

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL

OMB Number: 3235-0104
Estimated average burden
hours per response: 0.5Filed 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>STERN ADAM K</u> (Last) (First) (Middle) <u>SPENCER TRASK</u> <u>750 THIRD AVENUE 11TH FLOOR</u> (Street) <u>NEW YORK NY 10017</u> (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) <u>03/13/2012</u>	3. Issuer Name and Ticker or Trading Symbol <u>ORGANOVO HOLDINGS, INC. [ONVO.PK]</u>	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)	5. If Amendment, Date of Original Filed (Month/Day/Year) 6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> 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)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	582,524	D	
Common Stock	211,827	I	By Pavilion Capital Partners, LLC ⁽¹⁾
Common Stock	132,392	I	By Piper Venture Partners, LLC ⁽¹⁾
Common Stock	476,611	I	By ST Neuroscience Partners, LLC ⁽¹⁾

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 Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Warrant (right to purchase)	02/08/2012	10/18/2016	Common Stock	360,000	1	D	

Explanation of Responses:

1. The Reporting Person disclaims beneficial ownership of the Issuer's securities held indirectly for the purposes of Section 16, except to the extent of his indirect pecuniary interest therein, and this report shall not be deemed an admission that the Reporting Person is the beneficial owner of such securities for the purpose of Section 16 or for any other purpose.

ADAM STERN03/13/2012

** 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.