FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL OMB Number: 3235-0287 Estimated average burden hours per response: 0.5

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 [*] Shoemaker Daniel D						2. Issuer Name and Ticker or Trading Symbol FATE THERAPEUTICS INC [FATE]								5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner						
(Last)	(F	irst) (Middle)			3. Date of Earliest Transaction (Month/Day/Year) 01/04/2017								X	Officer below)	(give title		Other (s below)	specify	
C/O FAT	TE THERA	PEUTICS, INC.;										Chief Scientific Officer								
3535 GE	4. If A	4. If Amendment, Date of Original Filed (Month/Day/Year)									6. Individual or Joint/Group Filing (Check Applicable Line)									
(Street)														X Form filed by One Reporting Person						
SAN DIEGO CA 92121															Form filed by More than One Reporting Person					
(City)	(S	tate) (Zip)																	
Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned																				
1. Title of Security (Instr. 3) 2. Transacti Date (Month/Day						Execution Date,			3. Transaction Code (Instr. 8) 4. Securities Acquired Disposed Of (D) (Instr. and 5)						es Form ally (D) of Indi		n: Direct r ect (I)	7. Nature of Indirect Beneficial Ownership (Instr. 4)		
									Code	v	Amount	(A) (D)	or Pric	e	Reported Transact (Instr. 3	ed ction(s)		. 4)	(1150.4)	
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. Dee Executio if any (Month/		4. Transaction Code (Instr. 8)		n of		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 Indirec (I) (Instr. 4)	Beneficial Ownership	
					Code	v	(A)	(D)	Date Exercisabl		Expiration Date	Title	Amour or Numbe of Shares	er						
Stock Option (right to buy)	\$2.73	01/04/2017			А		150,000		(1)	(01/03/2027	Common Stock	150,0)0	(2)	150,00)0	D		

Explanation of Responses:

1. The shares subject to this option shall vest and become exercisable in 48 equal monthly installments beginning on February 4, 2017 such that this option is fully exercisable on January 4, 2021.

2. Not applicable.

Remarks:

<u>/s/ Cindy R. Tahl, as Attorney-</u> 01/06/2017 in-Fact

** 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.