

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

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

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| 1. Name and Address of Reporting Person* TAHL CINDY (Last) (First) (Middle) C/O FATE THERAPEUTICS, INC.; 3535 GENERAL ATOMICS COURT #200 (Street) SAN DIEGO CA 92121 (City) (State) (Zip) | 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 <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) General Counsel and Secretary |
| | 3. Date of Earliest Transaction (Month/Day/Year) 01/07/2019 | |
| | 4. If Amendment, Date of Original Filed (Month/Day/Year) | 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person |

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 | | | |
| Common Stock | 01/07/2019 | | M ⁽¹⁾ | | 2,008 | A | \$1.37 | 47,426 | D | |
| Common Stock | 01/07/2019 | | M ⁽¹⁾ | | 2,080 | A | \$1.69 | 49,506 | D | |
| Common Stock | 01/07/2019 | | M ⁽¹⁾ | | 8,461 | A | \$1.69 | 57,967 | D | |
| Common Stock | 01/07/2019 | | M ⁽¹⁾ | | 12,451 | A | \$2.9 | 70,418 | D | |
| Common Stock | 01/07/2019 | | S ⁽¹⁾ | | 25,000 | D | \$16 | 45,418 | D | |
| Common Stock ⁽²⁾ | 01/07/2019 | | A | | 45,000 | A | \$0.00 | 90,418 | D | |

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 | Amount or Number of Shares | | | | |
| Stock Option (right to buy) | \$1.37 | 01/07/2019 | | M ⁽¹⁾ | | | 2,008 | (3) | 01/14/2023 | Common Stock | 2,008 | (4) | 0 | D | |
| Stock Option (right to buy) | \$1.69 | 01/07/2019 | | M ⁽¹⁾ | | | 2,080 | (3) | 02/10/2020 | Common Stock | 2,080 | (4) | 0 | D | |
| Stock Option (right to buy) | \$1.69 | 01/07/2019 | | M ⁽¹⁾ | | | 8,461 | (3) | 03/11/2021 | Common Stock | 8,461 | (4) | 0 | D | |
| Stock Option (right to buy) | \$2.9 | 01/07/2019 | | M ⁽¹⁾ | | | 12,451 | (5) | 01/07/2026 | Common Stock | 12,451 | (4) | 123,149 | D | |
| Stock Option (right to buy) | \$16.55 | 01/07/2019 | | A | | | 135,000 | (6) | 01/06/2029 | Common Stock | 135,000 | (4) | 135,000 | D | |

Explanation of Responses:

- This transaction was effected pursuant to a Rule 10b5-1 trading plan adopted by the reporting person on September 20, 2018.
- Award of Restricted Stock Units that vests with respect to 1/3 of the underlying shares on each of January 7, 2020, January 7, 2021, and January 7, 2022. This grant is subject to an accelerated vesting upon a change of control of the Issuer and in the event of termination of employment under certain circumstances following a change of control of the Issuer.
- This option is fully vested.
- Not applicable.
- The shares subject to this option shall vest and become exercisable in 48 equal monthly installments beginning on February 8, 2016 such that this option is fully exercisable on January 8, 2020.
- The shares subject to this option shall vest and become exercisable in 48 equal monthly installments beginning on February 1, 2019 such that this option is fully exercisable on January 1, 2023.

Remarks:

/s/ Cindy R. Tahl 01/09/2019
 ** 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.

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