

PROSPECTUS SUPPLEMENT NO. 1
(TO PROSPECTUS DATED July 6, 2012)

Organovo Holdings, Inc.

Common Stock, Par Value \$0.001 Per Share

This Prospectus Supplement No. 1 (the "Prospectus Supplement") supplements our Prospectus dated July 6, 2012 (the "Prospectus") relating to the resale of up to 32,095,974 shares of our common stock by certain selling security holders listed on pages 13 through 18 of the Prospectus, including any permitted donee, pledgee, transferee or other successor in interest. We will not receive any proceeds from the sale of shares by the selling security holders.

Recent Developments

This Prospectus Supplement is being filed to update and supplement the information in the Prospectus with the information contained in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2012 filed with the Securities and Exchange Commission on November 14, 2012 (the "Quarterly Report"). Accordingly, we have attached the Quarterly Report to this Prospectus Supplement. Any statement contained in the Prospectus shall be deemed to be modified or superseded to the extent that information in this Prospectus Supplement modifies or supersedes such statement. Any statement that is modified or superseded shall not be deemed to constitute a part of the Prospectus except as modified or superseded by this Prospectus Supplement.

This Prospectus Supplement should be read in conjunction with, and may not be delivered or utilized without, the Prospectus.

In reviewing this Prospectus Supplement, you should carefully consider the matters described under the caption "Risk Factors" beginning on page 6 of the Prospectus and beginning on page 25 of our Quarterly Report.

Neither the U.S. Securities and Exchange Commission nor any state securities commission has approved or disapproved these securities or determined if this Prospectus Supplement is truthful or complete. Any representation to the contrary is a criminal offense.

This Prospectus Supplement does not constitute an offer to sell or the solicitation of an offer to buy any securities.

The date of this Prospectus Supplement is November 14, 2012

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Organovo Holdings Inc.
(A development stage company)
Condensed Consolidated Balance Sheets

	<u>September 30, 2012</u> (Unaudited)	<u>December 31, 2011</u> (Audited)
Assets		
Current Assets		
Cash and cash equivalents	\$ 7,675,918	\$ 339,607
Grants receivable	95,477	—
Inventory	312,182	291,881
Deferred financing costs	—	318,843
Prepaid expenses and other current assets	144,515	79,874
Total current assets	8,228,092	1,030,205
Fixed Assets - Net	605,920	278,208
Restricted Cash	88,321	—
Other Assets	120,890	100,419
Total assets	<u>\$ 9,043,223</u>	<u>\$ 1,408,832</u>
Liabilities and Stockholders' Deficit		
Current Liabilities		
Accounts payable	\$ 61,347	\$ 657,560
Accrued expenses	830,033	437,837
Deferred revenue	75,000	152,500
Capital lease obligation, current portion	9,845	—
Accrued interest payable	—	24,018
Convertible notes payable, current portion	—	703,833
Total current liabilities	976,225	1,975,748
Capital lease obligation, net current portion	19,712	—
Warrant liabilities	35,471,527	1,266,869
Total liabilities	\$ 36,467,464	\$ 3,242,617
Commitments and Contingencies (Note 5)		
Stockholders' Deficit		
Common stock, \$0.001 par value; 150,000,000 shares authorized, 46,969,141 and 22,445,254 issued and outstanding at September 30, 2012 and December 31, 2011, respectively	46,969	22,445
Additional paid-in capital	13,208,039	4,835,326
Deficit accumulated during the development stage	(40,679,249)	(6,691,556)
Total stockholders' deficit	(27,424,241)	(1,833,785)
Total Liabilities and Stockholders' Deficit	<u>\$ 9,043,223</u>	<u>\$ 1,408,832</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

Organovo Holdings, Inc.
(A development stage company)

Unaudited Condensed Consolidated Statements of Operations

	<u>Three Months Ended September 30, 2012</u>	<u>Three Months Ended September 30, 2011</u>	<u>Nine Months Ended September 30, 2012</u>	<u>Nine Months Ended September 30, 2011</u>	<i>Period from April 19, 2007 (Inception) through September 30, 2012</i>
Revenues					
Product	\$ —	\$ —	\$ —	\$ 100,000	\$ 223,500
Collaborations	373,761	231,974	752,736	449,213	1,515,824
Grants	95,477	—	95,477	56,925	759,589
Total Revenues	<u>469,238</u>	<u>231,974</u>	<u>848,213</u>	<u>606,138</u>	<u>2,498,913</u>
Cost of product revenue	—	—	—	50,584	133,607
Selling, general, and administrative expenses	2,981,481	550,157	4,939,403	1,129,597	7,605,440
Research and development expenses	1,105,456	304,251	2,305,311	1,013,981	5,503,699
Loss from Operations	<u>(3,617,699)</u>	<u>(622,434)</u>	<u>(6,396,501)</u>	<u>(1,588,024)</u>	<u>(10,743,833)</u>
Other Income (Expense)					
Fair value of warrant liabilities in excess of proceeds received	—	—	(19,019,422)	—	(19,019,422)
Change in fair value of warrant liabilities	42,252,357	—	(5,190,637)	—	(5,197,206)
Financing transaction costs in excess of proceeds received	—	—	(2,129,500)	—	(2,129,500)
Loss on disposal of fixed assets	(158,366)	—	(158,366)	—	(158,366)
Interest expense	(203)	(182,320)	(1,087,656)	(294,245)	(3,406,098)
Interest income	1,358	—	3,342	—	5,348
Other income (expense)	596	(488)	(8,953)	(2,038)	(30,172)
Total Other Income (Expense)	<u>42,095,742</u>	<u>(182,808)</u>	<u>(27,591,192)</u>	<u>(296,283)</u>	<u>(29,935,416)</u>
Net Income (Loss)	<u>\$ 38,478,043</u>	<u>\$ (805,242)</u>	<u>\$ (33,987,693)</u>	<u>\$ (1,884,307)</u>	<u>\$ (40,679,249)</u>
Net income (loss) per common share - basic	\$ 0.87	\$ (0.07)	\$ (0.86)	\$ (0.16)	\$ —
Net income (loss) per common share - diluted	\$ 0.69	\$ (0.07)	\$ (0.86)	\$ (0.16)	\$ —
Weighted average shares used in computing net income (loss) per common share - basic	44,099,554	12,262,691	39,349,681	11,537,879	—
Weighted average shares used in computing net income (loss) per common share - diluted	55,849,360	12,262,691	39,349,681	11,537,879	—

The accompanying notes are an integral part of these condensed consolidated financial statements.

Organovo Holdings, Inc.
(A development stage company)

Unaudited Condensed Consolidated Statements of Stockholders' Deficit
Period from April 19, 2007 (Inception) through September 30, 2012

	Common Stock		Additional Paid-in Capital	Deficit Accumulated During the Development Stage	Total
	Shares	Amount			
Balance at Inception (April 19, 2007)	—	\$ —	\$ —	\$ —	\$ —
Issuance of Common stock	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—
Net Loss	—	—	—	—	—
Balance at December 31, 2007	—	\$ —	\$ —	\$ —	\$ —
Issuance of Common stock to founders	1,729,532	1,730	(1,730)	—	—
Issuance of restricted Common stock	12,627,697	12,628	(12,628)	—	—
Stock-based compensation expense	—	—	1,742	—	1,742
Net Loss	—	—	—	(97,559)	(97,559)
Balance at December 31, 2008	14,357,229	\$14,358	\$ (12,616)	\$ (97,559)	\$ (95,817)
Issuance of restricted Common stock	130,422	130	(130)	—	—
Stock-based compensation expense	—	—	2,336	—	2,336
Net Loss	—	—	—	(872,041)	(872,041)
Balance at December 31, 2009	14,487,651	\$14,488	\$ (10,410)	\$ (969,600)	\$ (965,522)
Issuance of restricted Common stock	219,369	219	(219)	—	—
Stock-based compensation expense	—	—	3,856	—	3,856
Net Loss	—	—	—	(1,338,694)	(1,338,694)
Balance at December 31, 2010	14,707,020	\$14,707	\$ (6,773)	\$ (2,308,294)	\$ (2,300,360)
Issuance of Common stock through conversion of notes payable	7,676,828	7,677	3,482,081	—	3,489,758
Issuance of restricted Common stock	61,406	61	(61)	—	—
Warrants issued with convertible notes and conversion of notes	—	—	1,111,364	—	1,111,364
Beneficial conversion feature of convertible notes payable	—	—	239,700	—	239,700
Stock-based compensation expense	—	—	9,015	—	9,015
Net Loss	—	—	—	(4,383,262)	(4,383,262)
Balance at December 31, 2011	22,445,254	\$22,445	\$ 4,835,326	\$ (6,691,556)	\$ (1,833,785)
Issuance of Common stock in connection with the merger	6,000,000	6,000	(6,000)	—	—
Issuance of Common stock through private placements in connection with the merger	13,722,600	13,723	13,708,877	—	13,722,600
Costs associated with the merger	—	—	(13,722,600)	—	(13,722,600)
Issuance of Common stock through conversion of notes payable and accrued interest in connection with the merger	1,525,387	1,525	1,523,862	—	1,525,387
Issuance of warrants to consultant	—	—	72,919	—	72,919
Issuance of Common stock from warrant exercises	1,810,831	1,811	1,766,665	—	1,768,476
Warrant liability removed due to exercise of warrants	—	—	3,728,001	—	3,728,001
Issuance of Common stock from stock option exercises	224,064	224	17,701	—	17,925
Issuance of restricted common stock	1,380,000	1,380	(1,380)	—	—
Restricted stock forfeitures	(138,995)	(139)	139	—	—
Stock-based compensation expense	—	—	1,284,529	—	1,284,529
Net Loss	—	—	—	(33,987,693)	(33,987,693)
Balance at September 30, 2012	<u>46,969,141</u>	<u>\$46,969</u>	<u>\$ 13,208,039</u>	<u>\$(40,679,249)</u>	<u>\$(27,424,241)</u>

The accompanying notes are an integral part of these condensed consolidated financial statements.

Organovo Holdings, Inc.
(A development stage company)

Unaudited Condensed Consolidated Statements of Cash Flows

	Nine Months Ended September 30, 2012	Nine Months Ended September 30, 2011	Period from April 19, 2007 (Inception) through September 30, 2012
Cash Flows From Operating Activities			
Net loss	\$ (33,987,693)	\$ (1,884,307)	\$ (40,679,249)
Adjustments to reconcile net loss to net cash used in operating activities:			
Amortization of deferred financing costs	318,843	—	438,296
Loss on disposal of fixed assets	158,366	—	158,366
Depreciation and amortization	116,828	49,929	273,156
Amortization of debt discount	896,167	97,565	2,083,735
Interest accrued on convertible notes payable	11,616	196,680	495,392
Fair value of warrant liabilities in excess of proceeds	19,019,422	—	19,019,422
Change in fair value of warrant liabilities	5,190,637	—	5,197,206
Stock-based compensation	1,284,529	2,596	1,301,478
Amortization of warrants issued for services	36,054	—	36,054
Warrants issued in connection with exchange agreement	—	—	527,629
Increase (decrease) in cash resulting from changes in:			
Grants receivable	(95,477)	59,744	(95,477)
Inventory	(327,993)	(212,395)	(619,874)
Prepaid expenses and other assets	(53,490)	1,044	(146,496)
Accounts payable	(596,213)	374,973	61,347
Accrued expenses	392,196	260,031	830,033
Deferred revenue	(77,500)	95,075	75,000
Net cash used in operating activities	<u>(7,713,708)</u>	<u>(959,065)</u>	<u>(11,043,982)</u>
Cash Flows From Investing Activities			
Restricted cash deposits	(88,321)	—	(88,321)
Purchases of fixed assets	(255,750)	(16,290)	(682,573)
Purchases of intangible assets	—	(65,000)	(95,000)
Net cash used in investing activities	<u>(344,071)</u>	<u>(81,290)</u>	<u>(865,894)</u>
Cash Flows From Financing Activities			
Proceeds from issuance of convertible notes payable	—	1,042,500	4,630,000
Proceeds from issuance of common stock and warrants	15,491,075	—	15,491,075
Proceeds from exercise of stock options	17,925	—	17,925
Proceeds from issuance of related party notes payable	—	225,000	250,000
Principal payments on capital lease obligations	(4,663)	—	(4,663)
Repayment of related party notes payable	—	(250,000)	(250,000)
Repayment of convertible notes and interest payable	(110,247)	—	(110,247)
Deferred financing costs	—	(205,984)	(438,296)
Net cash provided by financing activities	<u>15,394,090</u>	<u>811,516</u>	<u>19,585,794</u>
Net Increase (Decrease) in Cash and Cash Equivalents	<u>7,336,311</u>	<u>(228,839)</u>	<u>7,675,918</u>
Cash and Cash Equivalents at Beginning of Period	<u>339,607</u>	<u>285,308</u>	<u>—</u>
Cash and Cash Equivalents at End of Period	<u>\$ 7,675,918</u>	<u>\$ 56,469</u>	<u>\$ 7,675,918</u>
Supplemental Disclosure of Cash Flow Information:			
Interest	\$ 10,247	\$ —	\$ 10,247
Income Taxes	\$ 800	\$ 2,400	\$ 3,200

Supplemental Disclosure of Noncash Investing and Financing Activities:

During 2008, the Company issued 1,729,532 shares of Common stock to its founders.

During 2011 and 2010 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued 61,406, 219,369 and 13,038,894, respectively, shares of restricted Common stock to certain employees, advisors and consultants of the Company.

During 2011 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued certain convertible notes payable that included warrants. The warrants and the related beneficial conversion feature, valued at \$823,435 were classified as equity instruments and recorded as a discount to the carrying value of the related debt.

During 2011 and for the period from April 19, 2007 (Inception) through December 31, 2011, the Company issued warrants, valued at approximately \$1,260,000, in connection with certain convertible notes payable. The warrants were recorded as a warrant liability and recorded as a discount to the carrying value related to debt.

During 2011, the Company issued 7,676,828 shares of Common stock to note holders for the conversion of Convertible Notes with a principal balance totaling \$3,030,000 and accrued interest totaling \$459,758.

During 2012, the Company issued 1,525,387 shares of Common stock to note holders for the conversion of Convertible Notes with a principal balance totaling \$1,500,000 and accrued interest totaling \$25,387.

During 2012, the Company issued warrants, valued at approximately \$32,743,000, in connection with the Reverse Merger and the Private Placement. The warrants were recognized as a derivative liability.

During 2012, the Company purchased equipment valued at \$34,220 through a capital lease.

During 2012, the Company transferred approximately \$307,700 of inventory to fixed assets.

During 2012, the Company issued 100,000 warrants to purchase shares of our common stock for consulting services. The warrants were valued at approximately \$73,000.

The accompanying notes are an integral part of these condensed consolidated financial statements.

Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Consolidated Financial Statements

1. Summary of Significant Accounting Policies

Nature of operations and basis of presentation

References in these notes to the unaudited condensed financial statements to “Organovo Holdings, Inc.,” “Organovo Holdings,” “we,” “us,” “our,” “the Company” and “our Company” refer to Organovo Holdings, Inc. and its consolidated subsidiary Organovo, Inc.

The Company has developed and is commercializing a platform technology for the generation of three-dimensional (3D) human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs.

As of September 30, 2012, the Company has devoted substantially all of its efforts to product development, raising capital, and building infrastructure. The Company has not realized significant revenues from its planned principal operations. Accordingly, the Company is considered to be in the development stage.

The accompanying interim condensed financial statements have been prepared by the Company, without audit, in accordance with the instructions to Form 10-Q and, therefore, do not necessarily include all information and footnotes necessary for a fair statement of its financial position, results of operations and cash flows in accordance with generally accepted accounting principles (“GAAP”). The balance sheet at December 31, 2011 is derived from the audited balance sheet at that date.

In the opinion of management, the unaudited financial information for the interim periods presented reflects all adjustments, which are only normal and recurring, necessary for a fair statement of financial position, results of operations and cash flows. These financial statements should be read in conjunction with the financial statements included in the Company’s Form 8-K/A for the fiscal year ended December 31, 2011 filed with the Securities and Exchange Commission (the “SEC”) on May 11, 2012. Operating results for interim periods are not necessarily indicative of operating results for the Company’s 2012 fiscal year.

Merger transaction

On February 8, 2012, Organovo, Inc., a privately held Delaware corporation, merged with and into Organovo Acquisition Corp., a wholly-owned subsidiary of the Company, a publicly traded Delaware corporation, with the Organovo, Inc. surviving the merger as a wholly-owned subsidiary of the Company (the “Merger”). As a result of the Merger, the Company acquired the business of the Organovo, Inc., and will continue the existing business operations of Organovo, Inc.

Simultaneously with the Merger, on February 8, 2012 (the “closing date”), all of the issued and outstanding shares of Organovo, Inc.’s common stock converted, on a 1 for 1 basis, into shares of the Company’s Common stock, par value \$0.001 per share. Also, on the closing date, all of the issued and outstanding options to purchase shares of Organovo, Inc.’s common stock and other outstanding warrants to purchase Organovo, Inc.’s common stock, and all of the issued and outstanding bridge warrants to purchase shares of Organovo, Inc.’s common stock, converted, respectively, on a 1 for 1 basis, into options, warrants and new bridge warrants to purchase shares of the Company’s common stock.

Immediately following the consummation of the Merger: (i) the former security holders of Organovo, Inc. common stock had an approximate 75% voting interest in the Company and the Company stockholders retained an approximate 25% voting interest, (ii) former executive management team of Organovo, Inc. remained as the only continuing executive management team for the Company, and (iii) the Company’s ongoing operations consist solely of the ongoing operations of Organovo, Inc. Based primarily on these factors, the Merger was accounted for as a reverse merger and a recapitalization in accordance with GAAP. As a result, these financial statements reflect the historical results of Organovo, Inc. prior to the Merger, and the combined results of the Company following the Merger. The par value of Organovo, Inc. common stock immediately prior to the Merger was \$0.0001 per share. The par value subsequent to the Merger is \$0.001 per share, and therefore the historical results of Organovo, Inc. prior to the Merger have been retroactively adjusted to affect the change in par value.

In connection with three separate closings of a private placement transaction completed in connection with the Merger (the “Private Placement”), the Company received gross proceeds of approximately \$5,000,000, \$1,800,000 and \$6,900,000 on February 8, 2012, February 29, 2012 and March 16, 2012, respectively. The Company previously received \$1,500,000 from the purchase of 6% convertible notes which were automatically converted into 1,500,000 shares of common stock, plus 25,387 shares for accrued interest of \$25,387 on the principal, at February 8, 2012. See Note 3.

Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Consolidated Financial Statements

The cash transaction costs related to the Merger were approximately \$2,129,500.

Before the Merger, Organovo Holdings' board of directors and stockholders adopted the 2012 Equity Incentive Plan (the "2012 Plan"). The 2012 Plan provides for the issuance of 6,553,986 shares of the Company's Common stock to executive officers, directors, advisory board members and employees. In addition, Organovo Holdings assumed and adopted Organovo, Inc.'s 2008 Equity Incentive Plan.

Liquidity

As of September 30, 2012, the Company had an accumulated deficit of approximately \$40,679,200. The Company also had negative cash flow from operations of approximately \$7,713,700 during the nine months ended September 30, 2012.

On February 8, 2012, the Company received gross proceeds of approximately \$5,000,000 in a private placement offering in conjunction with the Merger. On February 29, 2012 and March 16, 2012, the Company completed two additional closings of its Private Placement and received total gross proceeds of approximately \$8,722,000.

The Company expects to cover its anticipated operating expenses over the next twelve months through cash on hand (including the funds raised during the first quarter of 2012 through the Private Placement of its securities), funds received through equity or debt financing, and funds received from grants and its collaborative agreements, and other commercial arrangements.

The Company's ability to continue its operations is dependent upon its ability to raise additional capital through equity or debt financing, and to generate capital through collaborative research agreements and other commercial arrangements. There can be no assurance that any additional financing will be available on acceptable terms or available at all. Any equity financing may result in dilution to existing stockholders and any debt financing may include restrictive covenants.

The accompanying financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of these uncertainties.

Use of estimates

The preparation of the financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates. Significant estimates used in preparing the financial statements include those assumed in computing the valuation of warrants and conversion features, revenue recognized under the proportional performance model, the valuation of stock-based compensation expense, and the valuation allowance on deferred tax assets.

Cash and cash equivalents

The Company considers all highly liquid investments with original maturities of 90 days or less to be cash equivalents.

Restricted cash

As of September 30, 2012, the Company had approximately \$88,300 of restricted cash deposited with a financial institution. \$38,300 is held in certificates of deposit to support a letter of credit agreement related to the facility lease entered into during 2012. The additional \$50,000 is held by the financial institution as a guarantee for the Company's commercial credit cards.

Grants receivable

Grants receivable represent amounts due from the NHLBI, a division of the NIH under three research grants. The Company considers the grants receivable to be fully collectible; and accordingly, no allowance for doubtful amounts has been established. If amounts become uncollectible, they are charged to operations.

Inventory

Inventories are stated at the lower of the cost or market (first-in, first out). Inventory at September 30, 2012 consisted of approximately \$48,400 in finished goods, \$193,800 work-in-process and \$70,000 in raw materials. Inventory at December 31, 2011 consisted of approximately \$235,000 in finished goods and \$56,900 in raw materials.

The Company provides inventory allowances based on excess or obsolete inventories determined based on anticipated use in the final product. There was no obsolete inventory reserve as of September 30, 2012 or December 31, 2011.

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Organovo Holdings, Inc. (A development stage company)

Notes to Condensed Consolidated Financial Statements

<i>Deferred financing costs</i>	As of December 31, 2011, deferred financing costs consisted of approximately \$140,000 associated with the Merger transaction and approximately \$179,000 associated with convertible notes as part of the private placement offering that was initiated in the fourth quarter of 2011. The deferred financing costs related to the private placement offering were amortized over the life of the convertible notes and fully amortized to expense upon conversion of the convertible notes on February 8, 2012. The deferred financing costs associated with the Merger transaction in excess of the proceeds received were expensed at the effective Merger date. As of September 30, 2012, there were no deferred financing costs.
<i>Fixed assets and depreciation</i>	Property and equipment are carried at cost. Expenditures that extend the life of the asset are capitalized and depreciated. Depreciation and amortization are provided using the straight-line method over the estimated useful lives of the related assets or, in the case of leasehold improvements, over the lesser of the useful life of the related asset or the lease term. As of September 30, 2012, the estimated useful life of the fixed assets range between two and five years.
<i>Impairment of long-lived assets</i>	In accordance with authoritative guidance the Company reviews its long-lived assets, including property and equipment and other assets, for impairment whenever events or changes in circumstances indicate that the carrying amounts of the assets may not be fully recoverable. To determine recoverability of its long-lived assets, the Company evaluates whether future undiscounted net cash flows will be less than the carrying amount of the assets and adjusts the carrying amount of its assets to fair value. Management has determined that no impairment of long-lived assets occurred in the period from inception through September 30, 2012.
<i>Fair value measurement</i>	Financial assets and liabilities are measured at fair value, which is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The following is a fair value hierarchy based on three levels of inputs, of which the first two are considered observable and the last unobservable, that may be used to measure fair value:

- Level 1 — Quoted prices in active markets for identical assets or liabilities.
- Level 2 — Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

As of September 30, 2012 and December 31, 2011, cash and cash equivalents were comprised of cash in checking accounts.

The Company used Level 3 inputs for its valuation methodology for the warrant derivative liabilities. The estimated fair values were determined using a Monte Carlo option pricing model based on various assumptions (see Note 2). The Company's derivative liabilities are adjusted to reflect estimated fair value at each period end, with any decrease or increase in the estimated fair value being recorded in other income or expense accordingly, as adjustments to fair value of derivative liabilities.

At September 30, 2012, the estimated fair values of the liabilities measured on a recurring basis are as follows:

Fair Value Measurements at September 30, 2012

	Balance at September 30, 2012	Quoted Prices in Active Markets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Warrant liability	\$ 35,471,527	—	—	\$ 35,471,527

Organovo Holdings, Inc.
(A development stage company)**Notes to Condensed Consolidated Financial Statements**

The following table presents the activity for liabilities measured at estimated fair value using unobservable inputs for the nine months ended September 30, 2012:

Fair Value Measurements Using Significant Unobservable Inputs (Level 3)

	Warrant Derivative Liability
Beginning Balance at December 31, 2011	\$ 1,266,869
Issuances	32,742,022
Adjustments to estimated fair value	5,190,637
Warrant liability removal due to settlements	(3,728,001)
Ending Balance at September 30, 2012	\$ 35,471,527

*Revenue recognition**Research and Development Revenue Under Collaborative Agreements.*

In December 2010, the Company entered into a 12 month research contract agreement with a third party, whereby the Company was engaged to perform research and development services on a fixed-fee basis for approximately \$600,000. Based on the proportional performance criteria, the Company recognized approximately \$75,000 and \$75,000 and \$232,000 and \$449,200 in revenue related to the contract during three and nine months ended September 30, 2012 and 2011, respectively. Total revenue recognized on the contract from inception through September 30, 2012 was approximately \$525,000.

In October 2011, the Company entered into a research contract agreement with a third party, whereby the Company will perform research and development services on a fixed-fee basis for \$1,365,000. The agreement included an initial payment to the Company of approximately \$239,000, with remaining payments expected to occur over a 21-month period. During the three and nine months ended September 30, 2012, the Company recorded approximately \$298,800 and \$677,800, respectively, in revenue related to the research contract in recognition of the proportional performance achieved by the Company. Total revenue recognized on the contract from inception through September 30, 2012 was approximately \$916,800.

Billings to customers or payments received from customers are included in deferred revenue on the balance sheet until all revenue recognition criteria are met. As of September 30, 2012 and December 31, 2011, the Company had \$75,000 and \$152,500 in deferred revenue related to its collaborative research programs.

NIH and U.S. Treasury Grant Revenues

During 2010, the U.S. Treasury awarded the Company two one-time grants totaling approximately \$397,000 for investments in qualifying therapeutic discovery projects under section 48D of the Internal Revenue Code. The grants cover reimbursement for qualifying expenses incurred by the Company in 2010 and 2009. The proceeds from these grants are classified in "Revenues – Grants" for the period from inception through September 30, 2012.

During 2012, 2010 and 2009, the NHLBI, a division of the NIH, awarded the Company three research grants totaling approximately \$558,000. Revenues from the NIH grants are based upon internal and subcontractor costs incurred that are specifically covered by the grants, and where applicable, an additional facilities and administrative rate that provides funding for overhead expenses. These revenues are recognized when expenses have been incurred by subcontractors and as the Company incurs internal expenses that are related to the grants. Revenue recognized under these grants for the three and nine months ended September 30, 2012 and 2011 was approximately \$95,500 and \$95,500 and \$0 and \$57,000, respectively. Total revenue recorded under these grants from inception through September 30, 2012 was approximately \$363,000.

Net income (loss) per share

Net income (loss) per share is presented as both basic and diluted net income (loss) per share. Basic net income (loss) per share excludes any dilutive effects of options, shares subject to repurchase and warrants. Diluted net income (loss) per share includes the impact of potentially dilutive securities. No dilutive effect was calculated for the nine months ended September 30, 2012 or the three and nine months ended September 30, 2011 as the Company reported a net loss for each respective period and the effect would have been anti-dilutive. Total common stock equivalents that were excluded from computing diluted net income (loss) per share were approximately 429,658 and 25,801,190 for the three and nine months ended September 30, 2012, respectively, and 4,494,031 for the three and nine months ended September 30, 2011.

Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Consolidated Financial Statements

2. Derivative Liability

During 2012, in relation to the reverse Merger and the three offerings under the Private Placement, the Company issued 21,347,182 five-year warrants to purchase the Company's Common stock. The exercise price of the warrants is protected against down-round financing throughout the term of the warrant, as described below. The terms of the warrants issued in the first quarter of 2012 are the same as those issued in connection with the convertible notes in October and November of 2011. Pursuant to ASC 815-15 and ASC 815-40, the fair value of the warrants of approximately \$32,742,000 was recorded as a derivative liability on the issuance dates.

As of December 31, 2011, the Company had a warrant liability of \$1,266,869 related to 1,500,000 warrants issued with Convertible Notes in the fourth quarter of 2011.

The Company revalued all of the warrants at the end of the period, and the estimated fair value of the outstanding warrant liabilities is \$35,471,527 at September 30, 2012. The change in fair value of the derivative liabilities for the three and nine months ended September 30, 2012 was a decrease of \$42,252,357 and an increase of \$5,190,637, respectively, and is included in other income (expense) in the 2012 statement of operations.

During the nine months ended September 30, 2012, 1,768,475 of these warrants that are classified as derivative liabilities were exercised. The warrants were revalued as of the settlement date, and the change in fair value was recognized to earnings. The Company also recognized a reduction in the warrant liability based on the fair value as of the settlement date, with a corresponding increase in additional paid-in capital.

The derivative liabilities were valued at the closing dates of the Private Placement and at March 31, June 30 and September 30 of 2012 using a Monte Carlo valuation model with the following assumptions:

	Closing dates		March 31, 2012	June 30, 2012	September 30, 2012
Closing price per share of common stock	\$	N/A	\$ 2.47	\$ 3.99	\$ 2.05
Exercise price per share	\$	1.00	\$ 1.00	\$ 1.00	\$ 1.00
Expected volatility	105.8%-110.5%		103.5%	102.9%	102.7%
Risk-free interest rate	0.82%-1.07%		1.04%	0.72%	0.62%
Dividend yield	—		—	—	—
Remaining expected term of underlying securities (years)	5		4.90	4.80	4.42

In addition, as of the valuation dates, management assessed the probabilities of future financings assumptions in the Monte Carlo valuation models. Management also applied a discount for lack of marketability to the valuation of the derivative liabilities based on such trading restrictions due to the shares not being registered.

If, prior to the expiration date of the warrants, the Company issues additional shares of Common Stock, as defined below, without consideration or for a consideration per share less than the exercise price of the warrants in effect immediately prior to such issue, then the exercise price shall be reduced, concurrently with such issue, to a price (calculated to the nearest cent) determined by multiplying such exercise price by a fraction, (A) the numerator of which shall be (1) the number of shares of Common stock outstanding immediately prior to such issue plus (2) the number of shares of Common stock which the aggregate consideration received or to be received by the Company for the total number of additional shares of Common stock so issued would purchase at such exercise price; and (B) the denominator of which shall be the number of shares of Common stock outstanding immediately prior to such issue plus the number of such additional shares of Common stock so issued; provided that (i) all shares of Common stock issuable upon conversion or exchange of convertible securities outstanding immediately prior to such issue shall be deemed to be outstanding, and (ii) the number of shares of Common stock deemed issuable upon conversion or exchange of such outstanding convertible securities shall be determined without giving effect to any adjustments to the conversion or exchange price or conversion or exchange rate of such convertible securities resulting from the issuance of additional shares of Common stock that is the subject of this calculation. For purposes of the warrants, "additional shares of common stock" shall mean all shares of Common stock issued by the Company after the effective date (including without limitation any shares of Common stock issuable upon conversion or exchange of any convertible securities or upon exercise of any option or warrant, on an as-converted basis), other than: (i) shares of Common stock (and/or warrants for any class of equity securities of the Company) issued or issuable upon conversion or exchange of any convertible securities or exercise of any options or warrants outstanding on the effective date; (ii) shares of Common stock issued or issuable by reason of a dividend, stock split, split-up or other distribution on shares of Common stock; (iii) shares of Common stock (or options with respect thereto) issued or issuable to employees or directors of, or consultants to, the Company or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Company; (iv) any securities issued or issuable by the Company pursuant to (A) the Private Placement; or (B) the Merger; (v) securities issued pursuant to acquisitions or strategic transactions approved by a majority of disinterested directors of the Company, provided that any

Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Consolidated Financial Statements

such issuance shall only be to a person which is, itself or through its subsidiaries, an operating company in a business synergistic with the business of the Company and in which the Company receives benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities and (vi) securities issued to financial institutions, institutional investors or lessors in connection with credit arrangements, equipment financings or similar transactions approved by a majority of disinterested directors of the Company, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities.

Upon each adjustment of the exercise price pursuant to the provisions stated above, the number of warrant shares issuable upon exercise of the warrants shall be adjusted by multiplying a number equal to the exercise price in effect immediately prior to such adjustment by the number of warrant shares issuable upon exercise of the warrant immediately prior to such adjustment and dividing the product so obtained by the adjusted exercise price.

3. Convertible Notes Payable

Convertible notes

At December 31, 2011, an unsecured \$100,000 Convertible Note, with interest at 10% and a maturity date of April 2014, remained outstanding. In February 2012, at the close of the Merger, the convertible note and accrued interest in the aggregate of approximately \$110,000 were repaid.

Private placement

On September 18, 2011, Organovo, Inc.'s Board of Directors authorized a private placement offering of up to 30 units of its securities at a price of \$50,000 per unit for an aggregate purchase price of \$1,500,000. Each unit consisted of a convertible note in the principal amount of \$50,000 accruing simple interest at the rate of 6% per annum (the "Convertible Notes"), plus five-year warrants to purchase 50,000 shares of the next Qualified Round of Equity Securities, at an exercise price of \$1.00 per share. The principal plus accrued interest was convertible into the Company's common stock upon consummation of the Merger.

During October and November 2011, \$1,500,000 of Convertible Notes bearing interest at 6% per annum with a maturity date of March 30, 2012, and five-year warrants to purchase 1,500,000 shares of the Company's Common stock were issued to investors under the Private Placement. The warrants are exercisable at \$1.00 per share, expire in five years, and contain down-round price protection. The Convertible Notes were outstanding at December 31, 2011, and were converted into 1,525,387 units during February 2012, in connection with the Merger.

The Company determined that the warrants represent a derivative instrument due to the down-round price protection, and accordingly, the Company recorded a derivative liability related to the warrants. Additionally, upon issuance of the notes during 2011, the Company recorded the discount for the beneficial conversion feature of \$239,700. The debt discount associated with the warrants and beneficial conversion feature were amortized to interest expense over the life of the Convertible Notes, and fully amortized upon conversion of the Convertible Notes. The Company recorded approximately \$0 and \$896,200 of interest expense for the amortization of the debt discount during the three and nine months ended September 30, 2012, respectively, and approximately \$1,500,000 for the period from inception through September 30, 2012.

As consideration for locating investors to participate in the Private Placement, the placement agent earned a cash payment of \$195,000. Additionally, upon closing of the Merger transaction, the placement agent earned five-year warrants to purchase 610,155 shares of the Company's Common stock at \$1.00 per share. These warrants contain down round protection and were classified as derivative liabilities upon issuance. See Note 2.

Interest expense, including amortization of the note discounts, for the three and nine months ended September 30, 2012 and 2011 was approximately \$200 and \$1,087,700 and \$182,300 and \$294,200, respectively. Interest expense, including amortization of the note discounts, for the period from April 19, 2007 (inception) through September 30, 2012 was approximately \$3,406,100.

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Organovo Holdings, Inc. **(A development stage company)**

Notes to Condensed Consolidated Financial Statements

During 2012, concurrently with the closing of the Merger and in contemplation of the Merger, the Company completed the initial closing of the Private Placement of up to 8,000,000 units of its securities, at a price of \$1.00 per unit, with the ability to increase the offering to an aggregate of up to 16,000,000 units. Each unit consisted of one share of Common Stock and a warrant to purchase one share of Common Stock. The Company completed three closings under the Private Placement during the three months ended March 31, 2012, and raised total gross proceeds of \$13,722,600 and total net proceeds of \$11,593,066. The Company issued 13,722,600 shares of its Common Stock and warrants to purchase 15,247,987 shares of its Common Stock (including warrants to purchase 1,525,387 shares to former holders of the bridge notes) exercisable at \$1.00 to investors in the Offering. The placement agent and its selected dealers were paid total cash commissions of \$1,372,260 and the placement agent was paid an expense allowance of \$411,678 and was issued placement agent warrants to purchase 6,099,195 shares of the Company's Common Stock at an exercise price of \$1.00 per share.

The warrants issued to the investors and the placement agent, as described above, contain down round protection, and accordingly, were classified as derivative liabilities upon issuance. On the closing date, the derivative liabilities were recorded at an estimated fair value of approximately \$32,742,000. Given that the fair value of the derivative liabilities exceeded the total proceeds of the private placement of \$13,722,600, no net amounts were allocated to the common stock. The amount by which the recorded liabilities exceeded the proceeds of approximately \$19,019,400 was charged to other expense at the closing dates. The Company has revalued the derivative liability as of September 30, 2012, and will continue to do so on each subsequent balance sheet date until the securities to which the derivative liabilities relate are exercised or expire, with any changes in the fair value recognized through earnings in the statement of operations. See Note 2.

Registration rights agreement

The Company entered into a registration rights agreement (each, a "Registration Rights Agreement") with the investors in the Offering. Under the terms of the Registration Rights Agreement, the Company agreed to file a registration statement covering the resale of the Common Stock underlying the Units and the Common Stock that is issuable on exercise of the Investor Warrants (but not the Common Stock that is issuable upon exercise of the warrants issued as compensation to the placement agent in connection with the Offering) within 90 days from the final closing date of the Offering (the "Filing Deadline"). The Company filed the registration statement on June 13, 2012. The registration statement became effective during July 2012.

The Company agreed to use reasonable efforts to maintain the effectiveness of the registration statement through the one year anniversary from the date the registration statement was declared effective by the Securities and Exchange Commission (the "SEC"), or until Rule 144 of the 1933 Act is available to investors in the Offering with respect to all of their shares, whichever is earlier. If the Company had not met the Effectiveness Deadline, the Company would have been liable for monetary penalties equal to one-half of one percent (0.5%) of each investor's investment in the offering at the end of every 30 day period following such Effectiveness Deadline failure until such failure was cured. No payments shall be owed with respect to any period during which all of the investor's registrable securities may be sold by such investor under Rule 144 or pursuant to another exemption from registration.

4. Stockholders' Equity

Common stock

During February and March 2012, the Company issued 21,247,987 shares of Common stock related to the Merger. See Notes 1 and 3. During June 2012, the Company issued 137,584 shares of common stock upon exercise of 145,000 warrants. During the three months ended September 30, 2012, the Company issued 1,673,247 shares of Common stock upon exercise of 1,675,975 warrants.

During August 2012, 224,064 stock options were exercised for 224,064 shares of Common stock.

Restricted stock awards

In February 2008, four founders, including the Chief Executive Officer ("CEO") and three directors of the Company received 11,779,960 shares of restricted Common stock, 25% vesting after the first year and the remaining 75% vesting in equal quarterly portions over the following three years.

From 2008 through December 31, 2011, the Company issued a total of 1,258,934 shares of restricted Common stock to various employees, advisors, and consultants of the Company. 1,086,662 of those shares were issued under the 2008 Equity Incentive Plan and the remaining 172,272 shares were issued outside the plan. 1,380,000 shares of restricted stock were issued during the nine months ended September 30, 2012.

During the three and nine months ended September 30, 2012, the Company issued an aggregate 950,000 of restricted stock units to certain members of senior management and 230,000 restricted stock units to non-executive employees. The vesting schedule is 25% on the anniversary of the vesting start date over 4 years.

During the three and nine months ended September 30, 2012, the Company issued an aggregate 200,000 restricted stock units to certain members of senior management. The vesting of these restricted stock units are performance based. As of September 30, 2012, the Company believes the financial targets will be met, and accordingly is recognizing the related stock based compensation expense over the requisite service period.

During the three and nine months ended September 30, 2012, there were 80,653 and 138,995 shares, respectively, of restricted stock cancelled. There were 190,000 restricted stock units held by two employees that vested during the period. On the vesting date, 80,653 shares of Common stock were returned to the Company, at the option of the holders, to cover the tax liability related to the vesting of the restricted stock units. Upon the return of the Common stock, stock option grants, equal to the amount of Common stock returned to the Company, with immediate vesting, were granted to the individuals at the vesting date market value strike price.

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Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Consolidated Financial Statements

A summary of the Company's restricted stock award activity is as follows:

	<u>Number of Shares</u>
Unvested at December 31, 2007	—
Granted	12,627,697
Vested	(65,211)
Canceled / forfeited	—
Unvested at December 31, 2008	12,562,486
Granted	130,422
Vested	(5,373,004)
Canceled / forfeited	—
Unvested at December 31, 2009	7,319,904
Granted	219,369
Vested	(3,256,191)
Canceled / forfeited	—
Unvested at December 31, 2010	4,283,082
Granted	61,406
Vested	(3,233,193)
Canceled / forfeited	—
Unvested at December 31, 2011	1,111,295
Granted	1,380,000
Vested	(1,485,820)
Canceled / forfeited	(138,995)
Unvested at September 30, 2012	<u>866,480</u>

The fair value of each restricted Common stock award is recognized as stock-based expense over the vesting term of the award. The Company recorded restricted stock-based compensation expense in operating expenses for employees and non-employees of approximately \$998,100 and \$998,700 and \$700 and \$2,600 for the three and nine months ended September 30, 2012 and 2011, respectively. The Company recorded restricted stock-based compensation expense of approximately \$1,013,300 for the period from April 19, 2007 (inception) through September 30, 2012.

As of September 30, 2012, total unrecognized restricted stock-based compensation expense was approximately \$1,354,400, which will be recognized over a weighted average period of 1.97 years.

Stock options

Under the 2008 Equity Incentive Plan, on October 12, 2011, the Company granted an officer incentive stock options to purchase 896,256 shares of Common stock at an exercise price of \$0.08 per share, a quarter of which vested on the one year anniversary of employment, in May 2012, and the remaining options will vest ratably over the remaining 36 month term.

During April 2012, 305,658 incentive stock options were issued, and during the three months ended September 30, 2012, a total of 1,420,903 incentive stock options were issued, under the 2012 Equity Incentive Plan, at various exercise prices, a quarter of which will vest on either the one year anniversary of employment or one year anniversary of the vesting commencement date. The remaining options will vest ratably over the remaining 36 month terms, with the exception of 80,653 of the incentive stock option grants that have immediate vesting at the grant date and 126,000 of the incentive stock option grants that vest quarterly over 3 years.

The following table summarizes stock option activity for the nine months ended September 30, 2012:

	<u>Options Outstanding</u>	<u>Weighted- Average Exercise Price</u>
Outstanding at December 31, 2011	896,256	\$ 0.08
Options Granted	1,726,561	\$ 1.82
Options Canceled	—	—
Options Exercised	(224,064)	0.08
Outstanding at September 30, 2012	<u>2,398,753</u>	<u>\$ 1.33</u>
Vested and Exercisable at September 30, 2012	<u>82,329</u>	\$ 2.10

Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Consolidated Financial Statements

During the three and nine months ended September 30, 2012, the Company's Board of Directors awarded 1,420,903 and 1,726,561 options, respectively, to certain employees. There were no stocks options granted for the same periods in 2011.

The Company uses the Black-Scholes valuation model to calculate the fair value of stock options. Stock based compensation expense is recognized over the vesting period using the straight-line method. The fair value of employee stock options was estimated at the grant date using the following weighted average assumptions:

	Nine months ended September 30, 2012
Dividend yield	—
Volatility	91.83%
Risk-free interest rate	0.88%
Expected life of options	6.04 years

The weighted average grant date fair value per share of employee stock options granted during the nine months ended September 30, 2012 was \$1.40.

The assumed dividend yield was based on the Company's expectation of not paying dividends in the foreseeable future. Due to the Company's limited historical data, the estimated volatility incorporates the historical and implied volatility of comparable companies whose share prices are publicly available. The risk-free interest rate assumption was based on the U.S. Treasury rates. The weighted average expected life of options was estimated using the average of the contractual term and the weighted average vesting term of the options.

The total employee stock-based compensation recorded as operating expenses was approximately \$243,800 and \$286,400 for the three and nine months ended September 30, 2012, respectively, and \$292,800 for the period from April 19, 2007 (inception) through September 30, 2012.

The total unrecognized compensation cost related to unvested stock option grants as of September 30, 2012 was approximately \$2,178,700, and the weighted average period over which these grants are expected to vest is 3.66 years.

Warrants

During 2011, the Company issued warrants to purchase 2,909,750 shares of its Common stock. These warrants are immediately exercisable at \$1.00 per share, and have remaining terms of approximately 4.47 years. 52,500 of the warrants were exercised during nine months ended September 30, 2012 through a cashless exercise, for issuance of 42,356 shares of common stock.

During the nine months ended September 30, 2012, the Company issued warrants to purchase 21,347,182 shares of its Common stock. These warrants are immediately exercisable at \$1.00 per share, and have remaining terms of approximately 4.42 years. 1,768,475 of the warrants were exercised for cash proceeds of \$1,768,475 during the nine months ended September 30, 2012. These warrants were derivative liabilities and were valued at the settlement date. The warrant liability was reduced to equity at the fair value on the settlement date. See Note 2.

Additionally, during the three months ended September 30, 2012 the Company entered into a 6 month agreement with a consultant for services. In connection with the agreement, the Company issued 100,000 warrants to purchase common stock, at a price of \$1.70, to be earned over 6 months, with a two year life. The fair value of the warrants was estimated to be approximately \$73,000. These warrants were classified as equity instruments because they do not contain any anti-dilution provisions. The Black-Scholes model, using a volatility of 79.8% and risk free factor of 0.24%, was used to determine the value. The value is being amortized over the term of the agreement. During the three and nine months ended September 30, 2012, the Company recognized approximately \$36,100 of expense related to these services.

The following table summarizes warrant activity for the nine months ended September 30, 2012:

	Warrants	Weighted-Average Exercise Price
Balance at December 31, 2011	2,909,750	\$ 1.00
Granted	21,447,182	\$ 1.00
Expired / Canceled	—	\$ —
Exercised	(1,820,975)	\$ 1.00
Balance at September 30, 2012	<u>22,535,957</u>	\$ 1.00

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Organovo Holdings, Inc.
(A development stage company)

Notes to Condensed Consolidated Financial Statements

Common stock reserved for future issuance Common stock reserved for future issuance consisted of the following at September 30, 2012:

Common stock warrants outstanding	22,535,957
Common stock options outstanding under the 2008 Plan	672,192
Common stock options outstanding under the 2012 Plan	1,726,561
Total	<u>24,934,710</u>

5. Commitments and Contingencies

Operating leases

The Company leases office and laboratory space under non-cancelable operating leases. The Company records rent expense on a straight-line basis over the life of the lease and records the excess of expense over the amounts paid as deferred rent. Deferred rent is included in accrued expenses in the condensed balance sheets.

Rent expense was approximately \$129,500 and \$241,600 and \$31,900 and \$85,700 for the three and nine months ended September 30, 2012 and 2011, respectively. Rent expense was approximately \$566,300 for the period from April 19, 2007 (inception) through September 30, 2012.

The Company entered into a new facilities lease at 6275 Nancy Ridge Drive, San Diego, CA 92121. The lease was signed on February 27, 2012 with occupancy as of July 15, 2012. The base rent under the lease is approximately \$38,800 per month with 3% annual escalators. The lease term is 48 months with an option for the Company to extend the lease at the end of the lease term.

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Organovo Holdings, Inc. (A development stage company)

Notes to Condensed Consolidated Financial Statements

Future minimum rental payments required under operating leases that have initial or remaining non-cancelable lease terms in excess of one year as of September 30, 2012, are as follows:

2012	\$ 3,619
2013	383,346
2014	480,644
2015	476,724
2016	271,932
Total	<u>\$1,616,265</u>

During the three months ended September 30, 2012, the Company entered into an agreement to lease certain laboratory equipment under a non-cancelable capital lease, which is included in fixed assets as follows:

<u>September 30, 2012</u>	
Lab equipment	\$ 34,220
Less accumulated depreciation	(1,711)
Net book value	<u>\$ 32,509</u>

Depreciation expense related to the capital lease obligation was approximately \$1,700, for the three and nine months ended September 30, 2012.

Future minimum capital lease payments at September 30, 2012 are as follows:

<u>Year Ending December 31,</u>	
2012	\$ 2,844
2013	10,824
2014	10,824
2015	6,856
2016	—
Total minimum lease payments	<u>31,348</u>
Amount representing interest	(1,791)
Present value of minimum lease payments	29,557
Less current portion	(9,845)
Long term portion	<u>19,712</u>

6. Concentrations

Credit risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of temporary cash investments. The Company maintains cash balances at various financial institutions primarily located in San Diego. Accounts at these institutions are secured by the Federal Deposit Insurance Corporation. At times, balances may exceed federally insured limits. The Company has not experienced losses in such accounts, and management believes that the Company is not exposed to any significant credit risk with respect to its cash and cash equivalents.

7. Subsequent Event

Subsequent to September 30, 2012, the Company granted an aggregate of 363,500 incentive stock options to employees and Board of Director members. The vesting is over four years for employees and three years for Board members.

Subsequent to September 30, 2012, the Company issued 300,000 warrants to two Consultants for Services to be provided.

Item 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following management's discussion and analysis should be read in conjunction with the Company's historical condensed consolidated financial statements and the related notes thereto included in our Current Report on Form 8-K/A for the year ended December 31, 2011, as filed with the SEC on May 11, 2012 (the "Current Report"). The management's discussion and analysis contains forward-looking statements, such as statements of our plans, objectives, expectations and intentions. Any statements that are not statements of historical fact are forward-looking statements. When used, the words "believe," "plan," "intend," "anticipate," "target," "estimate," "expect" and the like, and/or future tense or conditional constructions ("will," "may," "could," "should," etc.), or similar expressions, identify certain of these forward-looking statements. These forward-looking statements are subject to risks and uncertainties including those under "Risk Factors" in Item 2.01 of our Current Report, that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements in this quarterly report. The Company's actual results and the timing of events could differ materially from those anticipated in these forward-looking statements as a result of several factors. The Company does not undertake any obligation to update forward-looking statements to reflect events or circumstances occurring after the date of this quarterly report.

Basis of Presentation

References in this section to "Organovo Holdings, Inc.," "Organovo Holdings," "we," "us," "our," "the Company" and "our Company" refer to Organovo Holdings, Inc. and its consolidated subsidiary Organovo, Inc.

On February 8, 2012, Organovo Holdings, Inc., a privately held Delaware corporation, merged with and into Organovo Acquisition Corp., a wholly-owned subsidiary of Organovo Holdings, Inc., with Organovo, Inc. surviving the merger as a wholly-owned subsidiary of the Company (the "Merger"). As a result of the Merger, the Company acquired the business of Organovo, Inc., and will continue the existing business operations of Organovo, Inc.

The condensed consolidated financial statements included in this Form 10-Q have been prepared in accordance with the SEC instructions to Quarterly Reports on Form 10-Q. Accordingly, the condensed consolidated financial statements presented elsewhere in this Form 10-Q and discussed below are unaudited and do not contain all the information required by U.S. generally accepted accounting principles ("GAAP") to be included in a full set of financial statements. The audited financial statements for our fiscal year ended December 31, 2011, filed with the SEC on Form 8-K/A on May 11, 2012 include a summary of our significant accounting policies and should be read in conjunction with this Form 10-Q. In the opinion of management, all material adjustments necessary to present fairly the results of operations for such periods have been included in this Form 10-Q. All such adjustments are of a normal recurring nature. The results of operations for interim periods are not necessarily indicative of the results of operations for the entire year.

Overview

Organovo, Inc. was founded in Delaware in April 2007. Activities since Organovo, Inc.'s inception through September 30, 2012, were devoted primarily to developing a platform technology for the generation of three-dimensional (3D) human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs.

As of September 30, 2012, Organovo, Inc. had devoted substantially all of its efforts to product development, raising capital and building infrastructure. Organovo, Inc. did not, as of that date, realize significant revenues from its planned principal operations. Accordingly, the Company is considered to be in the development stage.

Critical Accounting Policies, Estimates, and Judgments

Our financial statements are prepared in accordance with accounting principles that are generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. We continually evaluate our estimates and judgments, the most critical of which are those related to revenue recognition, valuation of long-lived assets and warrant liability, share-based compensation and the timing of the achievement of collaboration milestones. We base our estimates and judgments on historical experience and other factors that we believe to be reasonable under the circumstances. Materially different results can occur as circumstances change and additional information becomes known. Besides the estimates identified above that are considered critical, we make many other accounting estimates in preparing our financial statements and related disclosures. All estimates, whether or not deemed critical, affect reported amounts of assets, liabilities, revenues and expenses, as well as disclosures of contingent assets and liabilities. These estimates and judgments are also based on historical experience and other factors that are believed to be reasonable under the circumstances. Materially different results can occur as circumstances change and additional information becomes known, even for estimates and judgments that are not deemed critical.

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For further information, refer to the Company's audited financial statements and notes thereto included in the Current Report on Form 8-K/A for the fiscal year ended December 31, 2011, filed with the Securities and Exchange Commission (the "SEC") on May 11, 2012 (the "Current Report").

Results of Operations

Comparison of the three months ended September 30, 2012 and 2011

Revenues

For the three months ended September 30, 2012, total revenues of approximately \$469,200 were \$237,200 or 102% above the approximately \$232,000 in revenues for the same period in 2011. Collaborative research revenues for the three months ended September 30, 2012 of approximately \$373,800 increased approximately \$141,800 or 61% over the same period of prior year of approximately \$232,000 in revenues. Grant revenue for the three months ended September 30, 2012 of approximately \$95,500 increased approximately \$95,500 or 100% over the same period of prior year of \$0 in grant revenue.

Operating Expenses

Overview

Operating expenses increased approximately \$3,232,500 or 378% in the three months ended September 30, 2012 over the same period in 2011, from approximately \$854,400 in 2011 to \$4,086,900 in 2012. Most significantly, relative to the same period in the prior year, the Company invested in infrastructure and outside services to support its transition from private ownership to a publicly owned and traded corporation. As expected in such transition, incremental initiatives were established in investor outreach, corporate governance, and SEC financial reporting. Non-payroll, related incremental public company expenses incurred in the three month periods ended September 30, 2012 was approximately \$308,200 or 100% increase from \$0 for the same period in 2011. Moreover, the Company invested in building its executive, research, and development staff, increasing the three months ended September 30, 2012 payroll related expenses by approximately \$676,800 or 236% over the same periods in 2011. Stock-based compensation expense increased approximately \$1,277,200, newly established fees to our non-employee board members were approximately \$32,900 and additional space was rented to accommodate our growing administrative and research staff at an approximate incremental cost of \$97,500 over the same period in 2011.

Research and Development Expenses

For the three months ended September 30, 2012, research and development expenses increased by approximately \$801,200 or 263% over the same periods in 2011, with expenses in the three months ended September 30, 2012 and 2011 of approximately \$1,105,500 and \$304,300, respectively. The Company increased its research staff to accommodate obligations under certain collaborative research agreements and to expand product development efforts in preparation for research-derived revenues. Full-time research and development staffing increased from twelve scientists, engineers and research associates at September 30, 2011 to twenty-two at September 30, 2012. Laboratory supplies expenses increased from approximately \$12,100 in the three months ended September 30, 2011 to approximately \$230,000 in the same period in 2012, an increase of approximately \$217,900. This increase was related to purchases in support of our collaborative research conducted under our agreements and our NIH grant.

General and Administrative Expenses

For the three months ended September 30, 2012, general and administrative expenses of approximately \$2,981,500 increased approximately \$2,431,300, or 442%, over expenses in the same period of 2011 of approximately \$550,200. Expense increases were primarily driven by the Company's transition from operating in a private environment to operating in a publicly traded environment. Expanded staff increased payroll and facilities expenses in 2012 over 2011 levels. General and administrative staffing increased from four full-time employees at September 30, 2011 to nine at September 30, 2012. The increase was primarily due to the addition of two executive positions and more accounting and administrative staff. There was also salary increases for existing executive officers as approved by the Board of Directors, reflecting the increased responsibilities assumed as a result of being a publicly traded Company. Approximately \$308,200 in other public company expenses were incurred in the three months ended September 30, 2012 due to several factors including increases to investor relations spending, financial printing, fees for non-employee Board members, legal expenses, information technology investments in hardware, software and consulting services, and travel.

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Other Income (Expense)

The approximate \$42,278,500 increase in other income (expense) for the three month period ending September 30, 2012 over the same period of the prior year, was primarily related to the change in fair value of warrant liabilities for the three months ended September 30, 2012 of approximately \$42,252,400. During the Private Placement in the first quarter of 2012 we issued warrants to purchase 6,099,195 shares of our common stock to the placement agent and warrants to purchase 15,247,987 of our common stock to investors in the Private Placement. The warrants issued to the placement agent and Private Placement investors were determined to be derivative liabilities as a result of the anti-dilution provisions in the warrant agreements that may result in an adjustment to the warrant exercise price. We will revalue the derivative liability on each balance sheet date and will do so until the securities to which the derivatives liabilities relate are exercised or expire. The third quarter of 2012 also included a loss on disposal of fixed assets of approximately \$158,400 which occurred in relation to moving to our new facility. Other expenses for the three months ended September 30, 2011 of approximately \$182,800 related primarily to interest recorded on convertible notes payable.

Comparison of the nine months ended September 30, 2012 and 2011

Revenues

For the nine months ended September 30, 2012, total revenues of approximately \$848,200 were approximately \$242,100 or 40% above the approximately \$606,100 revenues for same periods in 2011. Collaborative research revenues for the nine months ended September 30, 2012 of approximately \$752,700 increased approximately \$303,500 or 68% over the same period of the prior years of approximately \$449,200. In addition, grant revenue of approximately \$95,500 increased \$38,600 or 68% compared to the nine months ended September 30, 2011. That growth was offset by no product revenues in the nine months ended September 30, 2012, compared to approximately \$100,000 of product revenues in the same period of the prior year.

Operating Expenses

Overview

Operating expenses increased approximately \$5,110,100, or 238% in the nine months ended September 30, 2012 over the same period in 2011, from approximately \$2,143,600 in 2011 to approximately \$7,244,700 in 2012. Most significantly, relative to the same period in the prior year, the Company invested in infrastructure and outside services to support its transition from private ownership to a publicly owned and traded corporation. As expected in such transition, incremental initiatives were established in investor outreach, corporate governance, and SEC financial reporting including the need for audited financial statements. Non-payroll, non-audit related incremental public company expenses incurred in the nine month periods ended September 30, 2012, was approximately \$2,774,200 or 100% increase from \$0 for the same period in 2011. A portion of our public company-related expenses are included in other income and expense. Fees paid to our independent accounting firm to audit our financial statements were approximately \$177,800 for the nine months ended September 30, 2012, representing approximately 132% increase from the same period in 2011. Moreover, the Company invested in building its executive, research, and development staff, increasing the nine months ended September 30, 2012 payroll expenses by approximately \$1,231,822 or 164% over the same periods in 2011. Stock-based compensation expense increased approximately \$1,280,900 for the nine months ended September 30, 2012. Executive search fees totaled approximately \$36,000, newly established fees to our non-employee board members were approximately \$109,000 and additional space was rented to accommodate our growing administrative and research staff at an approximate incremental cost of \$155,900 over the same period in 2011.

Research and Development Expenses

For the nine months ended September 30, 2012, research and development expenses increased by approximately \$1,291,300, or 127% over the same period in 2011, with expenses in the nine months ended September 30, 2012 and 2011 of approximately \$2,305,300 and \$1,014,000, respectively. The Company increased its research staff to accommodate obligations under certain collaborative research agreements and to expand product development efforts in preparation for research-derived revenues. Full-time research and development staffing increased from twelve scientists, engineers and research associates at September 30, 2011 to twenty-two at the same period in 2012. Laboratory supplies expenses increased from approximately \$84,100 in the nine months ended September 30, 2011 to approximately \$463,900 in the same period in 2012, an increase of approximately \$379,800. This increase was related to purchases in support of research conducted under our collaborative agreements and our NIH grant.

General and Administrative Expenses

For the nine months ended September 30, 2012, general and administrative expenses of approximately \$4,939,400 increased approximately \$3,809,800, or 337%, over expenses in the same period of 2011 of approximately \$1,129,600. Expense increases were primarily driven by the Company's transition from operating in a private environment to operating in a publicly traded environment. Expanded staff increased payroll and facilities expenses in 2012 over 2011 levels. General and administrative staffing increased from four full-time employees at September 30, 2011 to nine at September 30, 2012. The increase was primarily due to the addition of two executive positions and more accounting and administrative staff. There were also salary increases for existing executive officers as approved by the Board of Directors, reflecting the increased responsibilities assumed as a result of being a publicly traded Company. Audit related expenses increased approximately \$165,300 from \$12,500 for the nine month period ended September 30, 2011 to \$177,800 for the same period of 2012. Approximately \$2,774,200 in other public company expenses were incurred in the nine months ended September 30, 2012 for multiple reasons including increases to investor relations spending, financial printing, fees for non-employee Board members, rent and utilities, legal expenses, information technology investments in hardware, software and consulting services, and travel. A portion of our public company expenses are included in other income and expenses.

Other Income (Expense)

The approximate \$27,294,900 increase in other expenses for the nine month period ending September 30, 2012 over the same period of the prior year, was primarily related to the non-cash transaction costs associated with the warrants issued in our first quarter 2012 Private Placement. During the first quarter of 2012 we incurred costs due to the placement agent for the first quarter Private Placement fees of \$1,617,629 and reimbursed expenses and legal fees of \$166,310. In addition, we issued warrants to purchase 6,099,195 shares of our common stock to the placement agent and warrants to purchase 15,247,987 of our common stock to investors in the Private Placement. The warrants issued to the placement agent and Private Placement investors were determined to be derivative liabilities as a result of the anti-dilution provisions in the warrant agreements that may result in an adjustment to the warrant exercise price. The fair value of warrant liabilities in excess of proceeds received on the issuance date was \$19,019,422. We revalue the derivative liability on each balance sheet date and will do so until the securities to which the derivatives liabilities relate are exercised or expire. The change in fair value of the warrant liabilities for the nine months ended September 30, 2012, was an increase of approximately \$5,190,600. Financing transaction costs in excess of proceeds received was \$2,129,500, and our interest expense for the nine months ended September 30, 2012 was approximately \$1,087,700. The interest expense was primarily comprised of non-cash components including accretion of debt discounts and amortization of deferred financing costs. Other expenses for the nine months ended September 30, 2011 of approximately \$296,300 related primarily to interest recorded on convertible notes payable.

Various factors are considered in the pricing models we use to value the warrants, including the Company's current stock price, the remaining life of the warrants, the volatility of the Company's stock price, and the risk free interest rate. Future changes in these factors will have a significant impact on the computed fair value of the warrant liability. As such, we expect future changes in the fair value of the warrants to continue to vary significantly from quarter to quarter.

Financial Condition, Liquidity and Capital Resources

Since its inception, the Company has primarily devoted its efforts to research and development, business planning, raising capital, recruiting management and technical staff, and acquiring operating assets. Accordingly, the Company is considered to be in the development stage.

Since inception, the Company incurred negative cash flows from operations. As of September 30, 2012, the Company had cash and cash equivalents of \$7,675,918 and an accumulated deficit of \$40,679,249. The Company also had negative cash flow from operations of \$7,713,708 during the nine months ended September 30, 2012. At September 30, 2011, the Company had cash of \$56,469 and an accumulated deficit of \$4,192,601.

At September 30, 2012, the Company had total current assets of \$8,228,092 and current liabilities of \$976,225, resulting in working capital of \$7,251,867. At September 30, 2011, we had total current assets of \$553,003 and current liabilities of \$3,223,845, resulting in a working capital deficit of \$2,670,842.

Net cash used by operating activities for the nine months ended September 30, 2012 was \$7,713,708. The Company raised approximately \$13.8 million in gross proceeds from the sale of common stock, and \$848,213 in revenue during the first nine months of 2012.

Net cash used by operating activities for the nine months ended September 30, 2011 was \$959,065.

We believe our cash and cash equivalents on hand as of September 30, 2012, together with funds from equity or debt financing, and amounts to be received from grants and our collaborative research agreements, should be sufficient to fund our ongoing operations as currently planned for at least the next 12 months. The Company has financed its operations primarily through the sale of common stock and convertible notes, and through revenue derived from grants or collaborative research agreements. The Company expects to cover its anticipated operating expenses through cash on hand, through additional financing from existing and prospective investors, and from revenue derived from collaborative research agreements.

The Company will need additional capital to further fund product development and commercialization of its human tissues that can be employed in drug discovery and development, biological research, and as therapeutic implants for the treatment of damaged or degenerating tissues and organs. We cannot be sure that additional financing will be available when needed or that, if available,

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financing will be obtained on terms favorable to us or to our stockholders. Having insufficient funds may require us to delay, scale back, or eliminate some or all of our development programs or relinquish some or even all of our licensed intellectual property. Failure to obtain adequate financing could eventually adversely affect our ability to operate as a going concern. If we raise additional funds from the issuance of equity securities, substantial dilution to our existing stockholders may result. If we raise additional funds by incurring debt financing, the terms of the debt may involve significant cash payment obligations as well as covenants and specific financial ratios that may restrict our ability to operate our business.

As of September 30, 2012, the Company had 46,969,141 total issued and outstanding shares of Common Stock, and five year and two year warrants for the opportunity to purchase an additional 22,535,957 shares of Common Stock at \$1.00 per share. If all warrants were exercised on a cash basis, the Company would realize an additional \$22,535,957 in gross proceeds.

The 2012 Equity Incentive Plan provides for the issuance of up to 6,553,986 shares, or approximately 14.0% of our outstanding Common Stock, to executive officers, directors, advisory board members and employees. In aggregate, issued and outstanding common stock, shares underlying outstanding warrants, and shares reserved for the 2012 incentive plan total 76,059,084 shares of common stock.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements, including unrecorded derivative instruments that have or are reasonably likely to have a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources. We have certain warrants and options outstanding but we do not expect to receive sufficient proceeds from the exercise of these instruments unless and until the underlying securities are registered, and/or all restrictions on trading, if any, are removed, and in either case the trading price of our Common Stock is significantly greater than the applicable exercise prices of the options and warrants.

Effect of Inflation and Changes in Prices

Management does not believe that inflation and changes in price will have a material effect on the Company's operations.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

This information has been omitted as the Company qualifies as a smaller reporting company.

Item 4. Controls and Procedures.

Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports filed pursuant to the Securities Exchange Act of 1934, as amended (the "Exchange Act") is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial and accounting officer, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision of our Chief Executive Officer and our Chief Financial Officer, and with the participation of all members of management, we conducted an evaluation of our disclosure controls and procedures, as such term is defined under Rule 13a-15(e) promulgated under the Exchange Act. Based on this evaluation, our principal executive officer and our principal financial officer concluded that our disclosure controls and procedures were designed and operating effectively as of the end of the period covered by this Quarterly Report on Form 10-Q.

Internal Control over Financial Reporting

There was no change in our internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act) that occurred during the fiscal quarter to which this report relates that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our Chief Executive Officer and our Chief Financial Officer, do not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of

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two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

PART II — OTHER INFORMATION**Item 1. LEGAL PROCEEDINGS**

We do not have any ongoing legal proceedings at this time.

Item 1A. RISK FACTORS.

In evaluating us and our common stock, we urge you to carefully consider the risks and other information in this Quarterly Report on Form 10-Q, as well as the risk factors disclosed in the Company's Current Report on Form 8-K/A for the fiscal year ended December 31, 2011, filed with the Securities and Exchange Commission (the "SEC") on May 11, 2012 (the "Current Report"). There have been no material changes from the risk factors as previously disclosed in our Current Report. Any of the risks discussed in this Quarterly Report on Form 10-Q or any of the risks disclosed in our Current Report, as well as additional risks and uncertainties not currently known to us or that we currently deem immaterial, could materially and adversely affect our results of operations or financial condition.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS**(a) Recent Sales of Unregistered Sales of Equity Securities**

On August 6, 2012, the Company's Board of Directors approved the issuance of a warrant to purchase 100,000 shares of Common Stock at an exercise price of \$1.70 per share to a third party consultant as compensation for services provided to the Company by such consultant. The offers, sales and issuances of this warrant was deemed to be exempt from registration under the Securities Act in reliance on Section 4(2) of the Securities Act and/or Regulation D and the other rules and regulations promulgated thereunder as a transaction not involving a public offering. The recipient of securities represented their intention to acquire the securities for investment only and not with a view to or for sale in connection with any distribution thereof and appropriate legends were affixed to the share certificates and options issued in such transactions.

(c) Repurchases of Common Stock

<u>Period</u>	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares that May Yet be Purchased Under the Plans or Programs
July 1 - 31, 2012	—	\$ —	—	—
August 1 - 31, 2012	—	\$ —	—	—
September 1 - 30, 2012	80,653	\$ 2.09	—	—
July 1, 2012 through September 30, 2012	—	\$ —	—	—

⁽¹⁾ Through our stock incentive plan, 80,653 shares were delivered to us by our employees to satisfy their tax withholding requirements upon vesting of restricted stock for the quarter ended September 30, 2012.

Item 3. DEFAULTS UPON SENIOR SECURITIES

None.

Item 5. OTHER INFORMATION

None.

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Item 6. EXHIBITS

(a) Exhibits:

The following exhibit index shows those exhibits filed with this report and those incorporated herein by reference:

<u>Exhibit No.</u>	<u>Description</u>
2.1	Agreement and Plan of Merger and Reorganization, dated as of February 8, 2012, by and among Organovo Holdings, Inc. a Delaware corporation, Organovo Acquisition Corp., a Delaware corporation and Organovo, Inc., a Delaware corporation (incorporated by reference from Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
2.2	Certificate of Merger as filed with the Delaware Secretary of State effective February 8, 2012 (incorporated by reference from Exhibit 2.2 to the Company's Current Report on Form 8-K, as filed with the SEC on February 13, 2012)
2.3	Articles of Merger as filed with the Nevada Secretary of State effective December 28, 2011 (incorporated by reference from Exhibit 2.1 to the Company's Current Report on Form 8-K, as filed with the Securities and Exchange Commission (the "SEC") on February 3, 2012 (the "February 2012 Form 8-K")
2.4	Agreement and Plan of Merger, dated as of December 28, 2011, by and between Real Estate Restoration and Rental, Inc. and Organovo Holdings, Inc. (incorporated by reference from Exhibit 2.2 to the Company's Current Report on Form 8-K, as filed with the SEC on January 4, 2012)
2.5	Certificate of Merger as filed with the Delaware Secretary of State effective January 30, 2012 (incorporated by reference from Exhibit 2.3 to the February 2012 Form 8-K)
2.6	Agreement and Plan of Merger, dated as of January 30, 2012, by and between Organovo Holdings, Inc. (Nevada) and Organovo Holdings, Inc. (Delaware) (incorporated by reference from Exhibit 2.2 to the February 2012 Form 8-K)
2.7	Articles of Merger as filed with the Nevada Secretary of State effective January 30, 2012 (incorporated by reference from Exhibit 2.4 to the February 2012 Form 8-K)
3.1(i)	Articles of Incorporation of Real Estate Restoration and Rental, Inc. (incorporated by reference from Exhibit 3.1 to the Company's registration statement (SEC File No. 333-169928) on Form S-1, as filed with the SEC on October 13, 2010)
3.1(ii)	Certificate of Incorporation, Certificate of Change of Registered Agent and/or Registered Office, Certificate of Correction, and Certificate of Amendment of Certificate of Incorporation, each of Organovo, Inc., as filed with the Secretary of State of the State of Delaware on April 19, 2007, January 30, 2009, July 29, 2010, and September 28, 2011 respectively (incorporated by reference from Exhibit 3.1(ii) to the Company's Amendment No. 1 to Current Report on Form 8-K/A, as filed with the SEC on March 30, 2012)
3.1(iii)	Certificate of Incorporation of Organovo Holdings, Inc. (Delaware) (incorporated by reference from Exhibit 3.1 to the February 2012 Form 8-K)
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.*
32.1	Certifications pursuant to 18 U.S.C. Section 1350.*
†101**	The following financial statements and footnotes from the Accelrys, Inc. Quarterly Report on Form 10-Q for the quarter ended September 30, 2012 formatted in Extensible Business Reporting Language (XBRL): (i) Condensed Consolidated Balance Sheets; (ii) Condensed Consolidated Statements of Operations; (iii) Condensed Consolidated Statements of Cash Flows; and (iv) the Notes to Condensed Consolidated Financial Statements.

** Filed herewith.

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, thereunto duly authorized.

ORGANOVO HOLDINGS, INC.

Date: November 14, 2012

By: /s/ Keith Murphy

Name: *Keith Murphy*

Title: *Chairman, Chief Executive Officer and President
(Principal Executive Officer)*

/s/ Barry Michaels

Name: *Barry Michaels*

Title: *Chief Financial Officer and Secretary
(Principal Financial and Accounting Officer)*

CERTIFICATION

I, Keith Murphy, Chief Executive Officer and President of Organovo Holdings, Inc. (the "Registrant"), certify that:

1. I have reviewed this quarterly report on Form 10-Q of the Registrant;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report.
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: November 14, 2012

By: _____ /s/ Keith Murphy
Keith Murphy
Chief Executive Officer and President
(Principal Executive Officer)

CERTIFICATION

I, Barry D. Michaels, Chief Financial Officer of Organovo Holdings, Inc. (the "Registrant"), certify that:

1. I have reviewed this quarterly report on Form 10-Q of the Registrant;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report.
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officers and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: November 14, 2012

By: _____ /s/ Barry D. Michaels
Barry D. Michaels
Chief Financial Officer
(Principal Financial and Accounting Officer)

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350**

In connection with the Quarterly Report of Organovo Holdings, Inc. (the "Corporation") on Form 10-Q for the period ended September 30, 2012 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Keith Murphy, President and Chief Executive Officer and I, Barry D. Michaels, Chief Financial Officer, of the Corporation, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to our knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

Date: November 14, 2012

/s/ Keith Murphy
Keith Murphy
President and Chief Executive Officer

/s/ Barry D. Michaels
Barry D. Michaels
Chief Financial Officer

A signed original of this written statement required by Section 906 has been provided to Organovo Holdings, Inc. and will be retained by Organovo Holdings, Inc. and furnished to the Securities and Exchange Commission or its staff upon request.

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Organovo Holdings, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.