FORM 4

## **UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

| 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

OMB APPROVAL

OMB Number: 3235-0287

Estimated average burden hours per response: 0.5

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* <u>DITTRICH HOWARD</u> |   |  |  |                                   |   | 2. Issuer Name and Ticker or Trading Symbol  Mast Therapeutics, Inc. [ MSTX ] |      |   |                    |   |  |   | of Reporting<br>cable)<br>or   | g Pers  | on(s) to Issu<br>10% Ow  |  |
|---|---|--|--|-----------------------------------|---|---|------|---|--------------------|---|--|---|--|---|--|--|
| (Last) (First) (Middle) 3611 VALLEY CENTRE DRIVE, SUITE 500     |   |  |  |                                   | 3. Date of Earliest Transaction (Month/Day/Year) 06/15/2016 |   |      |   |                    |   |  | Officer (give title Other (specify below) below)  |  |   |  | pecify   |
| (Street) SAN DIEGO CA 92130 (City) (State) (Zip)                |   |  |  | _                                 | 4. If Amendment, Date of Original Filed (Month/Day/Year)    |   |      |   |                    |   |  | Individual or Joint/Group Filing (Check Applicable le)  X Form filed by One Reporting Person Form filed by More than One Reporting Person |  |   |  |  |
|   |   | Tab  | le I - Non-De  | erivativ                          | e Se  | curities  | s Ac | quired, Di  | sposed (           | of, or Be   | neficiall                                    | y Owned   |  |   |  |  |
| 1. Title of Security (Instr. 3)  2. Transar Date (Month/D.      |   |  |  |                                   | Execution Date,   |   |      | Transaction Disposed Of (Code (Instr. 5)                      |                    | ities Acquir<br>d Of (D) (Ins   | s Acquired (A) or<br>If (D) (Instr. 3, 4 and |   |  | 6. Ownership<br>Form: Direct<br>(D) or Indirect<br>(I) (Instr. 4) |  | 7. Nature<br>of Indirect<br>Beneficial<br>Ownership                |
|   |   |  |  |                                   |   |   |      | Code V  | Amount             | (A) or (D)  | Price  | Reported<br>Transact<br>(Instr. 3 a   | ion(s)   |   |  | (Instr. 4)   |
|   |   | -  | Fable II - Der<br>(e.g                                     |                                   |   |   |      | uired, Dis<br>, options,                                      |                    |   |  | Owned   | ,  |   | ·  |  |
| 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) | 3A. Deemed<br>Execution Date,<br>if any<br>(Month/Day/Year | 4.<br>Transactior<br>Code (Instr. |   |   |      | 6. Date Exercisable an<br>Expiration Date<br>(Month/Day/Year) |                    | 7. Title and Amount<br>of Securities<br>Underlying<br>Derivative Security<br>(Instr. 3 and 4) |  | 8. Price of<br>Derivative<br>Security<br>(Instr. 5)   | 9. Number of<br>derivative<br>Securities<br>Beneficially<br>Owned<br>Following<br>Reported<br>Transaction(s)<br>(Instr. 4) |   | 10.<br>Ownership<br>Form:<br>Direct (D)<br>or Indirect<br>(I) (Instr. 4) | 11. Nature<br>of Indirect<br>Beneficial<br>Ownership<br>(Instr. 4) |
|   |   |  |  | Code                              | v   | (A)   | (D)  | Date<br>Exercisable   | Expiration<br>Date | Title   | Amount<br>or<br>Number<br>of<br>Shares       |   |  |   |  |  |
| Stock<br>Option<br>(Right to<br>Buy)                            | \$0.43  | 06/15/2016                                 |  | A                                 |   | 79,551  |      | (1)   | 06/15/2026         | Common<br>Stock   | 79,551                                       | \$0.00  | 79,551   | L   | D  |  |

## Explanation of Responses:

1. This option vests and becomes exercisable in 12 substantially equal monthly installments on each monthly anniversary of June 15, 2016, subject to the reporting person's continued service with the issuer.

## Remarks:

/s/ Brian M. Culley, Attorneyin-Fact for Howard C. Dittrich

06/17/2016

\*\* 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.