FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

| OMB APPROVAL | | | | | | | | |
|--------------------------|---------------------|--|--|--|--|--|--|--|
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| 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

| Name and Address of Reporting Person* HOWSON TAMAR D | | | 2. Date of Event Requiring Staten (Month/Day/Year 06/05/2013 | nent | 3. Issuer Name and Ticker or Trading Symbol ORGANOVO HOLDINGS, INC. [ONVO] | | | | | | | |
|--|--------------------|--|---|---|--|--|--|------------------------------------|---|---|--|--|
| (Last) 6275 NANCY | (First) RIDGE DRIV | (Middle) E, SUITE 110 | | | | ationship of Reporting Perso k all applicable) Director Officer (give title below) | 10% Owne | er | 5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) | | | |
| (Street) SAN DIEGO (City) | CA (State) | 92121 (Zip) | | | | | below) | | X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | |
| Table I - Non-Derivative Securities Beneficially Owned | | | | | | | | | | | | |
| 1. Title of Security (Instr. 4) | | | | | | unt of Securities ially Owned (Instr. 4) | | | 4. Nature of Indirect Beneficial Ownership (Instr. 5) | | | |
| Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities) | | | | | | | | | | | | |
| 1. Title of Derivative Security (Instr. 4) | | 2. Date Exercisable and Expiration Date (Month/Day/Year) | | 3. Title and Amount of Secur Underlying Derivative Secur | | | 4. Conver | rcise | 5. Ownership Form: | 6. Nature of Indirect Beneficial Ownership (Instr. 5) | | |
| | | | Date Exercisable | Expiratio Date | n Title | e | Amount or Number of Shares | Price of Derivative Security | | Direct (D) or Indirect (I) (Instr. 5) | | |

Explanation of Responses:

No securities are beneficially owned.

<u>/s/ Tamar D. Howson</u> <u>06/07/2013</u>

** 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 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.

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.