

OMB APPROVAL	
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

1. Name and Address of Reporting Person* <u>Redmile Group, LLC</u> (Last) (First) (Middle) <u>ONE LETTERMAN DRIVE, BUILDING D SUITE D3-300</u> (Street) <u>SAN FRANCISCO CA 94129</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>FATE THERAPEUTICS INC [FATE]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) <u>07/31/2018</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)	
				Code	V	(A)	(D)	Date Exercisable	Expiration Date						Title
Stock Option (Right to Buy)	\$8.93	07/31/2018		A		24,000		(I)	07/31/2028	Common Stock	24,000	\$0.00	24,000	I	See footnote(2)(3)(4)

1. Name and Address of Reporting Person* <u>Redmile Group, LLC</u> (Last) (First) (Middle) <u>ONE LETTERMAN DRIVE, BUILDING D SUITE D3-300</u> (Street) <u>SAN FRANCISCO CA 94129</u> (City) (State) (Zip)
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1. Name and Address of Reporting Person*

Green Jeremy

(Last) (First) (Middle)

C/O REDMILE GROUP, LLC
ONE LETTERMAN DR., BLDG. D, SUITE D3-300

(Street)

SAN FRANCISCO CA 94129

(City) (State) (Zip)

Explanation of Responses:

1. The shares subject to the stock option will vest in equal monthly installments during the 36 months following the grant date, subject to Michael Lee's continued service on the Board of Directors of the Issuer through each vesting date.
2. The stock option was granted to Mr. Lee, a managing director of Redmile Group, LLC ("Redmile"), in connection with his appointment to the Board of Directors of the Issuer. Pursuant to the policies of Redmile, Mr. Lee holds this stock option as a nominee on behalf, and for the sole benefit, of Redmile and has assigned all economic, pecuniary and voting rights in respect of the stock option to Redmile. Mr. Lee disclaims beneficial ownership of the stock option, and the filing of this Form 4 shall not be deemed an admission that Mr. Lee is the beneficial owner of the securities for purposes of Section 16 of the Securities Exchange Act of 1934, as amended, or for any other purpose.
3. The stock option may also be deemed beneficially owned by Jeremy Green as the principal of Redmile. Redmile and Mr. Green disclaim beneficial ownership of the stock option except to the extent of their pecuniary interest therein, and this Form 4 shall not be deemed an admission that Redmile or Mr. Green is the beneficial owner of the securities for purposes of Section 16 of the Securities Exchange Act of 1934, as amended, or for any other purpose.
4. Mr. Lee, a member of the board of directors of the Issuer and a managing director of Redmile, was elected to the board of the Issuer as a representative of Redmile. As a result, the Reporting Persons are directors by deputization for purposes of Section 16 of the Securities Exchange Act of 1934, as amended.

/s/ Jeremy Green, Managing
Member of Redmile Group, 08/02/2018
LLC

/s/ Jeremy Green 08/02/2018

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.