
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

**PURSUANT TO SECTION 13 OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

Date of Report (Date of Earliest Event Reported): March 19, 2012

ORGANOVO HOLDINGS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

000-54621
(Commission
File Number)

27-1488943
(I.R.S. Employer
Identification No.)

5871 Oberlin Drive, Suite 150,
San Diego, CA
(Address of principal executive offices)

92121
(Zip Code)

(858) 550-9994
(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
 - Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
 - Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
 - Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 8.01. Other Events.

Private Placement

On March 19, 2012, Organovo Holdings, Inc., a Delaware corporation (the “Company”), issued a press release announcing the completion of the final closing (the “Final Closing”) of its recently announced private placement of equity securities. At the Final Closing, the Company offered and sold an aggregate of 6,916,000 units (“Units”) of its securities, at a price of \$1.00 per Unit, to accredited investors.

As previously announced, the Company raised \$6.5 million in gross proceeds on February 8, 2012, in the first closing of the private placement, and \$1.8 million in gross proceeds on February 29, 2012, in the second closing. During the entire private placement, the Company raised total gross proceeds of \$15.2 million and total net proceeds of \$12.8 million.

A copy of the press release is filed as Exhibit 99.1 to this Current Report on Form 8-K.

This Current Report on Form 8-K is neither an offer to sell nor a solicitation of an offer to buy any of the securities described herein. This Current Report on Form 8-K is being filed pursuant to and in accordance with Rule 135c of the 1933 Act.

NIH Grant

On March 19, 2012, the Company was awarded a \$290,053 grant by the National Institutes of Health (the “NIH”) to support the Company’s development of functional human liver tissue utilizing its proprietary NovoGen three-dimensional bioprinting technology.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits

The exhibit listed in the Exhibit Index below is filed with this Current Report.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

ORGANOVO HOLDINGS, INC.

Date: March 20, 2012

By: /s/ Barry Michaels

Name: Barry Michaels

Title: Chief Financial Officer

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press Release of the Company, dated March 19, 2012.



**ORGANOVO ANNOUNCES CLOSE OF \$15.2 MILLION PRIVATE
PLACEMENT TO ADVANCE 3D BIOPRINTING FOR MEDICAL APPLICATIONS**

SAN DIEGO, CA – March 19, 2012 – Organovo Holdings, Inc. (OTCQB: ONVO) (“Organovo”) today announced the final closing of an oversubscribed \$15.2 million private placement. At the final closing, the Company raised gross proceeds of \$6.9 million through the sale of 6.9 million Units, at a price of \$1.00 per Unit, to accredited investors. Post-closing Organovo has approximately 43.7 million shares of common stock issued and outstanding.

As previously announced, the Company raised \$6.5 million in gross proceeds on February 8, 2012, in the first closing of the private placement, and \$1.8 million in gross proceeds on February 29, 2012, in the second closing. During the entire private placement, the Company raised total gross proceeds of \$15.2 million and total net proceeds of \$12.8 million. Spencer Trask Ventures, Inc. served as placement agent.

“The response to our private financing has been tremendous, and we’re grateful for investors’ enthusiasm for our progress to date and our strong potential,” stated Keith Murphy, chief executive officer of Organovo. “The financing allows Organovo to continue to pursue our goals in commercializing 3D bioprinting technologies and products in biological and medical research.”

As announced on February 14, 2012, after having completed a merger in association with the first closing of the private placement, Organovo will continue the business of Organovo, Inc., headquartered in San Diego, as a wholly-owned subsidiary under the leadership of Organovo, Inc.’s current management team, headed by Chief Executive Officer Keith Murphy. The shares of common stock of the merged company have been quoted on the OTC markets and on the OTCQB under the symbol “ONVO” since February 14, 2012.

The securities sold in the private placement have not been registered under the Securities Act of 1933 and may not be resold absent registration under or exemption from such Act. This press release shall not constitute an offer to sell or the solicitation of an offer to buy any securities. This press release is being issued pursuant to and in accordance with Rule 135c under the Securities Act of 1933.

About Organovo Holdings, Inc.

Organovo (OTCQB: ONVO) is a three-dimensional biology company focused on delivering breakthrough bioprinting technology and creating tissue on demand for research and medical applications. The company’s NovoGen three-dimensional bioprinting technology is a platform that works across all tissue and cell types. Organovo’s NovoGen MMX Bioprinter was selected as one of the “Best Inventions of 2010” by TIME Magazine. Organovo is helping pharmaceutical partners develop human biological disease models in three dimensions that enable therapeutic drug discovery and development. Organovo’s bioprinting technology can also be developed to create surgical tissues as direct therapy. Organovo leads the way in solving complex medical research problems and building the future of medicine. For more information, please visit <http://www.organovo.com>.



Safe Harbor Statement

Any statements contained in this press release that do not describe historical facts may constitute forward-looking statements as that term is defined in the Private Securities Litigation Reform Act of 1995. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties relating to the Company's ability to develop, market and sell products based on its technology; the expected benefits and efficacy of the Company's products and technology; the availability of substantial additional funding for the Company to continue its operations and to conduct research and development, clinical studies and future product commercialization; and, the Company's business, research, product development, regulatory approval, marketing and distribution plans and strategies. These and other factors are identified and described in more detail in our filings with the SEC, including, our current reports on Form 8-K. We do not undertake to update these forward-looking statements made by us.

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