FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| STATEMENT | OF CHANGES | S IN BENEFICIAL | L OWNERSHIP |
|------------------|------------|-----------------|--------------------|

| l | OMB APPROVAL | | | | | | | | |
|---|--------------------------|-----------|--|--|--|--|--|--|--|
| | OMB Number: | 3235-0287 | | | | | | | |
| l | Estimated average burden | | | | | | | | |
| I | 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).

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* CROUCH TAYLOR | | | | | 2. Issuer Name and Ticker or Trading Symbol ORGANOVO HOLDINGS, INC. [ONVO] | | | | | | | | Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner | | | | | | |
|---|--|------------|-------------|---|---|--|--------------|------|------------------------------|----------------------|---------------------------------------|---|---|--|----------------------------------|--|---|--|--|
| (Last) (First) (Middle) 6275 NANCY RIDGE DRIVE, SUITE 110 | | | | 3. Date of Earliest Transaction (Month/Day/Year) 05/24/2018 | | | | | | | | _ | give title | Presid | Other (s below) | · | | | |
| (Street) SAN DIEGO CA 92121 | | | | 4. | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | Line | X Form filed by One Reporting Person Form filed by More than One Reporting | | | | | | |
| (City) | (S | | (Zip) | | | Person | | | | | | | | | | | | | |
| | | Ta | ble I - Nor | า-Deri | ivativ | ve Se | ecurities | s Ac | quired, | Dis | posed o | of, or Be | neficiall | y Owned | | | | | |
| 1. Title of Security (Instr. 3) 2. Transa Date (Month/D | | | | | Execution Date, | | Code (Instr. | | ed (A) or etr. 3, 4 and 5 | Beneficia Owned F | Form lly (D) o ollowing (I) (Ir | | m: Direct or Indirect Instr. 4) | 7. Nature of Indirect Beneficial Ownership | | | | | |
| | | | | | | | Code | v | Amount | (A) c (D) | Price | Reported Transacti (Instr. 3 a | ion(s) | | | (Instr. 4) | | | |
| Common Stock ⁽¹⁾ 05/24/ | | | | 24/201 | 2018 A 148,760 ⁽²⁾ A | | \$0.00 | 148, | 148,760(3) | | D | | | | | | | | |
| | | | Table II - | | | | | | | | | or Ben ble secu | | Owned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | vative Conversion Date Execution Date, urity or Exercise (Month/Day/Year) if any | | | ansaction ode (Instr. Securitie Acquirer or Dispo | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | Date | e of Securities | | ies g e Security | 8. Price of Derivative Security (Instr. 5) | 9. Number of derivative Securities Beneficially Owned Following Reported | ly | Ownership Form: Direct (D) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | | |
| | | | | | Code | v | (A) | (D) | Date Exercisab | | Expiration Date | Title | Amount or Number of Shares | | Transactic (Instr. 4) | on(s) | | | |
| Stock Option (Right to Buy) | \$1.84 | 05/24/2018 | | | A | | 600,000 | | (4) | (| 05/24/2028 | Common Stock | 600,000 | \$0.00 | 600,00 | 0 | D | | |

Explanation of Responses:

- 1. Annual long-term equity award approved by the Compensation Committee of the Issuer's Board of Directors.
- 2. The shares represent a grant of Restricted Stock Units ("RSUs"). The RSUs represent a right to receive shares of the Issuer's common stock, at no additional conversion or exercise price. The RSUs vest and settle over 16 equal quarterly installments measured from May 15, 2018.
- 3. This number does not include 2,688,212 shares of common stock underlying outstanding options held by Mr. Crouch; post-transaction Mr. Crouch continues to beneficially own or have a right to acquire 2,836,972 shares of common stock.
- $4. \ The \ option \ shares \ vest \ and \ become \ exercisable \ over \ 16 \ equal \ quarterly \ installments \ measured \ from \ May \ 15, \ 2018.$

Remarks:

/s/ Taylor Crouch

05/29/2018

** 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.