.

We, the representatives and each of our and the representatives and their affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

This prospectus has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly, any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus may only do so in circumstances in which no obligation arises for the company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither the company nor the underwriters have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for the company or the underwriters to publish a prospectus for such offer.

For the purpose of the above provisions, the expression an offer to the public in relation to any shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in the Relevant

Member State and the expression "Prospectus Directive" means Directive 2003/71/EC (including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member States) and includes any relevant implementing measure in the Relevant Member State and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

Notice to Prospective Investors in Canada

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of

S-24

Table of Contents

the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Any discussion of taxation and related matters contained in this document does not purport to be a comprehensive description of all of the tax considerations that may be relevant to a Canadian investor when deciding to purchase the Securities and, in particular, does not address any Canadian tax considerations. No representation or warranty is hereby made as to the tax consequences to a resident, or deemed resident, of Canada of an investment in the Securities or with respect to the eligibility of the Securities for investment by such investor under relevant Canadian federal and provincial legislation and regulations.

Upon receipt of this document, each Canadian investor hereby confirms that it has expressly requested that all documents evidencing or relating in any way to the sale of the Securities described herein (including for greater certainty any purchase confirmation or any notice) be drawn up in the English language only. *Par la réception de ce document, chaque investisseur canadien confirme par les présentes qu'il a expressément exigé que tous les documents faisant foi ou se rapportant de quelque manière que ce soit à la vente des valeurs mobilières décrites aux présentes (incluant, pour plus de certitude, toute confirmation d'achat ou tout avis) soient rédigés en anglais seulement.*

Table of Contents

LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus supplement will be passed upon for us by Goodwin Procter LLP, San Francisco, California. The underwriters are being represented by Perkins Coie LLP, San Francisco, California.

EXPERTS

The consolidated financial statements of Fate Therapeutics, Inc. appearing in our Annual Report (Form 10-K) for the year ended December 31, 2016 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus supplement and the accompanying prospectus are part of the registration statement on Form S-3 we filed with the SEC under the Securities Act and do not contain all the information set forth in the registration statement. Whenever a reference is made in this prospectus supplement or the accompanying 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 in this prospectus supplement and the accompanying prospectus for a copy of such contract, agreement or other document. Because we are subject to the information and reporting requirements of the Exchange Act, 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 <http://www.sec.gov>. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents. Information incorporated by reference is part of this prospectus supplement and the accompanying prospectus. Later information filed with the SEC will update and supersede this information.

We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement until the termination of the offering of the shares covered by this prospectus supplement (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):

our Annual Report on Form 10-K for the fiscal year ended December 31, 2016 filed with the SEC on March 16, 2017;

our definitive proxy statement on Schedule 14A, filed with the SEC on March 22, 2017 (with respect to those portions incorporated by reference into our Annual Report on Form 10-K for the year ended

December 31, 2016);

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2017, June 30, 2017 and September 30, 2017 filed with the SEC on May 15, 2017, August 14, 2017 and November 1, 2017, respectively;

S-26

Table of Contents

our Current Reports on Form 8-K (other than information furnished rather than filed in such Current Reports) filed with the SEC on May 8, 2017, July 14, 2017 and December 12, 2017; and

the description of our common stock which is registered under Section 12 of the Exchange Act, in our registration statement on Form 8-A, filed with the SEC on September 17, 2013, including any amendments or reports filed for the purpose of updating such description.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus supplement is delivered, a copy of the documents incorporated by reference into this prospectus supplement but not delivered with the prospectus supplement. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus supplement, at no cost by writing or telephoning us at the following address:

Fate Therapeutics, Inc., 3535 General Atomics Court, Suite 200, San Diego, CA 92121, Attention: Secretary, or by telephone request to (858) 875-1800.

In accordance with Rule 412 of the Securities Act, any statement contained in a document incorporated by reference herein shall be deemed modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement.

S-27

Table of Contents

PROSPECTUS

\$100,000,000

Common Stock

Preferred Stock

Debt Securities

Warrants

Units

**1,000,000 Shares of Common Stock Offered by
the Selling Stockholder**

We may from time to time issue, in one or more series or classes, up to \$100,000,000 in aggregate principal amount of our common stock, preferred stock, debt securities, warrants and/or units. We may offer these securities separately or together in units. We will specify in the accompanying prospectus supplement the terms of the securities being offered. See [Plan of Distribution](#) below for additional information on how we may conduct sales of our common stock.

In addition, the selling stockholder may from time to time, offer and sell up to 1,000,000 shares of our common stock. We will not receive any of the proceeds from the sales of common stock from the selling stockholder. See [Use of Proceeds](#). The selling stockholder may sell the shares of common stock described in this prospectus in a number of different ways and at varying prices. See [Plan of Distribution](#) below for additional information on how the selling stockholder may conduct sales of our common stock.

The securities offered by us and the selling stockholder in this prospectus may be sold directly to investors, to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents, and any fees, conversions or discount arrangements, in the accompanying prospectus supplement. We may not sell any securities under this prospectus without delivery of the applicable prospectus supplement.

You should read this document and any prospectus supplement or amendment carefully before you invest in our securities.

Our common stock is listed on The NASDAQ Global Market under the symbol FATE. On August 11, 2017, the closing price for our common stock, as reported on The NASDAQ Global Market, was \$2.98 per share. Our principal executive offices are located at 3535 General Atomics Court, Suite 200, San Diego, CA 92121.

Investing in our securities involves a high degree of risk. You should review carefully the risks and uncertainties described under the heading Risk Factors contained in this prospectus beginning on page 2 and any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into 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 August 25, 2017.

Table of Contents

TABLE OF CONTENTS

	Page
<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>Selling Stockholder</u>	8
<u>Securities We May Offer</u>	10
<u>Description of Capital Stock</u>	10
<u>Description of Debt Securities</u>	16
<u>Description of Warrants</u>	23
<u>Description of Units</u>	24
<u>Plan of Distribution</u>	27
<u>Legal Matters</u>	32
<u>Experts</u>	32
<u>Where You Can Find More Information</u>	32
<u>Incorporation by Reference</u>	32

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a shelf registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate initial offering price of up to \$100,000,000. In addition, the selling stockholder may sell up to an aggregate of 1,000,000 shares of our common stock.

This prospectus provides you with a general description of the securities we and the selling stockholder may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and any accompanying prospectus supplement together with the additional information described under the heading Where You Can Find More Information beginning on page 32 of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

Unless the context otherwise indicates, references in this prospectus to Fate Therapeutics, we, our, us and the Company refer, collectively, to Fate Therapeutics, Inc., a Delaware corporation, and its subsidiaries.

Table of Contents

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks described below and in the documents incorporated by reference in this prospectus and any prospectus supplement, as well as other information we include or incorporate by reference into this prospectus and any applicable prospectus supplement, before making an investment decision. Our business, financial condition or results of operations could be materially adversely affected by the materialization of any of these risks. The trading price of our securities could decline due to the materialization of any of these risks, and you may lose all or part of your investment. This prospectus and the documents incorporated herein by reference also contain forward-looking statements that involve risks and uncertainties. Actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including the risks described below and in the documents incorporated herein by reference, including (i) our annual report on Form 10-K for the fiscal year ended December 31, 2016, which is on file with the SEC and is incorporated herein by reference, (ii) our quarterly report on Form 10-Q for the quarter ended June 30, 2017, which is incorporated by reference into this prospectus, and (iii) other documents we file with the SEC that are deemed incorporated by reference into this prospectus.

Table of Contents

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, including the documents that we incorporate by reference, contains 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, including the documents that we incorporate by reference, are forward-looking statements. In some cases, you can identify forward-looking statements by words such as anticipate, believe, contemplate, continue, could, estimate, expect, intend, may, plan, potential, predict, project, seek, should, target, will, w these words or other comparable terminology. These forward-looking statements include, but are not limited to, statements about:

the initiation, timing, progress and results of our clinical trials and preclinical research and development activities for our product candidates;

our ability to advance our product candidates into, and to successfully conduct and complete, clinical trials;

our ability to advance our human induced pluripotent stem cell (iPSC) product platform and to create cells of the immune system, including natural killer (NK) cells, T cells and CD34⁺ cells, and product candidates from master iPSC lines;

our ability to obtain and maintain, and the timing and likelihood of, regulatory allowances to conduct clinical trials of, and regulatory approvals to commercialize, our product candidates;

our ability to enroll patients in our ongoing and planned clinical trials, including at the pace we project;

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

our ability to enter into and maintain, and the potential benefit of, strategic collaborations;

regulatory developments and approval pathways, including regulatory strategies that we plan to pursue, in the United States and foreign countries for our product candidates;

the period of time for which our operations are funded, and our ability to obtain, and the timing at which point we might seek, additional capital to fund our operations;

the accuracy of our estimates regarding our expenses, ongoing losses, capital requirements and our needs for additional financing;

our ability to retain and recruit key personnel;

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

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

the pricing and reimbursement, and the degree of market acceptance, of our product candidates, if approved;

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

Table of Contents

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

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 and any prospectus supplement that we may file.

Any forward-looking statements in this prospectus, including the documents that we incorporate by reference, reflect our current views with respect to future events or to our 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, including the documents that we incorporate by reference, contains 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

THE 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), generate a master iPSC line having preferred biological properties, and direct the fate of the iPSC line to create a clonal population of our cell therapy product candidate. We believe the use of master pluripotent cell 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 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.

We are advancing a pipeline of programmed cellular immunotherapies comprised of NK- and T-cell immuno-oncology programs, including off-the-shelf product candidates derived from engineered iPSC lines, and immuno-regulatory programs, including product candidates to prevent life-threatening complications in patients undergoing hematopoietic cell transplantation and to promote immune tolerance in patients with autoimmune disease.

We have entered into a research collaboration and license agreement with the Regents of the University of Minnesota to develop an off-the-shelf, targeted NK cell cancer immunotherapy derived from an engineered iPSC line. Additionally, we have entered into a research collaboration and license agreement with Memorial Sloan Kettering Cancer Center to develop off-the-shelf T-cell immunotherapies derived from engineered iPSC lines.

We also have entered into a research collaboration and license agreement with Juno Therapeutics, Inc. (Juno) to identify and apply small molecule modulators that improve the therapeutic function of T cells, including the identification of molecules that enhance the properties of chimeric antigen receptor (CAR) T-cell and T-cell receptor (TCR) immunotherapies. Juno has the right to incorporate such modulators in its development and commercialization of genetically engineered CAR T-cell and TCR immunotherapies directed against certain tumor-associated antigen targets designated by Juno.

We were incorporated in Delaware in 2007 and our principal executive offices are located at 3535 General Atomics Court, Suite 200, San Diego, CA 92121 and our telephone number is (858) 875-1800.

Table of Contents**RATIO OF EARNINGS TO FIXED CHARGES**

The following table sets forth our ratio of earnings to fixed charges for the periods shown. You should read this table in conjunction with the financial statements and notes incorporated by reference in this prospectus. We currently have 2,819,549 shares of Class A Convertible Preferred Stock outstanding and have not paid any dividends on any shares of preferred stock during the periods indicated. Therefore, the ratios of earnings to combined fixed charges and preferred dividends are the same as the ratios of earnings to fixed charges presented below.

	Years Ended December 31,					Six Months Ended June 30,
	2016	2015	2014	2013	2012	2017
Ratio of Earnings to Fixed Charges	N/A	N/A	N/A	N/A	N/A	N/A

For purposes of calculating the ratios in the table above, earnings consist of net loss before income taxes. Fixed charges include interest expense on indebtedness and an estimate of the interest expense within rental expense.

Due to our net losses for the years ended December 31, 2016, 2015 and 2014 and for the six months ended June 30, 2017, earnings were insufficient to cover fixed charges for such periods and we are unable to disclose a ratio of earnings to fixed charges for such periods. The dollar amount of the deficiency in earnings available for fixed charges for the years ended December 31, 2016, 2015, 2014, 2013, 2012 and the six months ended June 30, 2017 was approximately \$33.5 million, \$30.0 million, \$25.9 million, \$20.9 million, \$14.2 million and \$19.8 million, respectively.

Table of Contents

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities offered by us under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include research and development costs to support the advancement of our product candidates, including the conduct of clinical trials and preclinical research and development activities; the manufacture of materials, reagents and drug product and the continued development of our manufacturing capabilities to support our ongoing and anticipated product development efforts; the expansion of our product candidate pipeline, including through internal research and development activities and collaborations with third parties and the in-licensing of additional product candidates; the procurement, maintenance, defense and enforcement of intellectual property rights protecting our product candidates; general and administrative expenses; repayment and refinancing of debt; working capital; capital expenditures; and other general corporate purposes. We may temporarily invest the net proceeds in a variety of capital preservation instruments, including high quality, investment grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government, or may hold such proceeds as cash, until they are used for their stated purpose. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of net proceeds.

We will not receive any proceeds from the sale by the selling stockholder of the 1,000,000 shares of common stock covered by this prospectus.

Table of Contents**SELLING STOCKHOLDER**

This prospectus also relates to the possible resale by one of our stockholders, who we refer to in this prospectus as the selling stockholder, of up to 1,000,000 shares of our common stock. On May 4, 2015, we entered into a securities purchase agreement with Juno Therapeutics, Inc. (Juno), pursuant to which we issued to Juno 1,000,000 shares of our common stock, \$0.001 par value per share, at a price of \$8.00 per share. Additionally, on May 4, 2015, we and Juno entered into a research collaboration and license agreement. Under the collaboration, we seek to identify small molecule modulators that improve the therapeutic function of T cells, including for molecules that enhance the properties of chimeric antigen receptor (CAR) T-cell and T-cell receptor (TCR) immunotherapies. Juno has the right to incorporate such modulators in its development and commercialization of genetically engineered CAR T-cell and TCR immunotherapies directed against certain tumor-associated antigen targets designated by Juno. On a target-by-target basis, Juno is responsible for using commercially reasonable efforts to develop and commercialize genetically engineered CAR T-cell or TCR immunotherapies that utilize or incorporate such modulators against such target.

The following table sets forth the name of the selling stockholder, the total number of shares of common stock beneficially owned by the selling stockholder prior to this offering, the percentage of our outstanding common stock beneficially owned by the selling stockholder prior to this offering, the number of shares of common stock covered by this prospectus and the total number of shares of common stock and percentage that the selling stockholder will beneficially own upon completion of this offering. Beneficial ownership is determined in accordance with SEC rules. The information is not necessarily indicative of beneficial ownership for any other purpose. In general, under these rules a beneficial owner of a security includes any person who, directly or indirectly, through any contract, arrangement, understanding, relationship or otherwise has or shares voting power or investment power with respect to such security. A person is also deemed to be a beneficial owner of a security if that person has the right to acquire beneficial ownership of such security within 60 days. The amounts set forth below are based upon information provided to us by representatives of the selling stockholder, or on our records, and are accurate to the best of our knowledge as of the date specified below. To our knowledge, except as otherwise indicated, and subject to applicable community property laws, the persons named in the table have sole voting and investment power with respect to all shares of common stock beneficially owned by that person.

The number of shares of common stock outstanding and percentage of beneficial ownership before this offering set forth below is computed on the basis of 41,415,796 shares of our common stock issued and outstanding as of August 10, 2017, and does not take into account 14,097,745 shares of common stock issuable upon conversion of all 2,819,549 Preferred Shares outstanding on such date. The number of shares of common stock and percentage of beneficial ownership after the consummation of this offering set forth below are based on the number of shares to be issued and outstanding immediately after the consummation of this offering. Shares of our common stock that a person has the right to acquire within 60 days of the date of this prospectus are deemed outstanding for purposes of computing the percentage ownership of such person's holdings, but are not deemed outstanding for purposes of computing the percentage ownership of any other person.

Table of Contents

We do not know when or in what amounts the selling stockholder may sell or otherwise dispose of the shares covered hereby. The selling stockholder might not sell any or all of the shares covered by this prospectus or may sell or dispose of some or all of its shares in transactions exempt from the registration requirements of the Securities Act of 1933, as amended (the Securities Act), or in the open market after the date on which it provided the information set forth in the table below. Because the selling stockholder may not sell or otherwise dispose of some or all of the shares covered by this prospectus and because there are currently no agreements, arrangements or understandings with respect to the sale or other disposition of any of the shares, we cannot estimate the number of the shares that will be held by the selling stockholder after completion of a potential offering. For purposes of the table below, we have assumed that the selling stockholder will have sold all of the shares covered by this prospectus upon completion of the applicable offering.

Name and Address of Selling Stockholder	Common stock beneficially owned		Maximum Shares of common stock	
	Shares of common stock beneficially owned prior to this offering		number of beneficially owned after shares that may be offered pursuant to this prospectus	giving effect to this offering(1)
	Number	Percentage	Number	Percentage
Juno Therapeutics, Inc. 400 Dexter Avenue North, Suite 1200 Seattle, Washington 98109	1,000,000	2.2%	1,000,000	
Total	1,000,000	2.2%	1,000,000	

(1) Assumes that the selling stockholder will sell all shares of common stock offered by it under this prospectus.

Table of Contents

SECURITIES WE MAY OFFER

This prospectus contains summary descriptions of the securities we may offer from time to time. In addition, the selling stockholder may sell up to an aggregate of 1,000,000 shares of our common stock. This prospectus provides you with a general description of the securities we and the selling stockholder may offer. These summary descriptions are not meant to be complete descriptions of each security. The particular terms of any security we may offer will be described in the applicable prospectus supplement.

DESCRIPTION OF CAPITAL STOCK

The following description of our common stock and preferred stock, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of our capital stock. The following description of our capital stock does not purport to be complete and is subject to, and qualified in its entirety by, our certificate of incorporation and bylaws, which are exhibits to the registration statement of which this prospectus forms a part, and by applicable law. The terms of our common stock and preferred stock may also be affected by Delaware law.

Authorized Capital Stock

Our authorized capital stock consists of 150,000,000 shares of common stock, par value \$0.001 per share, and 5,000,000 shares of preferred stock, par value \$0.001 per share. 2,819,549 shares of our authorized preferred stock have been designated as Class A Convertible Preferred Stock. As of June 30, 2017, we had 41,415,796 shares of common stock outstanding and 2,819,549 shares of Class A Convertible Preferred Stock outstanding.

Common Stock

The holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights. Holders of our common stock are entitled to receive ratably any dividends declared by the board of directors out of funds legally available for that purpose, subject to any preferential dividend rights of any outstanding preferred stock. Our common stock has no preemptive rights, conversion rights or other subscription rights or redemption or sinking fund provisions.

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. All outstanding shares, including the shares of the selling stockholder registered for resale hereunder, are fully paid and nonassessable.

When we issue shares of common stock under this prospectus, the shares will be fully paid and nonassessable and will not have, or be subject to, any preemptive or similar rights.

Exchange Listing

Our common stock is listed on The NASDAQ Global Market under the symbol FATE. On August 11, 2017, the closing price for our common stock, as reported on The NASDAQ Global Market, was \$2.98 per share. As of August 11, 2017, we had approximately 51 stockholders of record.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar's address is 6201 15th Avenue, Brooklyn, NY 11219.

Table of Contents

Preferred Stock

Undesignated Preferred Stock

Our board of directors was initially authorized to issue up to 5,000,000 shares of preferred stock in one or more series without stockholder approval. As a result of the designation and issuance of 2,819,549 shares of Class A Convertible Preferred Stock described below, our board of directors is authorized to designate and issue up to 2,180,451 remaining shares of preferred stock. Our board of directors may determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock, any or all of which may be more favorable than the rights 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 will receive dividend payments and payments upon our liquidation. In addition, the issuance of preferred stock could have the effect of delaying, deferring or preventing a change in control of our company or other corporate action.

The purpose of authorizing our board of directors to issue preferred stock in one or more series and determine the number of shares in the series and its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. Examples of rights and preferences that the Board may fix are:

dividend rights;

dividend rates;

conversion rights;

voting rights;

terms of redemption; and

liquidation preferences.

The existence of authorized but unissued shares of undesignated preferred stock may enable our board of directors to render more difficult or to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of us or our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer, stockholder or stockholder group. The rights of holders of our common stock described above, will be subject to, and may be adversely affected by, the rights of any preferred stock that we may designate and issue in the future. The issuance of shares of undesignated preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Class A Convertible Preferred Stock

We filed a Certificate of Designation of Preferences, Rights and Limitations of Class A Convertible Preferred Stock with the Secretary of State of Delaware on November 22, 2016 (the Certificate of Designation), pursuant to which we designated 2,819,549 shares of authorized and unissued preferred stock as Class A Convertible Preferred Stock (the Preferred Shares). Each Preferred Share is convertible into five shares of common stock (subject to adjustment for stock dividends, stock splits, combinations and the like). The holders of the Preferred Shares, which currently consist of entities affiliated with Redmile Group, LLC (Redmile), are prohibited from converting the Preferred Shares into shares of common stock if, as a result of such conversion, Redmile, together with its affiliates, would own more than 9.99% of the shares of our common stock then issued and outstanding (the Redmile Percentage Limitation), which percentage may change at Redmile s election upon 61 days notice to us to (i) any other number less than or equal to 19.99% or (ii) subject

Table of Contents

to approval of our stockholders to the extent required in accordance with the NASDAQ Global Market rules (the Requisite Approval), any number in excess of 19.99%. On May 2, 2017, our stockholders approved the issuance of up to an aggregate of 14,097,745 shares of common stock upon the conversion of the 2,819,549 outstanding Preferred Shares. As a result, Redmile has the right to increase the Redmile Percentage Limitation to any percentage in excess of 19.99% at its election upon 61 days notice to us. Additionally, in the event of certain fundamental transactions, including (i) any merger or consolidation of our company with or into another entity; (ii) our sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of our assets; (iii) the acceptance by holders of 35% or more of our outstanding common stock of any purchase offer, tender offer or exchange offer pursuant to which such holders are permitted to sell, tender or exchange their shares for other securities, cash or property; (iv) any reclassification, reorganization or recapitalization of the common stock or any compulsory share exchange pursuant to which the common stock is effectively converted into or exchanged for other securities, cash or property; or (v) any other business combination pursuant to which a third party acquires more than 50% of our outstanding shares of Common Stock, each share of Class A Convertible Preferred Stock outstanding immediately prior to such fundamental transaction will automatically convert into shares of common stock at the applicable conversion ratio then in effect.

In the event of our liquidation, dissolution or winding up, holders of Preferred Shares will participate *pari passu* with the holders of our common stock in any distribution of proceeds, pro rata based on the number of shares held by each such holder. The Preferred Shares will generally have no voting rights. Holders of the Preferred Shares are entitled to receive, on an as-converted-to-common-stock basis, dividends that are equal to dividends actually paid on shares of common stock, when, as and if such dividends are paid on shares of the common stock.

In addition, Redmile has the right to designate an individual to attend all meetings of our board of directors in a non-voting observer capacity, which right is non-assignable and shall terminate upon the earlier of (i) November 21, 2019 or (ii) the date upon which Redmile's total ownership no longer exceeds 15% of our total outstanding shares of common stock on an as-converted basis (without giving effect to the Redmile Percentage Limitation).

Additional Series of Preferred Stock

We will incorporate by reference as an exhibit to the registration statement, which includes this prospectus, the form of any certificate of designation that describes the terms of any additional series of preferred stock we may offer pursuant to this prospectus. This description and the applicable prospectus supplement will include:

the title and stated value;

the number of shares authorized;

the liquidation preference per share;

the purchase price;

the dividend rate, period and payment date, and method of calculation for dividends;

whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;

the procedures for any auction and remarketing, if any;

the provisions for a sinking fund, if any;

the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;

any listing of the preferred stock on any securities exchange or market;

Table of Contents

whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;

whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;

voting rights, if any, of the preferred stock;

preemptive rights, if any;

restrictions on transfer, sale or other assignment, if any;

whether interests in the preferred stock will be represented by depositary shares;

a discussion of any material United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

When we issue shares of preferred stock under this prospectus, the shares will fully be paid and nonassessable and will not be subject to any preemptive or similar rights.

Provisions of our Certificate of Incorporation and Bylaws and Delaware Anti-Takeover Law

Certain provisions of the Delaware General Corporation Law and of our certificate of incorporation and bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of us to first negotiate with our board of directors. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, we believe that the advantages gained by protecting our ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced

above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Provisions of our Certificate of Incorporation and Bylaws. Our certificate of incorporation and bylaws include a number of provisions that may have the effect of delaying, deferring or discouraging another party from acquiring control of us and encouraging persons considering unsolicited tender offers or other unilateral takeover proposals to negotiate with our board of directors rather than pursue non-negotiated takeover attempts. These provisions include the items described below.

Board Composition and Filling Vacancies. Our certificate of incorporation provides for the division of our board of directors into three classes serving staggered three-year terms, with one class being elected each year. Our certificate of incorporation also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of 75% or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on our board of directors, however occurring, including a vacancy resulting from an increase in the size of our board, may only be filled by the affirmative vote of a majority of our directors then in office even if less than a quorum.

Table of Contents

No Written Consent of Stockholders. Our certificate of incorporation provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting.

Meetings of Stockholders. Our certificate of incorporation and bylaws provide that only a majority of the members of our board of directors then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements. Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of our stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices.

Amendment to Certificate of Incorporation and Bylaws. As required by the Delaware General Corporation Law, any amendment of our certificate of incorporation must first be approved by a majority of our board of directors, and if required by law or our certificate of incorporation, must thereafter be approved by a majority of the outstanding shares entitled to vote on the amendment and a majority of the outstanding shares of each class entitled to vote thereon as a class, except that the amendment of the provisions relating to stockholder action, board composition, limitation of liability and the amendment of our certificate of incorporation must be approved by not less than 75% of the outstanding shares entitled to vote on the amendment, and not less than 75% of the outstanding shares of each class entitled to vote thereon as a class. Our bylaws may be amended by the affirmative vote of a majority of the directors then in office, subject to any limitations set forth in the bylaws; and may also be amended by the affirmative vote of at least 75% of the outstanding shares entitled to vote on the amendment, or, if our board of directors recommends that the stockholders approve the amendment, by the affirmative vote of the majority of the outstanding shares entitled to vote on the amendment, in each case voting together as a single class.

Undesignated preferred stock. Our certificate of incorporation provides for 5,000,000 authorized shares of preferred stock, of which 2,819,549 shares have been designated as Class A Convertible Preferred Stock. The existence of authorized but unissued shares of undesignated preferred stock may enable our board of directors to discourage an attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, our board of directors were to determine that a takeover proposal is not in the best interests of our stockholders, our board of directors could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our certificate of incorporation grants our board of directors broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of us.

Delaware Anti-Takeover Law We are subject to the provisions of Section 203 of the Delaware General Corporation Law. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging in a business combination with an interested stockholder for a three-year period following the time that this stockholder becomes an interested

stockholder, unless the business combination is approved in a prescribed manner. A business combination includes, among other things, a merger, asset or stock sale or other transaction resulting in a financial benefit to the interested stockholder. In general, Section 203 defines an

Table of Contents

interested stockholder as any person or entity who, together with affiliates and associates, owns, or did own within three years prior to the determination of interested stockholder status, 15% or more of the corporation's voting stock. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction which 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 commenced, excluding for purposes of determining the voting stock outstanding, shares owned by persons who are directors and also officers, and employee stock plans, in some instances; or

at or after the time the stockholder became interested, the business combination was approved by the board of directors of the corporation and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Exclusive Jurisdiction of Certain Actions. Our 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 shall be the sole and exclusive forum for (i) any derivative action or proceeding brought on our behalf, (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or other employees to us or our stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, our certificate of incorporation or our bylaws, or (iv) any action asserting a claim against us governed by the internal affairs doctrine. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers. The enforceability of similar exclusive forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could rule that this provision in our certificate of incorporation is inapplicable or unenforceable.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

This section describes the general terms and provisions of our debt securities that we may issue from time to time. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, the applicable prospectus supplement or free writing prospectus will describe the specific terms of any debt securities offered through that prospectus supplement or free writing prospectus. The terms of any debt securities we offer under a prospectus supplement or free writing prospectus may differ from the terms we describe below. Unless the context requires otherwise, whenever we refer to the indentures, we also are referring to any supplemental indentures that specify the terms of a particular series of debt securities.

We will issue any senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. We will issue any subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement, of which this prospectus is a part, and supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. We use the term trustee to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

General

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of debt securities being offered, including:

the title;

the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;

any limit on the amount that may be issued;

whether or not we will issue the series of debt securities in global form, and, if so, the terms and who the depository will be;

the maturity date;

whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

Table of Contents

whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

the terms of the subordination of any series of subordinated debt;

the place where payments will be payable;

restrictions on transfer, sale or other assignment, if any;

our right, if any, to defer payment of interest and the maximum length of any such deferral period;

the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;

whether the indenture will restrict our ability or the ability of our subsidiaries to:

incur additional indebtedness;

issue additional securities;

create liens;

pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries;

redeem capital stock;

place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;

make investments or other restricted payments;

sell or otherwise dispose of assets;

enter into sale-leaseback transactions;

engage in transactions with stockholders or affiliates;

issue or sell stock of our subsidiaries; or

effect a consolidation or merger;

whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;

a discussion of certain material or special United States federal income tax considerations applicable to the debt securities;

information describing any book-entry features;

provisions for a sinking fund purchase or other analogous fund, if any;

the applicability of the provisions in the indenture on discharge;

whether the debt securities are to be offered at a price such that they will be deemed to be offered at an original issue discount as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;

the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;

the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and

Table of Contents

any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

Conversion or Exchange Rights

We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a series of debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default Under the Indenture

Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, the following are events of default under the indentures with respect to any series of debt securities that we may issue:

if we fail to pay interest when due and payable and our failure continues for 90 days and the time for payment has not been extended;

if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise, and the time for payment has not been extended;

if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and

if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of debt securities.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

Table of Contents

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the trustee reasonable indemnity or security satisfactory to it against any loss, liability or expense. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, or exercising any trust or power conferred on the trustee, with respect to the debt securities of that series, provided that:

the direction so given by the holder is not in conflict with any law or the applicable indenture; and

subject to its duties under the Trust Indenture Act, the trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

the holder has given written notice to the trustee of a continuing event of default with respect to that series;

the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and

the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

We will periodically file statements with the trustee regarding our compliance with specified covenants in the indentures.

Modification of Indenture; Waiver

Subject to the terms of the indenture for any series of debt securities that we may issue, we and the trustee may change an indenture without the consent of any holders with respect to the following specific matters:

to fix any ambiguity, defect or inconsistency in the indenture;

to comply with the provisions described above under Description of Our Debt Securities Consolidation, Merger or Sale;

to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;

to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of debt securities, as set forth in the indenture;

Table of Contents

to provide for the issuance of and establish the form and terms and conditions of the debt securities of any series as provided under Description of Our Debt Securities General, to establish the form of any certifications required to be furnished pursuant to the terms of the indenture or any series of debt securities, or to add to the rights of the holders of any series of debt securities;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee;

to provide for uncertificated debt securities and to make all appropriate changes for such purpose;

to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the indenture; or

to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, subject to the terms of the indenture for any series of debt securities that we may issue or as otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we and the trustee may make the following changes only with the consent of each holder of any outstanding debt securities affected:

extending the stated maturity of the series of debt securities;

reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any debt securities; or

reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Discharge

Each indenture provides that, subject to the terms of the indenture and any limitation otherwise provided in the prospectus supplement or free writing prospectus applicable to a particular series of debt securities, we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

register the transfer or exchange of debt securities of the series;

replace stolen, lost or mutilated debt securities of the series;

maintain paying agencies;

hold monies for payment in trust;

recover excess money held by the trustee;

compensate and indemnify the trustee; and

appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement or free writing prospectus, in denominations of \$1,000

Table of Contents

and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company or another depository named by us and identified in a prospectus supplement or free writing prospectus with respect to that series.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement or free writing prospectus, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement or free writing prospectus, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement or free writing prospectus the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series. If we elect to redeem the debt securities of any series, we will not be required to:

issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or

register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Trustee

The trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable

Table of Contents

prospectus supplement or free writing prospectus, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in the applicable prospectus supplement or free writing prospectus, we will designate the corporate trust office of the trustee as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement or free writing prospectus any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Ranking of Debt Securities

The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement or free writing prospectus. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

The senior debt securities will rank equally in right of payment to all our other senior unsecured debt. The senior indenture does not limit the amount of senior debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

Table of Contents

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below. Specific warrant agreements will contain additional important terms and provisions and will be incorporated by reference as an exhibit to the registration statement, which includes this prospectus.

General

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate warrant agreement. We will enter into the warrant agreement with a warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

the offering price and aggregate number of warrants offered;

the currency for which the warrants may be purchased;

if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;

if applicable, the date on and after which the warrants and the related securities will be separately transferable;

in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;

in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;

the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;

the terms of any rights to redeem or call the warrants;

any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

the periods during which, and places at which, the warrants are exercisable;

the manner of exercise;

the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreement and warrants may be modified;

federal income tax consequences of holding or exercising the warrants;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Table of Contents

DESCRIPTION OF UNITS

We may issue units comprised of shares of common stock, shares of preferred stock, debt securities and warrants in any combination. We may issue units in such amounts and in as many distinct series as we wish. This section outlines certain provisions of the units that we may issue. If we issue units, they will be issued under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. The information described in this section may not be complete in all respects and is qualified entirely by reference to the unit agreement with respect to the units of any particular series. The specific terms of any series of units offered will be described in the applicable prospectus supplement. If so described in a particular supplement, the specific terms of any series of units may differ from the general description of terms presented below. We urge you to read any prospectus supplement related to any series of units we may offer, as well as the complete unit agreement and unit certificate that contain the terms of the units. If we issue units, forms of unit agreements and unit certificates relating to such units will be incorporated by reference as exhibits to the registration statement, which includes this prospectus.

Each unit that we may issue will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. The applicable prospectus supplement may describe:

the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

any provisions of the governing unit agreement;

the price or prices at which such units will be issued;

the applicable United States federal income tax considerations relating to the units;

any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and

any other terms of the units and of the securities comprising the units.

The provisions described in this section, as well as those described under [Description of Capital Stock](#), [Description of Debt Securities](#) and [Description of Warrants](#) will apply to the securities included in each unit, to the extent relevant and as may be updated in any prospectus supplements.

Issuance in Series

We may issue units in such amounts and in as many distinct series as we wish. This section summarizes terms of the units that apply generally to all series. Most of the financial and other specific terms of a particular series of units will

be described in the applicable prospectus supplement.

Unit Agreements

We will issue the units under one or more unit agreements to be entered into between us and a bank or other financial institution, as unit agent. We may add, replace or terminate unit agents from time to time. We will identify the unit agreement under which each series of units will be issued and the unit agent under that agreement in the applicable prospectus supplement.

Table of Contents

The following provisions will generally apply to all unit agreements unless otherwise stated in the applicable prospectus supplement:

Modification without Consent

We and the applicable unit agent may amend any unit or unit agreement without the consent of any holder:

to cure any ambiguity; any provisions of the governing unit agreement that differ from those described below;

to correct or supplement any defective or inconsistent provision; or

to make any other change that we believe is necessary or desirable and will not adversely affect the interests of the affected holders in any material respect.

We do not need any approval to make changes that affect only units to be issued after the changes take effect. We may also make changes that do not adversely affect a particular unit in any material respect, even if they adversely affect other units in a material respect. In those cases, we do not need to obtain the approval of the holder of the unaffected unit; we need only obtain any required approvals from the holders of the affected units.

Modification with Consent

We may not amend any particular unit or a unit agreement with respect to any particular unit unless we obtain the consent of the holder of that unit, if the amendment would:

impair any right of the holder to exercise or enforce any right under a security included in the unit if the terms of that security require the consent of the holder to any changes that would impair the exercise or enforcement of that right; or

reduce the percentage of outstanding units or any series or class the consent of whose holders is required to amend that series or class, or the applicable unit agreement with respect to that series or class, as described below.

Any other change to a particular unit agreement and the units issued under that agreement would require the following approval:

If the change affects only the units of a particular series issued under that agreement, the change must be approved by the holders of a majority of the outstanding units of that series; or

If the change affects the units of more than one series issued under that agreement, it must be approved by the holders of a majority of all outstanding units of all series affected by the change, with the units of all the affected series voting together as one class for this purpose.

These provisions regarding changes with majority approval also apply to changes affecting any securities issued under a unit agreement, as the governing document.

In each case, the required approval must be given by written consent.

Unit Agreements Will Not Be Qualified under Trust Indenture Act

No unit agreement will be qualified as an indenture, and no unit agent will be required to qualify as a trustee, under the Trust Indenture Act. Therefore, holders of units issued under unit agreements will not have the protections of the Trust Indenture Act with respect to their units.

Mergers and Similar Transactions Permitted; No Restrictive Covenants or Events of Default

The unit agreements will not restrict our ability to merge or consolidate with, or sell our assets to, another corporation or other entity or to engage in any other transactions. If at any time we merge or consolidate with, or

Table of Contents

sell our assets substantially as an entirety to, another corporation or other entity, the successor entity will succeed to and assume our obligations under the unit agreements. We will then be relieved of any further obligation under these agreements.

The unit agreements will not include any restrictions on our ability to put liens on our assets, nor will they restrict our ability to sell our assets. The unit agreements also will not provide for any events of default or remedies upon the occurrence of any events of default.

Governing Law

The unit agreements and the units will be governed by Delaware law.

Form, Exchange and Transfer

We will issue each unit in global i.e., book-entry form only. Units in book-entry form will be represented by a global security registered in the name of a depositary, which will be the holder of all the units represented by the global security. Those who own beneficial interests in a unit will do so through participants in the depositary's system, and the rights of these indirect owners will be governed solely by the applicable procedures of the depositary and its participants. We will describe book-entry securities, and other terms regarding the issuance and registration of the units in the applicable prospectus supplement.

Each unit and all securities comprising the unit will be issued in the same form.

If we issue any units in registered, non-global form, the following will apply to them.

The units will be issued in the denominations stated in the applicable prospectus supplement. Holders may exchange their units for units of smaller denominations or combined into fewer units of larger denominations, as long as the total amount is not changed.

Holders may exchange or transfer their units at the office of the unit agent. Holders may also replace lost, stolen, destroyed or mutilated units at that office. We may appoint another entity to perform these functions or perform them ourselves.

Holders will not be required to pay a service charge to transfer or exchange their units, but they may be required to pay for any tax or other governmental charge associated with the transfer or exchange. The transfer or exchange, and any replacement, will be made only if our transfer agent is satisfied with the holder's proof of legal ownership. The transfer agent may also require an indemnity before replacing any units.

If we have the right to redeem, accelerate or settle any units before their maturity, and we exercise our right as to less than all those units or other securities, we may block the exchange or transfer of those units during the period beginning 15 days before the day we mail the notice of exercise and ending on the day of that mailing, in order to freeze the list of holders to prepare the mailing. We may also refuse to register transfers of or exchange any unit selected for early settlement, except that we will continue to permit transfers and

exchanges of the unsettled portion of any unit being partially settled. We may also block the transfer or exchange of any unit in this manner if the unit includes securities that are or may be selected for early settlement.

Only the depository will be entitled to transfer or exchange a unit in global form, since it will be the sole holder of the unit.

Payments and Notices

In making payments and giving notices with respect to our units, we will follow the procedures as described in the applicable prospectus supplement.

Table of Contents

PLAN OF DISTRIBUTION

Our Plan of Distribution

We may sell securities:

through underwriters;

through dealers;

through agents;

directly to purchasers; or

through a combination of any of these methods or any other method permitted by law.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders.

We may directly solicit offers to purchase securities, or agents may be designated to solicit such offers. In the prospectus supplement relating to such offering, we will name any agent that could be viewed as an underwriter under the Securities Act and describe any commissions that we must pay to any such agent. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions:

at a fixed price, or prices, which may be changed from time to time;

at market prices prevailing at the time of sale;

at prices related to such prevailing market prices; or

at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

the name of the agent or any underwriters;

the public offering or purchase price;

any discounts and commissions to be allowed or paid to the agent or underwriters;

all other items constituting underwriting compensation;

any discounts and commissions to be allowed or paid to dealers; and

any exchanges on which the securities will be listed.

If any underwriters or agents are used in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement, sales agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

Table of Contents

In connection with the offering of securities, we may grant to the underwriters an option to purchase additional securities with an additional underwriting commission, as may be set forth in the accompanying prospectus supplement. If we grant any such option, the terms of such option will be set forth in the prospectus supplement for such securities.

If a dealer is used in the sale of the securities in respect of which the prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer, who may be deemed to be an underwriter as that term is defined in the Securities Act, may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing security holders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and

if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Offered securities may also be offered and sold, if so indicated in the prospectus supplement, in connection with a remarketing upon their purchase, in accordance with a redemption or repayment pursuant to their terms, or otherwise, by one or more remarketing firms, acting as principals for their own accounts or as agents for us. Any remarketing firm will be identified and the terms of its agreement, if any, with us and its compensation will be described in the applicable prospectus supplement. Remarketing firms may be deemed to be underwriters in connection with their remarketing of offered securities.

Certain agents, underwriters and dealers, and their associates and affiliates, may be customers of, have borrowing relationships with, engage in other transactions with, or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may overallocate in connection with the offering, creating a short position for their own accounts. In addition, to cover overallocations or to stabilize the

Table of Contents

price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

We may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act. In addition, we may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement so indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be named in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus and an applicable prospectus supplement. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

Under Rule 15c6-1 of the Securities Exchange Act of 1934, as amended (the Exchange Act), trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than three scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the third business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than three scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

In compliance with the guidelines of the Financial Industry Regulatory Authority, Inc., or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of the proceeds from any offering pursuant to this prospectus and any applicable prospectus supplement.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

The underwriters, dealers and agents may engage in transactions with us, or perform services for us, in the ordinary course of business for which they receive compensation.

The anticipated date of delivery of offered securities will be set forth in the applicable prospectus supplement relating to each offer.

Table of Contents

The Selling Stockholder's Plan of Distribution

We are registering the 1,000,000 shares of common stock held by the selling stockholder to permit the resale of these shares from time to time after the date of this prospectus. We will not receive any proceeds from the sale by the selling stockholder of the common stock covered by this prospectus

The selling stockholder may sell all or a portion of the shares of common stock held by it and offered hereby from time to time directly or through one or more underwriters, broker-dealers or agents. If the shares of common stock are sold through underwriters or broker-dealers, the selling stockholder will be responsible for underwriting discounts or commissions or agent's commissions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected from time to time pursuant to one or more of the following methods, which may involve crosses or block transactions:

on any national securities exchange or U.S. inter-dealer quotation system of a registered national securities association on which the securities may be listed or quoted at the time of sale;

in the over-the-counter market;

in transactions otherwise than on these exchanges or systems or in the over-the-counter market;

through the writing or settlement of options or other hedging transactions, whether such options are listed on an options exchange or otherwise;

through ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;

through block trades in which the broker-dealer will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;

through purchases by a broker-dealer as principal and resale by the broker-dealer for its account;

through an exchange distribution in accordance with the rules of the applicable exchange;

in public or privately negotiated transactions;

through short sales;

in transactions in which broker-dealers agree with the selling stockholder to sell a specified number of such shares at a stipulated price per share;

through a combination of any such methods of sale; or

through any other method permitted pursuant to applicable law.

If the selling stockholder effects such transactions by selling shares of common stock to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholder or commissions from purchasers of the shares of common stock for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). Broker-dealers engaged by the selling stockholders may arrange for other broker-dealers to participate in sales. In connection with sales of the shares of common stock or otherwise, the selling stockholder may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock in the course of hedging in positions they assume. The selling stockholder may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares if liabilities are imposed on that person under the Securities Act. The selling stockholder may also sell shares of common stock short and deliver shares of common stock covered by this prospectus to close out short positions, and to return borrowed shares in connection with such short sales, provided that the short sales are made after the registration statement of which this prospectus forms a part is declared effective. The selling stockholder may also loan or pledge shares of common stock to broker-dealers in connection with bona fide margin accounts secured by the shares of common stock, which shares broker-dealers could in turn sell if the selling stockholder defaults in the performance of its respective secured obligations.

Table of Contents

The selling stockholder may pledge or grant a security interest in some or all of the shares of common stock owned by it and, if it defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell the shares of common stock from time to time pursuant to this prospectus. The selling stockholder also may transfer and donate the shares of common stock in other circumstances in which case the transferees, donees or other successors in interest will be the selling beneficial owners for purposes of this prospectus. We will file an amendment or supplement to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act of 1933, amending, if necessary, the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus.

The selling stockholder and any broker-dealer participating in the distribution of the shares of common stock may be deemed to be underwriters within the meaning of the Securities Act of 1933, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act of 1933. In such event, at the time a particular offering of the shares of common stock is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any underwriters, broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholder and any discounts, commissions or concessions allowed or reallocated or paid to underwriters or broker-dealers.

Under the securities laws of some states, the shares of common stock may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that the selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement of which this prospectus forms a part.

The selling stockholder and any other person participating in such distribution will be subject to applicable provisions of the Securities Exchange Act of 1934, and the rules and regulations thereunder, including, without limitation, Regulation M of the Securities Exchange Act of 1934, which may limit the timing of purchases and sales of any of the shares of common stock by the selling stockholder and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock to engage in market-making activities with respect to the shares of common stock. All of the foregoing may affect the marketability of the shares of common stock and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock.

We will pay all expenses of the registration of the shares of common stock held by the selling stockholder, including, without limitation, SEC filing fees and expenses of compliance with state securities or blue sky laws; provided, however, that the selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholder against liabilities, including liabilities under the Securities Act of 1933, or the selling stockholder will be entitled to contribution, in each case in accordance with the investor rights agreement. We may be indemnified by the selling stockholder against civil liabilities, including liabilities under the Securities Act of 1933, that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, or we may be entitled to contribution, in each case in accordance with the investor rights agreement.

Once sold under the registration statement of which this prospectus forms a part, the shares of common stock held by the selling stockholder will be freely tradable by the purchasers of such shares, other than our affiliates.

Any shares covered by this prospectus that qualify for sale pursuant to Rule 144 of the Securities Act of 1933 may be sold under Rule 144, rather than pursuant to this prospectus.

Table of Contents

LEGAL MATTERS

Certain legal matters in connection with this offering will be passed upon for us by Goodwin Procter LLP, San Francisco, California. Any underwriters will also be advised about the validity of the securities and other legal matters by their own counsel, which will be named in the prospectus supplement.

EXPERTS

The consolidated financial statements of Fate Therapeutics, Inc. appearing in our Annual Report (Form 10-K) for the year ended December 31, 2016 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the information requirements of the Exchange Act and, in accordance therewith, file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You may call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. These documents also may be accessed through the SEC's electronic data gathering, analysis and retrieval system, or EDGAR, via electronic means, including the SEC's home page on the Internet (www.sec.gov).

We have the authority to designate and issue more than one class or series of stock having various preferences, conversion and other rights, voting powers, restrictions, limitations as to dividends, qualifications, and terms and conditions of redemption. See Description of Capital Stock. We will furnish a full statement of the relative rights and preferences of each class or series of our stock which has been so designated and any restrictions on the ownership or transfer of our stock to any stockholder upon written or oral request and without charge. Written requests for such copies should be directed to Fate Therapeutics, Inc., 3535 General Atomics Court, Suite 200, San Diego, CA 92121, Attention: Secretary, or by telephone request to (858) 875-1800. Our website is located at www.fatetherapeutics.com. Information contained on our website is not incorporated by reference into this prospectus and, therefore, is not part of this prospectus or any accompanying prospectus supplement.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference the information and reports we file with it, which means that we can disclose important information to you by referring you to these documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede the information already incorporated by reference. We are incorporating by reference the documents listed below, which we have already filed with the SEC, and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, including all filings made after the date of the filing of this registration statement and prior to the effectiveness of this registration statement, except as to any portion of any future report or document that is not deemed filed under such provisions, until we sell all of the securities:

Annual Report on Form 10-K for the year ended December 31, 2016;

The information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2016 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on March 22, 2017;

Table of Contents

Quarterly Reports on Form 10-Q filed with the SEC for the quarters ended March 31, 2017 and June 30, 2017;

Current Reports on Form 8-K filed with the SEC on May 8, 2017 and July 14, 2017; and

The description of our common stock contained in our registration statement on Form 8-A (Registration No. 001-36076) filed with the SEC on September 17, 2013 under Section 12(b) of the Exchange Act, including any amendments or reports filed for the purpose of updating such description.

Upon request, we will provide, without charge, to each person, including any beneficial owner, to whom a copy of this prospectus is delivered, a copy of the documents incorporated by reference into this prospectus but not delivered with the prospectus. You may request a copy of these filings, and any exhibits we have specifically incorporated by reference as an exhibit in this prospectus, at no cost by writing or telephoning us at the following address:

Fate Therapeutics, Inc., 3535 General Atomics Court, Suite 200, San Diego, CA 92121, Attention: Secretary, or by telephone request to (858) 875-1800.

This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

You should rely only on the information incorporated by reference or provided in this prospectus or any prospectus supplement. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or in the documents incorporated by reference is accurate as of any date other than the date on the front of this prospectus or those documents.

Table of Contents

9,525,000 Shares

Common Stock

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

Leerink Partners

Piper Jaffray

Co-Manager

Wedbush PacGrow

December 12, 2017

