

**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP**

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

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

| OMB APPROVAL                                 |           |
|--|-----------|
| OMB Number:                                  | 3235-0287 |
| Estimated average burden hours per response: | 0.5       |

|  |   |  |
|--|---|--|
| <b>1. Name and Address of Reporting Person*</b><br><u>David Eric</u><br><br>(Last) (First) (Middle)<br><u>6275 NANCY RIDGE DRIVE, SUITE 110</u><br><br>(Street)<br><u>SAN DIEGO CA 92121</u><br><br>(City) (State) (Zip) | <b>2. Issuer Name and Ticker or Trading Symbol</b><br><u>ORGANOVO HOLDINGS, INC. [ ONVO ]</u> | <b>5. Relationship of Reporting Person(s) to Issuer</b><br>(Check all applicable)<br><br>Director 10% Owner<br><input checked="" type="checkbox"/> Officer (give title below) Other (specify below)<br><u>CSO &amp; EVP Pre-Clinical Dev</u> |
|  | <b>3. Date of Earliest Transaction (Month/Day/Year)</b><br><u>11/16/2016</u>                  |  |
|  | <b>4. If Amendment, Date of Original Filed (Month/Day/Year)</b>                               |  |

**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                    | 11/16/2016                           |  | F                              |   | 1,745 <sup>(1)</sup>  | D          | \$3.2594 | 703,356 <sup>(2)</sup>  | 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) |   | 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) |   |  |  |   |  |

**Explanation of Responses:**

- Represents the mandatory sale of shares to satisfy the Reporting Person's tax withholding obligations, in connection with the partial vesting and settlement of restricted stock units granted in July 2016, pursuant to the Reporting Person's agreement with the Issuer.
- This number does not include 1,070,000 shares of common stock underlying outstanding options held by Dr. David; post-transaction Dr. David continues to beneficially own or have a right to acquire 1,773,356 shares of common stock.

**Remarks:**

/s/ Eric David 11/18/2016  
 \*\* 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.