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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-Q

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2015

or

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to .

Commission File Number: 001-37350

InVivo Therapeutics Holdings Corp.

(Exact name of registrant as specified in its charter)

Nevada	**36-4528166**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
One Kendall Square Suite B14402 Cambridge, MA	**02139**
(Address of principal executive offices)	(Zip code)

(617) 863-5500

(Registrant's telephone number, including area code)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer," and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o	Accelerated filer x
Non-accelerated filer o (Do not check if a smaller reporting company)	Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes o No x

As of July 30, 2015, 27,004,281 shares of the registrant's common stock, $0.00001 par value, were issued and outstanding.

INVIVO THERAPEUTICS HOLDINGS CORP.
Quarterly Report on Form 10-Q for the Quarter Ended June 30, 2015

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PART I — FINANCIAL INFORMATION

SPECIAL NOTE

All share number and share prices presented in this Quarterly Report on Form 10-Q have been adjusted to reflect the 1-for-4 reverse stock split of InVivo Therapeutics Holdings Corp.'s common stock effected on April 8, 2015.

Item 1. Financial Statements.

InVivo Therapeutics Holdings Corp.
Consolidated Balance Sheets
(In thousands, except share and per-share data)
(Unaudited)

	As of	
	June 30, 2015	December 31, 2014
ASSETS:		
Current assets:		
Cash and cash equivalents	$ 25,114	$ 13,459
Restricted cash	361	422
Prepaid expenses and other current assets	397	1,072
Total current assets	25,872	14,953
Property, equipment and leasehold improvements, net	1,261	1,605
Other assets	124	135
Total assets	$ 27,257	$ 16,693
LIABILITIES AND STOCKHOLDERS' EQUITY:		
Current liabilities:		
Accounts payable	$ 953	$ 569
Loan payable-current portion	259	320
Note payable-current portion	—	18
Derivative warrant liability	7,722	7,224
Accrued expenses	1,409	1,044
Total current liabilities	10,343	9,175

Loan payable, net of current portion	1,600	1,600
Total liabilities	11,943	10,775
Commitments and contingencies		
Stockholders' equity:		
Common stock, $0.00001 par value, authorized 50,000,000 shares; issued and outstanding 26,856,177 and 23,453,000 shares at June 30, 2015 and December 31, 2014, respectively.	1	1
Additional paid-in capital	141,841	106,172
Accumulated deficit	(126,528)	(100,255)
Total stockholders' equity	15,314	5,918
Total liabilities and stockholders' equity	$ 27,257	$ 16,693

See notes to the unaudited consolidated financial statements.

(Reflects 1-for-4 reverse stock split effective April 8, 2015)

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InVivo Therapeutics Holdings Corp.
Consolidated Statements of Operations
(In thousands, except share and per-share data)
(Unaudited)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2015	2014	2015	2014
Operating expenses:				
Research and development	$ 2,546	$ 3,051	$ 4,848	$ 6,293
General and administrative	3,214	1,688	6,422	3,517
Total operating expenses	5,760	4,739	11,270	9,810
Operating loss	(5,760)	(4,739)	(11,270)	(9,810)
Other income (expense):				
Interest income	2	1	3	2
Interest expense	(32)	(35)	(66)	(68)
Derivatives gain (loss)	(4,653)	1,127	(14,940)	1,127
Other income (expense), net	(4,683)	1,093	(15,003)	1,061
Net loss	(10,443)	$ (3,646)	$ (26,273)	$ (8,749)
Net loss per share, basic	$ (0.39)	$ (0.17)	$ (1.02)	$ (0.45)
Net loss per share, diluted	$ (0.39)	$ (0.17)	$ (1.02)	$ (0.45)
Weighted average number of common shares outstanding, basic	26,508,170	21,821,355	25,713,438	19,561,455
Weighted average number of common shares outstanding, diluted	26,508,170	21,821,355	25,713,438	19,561,455

See notes to the unaudited consolidated financial statements.

(Reflects 1-for-4 reverse stock split effective April 8, 2015)

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InVivo Therapeutics Holdings Corp.
Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Six Months Ended June 30,	
	2015	2014
Cash flows from operating activities:		
Net loss	$ (26,273)	$ (8,749)
Adjustments to reconcile net loss to net cash used in operating activities:		

Depreciation and amortization	352	378
Non-cash derivatives (gain) loss	14,940	(1,127)
Common stock issued to 401(k) plan	105	84
Common stock issued for services	—	282
Share-based compensation expense	2,241	1,596
Changes in operating assets and liabilities:		
Restricted cash	61	231
Prepaid expenses	675	(358)
Other assets	3	2
Accounts payable	384	(307)
Accrued expenses	365	123
Net cash used in operating activities	(7,147)	(7,845)
Cash flows from investing activities:		
Purchases of property and equipment	—	(5)
Net cash used in investing activities	—	(5)
Cash flows from financing activities:		
Proceeds from exercise of stock options	978	130
Repayment of loan payable	(61)	—
Repayment of note payable	(18)	(37)
Proceeds from exercise of warrants	6,865	—
Proceeds from convertible bridge notes	—	—
Principal payments on capital lease obligation	—	(3)
Proceeds from issuance of common stock	11,038	14,630
Net cash provided by financing activities	18,802	14,720
Increase (decrease) in cash and cash equivalents	11,655	6,870
Cash and cash equivalents at beginning of period	13,459	13,980
Cash and cash equivalents at end of period	$ 25,114	$ 20,850

See notes to the unaudited consolidated financial statements.

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InVivo Therapeutics Holdings Corp.
Consolidated Statements of Cash Flows (Concluded)
(In thousands)
(Unaudited)

	Six Months Ended, June 30,	
	2015	2014
Supplemental disclosure of cash flow information and non-cash investing and financing transactions:		
Cash paid for interest	$ 64	$ 65
Fair value of warrants issued in connection with underwriting agreement	$ —	$ 6,848
Reclassification of derivative warrant liability to additional paid-in capital	$ 14,442	$ —

See notes to the unaudited consolidated financial statements.

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InVivo Therapeutics Holdings Corp.
Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2015 (Unaudited)
(In thousands, except share and per-share data)

1. NATURE OF OPERATIONS, BASIS OF PRESENTATION AND RECENT ACCOUNTING PRONOUNCEMENTS

Business

InVivo Therapeutics Holdings Corp. was incorporated on April 2, 2003, and on October 26, 2010, acquired the business of InVivo Therapeutics Corporation, which was incorporated on November 28, 2005, and continued the existing business operations of InVivo Therapeutics Corporation as a wholly-owned subsidiary of InVivo Therapeutics Holdings Corp. Unless otherwise noted herein, the “Company” or “InVivo” refers to InVivo Therapeutics Holdings Corp. and its wholly-owned subsidiary on a consolidated basis. The Company is a research and clinical-stage biomaterials and biotechnology company with a focus on the treatment of spinal cord injuries. Its proprietary technologies incorporate intellectual property licensed

under the Company's exclusive, world-wide license from the Boston Children's Hospital and the Massachusetts Institute of Technology, as well as intellectual property that has been developed internally in collaboration with its advisors and partners.

Since its inception, InVivo has devoted substantially all of its efforts to business planning, research and development, recruiting management and technical staff, acquiring operating assets and raising capital.

Basis of Presentation

The accompanying unaudited consolidated financial statements have been prepared in conformity with generally accepted accounting principles in the United States ("GAAP") consistent with those applied in, and should be read in conjunction with, the Company's audited financial statements and related footnotes for the year ended December 31, 2014 included in the Company's Annual Report on Form 10-K as filed with the United States Securities and Exchange Commission ("SEC") on March 11, 2015. The unaudited consolidated financial statements reflect all adjustments, consisting only of normal recurring adjustments, which are, in the opinion of management, necessary for a fair presentation of the Company's financial position as of June 30, 2015 and its results of operations and cash flows for the interim period presented and are not necessarily indicative of results for subsequent interim periods or for the full year. The interim financial statements do not include all of the information and footnotes required by GAAP for complete financial statements as allowed by the relevant SEC rules and regulations; however, the Company believes that its disclosures are adequate to ensure that the information presented is not misleading.

Reverse Stock Split

On April 8, 2015, the Company effected a reverse stock split of its common stock, par value $0.00001 per share, at a ratio of 1-for-4. As a result of the reverse stock split, (i) every four shares of the issued and outstanding common stock were automatically converted into one newly issued and outstanding share of common stock, without any change in the par value per share; (ii) the number of shares of common stock into which each outstanding warrant or option to purchase common stock is exercisable was proportionally decreased, and (iii) the number of shares of authorized shares of common stock outstanding was proportionally decreased. Shares of common stock underlying outstanding stock options and other equity instruments convertible into common stock were proportionately reduced and the respective exercise prices, if applicable, were proportionately increased in accordance with the terms of the agreements governing such securities.

Unless otherwise indicated, all of the Company's historical share and per share information related to issued and outstanding common stock and outstanding options and warrants exercisable for common stock in these financial statements have been adjusted, on a retroactive basis, to reflect this 1-for-4 reverse stock split.

Recently Issued Accounting Pronouncements

In April 2015, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") 2015-03, "Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs". ASU 2015-03 is intended to simplify the presentation of debt issuance costs. These amendments require that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The recognition and measurement guidance for debt issuance costs are not affected by the amendments in this ASU. This new guidance is effective for fiscal years beginning after December 15, 2015 and interim periods

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within those fiscal years. Early adoption is permitted. The Company is currently in the process of evaluating the impact of the adoption of this ASU on the financial statements.

In January 2015, FASB issued ASU 2015-01 "Income Statement - Extraordinary and Unusual Items (Subtopic 225-20): Simplifying Income Statement Presentation by Eliminating the Concept of Extraordinary Items". This ASU removes the concept of an extraordinary item. Subtopic 225-20, Income Statement - Extraordinary and Unusual Items, required that an entity separately classify, present, and disclose extraordinary events and transactions. Presently, an event or transaction is presumed to be an ordinary and usual activity of the reporting entity unless evidence clearly supports its classification as an extraordinary item. If an event or transaction meets the criteria for extraordinary classification, an entity is required to segregate the extraordinary item from the results of ordinary operations and show the item separately in the income statement, net of tax, after income from continuing operations. The entity also is required to disclose applicable income taxes and either present or disclose earnings-per-share data applicable to the extraordinary item. The amendments in this ASU are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2015. Early adoption is permitted provided that the guidance is applied from the beginning of the fiscal year of adoption.

2. CASH AND CASH EQUIVALENTS

As of June 30, 2015, the Company held $25,114 in cash and cash equivalents. From time to time, the Company may have cash balances in financial institutions in excess of insurance limits. The Company has never experienced any losses related to these balances. The Company's cash equivalents are held in money market funds. Cash and cash equivalents consisted of the following (in thousands):

	June 30, 2015	December 31, 2014
Cash	$ (187)	$ 269
Money market fund	25,301	13,190
Total cash and cash equivalents	$ 25,114	$ 13,459

3. RESTRICTED CASH (in thousands)

Restricted cash for the six months ended June 30, 2015 was $361 and represented $50 of security deposits related to the Company's credit card account and a $311 cash account securing a standby letter of credit in favor of a landlord (see Note 5).

4. FAIR VALUE OF ASSETS AND LIABILITIES

The Company groups its assets and liabilities generally measured at fair value in three levels, based on the markets in which the assets and liabilities are traded and the reliability of the assumptions used to determine fair value.

Level 1 — Valuation is based on quoted prices in active markets for identical assets or liabilities. Level 1 assets and liabilities generally include debt and equity securities that are traded in an active exchange market. Valuations are obtained from readily available pricing sources for market transactions involving identical assets or liabilities.

Level 2 — Valuation is based on observable inputs other than Level 1 prices, 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 — Valuation is based on unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Level 3 assets and liabilities include financial instruments whose value is determined using pricing models, discounted cash flow methodologies, or similar techniques, as well as instruments for which the determination of fair value requires significant management judgment or estimation.

The Company uses valuation methods and assumptions that consider, among other factors, the fair value of the underlying stock, risk-free interest rate, volatility, expected life and dividend rates in estimating fair value for the warrants considered to be derivative instruments.

Assets and liabilities measured at fair value on a recurring basis are summarized below (in thousands):

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	At June 30, 2015			
	Level 1	Level 2	Level 3	Fair Value
Liabilities:				
Derivative warrant liability	$ —	$ 7,722	$	$ 7,722

	At December 31, 2014			
	Level 1	Level 2	Level 3	Fair Value
Liabilities:				
Derivative warrant liability	$ —	$ 7,224	$	$ 7,224

5. COMMITMENTS AND CONTINGENCIES

Operating Lease Commitment (in thousands)

On November 29, 2011 and as amended on September 17, 2012, the Company entered into a commercial lease for 26,150 square feet of office, laboratory and manufacturing space in Cambridge, Massachusetts (as subsequently amended, the “Cambridge Lease”). The term of the Cambridge Lease is for six years and three months, with one five-year extension option. The Cambridge Lease also requires a standby letter of credit in the amount of $311 (see Note 3).

The Cambridge Lease contains certain rent escalation clauses. The Company recognizes rent expense on a straight-line basis over the term of the Cambridge Lease and records the difference between the amount charged to expense and the rent paid as a deferred rent liability. As of June 30, 2015, the amount of deferred rent liability is $438 and is included in accrued expenses.

Pursuant to the terms of the Company’s non-cancelable lease agreements in effect at June 30, 2015, the future minimum rent commitments are as follows (in thousands):

Year Ended December 31,	
2015	621
2016	1,263
2017	1,289
2018	1,092
Total	$ 4,265

Total rent expense for the six months ended June 30, 2015 and 2014, including month-to-month leases, was $549 and $574, respectively. Total rent expense for each of the three month periods ended June 30, 2015 and 2014, including month-to-month leases, was $287 and $287, respectively.

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On September 4, 2013, the Company entered into a settlement agreement with the landlord of the Cambridge Lease, which resulted in the receipt of approximately $286 in prepaid rent as consideration for the settlement of litigation. The settlement has been included in deferred rent payable, and the benefit will be amortized through rent expense over the term of the Cambridge Lease.

Litigation

Lawsuit with Former Employee

In November 2013, the Company filed a lawsuit against Francis Reynolds, its former Chairman, Chief Executive Officer and Chief Financial Officer, in Middlesex Superior Court, Middlesex County, Massachusetts (*InVivo Therapeutics Holdings Corp. v. Reynolds, Civil Action No. 13-5004*). The complaint alleges breaches of fiduciary duties, breach of contract, conversion, misappropriation of corporate assets, unjust enrichment, corporate waste, and seeks monetary damages and an accounting. The lawsuit involves approximately $500,000 worth of personal and/or exorbitant expenses that the Company alleges Mr. Reynolds inappropriately caused it to pay while he was serving as the Company's Chief Executive Officer, Chief Financial Officer, President and Chairman of the Board of Directors. On December 6, 2013, Mr. Reynolds answered the complaint, and filed counterclaims against the Company and the Board of Directors. The counterclaims allege two counts of breach of contract, two counts of breach of the covenant of good faith and fair-dealing, and tortious interference with a contract, and seek monetary damages and a declaratory judgment. The counterclaims involve Mr. Reynolds's allegations that the Company and the Board interfered with the performance of his duties under the terms of his employment agreement, and that Mr. Reynolds was entitled to additional shares upon the exercise of certain stock options. On January 9, 2014, the Company, along with the directors named in the counterclaims, filed its answer. The parties are currently conducting pre-trial discovery. No judgments or rulings are pending at this stage.

Shareholder Matters and Investigations

On July 31, 2014, a putative securities class action lawsuit was filed in the United States District Court for the District of Massachusetts, naming the Company and Mr. Reynolds, as defendants (the "Securities Class Action"). The lawsuit alleges violations of the Securities Exchange Act of 1934 in connection with allegedly false and misleading statements related to the timing and completion of the clinical study of the Company's Neuro-Spinal Scaffold. The plaintiff seeks class certification for purchasers of the Company's common stock during the period from April 5, 2013 through August 26, 2013 and unspecified damages. On April 3, 2015, the United States District Court for the District of Massachusetts dismissed the plaintiff's claim with prejudice. Plaintiff filed a notice of appeal of this decision on May 4, 2015. A mandatory mediation conference is being scheduled .

On January 23, 2015, Shawn Luger, a purported shareholder of the Company, sent the Company a letter demanding that the Board take action to remedy purported breaches of fiduciary duties allegedly related to the claimed false and misleading statements that were the subject of the Securities Class Action (the "Shareholder Demand"). The Board has completed its investigation of the matters raised in the Shareholder Demand and voted unanimously not to pursue any litigation against any current or former director, officer or employee of the Company with respect to the matters set forth in the Shareholder Demand.

In addition to the Shareholder Demand, the Company has received investigation subpoenas from the Boston Regional Office of the Securities and Exchange Commission and the Massachusetts Securities Division of the Secretary of the Commonwealth of Massachusetts requesting corporate documents also concerning, among other topics, the allegations raised Securities Class Action and the Shareholder Demand. The Company is cooperating with these investigations.

6. ACCRUED EXPENSES

Accrued expenses consisted of the following (in thousands):

	June 30, 2015	December 31, 2014
Accrued bonus	$ 563	$ —
Accrued legal	133	360
Accrued payroll	35	49
Deferred rent payable	438	505
Accrued vacation	181	72
Other accrued expenses	59	58
Total accrued expenses	$ 1,409	$ 1,044

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7. NOTE PAYABLE (in thousands)

In May 2013, the Company entered into a contract for the purchase of an Enterprise Resource Planning ("ERP") system for $150. The total cost for the ERP system, including interest, was $159, with an implicit interest rate of approximately 6%.

Pursuant to the terms of the non-cancelable purchase agreement the total cost of the ERP system was paid in full during the three months ended March 31, 2015. In the third quarter of 2013, the Company abandoned the implementation of the ERP system. As such, the ERP system cost of $150 was fully expensed in 2013. The Company reserves the right to implement the ERP system at a future date.

8. LOAN PAYABLE (in thousands)

In October 2012, the Company entered into a loan agreement with the Massachusetts Development Finance Agency ("MassDev"). The loan agreement provided the Company with a $2,000 line of credit from the Massachusetts Emerging Technology Fund, with $200 designated to be used for working capital purposes and the remainder to be used for the purchase of capital equipment. The annual interest rate is fixed at 6.5% with interest-only payments for the first thirty months, commencing on November 1, 2012, and then equal interest and principal payments over the next fifty-four months, with the final maturity on October 5, 2019. Equal monthly principal payments of approximately $41 became due commencing on May 1, 2015. Therefore, for the years ending December 31, 2015, 2016, 2017, 2018 and 2019, principal payments of $250, $396, $423, $451 and $400, respectively, will be due. In October 2012, the Company issued MassDev a warrant for the purchase of 9,037 shares of its common stock. The warrant has a seven-year term and is exercisable at $6.64 per share. The fair value of the warrant was determined to be $32 and was recorded as a deferred financing cost and is being amortized to interest expense over a seven-year period commencing in October 2012. Amortization of the deferred financing cost for the six months ended June 30, 2015 was $2 and is included in interest expense in the Company's consolidated statements of operations. The equipment line

of credit is secured by substantially all the assets of the Company, excluding intellectual property. Interest expense related to this loan for the six months ended June 30, 2015 and 2014 was $62 and $63, respectively. Interest expense related to this loan for each of the three month periods ended June 30, 2015 and 2014 was $31 and $32, respectively.

9. COMMON STOCK

The Company has authorized 50,000,000 shares of common stock, $0.00001 par value per share, of which 26,856,177 shares were issued and outstanding as of June 30, 2015 and 23,453,000 shares were issued and outstanding as of December 31, 2014.

During the six months ended June 30, 2015, the Company issued an aggregate of 188,745 shares of common stock upon the exercise of stock options, including stock options to purchase 44,921 shares of common stock exercised through cashless exercise provisions resulting in the issuance of 13,695 shares of common stock and stock options to purchase 175,050 shares of common stock exercised for cash, providing cash proceeds of $978.

During the six months ended June 30, 2015, the Company issued an aggregate of 1,205,225 shares of common stock upon the exercise of warrants, including warrants to purchase 18,946 shares of common stock exercised through cashless exercise provisions resulting in the issuance of 11,368 shares of common stock and warrants to purchase 1,193,857 shares of common stock exercised for cash, providing net cash proceeds of $6,865.

During the six months ended June 30, 2015, the Company issued an aggregate of 7,694 shares of common stock with a fair value of $105 to the Company's 401(k) plan as matching contributions.

In January 2015, the Company closed a registered direct offering of an aggregate of 2 million shares of common stock, resulting in net proceeds of $11,038.

The Company's common stock began trading on The Nasdaq Capital Market under the symbol "NVIV" on April 17, 2015.

As part of the adjustment to reflect the 1-for-4 reverse stock split on April 8, 2015, 1,514 shares were issued to account for the fractional roundup of shareholders.

10. STOCK OPTIONS

In 2007, the Company adopted the 2007 Employee, Director and Consultant Stock Plan (the "2007 Plan"). Pursuant to the 2007 Plan, the Company's Board of Directors (or committees and/or executive officers delegated by the Board of Directors) may grant incentive and nonqualified stock options to the Company's employees, officers, directors, consultants and advisors. As of June 30, 2015, there were options to purchase an aggregate of 368,159 shares of common stock outstanding under the 2007 Plan and no shares available for future grants under the 2007 Plan.

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On October 26, 2010, the Company's Board of Directors adopted the 2010 Equity Incentive Plan, which was subsequently approved by the Company's shareholders (the "2010 Plan"). The 2010 Plan provided for grants of incentive stock options to employees and nonqualified stock options and restricted common stock to employees, consultants and non-employee directors of the Company. The Company's shareholders approved subsequent amendments in 2012 and 2013 to increase the number of shares available for issuance under the 2010 Plan.

In 2015, the Company's Board of Directors adopted the 2015 Equity Incentive Plan, which was subsequently approved by the Company's shareholders on June 16, 2015 (the "2015 Plan," and together with the 2007 Plan and 2010 Plan, the "Plans"). The 2015 Plan replaced the 2010 Plan, and no further grants will be made under the 2010 Plan. The 2015 Plan provides for grants of incentive stock options to employees and nonqualified stock options and restricted common stock to employees, consultants and non-employee directors of the Company. The total number of shares approved for grants under the 2015 Plan is 4,322,355 shares, consisting of 4,000,000 shares plus 322,355 shares that remained available for grant under the 2010 Plan.

As of June 30, 2015, the number of shares authorized for issuance under the 2015 Plan was 4,322,355 shares. As of June 30, 2015, there were options to purchase an aggregate of 2,105,258 shares of common stock outstanding under the 2010 Plan and no shares under the 2015 Plan. Options issued under the Plans are exercisable for up to 10 years from the date of issuance.

The Company's Employee Stock Purchas Plan (ESPP) was adopted by the board of directors and approved by the Company's shareholders on June 16,2015. The plan allows employees to buy company stock twice a year through after tax payroll deductions at a discount from market. The company has authorized 187,500 shares for this program Commencing on the first day of fiscal 2016 and on the first day of each fiscal year thereafter during the term of the ESPP, the number of shares of common stock shall be increased by the lesser of (i) 1% of our outstanding shares of common stock on such date, (ii) 50,000 shares or (iii) a lesser amount determined by the Board. In no event shall the aggregate number of shares reserved for issuance during the term of the ESPP exceed 1,250,000 shares.

Share-based compensation (in thousands)

For stock options issued and outstanding for the six months ended June 30, 2015 and 2014, the Company recorded non-cash, stock-based compensation expense of approximately $2,241 and $1,596, respectively, net of forfeitures.

The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model that uses the assumptions noted in the following table. The Company uses historical data, as well as subsequent events occurring prior to the issuance of the financial statements, to estimate option exercises and employee terminations within the valuation model. The expected term of options granted under the Plans, all of which qualify as "plain vanilla," is based on the average of the contractual term (10 years) and the vesting period (generally, 48 months). For non-employee options, the expected term is the contractual term. The risk-free rate is based on the yield of a U.S. Treasury security with a term consistent with the option. The assumptions used principally in determining the fair value of options granted were as follows:

	June 30, 2015
Risk-free interest rate	1.72%
Expected dividend yield	0.00%
Expected term (in years)	6.08
Expected volatility	120.01%

A summary of option activity as of June 30, 2015 and changes for the period then ended are presented below (in thousands, except per share data):

Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Outstanding at December 31, 2014	2,606,737	$ 6.58		
Granted	146,249	$ 12.51		
Forfeited	(59,599)	$ 9.46		
Exercised	(219,970)	$ 6.24		
Outstanding at June 30, 2015	2,473,417	$ 6.88	7.584	$ 23,002
Vested at June 30, 2015	1,154,371	$ 5.93	6.197	$ 11,825

The weighted average grant-date fair value of options granted during the six months ended June 30, 2015 was $10.64 per share. The total fair value of options that vested for the six months ended June 30, 2015 was approximately $2,907. As of June 30, 2015, there was $5,613 of total unrecognized compensation expense related to non-vested share-based option compensation arrangements. The unrecognized compensation expense is estimated to be recognized over a period of 2.55 years at June 30, 2015.

11. WARRANTS

The following table presents information about warrants to purchase common stock issued and outstanding at June 30, 2015:

Year Issued	Classification	Number of Warrants	Exercise Price	Date of Expiration
2010	Equity	364,752	$ 5.60	10/26/2017 — 12/3/2017
2010	Equity	322,543	$ 4.00	8/30/2017 — 12/3/2017
2011	Equity	4,017	$ 5.60	6/17/2018
2011	Equity	85,785	$ 12.24	12/21/2016
2012	Equity	6,054	$ 6.64	10/5/2019
2014	Liability	556,302	$ 5.75	5/9/2019
Total		1,339,453		
Weighted average exercise price			$ 5.71	
Weighted average life in years				2.92

12. DERIVATIVE INSTRUMENTS

The warrants issued in connection with the Company's May 2014 public offering have anti-dilution protection provisions that allow for the reduction in the exercise price of the warrants if the Company subsequently issues equity securities, including common stock or any security convertible or exchangeable for shares of common stock, for no consideration or for consideration less than the exercise price of the warrants. Accordingly, these warrants are accounted for as derivative liabilities. The Company used the Black-Scholes option pricing model and assumptions that consider, among other factors, the fair value of the underlying stock, risk-free interest rate, volatility, expected life and dividend rates in estimating fair value for the warrants considered to be derivative instruments. Changes in fair value of the derivative financial instruments are recognized in the Company's consolidated statement of operations as a derivative gain or loss. The warrant derivative gains (losses) are non-cash income (expenses); and for the six months ended June 30, 2015 and 2014 a gain (loss) of $(14,940) and $1,127, respectively, were included in other income (expense) in the Company's consolidated statement of operations.

	June 30, 2015
Risk-free interest rate	1.27%
Expected dividend yield	0.00%
Expected term (in years)	3.86
Expected volatility	115.31%

The primary underlying risk exposure pertaining to the warrants is the change in fair value of the underlying Common Stock for each reporting period.

Changes in the derivative warrant liability for the six months ended June 30 are as follows (in thousands):

	Six Months Ended June 30,

	2015	2014
Balance at December 31,	$ 7,224	$ —
Fair value of warrants issued	—	6,848
Reduction in derivative liability due to exercise and modification of warrants	(14,442)	—
Increase (decrease) in the fair value of warrants	14,940	(1,127)
Balance at June 30,	$ 7,722	$ 5,721

13. SUBSEQUENT EVENTS

In July 2015, the Company entered into a Sales Agreement (the "Sales Agreement") with Cowen and Company, LLC ("Cowen") pursuant to which the Company may issue and sell from time to time shares of Common Stock having aggregate sales proceeds of up to $50 million through an "at the market" equity offering program under which Cowen acts as the Company's sales agent. The Company is required to pay Cowen a commission of 3% of the gross proceeds from the sale of shares of Common Stock under the Sales Agreement.

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 unaudited consolidated financial statements included elsewhere in this Quarterly Report and with our historical consolidated financial statements and the related notes thereto included in our Annual Report on Form 10-K for the year ended December 31, 2014 (the "2014 Annual Report"). The management's discussion and analysis contains forward-looking statements within the meaning of the safe harbor provisions under Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements include statements made regarding our clinical plans, commercialization strategy, future operations, capital requirements and other statements on our business plans and strategy, financial position, and market trends. In some cases, you can identify forward-looking statements by terms such as "believe," "plan," "intend," "anticipate," "target," "estimate," "expect" and other similar expressions. These forward-looking statements are subject to risks and uncertainties that could cause actual results or events to differ materially from those expressed or implied by the forward-looking statements in this Quarterly Report, including factors such as our ability to execute our strategy and business plan; the progress and timing of our development programs and regulatory approval for our products; the risk our research and development efforts do not lead to new products; the timing of

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commercializing our products; market acceptance of our products; our ability to retain management and other key personnel; and other factors detailed under "Risk Factors" in Item 1A of our 2014 Annual Report. These forward-looking statements speak only as of the date hereof. We do not undertake any obligation to update forward-looking statements to reflect events or circumstances occurring after the date of this Quarterly Report, except as required by law.

The discussion and analysis of our financial condition and results of operations are based on our financial statements, which we have prepared in accordance with U.S. generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate such estimates and judgments, including those described in greater detail below. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Overview

We are a research and clinical-stage biomaterials and biotechnology company with a focus on the treatment of spinal cord injuries. Our proprietary technologies incorporate intellectual property licensed under an exclusive, world-wide license from Boston Children's Hospital and the Massachusetts Institute of Technology, and intellectual property that has been developed internally, including in collaboration with our advisors and partners. The license covers seven issued United States patents and six issued international patents expiring between 2015 and 2026, and two pending United States patents and ten pending international patents. We intend to leverage our platform technology to develop our novel Neuro-Spinal Scaffold, an investigational bioresorbable polymer scaffold that is designed for implantation at the site of injury within a spinal cord contusion and is intended to treat acute spinal cord injury, or SCI. We believe our Neuro-Spinal Scaffold will be the foundation of effective therapy for both acute and chronic SCI, and we are continually evaluating other technologies and therapeutics that may be complementary and that offer the potential to bring us closer to our goal of redefining the life of the SCI patient.

Overall, we expect our research and development (R&D) expenses to be substantial and to increase for the foreseeable future as we continue the development and clinical investigation of our current and future products. However, expenditures on R&D programs are subject to many uncertainties, including whether we develop our products with a partner or independently or whether we develop or acquire products and product candidates. At this time, due to the uncertainties and inherent risks involved in our business, we cannot estimate in a meaningful way the duration of, or the costs to complete, our R&D programs or whether, when or to what extent we will generate revenues or cash inflows from the commercialization and sale of any of our products. While we are currently focused on advancing the development of our Neuro-Spinal Scaffold, our future R&D expenses will depend on the determinations we make as to the scientific and clinical prospects of each product candidate, as well as our ongoing assessment of the regulatory requirements and each product's commercial potential. In addition, we may make acquisitions of businesses, technologies or intellectual property rights that we believe would be necessary, useful or complementary to our current business. Any investment made in a potential acquisition could affect our results of operations and reduce our limited capital resources, and any issuance of equity securities in connection with a potential acquisition could be substantially dilutive to our stockholders.

There can be no assurance that we will be able to successfully develop or acquire any product, or that we will be able to recover our development or acquisition costs, whether upon commercialization of a developed product or otherwise. We cannot provide assurance that any of our programs under development or any acquired technologies or products will result in products that can be marketed or marketed profitably. If our development-stage programs or any acquired products or technologies do not result in commercially viable products, our results of operations could be materially adversely affected.

We were incorporated on April 2, 2003, under the name of Design Source, Inc. On October 26, 2010, we acquired the business of InVivo Therapeutics Corporation, which was founded in 2005, and continued the existing business operations of InVivo Therapeutics Corporation as our wholly-owned subsidiary.

As a result of the merger and related transactions, InVivo Therapeutics Corporation was considered the accounting acquirer and therefore the historical financial results of InVivo Therapeutics Corporation are considered the financial results of the Company on a historical and going-forward basis.

Recent Events

Pilot Study Update

Our investigational degradable polymer Neuro-Spinal Scaffold is currently being studied in an early feasibility, five subject pilot study under our approved Investigational Device Exemption application (IDE) for the treatment of complete traumatic acute spinal cord injury. The U.S. Food and Drug Administration (FDA) approved the study, which is intended to capture the safety and feasibility of the Neuro-Spinal Scaffold for the treatment of complete functional spinal cord injury, as well as to gather preliminary evidence of the clinical effectiveness of the Neuro-Spinal Scaffold.

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The pilot study was initially approved for up to six clinical sites across the United States, and as of October 2014, the number of allowable clinical sites was expanded to up to 20. We currently have twelve clinical sites open.

In October 2014, we announced that the first subject was enrolled in the pilot study at the Barrow Neurological Institute in Phoenix, Arizona. Under the conditions of the FDA's approval of our IDE application, our pilot study was initially staggered such that each patient that met the eligibility criteria would be followed for three months prior to enrolling the next patient in the study. In December 2014, barring significant safety issues, the FDA approved an expedited enrollment plan. In January 2015, about three months after the first subject was enrolled, we opened enrollment and our second subject was subsequently enrolled at the Carolinas Medical Center in Charlotte, North Carolina. In March 2015, we announced the reopening of subject enrollment for the study. In June 2015, we enrolled a third subject, who was also treated at the Carolinas Medical Center. Barring significant safety issues, the final two subjects may be enrolled concurrently and without mandatory safety hold between enrollment of each subject.

We anticipate full enrollment of five patients in the pilot study in 2015. If our pilot study is successful, we then expect to conduct a pivotal study to show safety and probable benefit in order to obtain FDA approval to commence commercialization under a Humanitarian Device Exemption, or HDE. We currently expect the pivotal study will begin in 2016, with estimated completion in 2017. However, even if we are able to obtain FDA approval of our Neuro-Spinal Scaffold, because the Neuro-Spinal Scaffold is new, unproven technology, we will have to demonstrate the clinical utility of the product and gain acceptance from physicians and obtain third-party reimbursement for our product, and there can be no assurance that we will be able to do so. For major markets outside the United States, we would be required to seek regulatory approvals in those markets after the clinical studies or trials are conducted in the United States.

Reverse Stock Split and Uplisting to The Nasdaq Capital Market

On April 8, 2015, we effected a reverse stock split of our common stock at a ratio of 1-for-4. As a result of the reverse stock split, every four shares of our issued and outstanding common stock were automatically converted into one newly issued and outstanding share of common stock, without any change in the par value per share. Unless otherwise indicated, all of information in this report related to our issued and outstanding common stock and outstanding options and warrants exercisable for common stock have been adjusted, on a retroactive basis, to reflect this 1-for-4 reverse stock split.

Our common stock began trading on The Nasdaq Capital Market under the symbol "NVIV" on April 17, 2015.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the 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.

On an ongoing basis, we evaluate our estimates and judgments for all assets and liabilities, stock-based compensation expense and the fair value determined for stock purchase warrants classified as derivative liabilities. We base our estimates and judgments on historical experience, current economic and industry conditions and on various other factors that we believe to be reasonable under the circumstances. Such factors form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. There have been no changes in our critical accounting policies and estimates from the disclosure provided in our 2014 Annual Report.

We believe that full consideration has been given to all relevant circumstances that we may be subject to, and the consolidated financial statements accurately reflect our best estimate of the results of operations, financial position and cash flows for the periods presented.

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Results of Operations

Comparison of the Three Months Ended June 30, 2015 and 2014 (in thousands)

Research and Development Expenses

Research and development expenses consisted primarily of payments to contract research organizations and payroll. Research and development expenses for the three months ended June 30, 2015 were $2,546, a decrease of $505 when compared to the three months ended June 30, 2014. The decline in research and development expenses for the three months ended June 30, 2015 is primarily attributed to lower salaries and associated benefits costs of $147 related to the reduction in force during the second quarter of 2014, lower testing and supplies costs of $262, a reduction in consulting fees of $305, lower share-based

compensation expenses of $53 and lower other spending of $96. These reductions were partly off set by an increase in clinical trial costs of $178, new hires of $110, and recruiting costs of $70 .

General and Administrative Expenses

General and administrative expenses consisted primarily of payroll, rent and professional services. General and administrative expenses for the three months ended June 30, 2015 were $3,214, which reflected an increase of $1,526 when compared to the three months ended June 30, 2014. The increase in general and administrative expenses for the three months ended June 30, 2015 was attributed to higher legal expenses of $670, higher share-based compensation expense of $267, NASDAQ related fees of $106, and an increase in investor relations activities of $205 and higher bonus expense of $93 related to the 2014 reversal of bonus accruals related to 2013 bonuses that were not paid and increased other expenses of $185.

Other Income and Expense

Other expense for the three months ended June 30, 2015 was $4,683, which was comprised of interest expense of $32, interest income of $2 and a derivative loss of $4,653. The three months ended June 30, 2015 reflected an increase in expense of $5,776 when compared to the three months ended June 30, 2014. The increase in other expense for the three months ended June 30, 2015 was primarily related to the change in deferred warrant liability of $5,780.

Comparison of the Six Months Ended June 30, 2015 and 2014 (in thousands)

Research and Development Expenses

Research and development expenses consisted primarily of payments to contract research organizations and payroll. Research and development expenses for the six months ended June 30, 2015 were $4,849, a decrease of $1,444 when compared to the six months ended June 30, 2014. The decline in research and development expenses for the six months ended June 30, 2015 is primarily attributed to lower salaries and associated benefits costs of $441 related to the reduction in force during the second quarter of 2014, lower testing and supplies costs of $617 and a reduction in consulting fees of $492, lower share-based compensation expenses of $132 and reduced other spending of $231. These reductions were partly off set by an increase in clinical trial costs of $211, new hires of $189, and recruiting costs of $69.

General and Administrative Expenses

General and administrative expenses consisted primarily of payroll, rent and professional services. General and administrative expenses for the six months ended June 30, 2015 were $6,422, which reflected an increase of $2,905 when compared to the six months ended June 30, 2014. The increase in general and administrative expenses for the six months ended June 30, 2015 was attributed to higher legal expenses of $1,426, higher share-based compensation expense of $777, NASDAQ related fees of $106 and an increase in investor relations activities of $395 and other expenses of $201.

Other Income and Expense

Other expense for the six months ended June 30, 2015 was $15,003, which was comprised of interest expense of $66, interest income of $3 and a derivative loss of $14,940. The six months ended June 30, 2015 reflected an increase in expense of $16,063 when compared to the six months ended June 30, 2014. The increase in other expense for the six months ended June 30, 2015 was primarily related to the change in deferred warrant liability of $16,067.

Liquidity and Capital Resources *(in thousands)*

Since inception, we have devoted substantially all of our efforts to business planning, research and development, recruiting management and technical staff, acquiring operating assets and raising capital. At June 30, 2015, we had total assets of $27,257 and total liabilities of $11,943, resulting in stockholders' equity of $15,314 and a net loss of $26,273.

We have historically financed our operations primarily through the sale of equity-related securities. In January 2015, we closed a registered direct offering of an aggregate of 2 million shares of our common stock, resulting in net proceeds of approximately $11 million. We believe our current cash and cash equivalents are adequate to fund our operations into the fourth quarter of 2016. At June 30, 2015, we had cash of approximately $25,114.

Net cash used in operating activities for the six months ended June 30, 2015 was approximately $7,147, as compared to net cash used in operating activities of approximately $7,845 for the six months ended June 30, 2014. The change in net cash used in operating activities for the six months ended June 30, 2015 as compared to the same period in the prior year was primarily due to higher operating costs incurred related to the general and administrative expenses in 2014. We also have significant commitments that will require the use of cash in operating activities in future periods, including our obligations under current operating leases. Our committed lease obligations amount to approximately $4,265. Total commitments due for the remainder of fiscal 2015 under operating leases are approximately $621.

Net cash used in investing activities for the six months ended June 30, 2014 totaled approximately $5 for purchases of capital equipment. There was no comparable expense in 2015.

Net cash provided by financing activities was approximately $18,802 for the six months ended June 30, 2015 consisting of the proceeds from our January 2015 offering and the exercise of warrants and stock options as compared to net cash provided by financing activities of approximately $14,720 for the six months ended June 30, 2014, which was primarily related to proceeds from the May 2014 offering.

The source, timing and availability of any future financing will depend principally upon market conditions, interest rates and, more specifically, on our progress in our exploratory, preclinical and future clinical development programs. Funding may not be available when needed, at all, or on terms acceptable to us. Lack of necessary funds may require us, among other things, to delay, scale back or eliminate some or all of our research and product development programs, planned clinical studies or trials, and our capital expenditures or to license our potential products or technologies to third parties.

We intend to pursue opportunities to obtain additional financing in the future through equity and/or debt financings. We have filed with the SEC, and the SEC declared effective, a universal shelf registration statement which permits us to issue up to $100 million worth of registered equity securities. Under this effective shelf registration, we have the flexibility to issue registered securities, from time to time, in one or more separate offerings or other transactions with the size, price and terms to be determined at the time of issuance. Registered securities issued using this shelf may be used to raise additional capital to fund our working capital and other corporate needs, for future acquisitions of assets, programs or businesses, and for other corporate purposes. In July 2015, we entered into a Sales Agreement with Cowen and Company, LLC ("Cowen") establishing an"at the market" equity offering program pursuant to which we may issue and sell from time to time shares of our Common Stock having aggregate sales proceeds of up to $50 million. We intend to use the net proceeds from this facility primarily for general corporate purposes and working capital We will pay Cowen a commission of 3% of the gross proceeds from the sale of shares under this facility.

Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements 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.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risk related to change in interest rates which could affect our operating results, financial position and cash flows. We manage our exposure to these market risks through our regular operating and financing activities. We do not use derivative financial instruments for speculative or trading purposes. For discussion of our market risk exposure, refer to Item 7A., "Quantitative and Qualitative Disclosures About Market Risk," in our 2014 Annual Report. There are no material changes in market risk from the disclosure provided in our 2014 Annual Report.

Item 4. Controls and Procedures.

Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and our Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) as of the end of the period covered by this report. Based on that evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures as of the end of the period covered by this report were effective in ensuring that information required to be disclosed by us in reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms and (ii) accumulated and communicated to our management, including our Chief Executive Officer and our Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting that occurred during the quarter ended June 30, 2015 that have materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

Lawsuit with Former Employee

In November 2013, we filed a lawsuit against Francis Reynolds, our former Chairman, Chief Executive Officer and Chief Financial Officer, in Middlesex Superior Court, Middlesex County, Massachusetts (*InVivo Therapeutics Holdings Corp. v. Reynolds, Civil Action No. 13-5004*). The complaint alleges breaches of fiduciary duties, breach of contract, conversion, misappropriation of corporate assets, unjust enrichment, corporate waste, and seeks monetary damages and an accounting. The lawsuit involves approximately $500,000 worth of personal and/or exorbitant expenses that we allege Mr. Reynolds inappropriately caused us to pay while he was serving as our Chief Executive Officer, Chief Financial Officer, President and Chairman of our Board of Directors. On December 6, 2013, Mr. Reynolds answered the complaint, and filed counterclaims against us and our Board of Directors. The counterclaims allege two counts of breach of contract, two counts of breach of the covenant of good faith and fair-dealing, and tortious interference with a contract, and seek monetary damages and a declaratory judgment. The counterclaims involve Mr. Reynolds's allegations that we and the Board interfered with the performance of his duties under the terms of his employment agreement, and that Mr. Reynolds was entitled to additional shares upon the exercise of certain stock options. On January 9, 2014, we, along with the directors named in the counterclaims, filed our answer. The parties are currently conducting pre-trial discovery. No judgments or rulings are pending at this stage.

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Shareholder Matters and Investigations

On July 31, 2014, a putative securities class action lawsuit was filed in the United States District Court for the District of Massachusetts, naming the Company and Mr. Reynolds, as defendants (the "Securities Class Action"). The lawsuit alleges violations of the Securities Exchange Act of 1934 in connection with allegedly false and misleading statements related to the timing and completion of the clinical study of our Neuro-Spinal Scaffold. The plaintiff seeks class certification for purchasers of our common stock during the period from April 5, 2013 through August 26, 2013 and unspecified damages. On April 3, 2015, the United States District Court for the District of Massachusetts dismissed the plaintiff's claim with prejudice. Plaintiff filed a notice of appeal of this decision on May 4, 2015. A mandatory mediation conference is being scheduled .

On January 23, 2015, Shawn Luger, a purported shareholder of the Company, sent us a letter demanding that the Board take action to remedy purported breaches of fiduciary duties allegedly related to the claimed false and misleading statements that were the subject of the Securities Class Action (the "Shareholder Demand"). The Board has completed its investigation of the matters raised in the Shareholder Demand and voted unanimously not to pursue any litigation against any current or former director, officer or employee of the Company with respect to the matters set forth in the Shareholder Demand.

In addition to the Shareholder Demand, we have received investigation subpoenas from the Boston Regional Office of the Securities and Exchange Commission and the Massachusetts Securities Division of the Secretary of the Commonwealth of Massachusetts requesting corporate documents also concerning, among other topics, the allegations raised Securities Class Action and the Shareholder Demand. We are cooperating with these investigations.

Item 1A. Risk Factors.

There have been no material changes in the risk factors previously disclosed in Part I, Item 1A. “Risk Factors” of our 2014 Annual Report.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

Amendments to Employment Arrangements

On July 21, 2015, the Company entered into a letter agreement amending certain terms of its employment agreement with Steven McAllister, the Company’s Chief Financial Officer. The amended agreement provides that Mr. McAllister is eligible to receive an annual target bonus equal to 35% of his annual salary. In addition, if his employment is terminated by the Company without cause or by Mr. McAllister for good reason in the absence of a change in control of the Company, the Company shall pay severance (consisting of base salary in effect on the date of termination) to Mr. McAllister for a period of 12 months following such termination, plus continued health insurance benefits for a period of 6 months following termination. However, if such termination occurs within the 12-month period following a change in control of the Company, then the Company is obligated (i) to pay to Mr. McAllister cash severance equal to 1.5 times his base salary in effect on the date of such termination plus 100% of his target annual bonus, (ii) to accelerate the vesting on all outstanding, unvested equity awards held by Mr. McAllister and (iii) to continue health insurance benefits for a period of 12 months following such termination. The severance payments are contingent upon execution by Mr. McAllister of a general release of claims against the Company, and are in addition to any accrued obligations to Mr. McAllister unpaid by the Company prior to the date of termination. No other amendments were made to Mr. McAllister’s employment agreement.

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On July 21, 2015, the Company entered into a letter agreement amending certain terms of its employment agreement with Mark Perrin, the Company’s Chief Executive Officer. The amended agreement provides that, if his employment is terminated by the Company without cause or by Mr. Perrin for good reason in the absence of a change in control of the Company, the Company shall pay severance (consisting of base salary in effect on the date of termination) to Mr. Perrin for a period of 18 months following such termination, plus continued health insurance benefits for a period of 6 months following termination, and shall accelerate the vesting of the unvested portion of any outstanding equity awards held by Mr. Perrin by an additional 12 months. However, if such termination occurs within the 12-month period following a change in control of the Company, then the Company is obligated (i) to pay to Mr. Perrin cash severance equal to 2.0 times his base salary in effect on the date of such termination plus 100% of his target annual bonus, (ii) to accelerate the vesting on all outstanding, unvested equity awards held by Mr. Perrin and (iii) to continue health insurance benefits for a period of 12 months following such termination. The severance payments are contingent upon execution by Mr. Perrin of a general release of claims against the Company, and are in addition to any accrued obligations to Mr. Perrin unpaid by the Company prior to the date of termination. No other amendments were made to Mr. Perrin’s employment agreement.

On July 21, 2015, the Company entered into an employment agreement with Thomas Ulich, M.D., the Company’s Chief Scientific Officer. The employment agreement provides that Dr. Ulich will receive a salary at an annual rate of $325,000, and is eligible to receive benefits to the same extent as provided to the Company’s other senior management employees, including medical and dental benefits. In addition, the Company also will reimburse Dr. Ulich for reasonable commuting expenses from his residence and lodging expenses while in Massachusetts for the performance of his duties. Dr. Ulich is eligible to receive an annual target bonus equal to 35% of his annual salary, subject to performance of specified objectives to be established each year. If his employment is terminated by the Company without cause or by Dr. Ulich for good reason in the absence of a change in control of the Company, the Company shall pay severance (consisting of base salary in effect on the date of termination) to Dr. Ulich for a period of 12 months following such termination, plus continued health insurance benefits for a period of 6 months following termination. However, if such termination occurs within the 12-month period following a change in control of the Company, then the Company is obligated (i) to pay to Dr. Ulich cash severance equal to 1.5 times his base salary in effect on the date of such termination plus 100% of his target annual bonus, (ii) to accelerate the vesting on all outstanding, unvested equity awards held by Dr. Ulich and (iii) to continue health insurance benefits for a period of 12 months following such termination. The severance payments are contingent upon execution by Dr. Ulich of a general release of claims against the Company, and are in addition to any accrued obligations to Dr. Ulich unpaid by the Company prior to the date of termination. The employment agreement also contains various restrictive covenants, including covenants relating to non-competition, non-solicitation, confidentiality and assignment of inventions.

On August 3, 2015, the Company entered into a letter agreement amending certain terms of its employment agreement with Lorianne Masuoka, M.D., the Company’s Chief Medical Officer. The amended agreement provides that Dr. Masuoka is eligible to receive an annual target bonus equal to 35% of her annual salary. In addition, if her employment is terminated by the Company without cause or by Dr. Masuoka for good reason in the absence of a change in control of the Company, the Company shall pay severance (consisting of base salary in effect on the date of termination) to Dr. Masuoka for a period of 12 months following such termination, plus continued health insurance benefits for a period of 6 months following termination. However, if such termination occurs within the 12-month period following a change in control of the Company,

then the Company is obligated (i) to pay to Dr. Masuoka cash severance equal to 1.5 times her base salary in effect on the date of such termination plus 100% of her target annual bonus, (ii) to accelerate the vesting on all outstanding, unvested equity awards held by Dr. Masuoka and (iii) to continue health insurance benefits for a period of 12 months following such termination. The severance payments are contingent upon execution by Dr. Masuoka of a general release of claims against the Company, and are in addition to any accrued obligations to Dr. Masuoka unpaid by the Company prior to the date of termination. No other amendments were made to Dr. Masuoka's employment agreement.

On August 3, 2015, the Company entered into an employment agreement with Tamara Joseph, the Company's Senior Vice President, General Counsel and Chief Compliance Officer. The employment agreement provides that Ms. Joseph will work on a part-time basis, four days per week, and receive a salary at an annual rate of $248,000, and is eligible to receive benefits to the same extent as provided to the Company's other senior management employees, including medical and dental benefits. Ms. Joseph is eligible to receive an annual target bonus equal to 35% of her annual salary, subject to performance of specified objectives to be established each year. If her employment is terminated by the Company without cause or by Ms. Joseph for good reason in the absence of a change in control of the Company, the Company shall pay severance (consisting of base salary in effect on the date of termination) to Ms. Joseph for a period of 12 months following such termination, plus continued health insurance benefits for a period of 6 months following termination. However, if such termination occurs within the 12-month period following a change in control of the Company, then the Company is obligated (i) to pay to Ms. Joseph cash severance equal to 1.5 times her base salary in effect on the date of such termination plus 100% of her target annual bonus, (ii) to accelerate the vesting on all outstanding, unvested equity awards held by Ms. Joseph and (iii) to continue health insurance benefits for a period of 12 months following such termination. The severance payments are contingent upon execution by Ms. Joseph of a general release of claims against the Company, and are in addition to any accrued obligations to Ms. Joseph unpaid by the Company prior to the date of termination. The employment agreement also contains various restrictive covenants, including covenants relating to non-competition, non-solicitation, confidentiality and assignment of inventions.

Item 6. Exhibits.

The Exhibits listed in the Exhibit Index immediately preceding such Exhibits are filed with or incorporated by reference in this Quarterly Report.

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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.

INVIVO THERAPEUTICS HOLDINGS CORP.

Date: August 5, 2015

By: /s/ Steven F. McAllister
Name: Steven F. McAllister
Title: Chief Financial Officer
(Principal Financial Officer)

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EXHIBIT INDEX

Exhibit Number	Description
10.1	Employee Stock Purchase Plan (incorporated by reference from Exhibit 10.1 to the Registrant's Current Report on Form 8-K as filed with the SEC on June 16, 2015)
10.2	2015 Equity Incentive Plan (incorporated by reference from Exhibit 10.1 to the Registrant's Current Report on Form 8-K as filed with the SEC on June 16, 2015)
31.1	Certification of the Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the Principal Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of the Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Calculation Linkbase Document

101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Label Linkbase Document
101.PRE	XBRL Taxonomy Presentation Linkbase Document

Exhibit 31.1

SARBANES-OXLEY SECTION 302(a) CERTIFICATION

I, Mark D. Perrin, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of InVivo Therapeutics Holdings Corp.;

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 the 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 officer 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: August 5, 2015

/s/ Mark D. Perrin
Mark D. Perrin
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

SARBANES-OXLEY SECTION 302(a) CERTIFICATION

I, Steven F. McAllister, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of InVivo Therapeutics Holdings Corp.;

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 the 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 officer 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: August 5, 2015

/s/ Steven F. McAllister
Steven F. McAllister
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of InVivo Therapeutics Holdings Corp. (the "Company") for the quarter ended June 30, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mark D. Perrin, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(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 Company.

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

Date: August 5, 2015

/s/ Mark D. Perrin
Mark D. Perrin
Chief Executive Officer

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of InVivo Therapeutics Holdings Corp. (the "Company") for the quarter ended June 30, 2015, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Steven F. McAllister, and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

(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 Company.

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

Date: August 5, 2015

/s/ Steven F. McAllister
Steven F. McAllister
Chief Financial Officer