FORM 4

## UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| OMB APPROVAL             |     |  |  |  |  |  |  |  |
|--------------------------|-----|--|--|--|--|--|--|--|
| OMB Number: 3235-0       |     |  |  |  |  |  |  |  |
| 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*  MENDLEIN JOHN               |  |  |                  |          | FAT     | Issuer Name and Ticker or Trading Symbol     FATE THERAPEUTICS INC [FATE]      Date of Earliest Transaction (Month/Day/Year) |         |     |  |   |                |   |  |   | k all appl<br>Direct                      | nship of Reporting F<br>I applicable)<br>Director  |               | 10% O  | wner  |
|---|--|--|------------------|----------|---------|--|---------|-----|--|---|----------------|---|--|---|---|--|---------------|--|---|
| (Last)  | `  | ,  | Middle)          |          |         | 05/11/2016   |         |     |  |   |                |   |  |   |   | Officer (give title below)   |               | Other (specify below)  |   |
| C/O FATE THERAPEUTICS, INC.;<br>3535 GENERAL ATOMICS COURT, SUITE 200 |  |  |                  |          |         | 4. If Amendment, Date of Original Filed (Month/Day/Year)   |         |     |  |   |                |   |  | 6. Individual or Joint/Group Filing (Check Applicable Line)  X Form filed by One Reporting Person |   |  |               |  |   |
| (Street) SAN DIEGO CA 92121   |  |  |                  |          |         |  |         |     |  |   |                |   |  | Form filed by More than One Reporting Person  |   |  |               |  |   |
| (City)  | (S   | tate) (                                    | Zip)             |          |         |  |         |     |  |   |                |   |  |   |   |  |               |  |   |
|   |  | Tab  | le I - N         | on-Deriv | ative S | Sec  | urities | Ac  | quired, D  | isp                                       | osed o         | of, or Be   | enefic   | ally  | Owne                                      | d  |               |  |   |
| 1. Title of Security (Instr. 3)  2. Transacti Date (Month/Day)        |  |  |                  |          |         | Execution Date,  |         |     | Code (Ins  | Transaction Disposed (Code (Instr. and 5) |                |   | rities Acquired (A) or<br>ed Of (D) (Instr. 3, 4 |   |   | unt of<br>ies<br>cially  | Forr<br>(D) o | m: Direct<br>or<br>rect (I)  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership |
|   |  |  |                  |          |         |  |         |     | Code   | v   | Amoun          | Amount (A) or   |  | e   | Reporte<br>Transa                         | Following (li<br>Reported<br>Transaction(s)<br>(Instr. 3 and 4)  |               | tr. 4)   | (Instr. 4)  |
|   | Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) |  |                  |          |         |  |         |     |  |   |                |   |  |   |   |  |               |  |   |
| 1. Title of<br>Derivative<br>Security<br>(Instr. 3)                   | 2.<br>Conversion<br>or Exercise<br>Price of<br>Derivative<br>Security  | 3. Transaction<br>Date<br>(Month/Day/Year) | Execution if any |          |         | ion<br>str.  | n of E  |     | 6. Date Exercisable and<br>Expiration Date<br>(Month/Day/Year) |   |                | 7. Title and<br>Amount of<br>Securities<br>Underlying<br>Derivative<br>Security (Instr. 3<br>and 4) |  | of<br>De<br>Se  | Price<br>erivative<br>ecurity<br>estr. 5) | 9. Number<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction<br>(Instr. 4) | у             | Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr.<br>4) | Beneficial<br>Ownership                             |
|   |  |  |                  |          | Code    | v  | (A)     | (D) | Date<br>Exercisable  | Ex <sub>i</sub>                           | piration<br>te | Title   | Amour<br>or<br>Number<br>of<br>Shares            |   |   |  |               |  |   |
| Stock<br>Option<br>(right to<br>buy)                                  | \$1.69   | 05/11/2016                                 |                  |          | A       |  | 25,000  |     | (1)  | 05/                                       | /10/2026       | Common<br>Stock   | 25,00  | 0   | (2)                                       | 25,000   |               | D  |   |

## Explanation of Responses:

- 1. The shares subject to this option shall vest and become exercisable on the earlier of (i) May 11, 2017 or (ii) the date of the 2017 Annual Meeting of Stockholders, subject to the recipient's continued service on the Issuer's Board of Directors.
- 2. Not applicable.

## Remarks:

Cindy R. Tahl, as Attorney-in-<u>Fact</u>

\*\* Signature of Reporting Person

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.