

The Securities and Exchange Commission has not necessarily reviewed the information in this filing and has not determined if it is accurate and complete.

The reader should not assume that the information is accurate and complete.

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
 Washington, D.C. 20549  
 FORM D

Notice of Exempt Offering of Securities

OMB APPROVAL	
OMB Number:	3235-0076
Estimated average burden hours per response:	4.00

1. Issuer's Identity

CIK (Filer ID Number)	Previous Names	None	Entity Type
<a href="#">0001497253</a>	REAL ESTATE RESTORATION & RENTAL, INC.		<input checked="" type="checkbox"/> Corporation
<b>Name of Issuer</b> ORGANOVO HOLDINGS, INC.	Real Estate Restoration and Rental, Inc.		<input type="checkbox"/> Limited Partnership
<b>Jurisdiction of Incorporation/Organization</b> DELAWARE			<input type="checkbox"/> Limited Liability Company
<b>Year of Incorporation/Organization</b> Over Five Years Ago			<input type="checkbox"/> General Partnership
X Within Last Five Years (Specify Year) 2009			<input type="checkbox"/> Business Trust
Yet to Be Formed			<input type="checkbox"/> Other (Specify)

2. Principal Place of Business and Contact Information

Name of Issuer			
ORGANOVO HOLDINGS, INC.			
Street Address 1		Street Address 2	
5871 OBERLIN DR.		SUITE 150	
City	State/Province/Country	ZIP/PostalCode	Phone Number of Issuer
SAN DIEGO	CALIFORNIA	92121	858-224-1003

3. Related Persons

Last Name	First Name	Middle Name
Murphy	Keith	
Street Address 1	Street Address 2	
5871 Oberlin Drive	Suite 150	
City	State/Province/Country	ZIP/PostalCode
San Diego	CALIFORNIA	92121
<b>Relationship:</b> X Executive Officer X Director Promoter		

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Presnell	Sharon	Collins
Street Address 1	Street Address 2	
5871 Oberlin Drive	Suite 150	
City	State/Province/Country	ZIP/PostalCode
San Diego	CALIFORNIA	92121
<b>Relationship:</b> X Executive Officer Director Promoter		

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Michaels	Barry	D.
Street Address 1	Street Address 2	
5871 Oberlin Drive	Suite 150	
City	State/Province/Country	ZIP/PostalCode
San Diego	CALIFORNIA	92121
<b>Relationship:</b> X Executive Officer Director Promoter		

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Baltera, Jr.	Robert	
Street Address 1	Street Address 2	
5871 Oberlin Drive	Suite 150	
City	State/Province/Country	ZIP/PostalCode
San Diego	CALIFORNIA	92121
<b>Relationship:</b> Executive Officer X Director Promoter		

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Forgacs	Andras	
Street Address 1	Street Address 2	
5871 Oberlin Drive	Suite 150	
City	State/Province/Country	ZIP/PostalCode
San Diego	CALIFORNIA	92121
<b>Relationship:</b> Executive Officer X Director Promoter		

Clarification of Response (if Necessary):

Last Name	First Name	Middle Name
Stern	Adam	K
Street Address 1	Street Address 2	
750 Third Avenue	11th Floor	
City	State/Province/Country	ZIP/PostalCode
New York	NEW YORK	10017
<b>Relationship:</b> Executive Officer X Director Promoter		

Clarification of Response (if Necessary):

#### 4. Industry Group

Agriculture	Health Care	Retailing
Banking & Financial Services	X Biotechnology	Restaurants
Commercial Banking	Health Insurance	Technology
Insurance	Hospitals & Physicians	Computers
Investing	Pharmaceuticals	Telecommunications
Investment Banking	Other Health Care	Other Technology
Pooled Investment Fund	Manufacturing	Travel
Is the issuer registered as an investment company under the Investment Company Act of 1940?	Real Estate	Airlines & Airports
Yes	Commercial	Lodging & Conventions
No	Construction	Tourism & Travel Services
Other Banking & Financial Services	REITS & Finance	Other Travel

Business Services

Residential

Other

Energy

Other Real Estate

Coal Mining

Electric Utilities

Energy Conservation

Environmental Services

Oil & Gas

Other Energy

5. Issuer Size

**Revenue Range**

**OR**

**Aggregate Net Asset Value Range**

No Revenues

No Aggregate Net Asset Value

\$1 - \$1,000,000

\$1 - \$5,000,000

\$1,000,001 - \$5,000,000

\$5,000,001 - \$25,000,000

\$5,000,001 -

\$25,000,001 - \$50,000,000

\$25,000,000

\$25,000,001 -

\$50,000,001 - \$100,000,000

\$100,000,000

Over \$100,000,000

Over \$100,000,000

X Decline to Disclose

Decline to Disclose

Not Applicable

Not Applicable

6. Federal Exemption(s) and Exclusion(s) Claimed (select all that apply)

Rule 504(b)(1) (not (i), (ii) or (iii))

Rule 505

Rule 504 (b)(1)(i)

X Rule 506

Rule 504 (b)(1)(ii)

Securities Act Section 4(5)

Rule 504 (b)(1)(iii)

Investment Company Act Section 3(c)

Section 3(c)(1)

Section 3(c)(9)

Section 3(c)(2)

Section 3(c)(10)

Section 3(c)(3)

Section 3(c)(11)

Section 3(c)(4)

Section 3(c)(12)

Section 3(c)(5)

Section 3(c)(13)

Section 3(c)(6)

Section 3(c)(14)

Section 3(c)(7)

7. Type of Filing

New Notice Date of First Sale 2012-02-08 First Sale Yet to Occur

X Amendment

8. Duration of Offering

Does the Issuer intend this offering to last more than one year? Yes X No

9. Type(s) of Securities Offered (select all that apply)

X Equity

Pooled Investment Fund Interests

Debt

Tenant-in-Common Securities

X Option, Warrant or Other Right to Acquire Another Security

Mineral Property Securities

Security to be Acquired Upon Exercise of Option, Warrant or Other Right to Acquire Security

Other (describe)

10. Business Combination Transaction

Is this offering being made in connection with a business combination transaction, such as a merger, acquisition or exchange offer?  Yes  No

Clarification of Response (if Necessary):

### 11. Minimum Investment

Minimum investment accepted from any outside investor \$0 USD

### 12. Sales Compensation

Recipient	Recipient CRD Number	None
Spencer Trask Ventures, Inc.	28373	
(Associated) Broker or Dealer <input checked="" type="checkbox"/> None	(Associated) Broker or Dealer CRD Number	<input checked="" type="checkbox"/> None
None	None	
<b>Street Address 1</b>	<b>Street Address 2</b>	
750 THIRD AVENUE	11H FLOOR	
City	State/Province/Country	ZIP/Postal Code
NEW YORK	NEW YORK	10022
State(s) of Solicitation (select all that apply) Check "All States" or check individual States	<input checked="" type="checkbox"/> All States	<input type="checkbox"/> Foreign/non-US

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Recipient	Recipient CRD Number	None
Kingsbury Capital, LLC	147102	
(Associated) Broker or Dealer <input checked="" type="checkbox"/> None	(Associated) Broker or Dealer CRD Number	<input checked="" type="checkbox"/> None
None	None	
<b>Street Address 1</b>	<b>Street Address 2</b>	
1560 Sherman Avenue	Suite 803	
City	State/Province/Country	ZIP/Postal Code
Evanston	ILLINOIS	60201
State(s) of Solicitation (select all that apply) Check "All States" or check individual States	<input type="checkbox"/> All States	<input type="checkbox"/> Foreign/non-US

ILLINOIS

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Recipient	Recipient CRD Number	None
Charles Vista, LLC	132650	
(Associated) Broker or Dealer <input checked="" type="checkbox"/> None	(Associated) Broker or Dealer CRD Number	<input checked="" type="checkbox"/> None
None	None	
<b>Street Address 1</b>	<b>Street Address 2</b>	
100 William Street	Suite 1820	
City	State/Province/Country	ZIP/Postal Code
New York	NEW YORK	10038
State(s) of Solicitation (select all that apply) Check "All States" or check individual States	<input checked="" type="checkbox"/> All States	<input type="checkbox"/> Foreign/non-US

ALABAMA

ALASKA

CONNECTICUT

FLORIDA

ILLINOIS

INDIANA

UTAH

WISCONSIN

Recipient Recipient CRD Number None  
 NYPPEX, LLC 47654  
 (Associated) Broker or Dealer X None (Associated) Broker or Dealer CRD Number X None  
 None None

Street Address 1	Street Address 2	
800 Westchester Avenue	Suite 349N	
City	State/Province/Country	ZIP/Postal Code
Rye Brook	NEW YORK	10573

State(s) of Solicitation (select all that apply) All States Foreign/non-US  
 Check "All States" or check individual States

NEW YORK

Recipient Recipient CRD Number None  
 Westpark Capital, Inc. 39914  
 (Associated) Broker or Dealer X None (Associated) Broker or Dealer CRD Number X None  
 None None

Street Address 1	Street Address 2	
1900 Avenue of the Stars	Suite 301	
City	State/Province/Country	ZIP/Postal Code
Los Angeles	CALIFORNIA	90067

State(s) of Solicitation (select all that apply) X All States Foreign/non-US  
 Check "All States" or check individual States

### 13. Offering and Sales Amounts

Total Offering Amount \$16,000,000 USD or Indefinite  
 Total Amount Sold \$8,331,977 USD  
 Total Remaining to be Sold \$7,668,023 USD or Indefinite

#### Clarification of Response (if Necessary):

The Issuer and the Placement Agent have elected to exercise the \$8,000,000 over-allotment option.

### 14. Investors

Select if securities in the offering have been or may be sold to persons who do not qualify as accredited investors, and enter the number of such non-accredited investors who already have invested in the offering. \_\_\_\_\_  
 Regardless of whether securities in the offering have been or may be sold to persons who do not qualify as accredited investors, enter the total number of investors who already have invested in the offering: 119

### 15. Sales Commissions & Finder's Fees Expenses

Provide separately the amounts of sales commissions and finders fees expenses, if any. If the amount of an expenditure is not known, provide an estimate and check the box next to the amount.

Sales Commissions \$1,881,700 USD X Estimate  
 Finders' Fees \$0 USD Estimate

#### Clarification of Response (if Necessary):

Includes 10% cash commission plus 3% non-accountable expense allowance and warrants to purchase shares of common stock. Assumes entire \$16,000,000 offering is sold.

### 16. Use of Proceeds

Provide the amount of the gross proceeds of the offering that has been or is proposed to be used for payments to any of the persons required to be named as executive officers, directors or promoters in response to Item 3 above. If the amount is unknown, provide an estimate and check the box next to the amount.

\$0 USD Estimate

Clarification of Response (if Necessary):

Signature and Submission

Please verify the information you have entered and review the Terms of Submission below before signing and clicking SUBMIT below to file this notice.

Terms of Submission

In submitting this notice, each issuer named above is:

- Notifying the SEC and/or each State in which this notice is filed of the offering of securities described and undertaking to furnish them, upon written request, in the accordance with applicable law, the information furnished to offerees.\*
- Irrevocably appointing each of the Secretary of the SEC and, the Securities Administrator or other legally designated officer of the State in which the issuer maintains its principal place of business and any State in which this notice is filed, as its agents for service of process, and agreeing that these persons may accept service on its behalf, of any notice, process or pleading, and further agreeing that such service may be made by registered or certified mail, in any Federal or state action, administrative proceeding, or arbitration brought against the issuer in any place subject to the jurisdiction of the United States, if the action, proceeding or arbitration (a) arises out of any activity in connection with the offering of securities that is the subject of this notice, and (b) is founded, directly or indirectly, upon the provisions of: (i) the Securities Act of 1933, the Securities Exchange Act of 1934, the Trust Indenture Act of 1939, the Investment Company Act of 1940, or the Investment Advisers Act of 1940, or any rule or regulation under any of these statutes, or (ii) the laws of the State in which the issuer maintains its principal place of business or any State in which this notice is filed.
- Certifying that, if the issuer is claiming a Rule 505 exemption, the issuer is not disqualified from relying on Rule 505 for one of the reasons stated in Rule 505(b)(2)(iii).

Each Issuer identified above has read this notice, knows the contents to be true, and has duly caused this notice to be signed on its behalf by the undersigned duly authorized person.

For signature, type in the signer's name or other letters or characters adopted or authorized as the signer's signature.

Issuer	Signature	Name of Signer	Title	Date
ORGANOVO HOLDINGS, INC.	/S/ KEITH MURPHY	Keith Murphy	President & CEO	2012-02-29

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.

\* This undertaking does not affect any limits Section 102(a) of the National Securities Markets Improvement Act of 1996 ("NSMIA") [Pub. L. No. 104-290, 110 Stat. 3416 (Oct. 11, 1996)] imposes on the ability of States to require information. As a result, if the securities that are the subject of this Form D are "covered securities" for purposes of NSMIA, whether in all instances or due to the nature of the offering that is the subject of this Form D, States cannot routinely require offering materials under this undertaking or otherwise and can require offering materials only to the extent NSMIA permits them to do so under NSMIA's preservation of their anti-fraud authority.