

## INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

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 *<br><b>Lu Lucy</b>                                     | 2. Date of Event Requiring Statement (MM/DD/YYYY)<br><b>3/13/2017</b>  | 3. Issuer Name and Ticker or Trading Symbol<br><b>AVENUE THERAPEUTICS, INC. [ATXI]</b>   |
| (Last) (First) (Middle)<br><b>C/O AVENUE THERAPEUTICS, INC., 2 GANSEVOORT STREET, 9TH FLOOR</b> | 4. Relationship of Reporting Person(s) to Issuer (Check all applicable)<br><input checked="" type="checkbox"/> Director<br><input checked="" type="checkbox"/> Officer (give title below)<br><b>President, CEO /</b> |  |
| (Street)<br><b>NEW YORK, NY 10014</b>   | 5. If Amendment, Date Original Filed (MM/DD/YYYY)  | 6. Individual or Joint/Group Filing (Check Applicable Line)<br><input checked="" type="checkbox"/> Form filed by One Reporting Person<br><input type="checkbox"/> Form filed by More than One Reporting Person |
| (City) (State) (Zip)  |  |  |

### Table I - Non-Derivative Securities Beneficially Owned

| 1. Title of Security (Instr. 4)  | 2. Amount of Securities Beneficially Owned (Instr. 4) | 3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5) | 4. Nature of Indirect Beneficial Ownership (Instr. 5) |
|----------------------------------|---|--|---|
| <b>Common Stock (Restricted)</b> | <b>548333</b> (1)                                     | <b>D</b>   |   |

### Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

| 1. Title of Derivate Security (Instr. 4) | 2. Date Exercisable and Expiration Date (MM/DD/YYYY) |                 | 3. Title and Amount of Securities Underlying Derivative Security (Instr. 4) |                            | 4. Conversion or Exercise Price of Derivative Security | 5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5) | 6. Nature of Indirect Beneficial Ownership (Instr. 5) |
|--|--|-----------------|---|----------------------------|--|---|---|
|  | Date Exercisable                                     | Expiration Date | Title   | Amount or Number of Shares |  |   |   |

### Explanation of Responses:

- (1) 333,333 shares of the restricted Common Stock will vest as follows: 12.5% on June 10, 2016, 12.5% on June 10, 2017, 12.5% on June 10, 2018, 12.5% on June 10, 2019, 5% upon the commencement of the Company's first Phase 3 trial, 5% upon the commencement of the Company's second Phase 3 trial, 15% upon the Company's filing of a New Drug Application with the Food and Drug Administration ("FDA"), 15% upon FDA approval of the Company's product and 10% upon the grant to the Company of an additional patent related to IV tramadol. 215,000 shares of the restricted Common Stock will vest as follows: One-fourth on August 8, 2018, one-fourth on August 8, 2019, one-fourth on August 8, 2020 and one-fourth on August 8, 2021.

### Reporting Owners

| Reporting Owner Name / Address   | Relationships |           |                       |       |
|--|---------------|-----------|-----------------------|-------|
|  | Director      | 10% Owner | Officer               | Other |
| <b>Lu Lucy<br/>C/O AVENUE THERAPEUTICS, INC.<br/>2 GANSEVOORT STREET, 9TH FLOOR<br/>NEW YORK, NY 10014</b> | <b>X</b>      |           | <b>President, CEO</b> |       |

### Signatures

/s/ Lucy Lu, M.D.

8/18/2017

\*\*Signature of Reporting Person

Date

\* If the form is filed by more than one reporting person, *see* Instruction 5(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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