

| OMB APPROVAL | |
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| 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

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| 1. Name and Address of Reporting Person* <u>Hoberman Kenneth</u> <hr/> (Last) (First) (Middle) C/O STEMLINE THERAPEUTICS, INC. 750 LEXINGTON AVENUE, ELEVENTH FLOOR <hr/> (Street) NEW YORK NY 10022 <hr/> (City) (State) (Zip) | 2. Issuer Name and Ticker or Trading Symbol <u>STEMLINE THERAPEUTICS INC [STML]</u> | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) Director 10% Owner X Officer (give title below) Other (specify below) <u>Chief Operating Officer</u> |
| | 3. Date of Earliest Transaction (Month/Day/Year) <u>03/07/2017</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 | | | |
| Common Stock | 03/07/2017 | | S | | 2,342 ⁽¹⁾ | D | \$8.16 ⁽²⁾ | 277,674 ⁽³⁾ | D | |
| Common Stock | 03/09/2017 | | A | | 131,469 ⁽⁴⁾ | A | \$0 | 409,143 ⁽⁵⁾ | 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 | | Date Exercisable | Expiration Date | | | | | |

Explanation of Responses:

- In connection with the vesting of 6,095 shares on March 6, 2017, a total of 2,342 of such shares were sold by the Company in order to satisfy the reporting person's tax withholding obligations. The reporting person had no discretion with respect to such sale, which was conducted automatically in accordance with the issuer's corporate policies.
- Reflects the weighted average sale price. The range of prices for such transaction is \$8.10 to \$8.18. The reporting person effected multiple same-way open market sale transactions on the same day at different prices through a trade order executed by a broker-dealer. The reporting person reported on a single line all such transactions that occurred within a one dollar price range. The reporting person hereby undertakes to provide upon request by the Securities Exchange Commission staff, the issuer, or a shareholder of the issuer, full information regarding the number of shares sold at each separate price.
- Of the 277,674 shares, 206,923 shares are restricted stock.
- The 131,469 restricted shares will vest in four installments as follows: 32,868 shares on March 9, 2018; 32,867 shares on March 9, 2019; 32,867 shares on March 9, 2020; and 32,867 shares on March 9, 2021.
- Of the 409,143 shares, 338,392 shares are restricted stock.

/s/ Kenneth Hoberman 03/09/2017
 ** 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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