

**Filed pursuant to Rule 424(b)(3)  
Registration Statement No. 333-  
222738**

**PROSPECTUS SUPPLEMENT NO. 7  
(TO PROSPECTUS DATED FEBRUARY 12, 2018)**

**INVIVO THERAPEUTICS HOLDINGS CORP.  
Up to 10,700,000 shares of Common Stock**

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This prospectus supplement No. 7 supplements and amends the prospectus dated February 12, 2018, as supplemented by prospectus supplement No. 1 dated March 13, 2018, prospectus supplement No. 2 dated April 9, 2018, prospectus supplement No. 3 dated May 7, 2018, prospectus supplement No. 4 dated May 17, 2018, prospectus supplement No. 5 dated June 4, 2018 and prospectus supplement No. 6 dated June 26, 2018 related to the sale or other disposition from time to time of up to 10,700,000 shares of common stock, par value \$0.00001 per share, of InVivo Therapeutics Holdings Corp., a Nevada corporation (the “Company,” “we,” “us” or “our”), issued and issuable to Lincoln Park Capital Fund, LLC, the selling stockholder named in the prospectus, also referred to as Lincoln Park, pursuant to a purchase agreement dated January 25, 2018 that we entered into with Lincoln Park. We are not selling any shares of common stock under this prospectus and will not receive any of the proceeds from the sale of the shares of common stock by the selling stockholder.

This prospectus supplement should be read in conjunction with the prospectus dated February 12, 2018, which is to be delivered with this prospectus supplement. This prospectus supplement is qualified by reference to the prospectus except to the extent that the information in this prospectus supplement supersedes the information contained in the prospectus. This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the prospectus, including any amendments or supplements to it.

Our common stock is quoted on The Nasdaq Capital Market under the symbol “NVIV.” On August 6, 2018, the last reported sale price of our common stock on The Nasdaq Capital Market was \$1.99 per share.

This prospectus supplement incorporates into our prospectus the information contained in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2018 filed with the Securities and Exchange Commission on August 7, 2018 and attached hereto.

**Investing in our common stock involves risks. See “Risk Factors” beginning on page 8 of the prospectus.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the prospectus to which it relates are truthful or complete. Any representation to the contrary is a criminal offense.

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The date of this prospectus supplement is August 7, 2018.

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**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**

Washington, DC 20549

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**FORM 10-Q**

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

**For the quarterly period ended June 30, 2018**

or

☐ **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**

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**InVivo Therapeutics Holdings Corp.**

(Exact name of registrant as specified in its charter)

**Nevada**

(State or other jurisdiction of  
incorporation or organization)

**36-4528166**

(I.R.S. Employer  
Identification Number)

**One Kendall Square, Suite B14402  
Cambridge, MA**

(Address of principal executive offices)

**02139**

(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 ☒ No ☐

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 ☒ No ☐

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

Large accelerated filer ☐

Accelerated filer ☒

Non-accelerated filer ☐

Smaller reporting company ☐

(Do not check if a smaller reporting company)

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

As of August 1, 2018, 7,763,420 shares of the registrant's common stock, \$0.00001 par value, were issued and outstanding.

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**INVIVO THERAPEUTICS HOLDINGS CORP.**  
**Quarterly Report on Form 10-Q for the Quarter Ended June 30, 2018**

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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-25 reverse stock split of InVivo Therapeutics Holdings Corp.'s common stock effected on April 16, 2018.

**Item 1. Financial Statements.**

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

	As of	
	June 30, 2018	December 31, 2017
<b>ASSETS:</b>		
Current assets:		
Cash and cash equivalents	\$ 22,320	\$ 12,910
Restricted cash	12	361
Prepaid expenses and other current assets	1,235	535
Total current assets	23,567	13,806
Property, equipment and leasehold improvements, net	125	157
Restricted cash	90	—
Other assets	77	82
Total assets	<u>\$ 23,859</u>	<u>\$ 14,045</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT):</b>		
Current liabilities:		
Accounts payable	\$ 914	\$ 988
Loan payable, current portion	330	452
Derivative warrant liability	21,469	4
Deferred rent, current portion	—	30
Accrued expenses	2,996	1,638
Total current liabilities	25,709	3,112
Loan payable, net of current portion	—	400
Deferred rent, net of current portion	—	367
Other liabilities	59	56
Total liabilities	<u>25,768</u>	<u>3,935</u>
Commitments and contingencies (Note 6)		
Stockholders' equity (deficit):		
Common stock, \$0.00001 par value, authorized 25,000,000 shares; 4,077,667 shares issued and outstanding at June 30, 2018; 1,370,992 shares issued and outstanding at December 31, 2017	1	1
Additional paid-in capital	199,720	194,016
Accumulated deficit	(201,630)	(183,907)
Total stockholders' equity (deficit)	(1,909)	10,110
Total liabilities and stockholders' equity (deficit)	<u>\$ 23,859</u>	<u>\$ 14,045</u>

See notes to the unaudited consolidated financial statements.

(Reflects 1-for-25 reverse stock split effective April 16, 2018)

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2018	2017	2018	2017
Operating expenses:				
Research and development	\$ 1,026	\$ 3,211	\$ 2,424	\$ 6,595
General and administrative	1,786	3,715	5,220	7,000
Total operating expenses	2,812	6,926	7,644	13,595
Operating loss	(2,812)	(6,926)	(7,644)	(13,595)
Other income (expense):				
Interest income / (expense), net	33	32	51	69
Other income / (expense), net	26	—	68	—
Derivatives gain (loss)	(10,186)	554	(10,198)	795
Other income (expense), net	(10,127)	586	(10,079)	864
Net loss	\$ (12,939)	\$ (6,340)	\$ (17,723)	\$ (12,731)
Net loss per share, basic and diluted	\$ (7.48)	\$ (4.92)	\$ (11.20)	\$ (9.91)
Weighted average number of common shares outstanding, basic and diluted	1,729,248	1,287,424	1,581,924	1,284,610
Other comprehensive loss:				
Net loss	(12,939)	(6,340)	(17,723)	(12,731)
Other comprehensive loss:				
Unrealized gain (loss) on marketable securities	—	1	—	(1)
Comprehensive loss	\$ (12,939)	\$ (6,339)	(17,723)	\$ (12,732)

See notes to the unaudited consolidated financial statements.

(Reflects 1-for-25 reverse stock split effective April 16, 2018)

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

	Six Months Ended 2018	2017
Cash flows from operating activities:		
Net loss	\$ (17,723)	\$ (12,731)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	58	264
Loss on impairment of fixed assets	48	—
Derivatives (gain) loss	10,198	(795)
Non-cash interest expense	2	2
Common stock issued to 401(k) plan	6	113
Gain on lease assignment	(603)	—
Share-based compensation expense	456	2,583
Non-cash investment (income) expense, net	—	8
Changes in operating assets and liabilities:		
Prepaid expenses	(700)	(206)
Other assets	(6)	5
Accounts payable	(74)	(133)
Accrued expenses and other liabilities	1,566	(89)
Net cash used in operating activities	<u>(6,772)</u>	<u>(10,979)</u>
Cash flows from investing activities:		
Purchases of marketable securities	—	(8,256)
Sales of marketable securities	—	12,300
Purchases of property and equipment	(65)	(54)
Net cash (used in) provided by investing activities	<u>(65)</u>	<u>3,990</u>
Cash flows from financing activities:		
Proceeds from exercise of stock options	—	26
Proceeds from issuance of stock under ESPP	3	29
Proceeds from exercise of warrants	10	—
Repayment of loan payable	(522)	(208)
Repurchase of warrants	(14)	—
Proceeds from issuance of common stock and warrants, net of commissions and issuance costs	16,511	—
Net cash (used in) provided by financing activities	<u>15,988</u>	<u>(153)</u>
Increase (decrease) in cash and cash equivalents and restricted cash	9,151	(7,142)
Cash, cash equivalents and restricted cash at beginning of period	13,271	21,825
Cash, cash equivalents and restricted cash at end of period	<u>\$ 22,422</u>	<u>\$ 14,683</u>
Supplemental disclosure of cash flow information and non-cash investing and financing activities:		
Cash paid for interest	<u>\$ 25</u>	<u>\$ 40</u>
Issuance costs paid in common stock	<u>\$ 287</u>	<u>—</u>

See notes to the unaudited consolidated financial statements.

**InVivo Therapeutics Holdings Corp.**  
**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**

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

**Business**

InVivo Therapeutics Holdings Corp. (the “Company”) is a pioneering biomaterials and biotechnology company with a focus on the treatment of spinal cord injuries (“SCIs”). The Company’s Neuro-Spinal Scaffold™ implant is a bioresorbable polymer scaffold that is designed for implantation at the site of injury within the spinal cord to treat SCI. The proprietary technologies incorporate intellectual property that is licensed under an exclusive, worldwide license from 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, the Company has devoted substantially all of its efforts to business planning, research and development, recruiting management and technical staff, acquiring operating assets, and raising capital. The Company has historically financed its operations primarily through the sale of equity-related securities. At June 30, 2018, the Company has consolidated cash and cash equivalents of \$22.3 million. The Company has not achieved profitability and may not be able to realize sufficient revenue to achieve or sustain profitability in the future. The Company does not expect to be profitable in the next several years, but rather expects to incur additional operating losses. The recent financing closed in June 2018 (see Note 9) has provided necessary funding to fund operations for at least the next twelve months. The Company expects that it will need additional capital resources in order to sustain its product development efforts, for acquisition of technologies and intellectual property rights, for preclinical and clinical testing of its anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, for selling, general and administrative expenses, and other working capital requirements in the future which it may raise through a combination of equity offerings, debt financings, other third party funding, marketing and distribution arrangements and other collaborations, strategic alliances and license arrangements.

***Reverse Stock Split***

On April 16, 2018, the Company effected a reverse stock split of its common stock, par value \$0.00001 per share, at a ratio of 1-for-25. As a result of the reverse stock split, (i) every 25 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 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.

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-25 reverse stock split.

***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, 2017 included in the Company’s Annual Report on Form 10-K as filed with the United States Securities and Exchange Commission (“SEC”) on March 12, 2018. 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, 2018 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

**InVivo Therapeutics Holdings Corp.**  
**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**  
**(Continued)**

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.

***Recently Adopted Accounting Standards***

In May 2014, the Financial Accounting Standards Board (“FASB”) issued Accounting Standards Update (“ASU”) No. 2014-09, “*Revenue from Contracts with Customers*” (“ASU 2014-09”) to provide updated guidance on revenue recognition. ASU 2014-09 requires a company to recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies may need to use more judgment and make more estimates than under today’s guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price, and allocating the transaction price to each separate performance obligation. In August 2015, the FASB issued ASU 2015-14, *Revenue from Contracts with Customers (Topic 606): Deferral of the Effective Date*, which deferred the effective date of ASU 2014-09 by one year. Accordingly, ASU 2014-09 is effective for public business entities for annual reporting periods beginning after December 15, 2017, including interim reporting periods within each annual reporting period. In March 2016, the FASB issued ASU No. 2016-08, *Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross Versus Net)*, which clarifies the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued ASU No. 2016-10, *Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing*, which clarifies certain aspects of identifying performance obligations and licensing implementation guidance. In May 2016, the FASB issued ASU No. 2016-12, *Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients*, which relates to disclosures of remaining performance obligations, as well as other amendments to guidance on collectability, non-cash consideration, and the presentation of sales and other similar taxes collected from customers. These standards are effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within each annual reporting period. Currently, this guidance is not applicable to the Company as the Company does not generate revenue. However, the Company will evaluate the impact of adopting ASU 2014-09 on its consolidated financial statements when the Company begins to generate revenue.

In January 2016, the FASB issued ASU No. 2016-01 “*Financial Instruments - Overall (Subtopic 825-10) - Recognition and Measurement of Financial Assets and Financial Liabilities*.” ASU 2016-01 is intended to improve the recognition and measurement of financial instruments by; requiring equity investments to be measured at fair value with changes in fair value recognized in net income; requiring public business entities to use the exit price notion when measuring the fair value of financial instruments for disclosure purposes; requiring separate presentation of financial assets and financial liabilities by measurement category and form of financial asset on the balance sheet or the accompanying notes to the financial statements; eliminating the requirement for public business entities to disclose the method(s) and significant assumptions used to estimate the fair value that is required to be disclosed for financial instruments measured and amortized at cost on the balance sheet; and requiring a reporting organization to present separately in other comprehensive income the portion of the total change in the fair value of a liability resulting from a change in the instrument-specific credit risk when the organization has elected to measure the liability at fair value in accordance with the fair value option for financial instruments. ASU 2016-01 is effective for annual periods and interim periods within those annual periods, beginning after December 15, 2017. The amendments should be applied by means of a cumulative-effect adjustment to the balance sheet as of the beginning of the fiscal year of adoption. The amendments related to equity securities without readily determinable fair values (including disclosure requirements) should be applied prospectively to equity investments that exist as of the date of adoption. In February 2018, the FASB issued ASU No. 2018-03 which includes technical corrections and improvements to clarify the guidance in ASU No. 2016-01. The Company adopted ASU 2016-01 on January 1, 2018 and it did not have any impact on its accounting for equity investments, fair value disclosures or other disclosure requirements.



**InVivo Therapeutics Holdings Corp.**  
**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**  
**(Continued)**

In August 2016, the FASB issued ASU No. 2016-15, “*Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments*,” which clarifies the classification of certain cash receipts and cash payments in the statement of cash flows, including debt prepayment or extinguishment costs, settlement of contingent consideration arising from a business combination and insurance settlement proceeds. The Company adopted ASU 2016-15 on January 1, 2018, and it did not result in any changes to the presentation of amounts shown on the Company’s consolidated statements of cash flows to all periods presented.

In November 2016, the FASB issued ASU No. 2016-18, “*Statement of Cash Flows (Topic 230): Restricted Cash (A Consensus of the FASB Emerging Issues Task Force)*.” The amendments in this update require that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The Company adopted ASU No. 2016-18 in the first quarter of 2018 and applied the guidance retrospectively to the prior period consolidated statement of cash flows. The following table provides a reconciliation of cash, cash equivalents, and restricted cash within the statement of financial position that sum to the total of the same such amounts shown in the statement of cash flows.

<i>(In thousands)</i>	<b>June 30, 2018</b>	<b>June 30, 2017</b>
Cash and cash equivalents	\$ 22,320	\$ 14,322
Restricted cash included in current assets	12	361
Restricted cash included in other non-current assets	90	—
Total cash, cash equivalents and restricted cash shown in the statement of cash flows	<u>\$ 22,422</u>	<u>\$ 14,683</u>

In May 2017, the FASB issued ASU No. 2017-09, “*Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting*” (“ASU 2017-09”) to clarify when to account for a change to the terms or conditions of a share-based payment award as a modification. Under this new guidance, modification accounting is required if the fair value, vesting conditions, or classification of the award changes as a result of the change in terms or conditions. ASU 2017-09 is effective for annual reporting periods beginning after December 15, 2017, including interim reporting periods within each annual reporting period. The Company adopted ASU 2017-09 on January 1, 2018 and it did not have a material effect on the Company’s financial position, results of operations or disclosures.

In December 2017, the SEC issued Staff Accounting Bulletin (“SAB”) 118 to address the application of U.S. GAAP in situations in which a registrant does not have the necessary information available, prepared, or analyzed (including computations) in reasonable detail to complete the accounting for certain income tax effects of the Tax Cuts and Jobs Act (the “Tax Reform Act”) which was signed into law on December 22, 2017. In March 2018, the FASB issued ASU 2018-05, which amended ASC 740 to incorporate the requirements of SAB 118. We recognized the provisional tax impacts of the Tax Reform Act in the fourth quarter 2017. During first quarter 2018, we did not receive any additional information regarding these provisional calculations. As a result, we continue to anticipate finalizing the Company’s analysis in connection with the completion of its tax return for 2017 to be filed in 2018.

In February 2016, the FASB issued ASU No. 2016-02, “*Leases (Topic 842)*.” The guidance in this ASU supersedes the leasing guidance in *Topic 840, Leases*. Under the new guidance, lessees are required to recognize lease assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance leases or operating leases, with classification affecting the pattern of expense recognition in the statement of operations. The new standard is effective for annual reporting periods beginning after December 15, 2018, including interim reporting periods within each annual reporting period. The Company is evaluating the impact that ASU 2016-02 will have on its consolidated financial statements and related disclosures.

**InVivo Therapeutics Holdings Corp.**  
**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**  
**(Continued)**

In July 2017, the FASB issued ASU No. 2017-11, “*Part I. Accounting for Certain Financial Instruments with Down Round Features and Part II. Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception*” (“ASU 2017-11”). Part I of this guidance applies to entities that issue financial instruments such as warrants, convertible debt or convertible preferred stock that contain down round features. Part II of this guidance replaces the indefinite deferrals for certain mandatorily redeemable noncontrolling interests and mandatorily redeemable financial instruments of nonpublic entities. ASU 2017-11 is effective for annual reporting periods beginning after December 15, 2018, including interim reporting periods within each annual reporting period. The Company has concluded that the adoption of ASU 2017-11 will not have a material impact on the financial statements.

In February 2018, the FASB issued Accounting Standards Update No. 2018-02, *Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. This update relates to the impacts of the tax legislation commonly referred to as the Tax Cuts and Jobs Act (the “Act”). The guidance permits the reclassification of certain income tax effects of the Act from Other Comprehensive Income to Retained Earnings (stranded tax effects). The guidance also requires certain new disclosures. The guidance is effective for annual periods beginning after December 15, 2018, and interim periods within that reporting period. Early adoption is permitted. Entities may adopt the guidance using one of two transition methods; retrospective to each period (or periods) in which the income tax effects of the Act related to the items remaining in Other Comprehensive Income are recognized or at the beginning of the period of adoption. The Company is currently evaluating the impact that the guidance may have on its Consolidated Financial Statements.

## 2. CASH AND CASH EQUIVALENTS

At June 30, 2018 and December 31, 2017, cash equivalents were comprised of money market funds and other short-term investments.

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 considers only those investments that are highly liquid, readily convertible to cash, and that mature within three months from date of purchase to be cash equivalents.

Cash and cash equivalents consisted of the following:

<i>(In thousands)</i>	<b>June 30, 2018</b>	<b>December 31, 2017</b>
Cash	\$ (565)	\$ 23
Money market funds	22,885	12,887
<b>Total cash and cash equivalents</b>	<b>\$ 22,320</b>	<b>\$ 12,910</b>

## 3. RESTRICTED CASH

Restricted cash as each of June 30, 2018 and December 31, 2017 was \$102 thousand and \$361 thousand, respectively. Restricted cash as of June 30, 2018 included a \$50 thousand security deposit related to the Company’s credit card account, \$12 thousand related to 401(k) reserve account and a \$40 thousand standby letter of credit in favor of a landlord (see Note 6).

## 4. MARKETABLE SECURITIES

The Company invests its excess cash in fixed income instruments denominated and payable in U.S. dollars, including money market accounts, commercial paper, and corporate obligations, in accordance with the Company’s investment policy that primarily seeks to maintain adequate liquidity and preserve capital.

**InVivo Therapeutics Holdings Corp.**  
**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**  
**(Continued)**

As of June 30, 2018 and December 31, 2017, the Company had no marketable securities.

**5. FAIR VALUES OF ASSETS AND LIABILITIES**

The Company groups its assets and liabilities generally measured at fair value into 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 (see Notes 11 and 12).

Assets and liabilities measured at fair value on a recurring basis are summarized below:

<i>(In thousands)</i>	<b>At June 30, 2018</b>			
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Fair Value</b>
Cash equivalents	\$ 22,885	\$ —	\$ —	\$ 22,885
Derivative warrant liability	\$ —	\$ 21,469	\$ —	\$ 21,469

<i>(In thousands)</i>	<b>At December 31, 2017</b>			
	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>	<b>Fair Value</b>
Cash equivalents	\$ 12,887	\$ —	\$ —	\$ 12,887
Derivative warrant liability	\$ —	\$ 4	\$ —	\$ 4

**6. COMMITMENTS AND CONTINGENCIES**

**Leases**

On November 30, 2011, the Company entered into a commercial lease for 26,342 square feet of office, laboratory, and manufacturing space in Cambridge, Massachusetts (as amended on September 17, 2012 and October 31, 2017, the “Cambridge Lease”). The term of the Cambridge Lease was six years and three months, with one five-year extension option. On August 21, 2017, the Company exercised its option for the five-year extension on the Cambridge Lease. The five-year renewal lease term was set to commence on November 1, 2018 and end on October 31, 2023. The terms of the Cambridge Lease required a standby letter of credit in the amount of \$311 thousand.

On March 31, 2016, the Company entered into a short-term lease, to sub-lease 5,233 square feet of its facility (the “Sublease”). The lease term was from April 1, 2016 through January 31, 2017. In connection with the Sublease,

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the Company received sublease income for the three and six months ended June 30, 2017 of \$26 thousand, which was recorded as an offset to rent expense.

On June 13, 2017, the Company entered into a short-term lease, as subtenant, to sub-lease 5,233 square feet of the facility (the "Moderna Sublease"). The lease term was from July 1, 2017 through October 26, 2018. On June 19, 2017, the Company received a \$55 thousand security deposit under the terms of the Moderna Sublease. In conjunction with Cambridge Lease assignment on May 3, 2018, this security deposit was transferred to the third party that assumed the lease. In connection with the Moderna Sublease, the Company received sublease income of \$30 thousand for the three-month period ended June 30, 2018, which was recorded as an offset to rent expense. In connection with the Moderna Sublease, the Company received sublease income of \$112 thousand for the six-month period ended June 30, 2018, which was recorded as an offset to rent expense.

On May 3, 2018, the Company assigned the Cambridge Lease to a third party who assumed all of the Company's remaining rights and obligations under the lease including the Moderna Sublease. On the same date as the lease assignment, the Company entered into a sublease for 5,104 square feet of space, originally part of the Cambridge Lease, from the third party to which the Company assigned the Cambridge Lease. The sublease commenced on May 3, 2018 through October 31, 2023 and contains rent holiday and rent escalation clauses. In connection with the lease assignment and the sublease, the \$311 thousand standby letter of credit was terminated and a new standby letter of credit was established for \$40 thousand. On November 1, 2018, the standby letter of credit will be increased to \$60 thousand. The \$55 thousand security deposit under the Moderna Sublease was transferred to the third party and \$603 thousand of deferred rent was removed from the consolidated balance sheets as of June 30, 2018. The resulting gain was recorded within the consolidated statement of operations and comprehensive loss during the second quarter of 2018. The Company also wrote off certain furniture, fixtures and equipment (including laboratory equipment) and recorded an impairment charge of \$48 thousand for the six months ended June 30, 2018.

The Company recognizes rent expense on a straight-line basis over the term of the lease and records the difference between the amount charged to expense and the rent paid as prepaid rent or deferred rent liability. As of June 30, 2018 and December 31, 2017, the amount of prepaid rent was \$199 thousand and \$0, respectively. As of June 30, 2018 and December 31, 2017, the amount of deferred rent liability was \$0 and \$397 thousand, respectively.

Pursuant to the terms of the non-cancelable lease agreements in effect at June 30, 2018, the future minimum rent commitments are as follows (in thousands):

<b>Year Ended December 31,</b>	
2018	—
2019	243
2020	375
2021	386
2022	398
Thereafter	339
<b>Total</b>	<b>\$ 1,741</b>

Total rent expense for the three-month period ended June 30, 2018 was \$224 thousand, and does not include the one-time gain on termination of the Cambridge lease of \$603 thousand that was recorded to the consolidated statement of operations and comprehensive loss during the second quarter of 2018. Total rent expense for the three-month period ended June 30, 2017 was \$287 thousand.

Total rent expense for the six-month period ended June 30, 2018 was \$640 thousand, and does not include the one-time gain on termination of the Cambridge lease of \$603 thousand that was recorded to the consolidated statement of operations and comprehensive loss during the second quarter of 2018. Total rent expense for the six-month period ended June 30, 2017 was \$555 thousand.

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**Compensation Commitment**

The Company entered into a compensation arrangement with an executive during September 2016 which provided for a future cash payment by the Company to the executive based on the February 13, 2017 stock price of the executive's former employer. The award was earned over a period of one year. The expense related to the compensation arrangement was \$87 thousand and \$174 thousand for the three-month and six-month periods ended June 30, 2017, respectively. As of June 30, 2018, there were no outstanding payments to the executive.

**Litigation**

*Lawsuits 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, and corporate waste, and seeks monetary damages and an accounting. The lawsuit involves approximately \$500 thousand 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 Company's Board of Directors. On December 6, 2013, Mr. Reynolds answered the complaint, and filed counterclaims against the Company and the Company's 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 related to Mr. Reynolds's allegations that the Company and the Company's Board of Directors 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 that he did not receive. On January 9, 2014, the Company, along with the directors named in the counterclaims, filed the Company's answer denying that Mr. Reynolds is entitled to any relief. The parties have completed discovery. On March 3, 2017, the counterclaim defendants filed a motion for summary judgment on all counterclaims asserted by Mr. Reynolds. On October 18, 2017, the Court allowed the motion for summary judgment in substantial part, and denied it in part. The Court, citing disputed issues of fact, declined to dismiss the counterclaims for breach of contract, breach of implied covenant of good faith and fair dealing, and declaratory judgment concerning Mr. Reynolds' attempted exercise of certain stock options, which Mr. Reynolds claims is the equivalent of 47,864 shares of common stock, but dismissed all other claims asserted by Mr. Reynolds. In July 2018, the Parties reported the case as settled to the Court.

**7. ACCRUED EXPENSES**

Accrued expenses consisted of the following:

<i>(In thousands)</i>	<b>June 30, 2018</b>	<b>December 31, 2017</b>
Severance and restructuring	\$ 1,325	\$ 1,160
Clinical	594	52
Legal	557	68
Bonus	158	62
Vacation	42	55
Payroll	21	79
Other accrued expenses	299	162
Total accrued expenses	<u>\$ 2,996</u>	<u>\$ 1,638</u>

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**8. LOAN PAYABLE**

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 \$2.0 million line of credit from the Commonwealth of Massachusetts’ Emerging Technology Fund, with \$200 thousand designated to be used for working capital purposes and the remainder to be used for the purchase of capital equipment. The annual interest rate on the loan is fixed at 6.5% with interest-only payments for the first thirty months, commencing on November 1, 2012, and then equal installments of interest and principal over the next fifty-four months, until the final maturity of the loan in March 2019. Commencing on May 1, 2015, equal monthly payments of \$41 thousand are due until loan maturity.

In May 2018, in order to obtain the consent of MassDev for facility changes, including the assignment of the Cambridge Lease, and the sale of certain assets, the Company paid down \$300 thousand of principal on the MassDev loan. As of June 30, 2018, \$330 thousand in principal payments will be due in the next twelve months. In October 2012, as part of the agreement, the Company issued MassDev a warrant for the purchase of 362 shares of the Company’s common stock. The warrant has a seven-year term and is exercisable at \$166 per share. The fair value of the warrant was determined to be \$32 thousand and is being amortized through interest expense over the life of the note. Amortization expense was \$1 thousand in each of the three-month periods ended June 30, 2018 and 2017 and \$2 thousand in each of the six-month periods ended June 30, 2018 and 2017. This amortization expense was 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 three-month periods ended June 30, 2018 and 2017 was \$12 thousand and \$19 thousand respectively. Interest expense related to this loan for the six-month periods ended June 30, 2018 and 2017 was \$26 thousand and \$39 thousand respectively.

**9. COMMON STOCK**

In May 2018, the Company’s stockholders approved an amendment to the Company’s Articles of Incorporation to increase the number of shares of authorized common stock from 4,000,000 to 25,000,000 shares. As of June 30, 2018 and December 31, 2017, 4,077,667 and 1,370,992 shares were issued and outstanding respectively.

In June 2018, the Company closed an underwritten public offering of an aggregate of 1,378,400 Common Units, at an offering price of \$2.00 each, each comprised of one share of the Company’s common stock, par value \$0.00001 per share and one Series A warrant to purchase one share of common stock. The public offering also included 6,242,811 pre-funded units at an offering price of \$1.99 each, each comprised of one pre-funded Series B Warrant, and one Series A warrant to purchase one share of common stock. Each Series A warrant has an exercise price of \$2.00 per share, is exercisable immediately and expires five years from the date of issuance. Each Series B warrant has an exercise price of \$0.01 per share, is exercisable immediately and will expire twenty years from the date of issuance (see Note 12). The net proceeds to the Company, after deducting the underwriting discounts and commissions and other offering expenses, were \$13.5 million.

In January 2018, the Company entered into a purchase and a registration rights agreement with Lincoln Park Capital Fund, LLC (“Lincoln Park”), under which it has the right to sell up to \$15 million, in shares of our common stock, \$0.00001 par value per share, to Lincoln Park over a twenty-four-month period, subject to certain limitations and conditions set forth in the purchase agreement and registration rights agreement. On May 30, 2018 the Company’s stockholders approved to increase the issuance and sale by the Company to Lincoln Park, including the Company’s prior issuances and sales of shares of common stock to Lincoln Park since January 2018, of up to 1,200,000 shares of common stock. In accordance with the terms of the purchase agreement, at the time we signed the purchase agreement and the registration rights agreement, we issued 17,192 shares to Lincoln Park as consideration for its commitment to purchase shares of the Company’s common stock under the purchase agreement and recorded \$627 thousand in deferred offering costs. As of June 30, 2018, these costs were reclassified to additional paid-in capital. During the three months ended June 30, 2018, the Company sold an aggregate of 83,330 shares to Lincoln Park, for aggregate proceeds of \$370 thousand net of issuance costs. During

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the six months ended June 30, 2018, the Company sold an aggregate of 256,804 shares to Lincoln Park, for aggregate proceeds of \$3.1 million net of issuance costs.

In May 2018, the Company's Board of Directors approved to increase the number of shares of Common Stock reserved under the 401(k) Plan by 4,000 shares, bringing the aggregate number of shares of Common Stock eligible for distribution pursuant to the 401(k) Plan as of that date to 4,100 shares. In the second quarter of 2018 the Company revised its 401(k) matching policy to move from share matching to cash based matching. During the six months ended June 30, 2018, the Company issued an aggregate of 440 shares of common stock with a fair value of \$6 thousand to the Company's 401(k) plan as a matching contribution. The Company contributed \$28 thousand in matching contributions to employee 401(k) accounts during the six months ended June 30, 2018. During the year ended December 31, 2017, the Company issued an aggregate of 3,933 shares of common stock with a fair value of \$183 thousand to the Company's 401(k) plan as a matching contribution.

During the six months ended June 30, 2018, the Company issued an aggregate of 188 shares of common stock under the Company's Employee Stock Purchase Plan (the "ESPP") and received cash proceeds of approximately \$3 thousand. During the year ended December 31, 2017, the Company issued an aggregate of 710 shares of common stock under the Company's Employee Stock Purchase Plan (the "ESPP") and received cash proceeds of \$51 thousand.

During the year ended December 31, 2017, the Company issued an aggregate of 3,576 shares of common stock upon the exercise of stock options and received cash proceeds from such exercises of \$26 thousand.

During the year ended December 31, 2017, the Company issued an aggregate of 139 shares of common stock upon the exercise of warrants and received cash proceeds from such exercises of \$3 thousand.

During the year ended December 31, 2017, the Company issued an aggregate of 80,857 shares of common stock to certain holders of warrants, dated May 9, 2014, in exchange for their warrants to purchase an aggregate of 23,102 shares of common stock. The Company did not receive any cash proceeds from the warrant exchanges.

## **10. STOCK-BASED COMPENSATION**

In 2007, the Company's Board of Directors adopted, and the Company's shareholders subsequently approved, 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.

On October 26, 2010, the Company's Board of Directors adopted, and the Company's shareholders subsequently approved, the 2010 Equity Incentive Plan (as subsequently amended, 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.

In April 2015, the Company's Board of Directors adopted, and the Company's shareholders subsequently approved, the 2015 Equity Incentive Plan (the "2015 Plan"). The 2015 Plan provides for grants of incentive stock options to employees, and nonqualified stock options, restricted common stock, restricted stock units, and stock appreciation rights to employees, consultants, and non-employee directors of the Company.

Upon approval of the 2015 Plan by the Company's shareholders on June 16, 2015, the 2010 Plan was terminated and no additional shares or share awards have been subsequently granted under the 2010 Plan. As of June 30, 2018, the total number of shares available to be issued under the 2015 Plan was 186,577 shares, consisting of 160,000 shares initially authorized under the 2015 Plan shares plus the 12,894 shares that remained available for grant under the 2010 Plan at the time of its termination adjusted for cumulative cancellations, forfeitures and issuances from the 2010 Plan and 2015 Plan.



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**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**  
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Options issued under the 2007 Plan, 2010 Plan, and 2015 Plan (collectively, the “Plans”) are exercisable for up to 10 years from the date of issuance.

As of June 30, 2018, there were outstanding options to purchase an aggregate of 56,824 shares under the plans. As of December 31, 2017, there were outstanding options to purchase an aggregate of 134,770 shares under the 2015, 2010, and 2007 Plans.

In March 2015, the Company’s Board of Directors adopted, and the Company’s shareholders subsequently approved, the ESPP. The ESPP allows employees to buy company stock twice per year through after-tax payroll deductions at a discount from market. The Company’s Board of Directors initially authorized 7,500 shares for issuance under the ESPP. Commencing on the first day of the year ended December 31, 2016 and on the first day of each year thereafter during the term of the ESPP, the number of shares of common stock reserved for issuance shall be increased by the lesser of (i) 1% of the Company’s outstanding shares of common stock on such date, (ii) 2,000 shares, or (iii) a lesser amount determined by the Board of Directors. Under the terms of the ESPP, in no event shall the aggregate number of shares reserved for issuance during the term of the ESPP exceed 50,000 shares. As of June 30, 2018 and December 31, 2017, there were 8,988 and 9,933 shares reserved for issuance under the ESPP respectively.

In January 2018, 188 shares that were purchased in the offering period commencing on July 1, 2017 and ending on December 31, 2017 were issued under the ESPP. As of June 30, 2018, \$3 thousand of employee payroll deductions had been withheld since January 1, 2018, the commencement of the current offering period, and are included in accrued expenses on the balance sheet. The ESPP is considered a compensatory plan with the related compensation cost recognized over each six-month offering period. The compensation expense related to the ESPP for the three-month periods ended June 30, 2018 and 2017 was \$1 thousand and \$8 thousand, respectively, and is included in share-based compensation expense. The compensation expense related to the ESPP for the six-month periods ended June 30, 2018 and 2017 was \$1 thousand and \$13 thousand, respectively, and is included in share-based compensation expense.

***Share-based compensation***

For the three-month periods ended June 30, 2018 and 2017, the Company recorded stock-based compensation expense of \$150 thousand and \$1.3 million, respectively, inclusive of the expense related to the ESPP. For the six-month periods ended June 30, 2018 and 2017, the Company recorded stock-based compensation expense of \$456 thousand and \$2.6 million, respectively, inclusive of the expense related to the ESPP. Stock-based compensation expense for the six-month period ended June 30, 2017 included \$24 thousand of expense related to a stock option modification.

The Company adopted ASU 2016-09 on January 1, 2017. Prior to the adoption of this standard, the Company recognized share-based compensation, net of estimated forfeitures, over the vesting period of the grant. Upon adoption of ASU 2016-09, the Company elected to change its accounting policy to recognize forfeitures as they occur. The Company continues to recognize share-based compensation expense over the vesting period of the grant. The new forfeiture policy election was adopted using a modified retrospective approach with a cumulative effect adjustment of \$155 thousand recorded to accumulated deficit on the balance sheet as of January 1, 2017.

The Company estimates the fair value of each option award on the date of grant using the Black-Scholes option pricing 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.



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The assumptions used principally in determining the fair value of options granted were as follows:

	June 30, 2018	December 31, 2017
Risk-free interest rate	2.45%	1.69 - 2.36%
Expected dividend yield	0%	0%
Expected term (employee grants)	5.27 Years	6.22 Years
Expected volatility	96.07%	104%

**Stock options**

A summary of option activity as of June 30, 2018 and changes for the six-month period then ended are presented below:

Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term in Years	Aggregate Intrinsic Value
Outstanding at December 31, 2017	134,770	\$164.29		
Granted	3,024	\$ 17.25		
Expired	(3,474)	\$261.94		
Cancelled/Forfeited	(77,496)	\$171.63		
Exercised	—	\$ —		
Outstanding at June 30, 2018	56,824	\$140.56	6.79	\$ —
Vested at June 30, 2018	40,188	\$171.35	5.89	\$ —

The weighted average grant-date fair value of options granted during the six months ended June 30, 2018 was \$12.88 per share. The total fair value of options that vested in the three months ended June 30, 2018 was \$119 thousand. The total fair value of options that vested in the six months ended June 30, 2018 was \$803 thousand. For the three-month period ended June 30, 2018, the Company recorded stock-based compensation expense of \$170 thousand related to stock options. For the six-month period ended June 30, 2018, the Company recorded stock-based compensation expense of \$419 thousand related to stock options. As of June 30, 2018, total unrecognized compensation expense related to non-vested share-based option compensation arrangements amounted to \$341 thousand and is estimated to be recognized over a period of 2.15 years.

**Restricted Stock Units**

The following table summarizes the restricted stock unit (“RSU”) activity under the 2015 Equity Incentive Plan during the six-month period ended June 30, 2018:

	Number of Grants	Weighted-Average Grant Date Fair Value
Unvested balance at December 31, 2017	20,000	\$ 25.70
Granted	—	—
Vested	—	—
Forfeited	(5,500)	31.25
Unvested balance at June 30, 2018	14,500	\$ 23.59

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**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**  
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For the three-month period ended June 30, 2018, the Company recorded a credit of \$21 thousand to stock-based compensation expense as a result of forfeitures and cancellations related to the time-based RSUs. For the six-month period ended June 30, 2018, the Company recorded stock-based compensation expense of \$35 thousand related to the time-based RSUs. As of June 30, 2018, total unrecognized compensation expense related to non-vested RSUs amounted to \$276 thousand which the Company expects to recognize over a remaining weighted-average of 3.08 years.

## 11. WARRANTS

The following table presents information about warrants to purchase common stock issued and outstanding at June 30, 2018:

<u>Year Issued</u>	<u>Classification</u>	<u>Number of Warrants</u>	<u>Exercise Price</u>	<u>Date of Expiration</u>
2012	Equity	243	\$ 166.00	10/5/2019
2014	Equity	307	\$ 11.75	5/9/2021
2016	Equity	85,869	\$ 250.00	3/18/2021
2018	Liability	7,621,211	\$ 2.00	6/25/2023
2018	Liability	5,191,893	\$ 0.01	6/25/2038
Total		12,899,523		
Weighted average exercise price			\$ 2.85	
Weighted average life in years				11.02

In June 2018, the Company closed an underwritten public offering of an aggregate of 1,378,400 Common Units, at an offering price of \$2.00 each, each comprised of one share of the Company's common stock, par value \$0.00001 per share and one Series A warrant to purchase one share of common stock. The public offering also included 6,242,811 pre-funded units at an offering price of \$1.99 each, each comprised of one pre-funded Series B Warrant, and one Series A warrant to purchase one share of common stock. Each Series A warrant has an exercise price of \$2.00 per share, is exercisable immediately and expires five years from the date of issuance. Each Series B warrant has an exercise price of \$0.01 per share, is exercisable immediately and will expire twenty years from the date of issuance (see Note 12). The net proceeds to the Company, after deducting the underwriting discounts and commissions and other offering expenses, were \$13.5 million.

The Company assessed whether the warrants required accounting as derivatives. With the exception of the warrants issued in 2018 (See Note 12), the Company determined that the warrants were (1) indexed to the Company's own stock and (2) classified in stockholders' equity in accordance with FASB Accounting Standards Codification Topic 815, *Derivatives and Hedging*. As such, the Company concluded that the warrants meet the scope exception for determining whether the instruments require accounting as derivatives and accordingly are classified in stockholders' equity.

### **Warrant Exchange**

On August 10, 2017, the Company entered into exchange agreements with certain holders of the warrants, dated May 9, 2014, to exchange such warrants for shares of common stock equivalent to 3.5 times the number of shares of common stock issuable to such holders at the \$96.75 exercise price under the warrants as of the date of the exchanges. The Company issued an aggregate of 80,857 shares of common stock to the warrant holders in exchange for their warrants to purchase an aggregate of 23,102 shares of common stock. The warrants exchanged in this transaction were subsequently cancelled and terminated.

The Company re-measured the fair value of the exchanged warrants immediately prior to the exchange and recorded a \$3.0 million derivatives loss on the statement of operations and a corresponding increase to the warrant liability on the balance sheet. The fair value of the warrants immediately prior to the exchange was equivalent to 80,857 shares of common stock at the Company's closing stock price of \$43.75 on August 9, 2017, the day before

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execution of the exchange. As a result of the exchange, the Company recorded the settlement by removing the derivative liability related to the exchanged warrants and recorded the issuance of common stock for \$3.5 million.

Following the warrant exchange, there were additional warrants, dated May 9, 2014, to purchase shares of common stock that remain outstanding ("Outstanding 2014 Warrants"). As a result of the Company's issuance of common stock in exchange for certain of the liability warrants, the exercise price of the Outstanding 2014 Warrants was adjusted downwards from \$96.75 per share to \$20.75 per share and additional warrants were issued such that the Outstanding 2014 Warrants were exercisable for an aggregate of 1,941 shares of common stock.

***Warrant Cancellation***

In the fourth quarter of 2017, the Company entered into warrant cancellation agreements with certain holders of the Outstanding 2014 Warrants to cancel and terminate such warrants for total cash consideration of \$40 thousand. As of December 31, 2017, the remaining Outstanding 2014 Warrants were exercisable for an aggregate of 537 shares of common stock.

During six months ended June 30, 2018 the Company entered into warrant cancellation agreements with certain holders of the Outstanding 2014 Warrants to cancel and terminate such warrants for total cash consideration of \$14 thousand. As of June 30, 2018, the sole remaining Outstanding 2014 Warrants was exercisable for an aggregate of 307 shares of common stock.

***Warrant Amendment***

In May 2018, the Company entered into a warrant amendment agreement with the sole remaining holder of an Outstanding 2014 Warrant (the "Warrant Amendment"). The warrant holder received cash compensation of \$19 thousand and a two year extension of warrant term in exchange for the removal of all anti-dilution provisions except those for stock splits, reverse splits or stock dividends. As a result of the amendment, the Company reclassified the remaining 2014 warrants valued at \$1 thousand to stockholders' equity (see Note 12).

**12. DERIVATIVE INSTRUMENTS**

The 2018 warrants issued in connection with the Company's underwritten public offering had provisions that precluded the Company from classifying them as equity instruments (Note 11). Accordingly, these warrants have been accounted for as derivative warrant liabilities. The Company used the Black Scholes 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 these warrants.

At inception the fair value of the Series B pre-funded warrants was estimated at \$11.5 million using a Black-Scholes model with the following assumptions: expected volatility of 202.51%, risk free interest rate of 2.95%, expected life of 20 years and no dividends.

At inception the fair value of the Series A warrants was estimated at \$13.7 million using a Black-Scholes model with the following assumptions: expected volatility of 202.51%, risk free interest rate of 2.75%, expected life of 5 years and no dividends.

The Company allocated \$13.2 million of the net proceeds to record the relative fair value of the warrant liability, with the remaining amount of \$286 thousand recorded to permanent equity. The Company subsequently recorded the fair value of the warrant liability at \$25.2 million with the loss of \$12 million being recorded as a derivative loss on the Company's consolidated statement of operations and comprehensive loss during the second quarter of 2018. The fair value of these derivative instruments at June 30, 2018 was \$21.5 million and is included as a derivative warrant liability in current liabilities on the balance sheet, with a gain of \$1.8 million being recorded to derivatives gain on the Company's consolidated statement of operations and comprehensive loss during the second quarter of 2018. During the six months ended June 30, 2018, the Company issued an aggregate of 1,050,918 shares

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of common stock upon the exercise of Series B warrants for aggregate proceeds of \$10 thousand and reclassified \$1.9 million from derivative warrant liability to additional paid in capital.

The 2014 warrants issued in connection with the Company's May 2014 public offering had anti-dilution protection provisions and, under certain conditions, required the Company to automatically reprice the 2014 warrants (Note 11). Accordingly, the 2014 warrants had been accounted for as derivative warrant liabilities. Through the date of the warrant exchange (Note 11), the Company used the Binomial Lattice 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 2014 warrants considered to be derivative instruments.

In May 2018, the Company entered into the Warrant Amendment, which removed provisions that had previously precluded equity classification treatment on the Company's balance sheets. The fair value of the amended warrants was re-measured immediately prior to the date of amendment with changes in fair value recorded as a loss of \$1 thousand in the Company's consolidated statement of operations and \$1 thousand was reclassified to equity.

As of December 31, 2017, the derivative warrant liability was insignificant and was included as a derivative warrant liability in current liabilities on the balance sheet. Changes in the fair value of the derivative financial instruments were recognized in the Company's consolidated statement of operations as a derivative gain or loss.

The assumptions used principally in determining the fair value of the 2018 and 2014 warrants were as follows:

	2018 Series A June 30, 2018	2018 Series B June 30, 2018	2014 Warrants December 31, 2017
Risk free interest rate	2.73 %	2.91 %	1.91 %
Expected dividend yield	— %	— %	— %
Contractual term (in years)	5.0	20.0	1.4
Expected volatility	202.04 %	202.04 %	82 %

The table below presents the changes in the derivative warrant liability during the three-month and six-month periods ended June 30, 2018 and 2017 (in thousands):

	Three Months Ended June 30,	
	2018	2017
Balance at March 31,	\$ 2	\$ 1,073
Issuance of new warrants	13,172	—
Reduction in derivative liability due to exercise and repurchase of warrants	(1,890)	—
Reclassification of fair value of derivative liabilities to equity on amendment of warrant agreements	(1)	—
Increase (decrease) in the fair value of warrants	10,186	(554)
Balance at June 30,	\$ 21,469	\$ 519

	Six Months Ended June 30,	
	2018	2017
Balance at December 31,	\$ 4	\$ 1,314
Issuance of new warrants	13,172	—
Reduction in derivative liability due to exercise and repurchase of warrants	(1,904)	—
Reclassification of fair value of derivative liabilities to equity on amendment of warrant agreements	(1)	—
Increase (decrease) in the fair value of warrants	10,198	(795)
Balance at June 30,	\$ 21,469	\$ 519

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### 13. RESTRUCTURING

In August 2017, the Company implemented a strategic restructuring. In conjunction with the strategic restructuring, the Company completed a reduction in force eliminating approximately 39% of its workforce. The following table provides a roll forward of the Company's severance and transition costs liabilities related to those initiatives:

The Company did not record any restructuring expenses during the three or six months ended June 30, 2018 and 2017.

The following table summarizes the restructuring costs payments for the periods indicated (in thousands):

	<b>Three Months Ended</b>		<b>Six Months Ended</b>
	<b>June 30, 2018</b>		<b>June 30, 2018</b>
	<b>Cash</b>		<b>Cash</b>
Research and development	\$ 98	\$	237
General and administrative	—		57
	<u>\$ 98</u>	\$	<u>294</u>

The following table summarizes the restructuring reserve for the periods indicated (in thousands):

	<b>Six Months Ended</b>
	<b>June 30, 2018</b>
Restructuring reserve beginning balance at December 31, 2017	\$ 348
Cash restructuring expenses incurred during the period	—
Amounts paid during the period	(294)
Restructuring reserve ending balance at June 30, 2018	<u>\$ 54</u>

### 14. NET LOSS PER COMMON SHARE

Basic and diluted net loss per share of common stock has been computed by dividing net loss by the weighted average number of shares outstanding during the period. Diluted net income per share of common stock is computed by dividing net income by the weighted average number of shares outstanding plus the dilutive effect, if any, of outstanding stock options, warrants and convertible securities. In a net loss period, options, warrants related to the Company's May 2014 and June 2018 capital raises, unvested restricted stock units and convertible securities are anti-dilutive and therefore excluded from diluted loss per share calculations.

For the three-month and six-month periods ended June 30, 2018 and 2017, the following potentially dilutive securities were not included in the computation of net loss per share because the effect would be anti-dilutive:

	<b>June 30,</b>	
	<b>2018</b>	<b>2017</b>
Warrants	12,899,523	160,031
Stock options	56,824	135,658
Unvested restricted stock units	14,500	—
	<u>12,970,847</u>	<u>295,689</u>

**InVivo Therapeutics Holdings Corp.**  
**Notes to Consolidated Financial Statements for the Quarter Ended June 30, 2018 (Unaudited)**  
**(Continued)**

**15. SUBSEQUENT EVENTS**

Subsequent to June 30, 2018, the Company issued an aggregate of 3,685,753 shares of common stock upon the exercise of the warrants associated with the June 2018 underwritten public offering. Upon exercise, the Company received \$37 in cash and reclassified \$7.4 million from derivative warrant liability to additional paid in capital.

In July 2018, the Company entered into a settlement agreement with a former vendor under which the vendor agreed to pay the Company \$1.2 million, of which \$800 thousand has been received and the remaining \$400 thousand is owed to the Company by December 1, 2018.

**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, 2017 (the "2017 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 commercialization strategy, future operations, cash requirements and liquidity, 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 "may," "might," "will," "should," "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 raise substantial additional capital to finance our planned operations and to continue as a going concern; our ability to execute our strategy and business plan; our ability to obtain regulatory approvals for our products, including the Neuro-Spinal Scaffold™; our ability to successfully commercialize our current and future product candidates, including the Neuro-Spinal Scaffold; the progress and timing of our development programs; market acceptance of our products; our ability to retain management and other key personnel; our ability to promote, manufacture, and sell our products, either directly or through collaborative and other arrangements with third parties; and other factors detailed under "Risk Factors" in Part II, Item 1A of this Quarterly 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.*

*All share amounts presented in this Item 2 give effect to the 1-for-25 reverse stock split of our outstanding shares of common stock that occurred on April 16, 2018.*

**Overview**

We are a research and clinical-stage biomaterials and biotechnology company with a focus on treatment of spinal cord injuries, or SCIs. Our approach to treating acute SCIs is based on our investigational *Neuro-Spinal Scaffold*™ implant, a bioresorbable polymer scaffold that is designed for implantation at the site of injury within a spinal cord and is intended to treat acute SCI. The *Neuro-Spinal Scaffold* implant incorporates intellectual property licensed under an exclusive, worldwide license from Boston Children's Hospital and the Massachusetts Institute of Technology. We also plan to evaluate other technologies and therapeutics that may be complementary to our development of the *Neuro-Spinal Scaffold* implant or offer the potential to bring us closer to our goal of redefining the life of the SCI patient.

The current standard of care for acute management of spinal cord injuries focuses on preventing further injury to the spinal cord. However, the current standard of care does not address repair of the spinal cord.

**Our Clinical Program**

We currently have one clinical development program for the treatment of acute SCI.

### *Neuro-Spinal Scaffold Implant for acute SCI*

Our *Neuro-Spinal Scaffold* implant is an investigational bioresorbable polymer scaffold that is designed for implantation at the site of injury within a spinal cord. The *Neuro-Spinal Scaffold* implant is intended to promote appositional, or side-by-side, healing by supporting the surrounding tissue after injury, minimizing expansion of areas of necrosis, and providing a biomaterial substrate for the body's own healing/repair processes following injury. We believe this form of appositional healing may spare white matter, increase neural sprouting, and diminish post-traumatic cyst formation.

The *Neuro-Spinal Scaffold* implant is composed of two biocompatible and bioresorbable polymers that are cast to form a highly porous investigational product:

- Poly lactic-co-glycolic acid, a polymer that is widely used in resorbable sutures and provides the biocompatible support for *Neuro-Spinal Scaffold* implant; and
- Poly-L-Lysine, a positively charged polymer commonly used to coat surfaces in order to promote cellular attachment.

Because of the complexity of SCIs, it is likely that multi-modal therapies will be required to maximize positive outcomes in SCI patients. In the future, we may attempt to further enhance the performance of our *Neuro-Spinal Scaffold* implant by multiple combination strategies involving electrostimulation devices, additional biomaterials, drugs approved by the FDA, or growth factors. We expect the *Neuro-Spinal Scaffold* implant to be regulated by the FDA as a Class III medical device.

### *Completed Pilot Study*

We conducted an early feasibility human pilot study, as the initial phase of a larger pivotal study, of our *Neuro-Spinal Scaffold* under our approved Investigational Device Exemption, or IDE, application for the treatment of complete, traumatic acute SCI. The study was intended to assess the safety and feasibility of the *Neuro-Spinal Scaffold* for the treatment of complete thoracic functional SCI, as well as to gather preliminary evidence of the clinical effectiveness of the *Neuro-Spinal Scaffold*.

The pilot study was initially approved for five subjects in up to six clinical sites across the United States, and was later modified to increase the number of allowable clinical sites to up to 20 and to permit enrollment of up to 10 subjects. The 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, the FDA approved an expedited enrollment plan that allowed us to continue enrolling patients more rapidly barring any significant safety issues. We enrolled five subjects in the pilot study between October 2014 and September 2015. The FDA approved conversion of this pilot study to a pivotal probable benefit study, which we refer to as The INSPIRE Study, that includes data from the patients enrolled in the pilot study.

### *The INSPIRE Study*

Our *Neuro-Spinal Scaffold* implant has been studied in The INSPIRE Study: InVivo Study of Probable Benefit of the *Neuro-Spinal Scaffold* for Safety and Neurologic Recovery in Subjects with Complete Thoracic AIS A Spinal Cord Injury, under an Investigational Device Exemption application for the treatment of neurologically complete thoracic traumatic acute SCI. We commenced an FDA-approved pilot study in 2014 that the FDA approved converting into The INSPIRE Study in January 2016. As of December 31, 2017, we had implanted our *Neuro-Spinal Scaffold* implant in a total of 19 patients in The INSPIRE Study, 16 of whom reached the six month primary endpoint visit, and three of whom died. In July 2017, after the third patient death, enrollment of patients in The INSPIRE Study was placed on hold as we engaged with the FDA to address the patient deaths. We subsequently closed enrollment in The INSPIRE Study and will follow the remaining active subjects until completion. Following discussions with the FDA, in March 2018, we received FDA approval for a randomized controlled trial to supplement the existing clinical evidence for the *Neuro-Spinal Scaffold* implant that we obtained from The INSPIRE Study. We refer to this herein as the INSPIRE 2.0 Study.

The purpose of The INSPIRE Study, which was the original study, was to evaluate whether the *Neuro-Spinal*



*Scaffold* implant is safe and demonstrates probable benefit for the treatment of complete T2-T12 neurological level of injury (NLI) SCI. The primary endpoint was defined as the proportion of patients achieving an improvement of at least one AIS grade at six months' post-implantation. Additional endpoints included measurements of pain, sensory and motor scores, bladder and bowel function, Spinal Cord Independence Measure (a disability scale for patients with SCI), and quality of life. The INSPIRE Study included an Objective Performance Criterion, or OPC, which is a measure of study success used in clinical studies designed to demonstrate safety and probable benefit in support of an HDE approval. At the time enrollment of patients in The INSPIRE Study was placed on hold, the OPC was defined as 25% or more of the patients in the study demonstrating an improvement of at least one AIS grade at the six month post-implantation visit.

The FDA approved the enrollment of up to 30 patients in The INSPIRE Study so that there would be at least 20 evaluable patients at the primary endpoint analysis, accounting for events such as screen failures or deaths that would prevent a patient from reaching the primary endpoint visit. Of the 19 patients implanted in The INSPIRE Study, 16 patients have reached the six-month primary endpoint visit. Of these 16, seven had improved from complete AIS A SCI to incomplete SCI (two patients to AIS C and five patients to AIS B) at the six-month primary endpoint visit and nine had not demonstrated improvement at that visit. Three of the seven patients who improved were assessed to have AIS B SCI at the six-month primary endpoint and were later assessed to have improved to AIS C SCI at the 12 or 24-month visits. Two of the 16 patients were initially assessed to have improved from complete AIS A SCI to incomplete AIS B SCI, but each was later assessed to have reverted to complete AIS A SCI prior to the six-month examination. One of these two was then assessed at the six-month visit to have improved again to AIS B and the other remained AIS A. Since we have closed enrollment, the target of enrolling 20 evaluable patients into The INSPIRE Study will not be reached.

The FDA had previously recommended that we include a randomized, concurrent control arm in The INSPIRE Study. Acting on the FDA's recommendation, we proposed and received approval for the INSPIRE 2.0 Study (described below) to supplement the existing clinical evidence for the *Neuro-Spinal Scaffold implant*. In addition, as one source of comparator data, we initiated the Contemporary Thoracic SCI Registry Study, or the CONTEMPO Registry Study. The CONTEMPO Registry Study utilizes existing databases and registries to develop a historical comparator that, to the extent possible, matches patients to those patients enrolled in The INSPIRE Study. The CONTEMPO Registry Study is designed to provide comprehensive natural history benchmarks for The INSPIRE Study results that include SCI patients with similar baseline characteristics treated since 2006. The CONTEMPO Registry Study includes data from the Christopher & Dana Reeve Foundation North American Clinical Trials Network Registry, as well as the Model Systems Registry and the European Multicenter Study about Spinal Cord Injury. We have submitted a protocol for the CONTEMPO Registry Study to the FDA and we announced top-line findings from CONTEMPO in March 2018 from a total of 170 patients from the three registries: 12 individuals from NACTN, 64 from EMSCI, and 94 from Model Systems. AIS conversion rates at approximately six months post-injury varied from 16.7% – 23.4% across the three registries. In two of the registries, there was a skew of the patient population to low (T10-T12) thoracic injuries, representing 46-47% of the registry population. This compares to just four out of sixteen patients (25%) in follow-up in the INSPIRE study with low thoracic injuries. Patients with low thoracic injuries are known to have the best prognoses, and the conversion rates were the highest in the low thoracic group in all three registries and the INSPIRE study. When all three registries were normalized to the INSPIRE patient population distribution across T2-T5, T6-T9 and T10-T12 injury groups, the normalized conversion rate for CONTEMPO registries ranged from 15.5%-20.6%. We cannot be certain what additional information or studies will be required by the FDA to approve our HDE submission.

#### *INSPIRE 2.0 Study*

Our *Neuro-Spinal Scaffold* implant has been approved to be studied under our approved IDE in the INSPIRE 2.0 Study, which is titled the "Randomized, Controlled, Single-blind Study of Probable Benefit of the *Neuro-Spinal Scaffold*<sup>™</sup> for Safety and Neurologic Recovery in Subjects with Complete Thoracic AIS A Spinal Cord Injury as Compared to Standard of Care." The purpose of the INSPIRE 2.0 Study is to assess the overall safety and probable benefit of the *Neuro-Spinal Scaffold* for the treatment of neurologically complete thoracic traumatic acute SCI. The INSPIRE 2.0 Study is designed enroll 10 subjects into each study arm, which we refer to as the Scaffold Arm and the Comparator Arm. Patients in the Comparator Arm will receive standard of care, which is spinal stabilization without dural opening or myelotomy. The INSPIRE 2.0 Study is a single blind study, meaning that the patients and assessors are blinded to treatment assignments. The FDA approved the enrollment of up to 35 patients in this study so that there would be at least 20 evaluable patients (10 in each study arm) at the primary endpoint analysis, accounting for events such as screen failures or deaths that would prevent a patient from reaching the primary endpoint visit. We expect to conduct the INSPIRE 2.0 Study at up to 25 sites in the United States. Enrolling patients in the INSPIRE 2.0 Study will also require the approvals of the IRBs at each clinical site. We estimate that from study initiation, enrollment will take approximately

18 months, and the total time to completion of the INSPIRE 2.0 Study is estimated to be two years from study initiation. We are in the process of initiating the INSPIRE 2.0 Study, and subject to successful IRB approvals, we anticipate that the first patient in the INSPIRE 2.0 Study will be enrolled in the third quarter of 2018.

The primary endpoint is defined as the proportion of patients achieving an improvement of at least one AIS grade at six months post-implantation. Assessments of AIS grade are at hospital discharge, three months, six months, 12 months and 24 months. The definition of study success for INSPIRE 2.0 is that the difference in the proportion of subjects who demonstrate an improvement of at least one grade on AIS assessment at the six-month primary endpoint follow-up visit between the Scaffold Arm and the Comparator Arm must be equal to or greater than 20%. In one example, if 50% of subjects in the Scaffold Arm have an improvement of AIS grade at the six-month primary endpoint and 30% of subjects in the Comparator Arm have an improvement, then the difference in the proportion of subjects who demonstrated an improvement is equal to 20% (50% minus 30% equals 20%) and the definition of study success would be met. In another example, if 40% of subjects in the Scaffold Arm have an improvement of AIS grade at the six-month primary endpoint and 30% of subjects in the Comparator Arm have an improvement, then the difference in the proportion of subjects who demonstrated an improvement is equal to 10% (40% minus 30% equals 10%) and the definition of study success would not be met. Additional endpoints include measurements of changes in NLI, sensory levels and motor scores, bladder, bowel and sexual function, pain, Spinal Cord Independence Measure (a disability scale for patients with SCI), and quality of life.

Although The INSPIRE Study is structured with the OPC as the primary component for demonstrating probable benefit, the OPC is not the only variable that the FDA would evaluate when reviewing a future HDE application. Similarly, while our INSPIRE 2.0 Study is structured with a definition of study success requiring a minimum difference between study arms in the proportion of subjects achieving improvement, that success definition is not the only factor that the FDA would evaluate in the future HDE application. Approval is not guaranteed if the OPC is met for The INSPIRE Study or the definition of study success is met for the INSPIRE 2.0 Study, and even if the OPC or definition of study success are not met, the FDA may approve a medical device if probable benefit is supported by a comprehensive review of all clinical endpoints and preclinical results, as demonstrated by the sponsor's body of evidence.

In 2016, the FDA accepted our proposed HDE modular shell submission and review process for the *Neuro-Spinal Scaffold* implant. The HDE modular shell is comprised of three modules: a preclinical studies module, a manufacturing module, and a clinical data module. As part of its review process, the FDA reviews each module, which are individual sections of the HDE submission, on a rolling basis. Following the submission of each module, the FDA reviews and provides feedback, typically within 90 days, allowing the applicant to receive feedback and potentially resolve any deficiencies during the review process. Upon receipt of all three modules, which constitutes the complete HDE submission, the FDA makes a filing decision that may trigger the review clock for an approval decision. We submitted the first module in March 2017 and received feedback in June 2017. We plan to submit an updated clinical module in the fourth quarter of 2019. The HDE submission will not be complete until the manufacturing and clinical modules are also submitted.

#### *Recent Developments*

##### *June 2018 Offering*

In June 2018, we closed an underwritten public offering of an aggregate of 1,378,400 Common Units, at an offering price of \$2.00 each, each comprised of one share of our common stock, par value \$0.00001 per share and one Series A warrant to purchase one share of common stock. The public offering also included 6,242,811 pre-funded units at an offering price of \$1.99 each, each comprised of one pre-funded Series B Warrant, and one Series A warrant to purchase one share of common stock. Each Series A warrant has an exercise price of \$2.00 per share, is exercisable immediately and expires five years from the date of issuance. Each Series B warrant has an exercise price of \$0.01 per share, is exercisable immediately and will expire twenty years from the date of issuance. The net proceeds to us, after deducting the underwriting discounts and commissions and other offering expenses, were \$13.5 million. During the six months ended June 30, 2018, we issued an aggregate of 1,050,918 shares of common stock upon the exercise of Series B warrants for aggregate proceeds of \$10 thousand. Subsequent to June 30, 2018, the Company issued an aggregate of 3,685,753 shares of common stock upon the exercise of the warrants associated with the June 2018 underwritten public offering. Upon exercise, the Company received \$37 in cash.

## **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 and, in connection therewith, adopt certain accounting policies 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 2017 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.

## **Results of Operations**

### ***Comparison of the Three Months Ended June 30, 2018 and 2017***

#### **Research and Development Expenses**

Research and development expenses consisted primarily of expenses related to contract research organizations and clinical sites, professional services, and payroll. Research and development expenses for the three months ended June 30, 2018 were \$1.0 million, a decrease of \$2.2 million compared to the three months ended June 30, 2017. The decrease in research and development expenses for the three months ended June 30, 2018, is attributable to a decrease in compensation related expenses and stock compensation expense of \$444 thousand and \$332 thousand respectively, driven by the restructuring activities from 2017, a decrease in facilities charges of \$434 thousand as a result of the Cambridge lease assignment, a decrease in clinical trial costs of \$362 thousand due to The INSPIRE Study being placed on hold, a decrease in consulting and contractor service fees of \$274 thousand, a decrease in depreciation expense of \$59 thousand, a decrease in contract and lab supplies costs of \$54 thousand, a decrease in recruiting costs of \$53 thousand and a decrease in manufacturing costs of \$53 thousand.

#### **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, 2018 were \$1.8 million, a decrease of \$1.9 million compared to the three months ended June 30, 2017. The decrease in general and administrative expenses for the three months ended June 30, 2018 is attributable to a decrease in stock compensation and compensation related expense of \$786 thousand and \$404 thousand respectively, driven by the restructuring activities from 2017, a decrease in facilities expenses of \$487 thousand as a result of the Cambridge lease assignment, a decrease in consulting expenses of \$214 thousand, a decrease in legal expenses of \$154 thousand and a decrease in public relation costs of \$68 thousand.

#### **Other Income and Expense**

Other expenses for the three months ended June 30, 2018 was a loss of \$10.1 million, which was comprised of derivative loss of \$10.2 million, interest income of \$45 thousand, interest expense of \$12 thousand and other income of \$26 thousand. Other income for the three months ended June 30, 2017 was \$586 thousand, which was comprised of interest income of \$52 thousand, interest expense of \$20 thousand, and a derivative gain of \$554 thousand.

## ***Comparison of the Six Months Ended June 30, 2018 and 2017***

### **Research and Development Expenses**

Research and development expenses consisted primarily of expenses related to contract research organizations and clinical sites, professional services, and payroll. Research and development expenses for the six months ended June 30, 2018 were \$2.4 million, a decrease of \$4.2 million compared to the six months ended June 30, 2017. The decrease in research and development expenses for the six months ended June 30, 2018, is attributable to a decrease in compensation related expenses and stock compensation expenses of \$1.1 million and \$690 thousand respectively, driven by the restructuring activities from 2017, a decrease in clinical trial costs of \$671 thousand due to The INSPIRE Study being placed on hold, a decrease in consulting and contractor service fees of \$521 thousand, a decrease in facilities charges of \$403 thousand as a result of the Cambridge lease assignment, a decrease in contract and lab supplies costs of \$182 thousand, a decrease in depreciation expense of \$118 thousand, a decrease in patent fees of \$118 thousand, a decrease in manufacturing costs of \$94 thousand, a decrease in travel related costs of \$89 thousand and decrease in recruiting costs of \$73 thousand.

### **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, 2018 were \$5.2 million, a decrease of \$1.8 million compared to the six months ended June 30, 2017. The decrease in general and administrative expenses for the six months ended June 30, 2018 is attributable to a decrease in stock compensation expense of \$1.4 million driven by the restructuring activities from 2017, a decrease in facilities expenses of \$323 thousand as a result of the Cambridge lease assignment, a decrease in public relation costs of \$118 thousand and a decrease in consulting charges of \$110 thousand. These decreases were offset by an increase in legal expenses of \$153 thousand and compensation related expenses of \$92 thousand.

### **Other Income and Expense**

Other expenses for the six months ended June 30, 2018 was a loss of \$10.1 million, which was comprised of derivative loss of \$10.2 million, interest income of \$77 thousand, interest expense of \$26 thousand, and other income of \$68 thousand. Other income for the six months ended June 30, 2017 was \$864 thousand, which was comprised of interest income of \$109 thousand, interest expense of \$40 thousand, and a derivative gain of \$795 thousand.

### **Liquidity and Capital Resources**

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, 2018, our accumulated deficit was \$201.6 million. Since our inception, we have historically financed our operations primarily through the sale of equity-related securities.

At June 30, 2018, we had total assets of \$23.9 million, total liabilities of \$25.8 million, and total stockholders' deficit of \$2 million. For the six months ended June 30, 2018, we recorded a net loss of \$17.7 million. We have not achieved profitability and may not be able to realize sufficient revenue to achieve or sustain profitability in the future. We do not expect to be profitable in the next several years, but rather expect to incur additional operating losses. The recent financing closed in June 2018 (see Note 9) has provided necessary funding to fund operations for at least the next twelve months. We have limited liquidity and capital resources and must obtain significant additional capital resources in order to fund our operations and sustain our product development efforts, for acquisition of technologies and intellectual property rights, for preclinical and clinical testing of our anticipated products, pursuit of regulatory approvals, acquisition of capital equipment, laboratory and office facilities, establishment of production capabilities, for selling, general and administrative expenses and for other working capital requirements. We also expect that we will need to raise additional capital through a combination of equity offerings, debt financings, other third party funding, marketing and distribution arrangements and other collaborations, strategic alliances and licensing arrangements.

### *Recent Financings Transactions*

In June 2018, we closed an underwritten public offering of an aggregate of 1,378,400 Common Units, at an offering price of \$2.00 each, each comprised of one share of our common stock, par value \$0.00001 per share and one Series A warrant to purchase one share of common stock. The public offering also included 6,242,811 pre-funded units at an offering price of \$1.99 each, each comprised of one pre-funded Series B Warrant, and one Series A warrant to purchase one share of common stock. Each Series A warrant has an exercise price of \$2.00 per share, is exercisable immediately and expires five years from the date of issuance. Each Series B warrant has an exercise price of \$0.01 per share, is exercisable immediately and will expire twenty years from the date of issuance. The net proceeds to us, after deducting the underwriting discounts and commissions and other offering expenses, were \$13.5 million. During the six months ended June 30, 2018, we issued an aggregate of 1,050,918 shares of common stock upon the exercise of Series B warrants for aggregate proceeds of \$10 thousand. Subsequent to June 30, 2018, the Company issued an aggregate of 3,685,753 shares of common stock upon the exercise of the warrants associated with the June 2018 underwritten public offering. Upon exercise, the Company received \$37 in cash.

In January 2018, we entered into a purchase and a registration rights agreement with Lincoln Park Capital Fund, LLC ("Lincoln Park"), under which it has the right to sell up to \$15 million, in shares of our common stock, \$0.00001 par value per share, to Lincoln Park over a twenty-four-month period, subject to certain limitations and conditions set forth in the purchase agreement and registration rights agreement. On May 30, 2018 at our Annual Meeting of Stockholders, our stockholders approved to increase the issuance and sale by us to Lincoln Park, including our prior issuances and sales of shares of common stock to Lincoln Park since January 2018, of up to 1,200,000 shares of common stock. In accordance with the terms of the purchase agreement, at the time we signed the purchase agreement and the registration rights agreement, we issued 17,192 shares to Lincoln Park as consideration for its commitment to purchase shares of our common stock under the purchase agreement and recorded \$627 thousand in deferred offering costs. As of June 30, 2018, these costs were reclassified to additional paid-in capital. During the three months ended June 30, 2018, we sold an aggregate of 83,330 shares to Lincoln Park, for aggregate proceeds of \$370 thousand net of issuance costs. During the six months ended June 30, 2018, we sold an aggregate of 256,804 shares to Lincoln Park, for aggregate proceeds of \$3.1 million net of issuance costs.

On August 10, 2017, we entered into exchange agreements with certain holders of the warrants, dated May 9, 2014, to exchange such warrants for shares of common stock equivalent to 3.5 times the number of shares of common stock issuable to such holders at the \$96.75 exercise price under the warrants as of the date of the exchanges. We issued an aggregate of 80,857 shares of common stock to the warrant holders in exchange for their warrants to purchase an aggregate of 23,102 shares of common stock. The warrants exchanged in this transaction were subsequently cancelled and terminated. Following the warrant exchange, there were additional warrants, dated May 9, 2014, to purchase shares of common stock that remain outstanding ("Outstanding 2014 Warrants"). As a result of our issuance of common stock in exchange for certain of the liability warrants, the exercise price of the Outstanding 2014 Warrants was adjusted downwards from \$96.75 per share to \$20.75 per share and additional warrants were issued such that the Outstanding 2014 Warrants were exercisable for an aggregate of 1,941 shares of common stock. The Outstanding 2014 Warrants are subject to further adjustment in the event of sales of our common stock at a price per share less than the exercise price of the Outstanding 2014 Warrants then in effect (or securities convertible or exercisable into common stock at a conversion or exercise price less than the exercise price then in effect).

In the fourth quarter of 2017, we entered into warrant cancellation agreements with certain remaining holders of the Outstanding 2014 Warrants to cancel and terminate such warrants for total cash consideration of \$40 thousand. As of December 31, 2017, the remaining Outstanding 2014 Warrants were exercisable for an aggregate of 537 shares of common stock.

During the six months ended months June 30, 2018, we entered into warrant cancellation agreements with certain remaining holders of the Outstanding 2014 Warrants to cancel and terminate such warrants for total cash consideration of \$14 thousand. As of June 30, 2018, the remaining Outstanding 2014 Warrants were exercisable for an aggregate of 307 shares of common stock.

### *Facility Changes*

In May 2018, we assigned our headquarters lease to a third party, who assumed from us all of our remaining rights and obligations under the lease. Concurrently with the lease assignment, we entered into a sublease for 5,104 square feet of space, originally part of our headquarters lease, from the third party to which we assigned the lease. The sublease ends on October 31, 2023 and contains rent holidays and rent escalation clauses. In order to obtain the consent of our lender for these facility changes and the sale of certain assets, we repaid \$300 thousand of principal on our loan and recorded an impairment charge of \$48 thousand (See Note 7 and Note 8 to Notes to Consolidated Financial Statements in Item 1 of this report).

### *Cashflows*

Net cash used in operating activities for the six months ended June 30, 2018 was \$6.8 million, as compared to net cash used in operating activities of \$11.0 million for six months ended June 30, 2017. The change in net cash used in operating activities for the six months ended June 30, 2018 as compared to the same period in the prior year was primarily due to an increase in our net loss of \$5.0 million, an increase in the change in derivative activity of \$11 million, an increase in the change in accrued expenses and other liabilities of \$1.7 million, an increase in the change in prepaid expenses of \$0.5 million offset by a decrease in share-based compensation expense of \$2.1 million and a gain on lease assignment of \$0.6 million.

Net cash used in investing activities for the six months ended June 30, 2018 was \$65 thousand attributable to purchases of capital equipment of \$65 thousand. This compares to net cash from investing activities for the six months ended June 30, 2017 of \$4.0 million attributable to purchases of marketable securities and capital equipment of \$8.3 million, offset by sales of marketable securities of \$12.3 million.

Net cash provided by financing activities for the six months ended June 30, 2018 was \$16.0 million consisting primarily of \$16.5 million in proceeds from issuance of common stock associated with the June 2018 underwritten public offering and the Lincoln Park financing agreement offset by \$522 thousand in loan repayments. This compares to net cash used in financing activities of \$153 thousand for the six months ended June 30, 2017 consisting of proceeds from the exercise of a stock option and Employee Stock Purchase Plan issuances of proceeds of \$55 thousand, offset in part by loan repayments of \$208 thousand.

### **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.

### **Contractual Obligations**

As of June 30, 2018 there were no material changes to our contractual obligations and commitments described under Management's Discussion and Analysis of Financial Condition and Results of Operations in the 2017 Annual Report.

### **Item 3. Quantitative and Qualitative Disclosures About Market Risk.**

We are exposed to market risk related to changes 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 a discussion of our market risk exposure, refer to Item 7A, "Quantitative and Qualitative Disclosures About Market Risk," in our 2017 Annual Report. As of June 30, 2018, there were no material changes in our exposure to market risk compared to December 31, 2017.



**Item 4. Controls and Procedures.****Evaluation of Disclosure Controls and Procedures**

Our management, with the participation of our chief executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2018. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the rules and forms promulgated by the Securities and Exchange Commission. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of the Company’s disclosure controls and procedures as of June 30, 2018, the Company’s chief executive officer and chief financial officer concluded that, as of such date, the Company’s disclosure controls and procedures were effective at the reasonable assurance level.

**Changes in 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, 2018 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**PART II—OTHER INFORMATION****Item 1A. Risk Factors.**

*Certain factors may have a material adverse effect on our business, financial condition, and results of operations. You should consider carefully the risks and uncertainties described below, in addition to other information contained in this Quarterly Report on Form 10-Q, including our consolidated financial statements and related notes. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business. If any of the following risks actually occurs, our business, financial condition, results of operations, and future prospects could be materially and adversely affected.*

**Risks Related to Our Financial Position and Need for Additional Capital**

***We have a limited operating history and have incurred significant losses since our inception.***

We have incurred net losses each year since our inception, including net losses of \$17.7 million for the six months ended June 30, 2018. As of June 30, 2018, we had an accumulated deficit of \$201.6 million. We have a limited operating history on which to base an evaluation of our business and investors should consider the risks and difficulties frequently encountered by early-stage companies in new and rapidly evolving markets, particularly companies engaged in the development of medical devices. To date, we have not commercialized any products or generated any revenues from the sale of products, and we do not expect to generate any product revenues in the foreseeable future. We do not know whether or when we will generate revenue or become profitable. Moreover, we may allocate significant amounts of capital towards products and technologies for which market demand is lower than anticipated and, as a result, may not achieve expectations or may elect to abandon such efforts.

We have devoted most of our financial resources to research and development, including our clinical and preclinical development activities related to our *Neuro-Spinal Scaffold* implant. Overall, we expect our research and development 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. We expect that it could be several years, if ever, before we have a product candidate ready for commercialization. Even if we obtain regulatory approval to market our *Neuro-Spinal*

*Scaffold* implant or other products, our future revenues will depend upon the size of any markets in which our products have received approval, our ability to achieve sufficient market acceptance, reimbursement from third-party payers, and other factors.

***We anticipate that we will continue to incur substantial losses for the foreseeable future and may never achieve or maintain profitability.***

We expect to continue to incur significant expenses and increasing net losses for at least the next several years. We expect our expenses will increase substantially in connection with our ongoing activities, as we:

- continue clinical development of our *Neuro-Spinal Scaffold* implant;
- initiate or restart the research and development of other product candidates;
- have our product candidates manufactured for clinical trials and for commercial sale;
- establish a sales, marketing, and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- maintain, protect, and expand our intellectual property portfolio; and
- continue our research and development efforts for new product opportunities.

To become and remain profitable, we must succeed in developing and commercializing our product candidates with significant market potential. This will require us to be successful in a range of challenging activities, including completing preclinical testing and clinical trials of our current and future product candidates, developing additional product candidates, obtaining regulatory approval for these product candidates, and manufacturing, marketing, and selling any products for which we may obtain regulatory approval. We are only in the initial stages of most of these activities. We may never succeed in these activities and, even if we do, may never generate revenues that are significant enough to achieve profitability.

Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable could depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product offerings, or even continue our operations. A decline in the value of our company could cause you to lose all or part of your investment.

***We will need additional funding in the future. In the future, if we are unable to raise capital when needed, we could be forced to delay, reduce, or eliminate our product development programs or commercialization efforts.***

We expect our expenses will increase in connection with our ongoing activities, particularly as we conduct our INSPIRE 2.0 Study, and seek regulatory approval for our *Neuro-Spinal Scaffold* implant. In addition, if we obtain regulatory approval for any of our current or future product candidates, we expect to incur significant commercialization expenses related to manufacturing, marketing, sales, and distribution. Accordingly, we will need to obtain substantial additional funding in connection with our continuing operations. If we are unable to raise capital when needed or on attractive terms, we could be forced to delay, reduce, or eliminate our research and development programs or any future commercialization efforts.

Our future funding requirements, both near- and long-term, will depend on many factors, including, but not limited to:

- the scope, progress, results, and costs of preclinical development, laboratory testing, and clinical trials for our *Neuro-Spinal Scaffold* implant and any other product candidates that we may develop or acquire, including our INSPIRE 2.0 Study;
- future clinical trial results of our *Neuro-Spinal Scaffold* implant;



- the timing of, and the costs involved in, obtaining regulatory approvals for the *Neuro-Spinal Scaffold* implant, and the outcome of regulatory review of the *Neuro-Spinal Scaffold* implant;
- the cost and timing of future commercialization activities for our products if any of our product candidates are approved for marketing, including product manufacturing, marketing, sales, and distribution costs;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval;
- the cost of having our product candidates manufactured for clinical trials in preparation for regulatory approval and in preparation for commercialization;
- the cost and delays in product development as a result of any changes in regulatory oversight applicable to our product candidates;
- our ability to establish and maintain strategic collaborations, licensing, or other arrangements and the financial terms of such agreements;
- the cost and timing of establishing sales, marketing, and distribution capabilities;
- the costs involved in preparing, filing, prosecuting, maintaining, defending, and enforcing our intellectual property portfolio;
- the efforts and activities of competitors and potential competitors;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products, and technologies.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive, and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for several years, if at all. Accordingly, we will need to continue to rely on additional financing to achieve our business objectives. Adequate additional financing may not be available to us on acceptable terms, or at all.

Our independent registered public accounting firm expressed substantial doubt as to our ability to continue as a going concern in its report dated March 12, 2018 included in our Form 10-K as filed with the Securities and Exchange Commission (“SEC”) on March 12, 2018. Although, we completed a public offering of shares and warrants in June 2018 which the net proceeds to us, after deducting the underwriting discounts and commissions and other offering expenses, were \$13.5 million, if we are not successful in raising additional capital, we may not be able to continue as a going concern.

***Raising additional capital may cause dilution to our existing stockholders, restrict our operations, or require us to relinquish rights to our product candidates on unfavorable terms to us.***

Until such time, if ever, as we can generate substantial product revenues, we expect to finance our cash needs through a combination of equity offerings, debt financings, and other third-party funding alternatives including license and collaboration agreements. To raise additional capital or pursue strategic transactions, we may in the future sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock, which will dilute the ownership interest of our current stockholders, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our current stockholders. If we raise additional funds through collaborations, strategic alliances, or marketing, distribution, or licensing arrangements with third parties, we may have to relinquish valuable rights to our product candidates, future revenue streams or research programs, or grant licenses on terms that may not be favorable to us or that may reduce the value of our common stock. If we are unable to raise

additional funds when needed, we may be required to delay, limit, reduce, or terminate our product development or commercialization efforts for our *Neuro-Spinal Scaffold* implant or any other product candidates that we develop or acquire.

***Our ability to use our net operating loss carryforwards and tax credit carryforwards may be limited.***

We have generated significant net operating loss carryforwards, or NOLs, and research and development tax credits, or R&D credits, as a result of our incurrence of losses and our conduct of research activities since inception. We generally are able to carry NOLs and R&D credits forward to reduce our tax liability in future years. Federal NOLs generated on or before December 31, 2017 can generally be carried back two years and carried forward for up to twenty years and can be applied to offset 100% of taxable income in such years. Under newly enacted federal income tax law, however, federal NOLs incurred in 2018 and in future years may be carried forward indefinitely, but may not be carried back and the deductibility of such federal NOLs is limited to 80% of taxable income in such years. It is uncertain how various states will respond to the newly enacted federal tax law.

In addition, our ability to utilize the NOLs and R&D credits is subject to the rules of Sections 382 and 383 of the Internal Revenue Code of 1986, or the Code, as amended, respectively. Those sections generally restrict the use of NOLs and R&D credits after an “ownership change.” An ownership change occurs if, among other things, the stockholders (or specified groups of stockholders) who own or have owned, directly or indirectly, 5% or more of a corporation’s common stock or are otherwise treated as 5% stockholders under Section 382 of the Code and the United States Treasury Department regulations promulgated thereunder increase their aggregate percentage ownership of that corporation’s stock by more than 50 percentage points over the lowest percentage of the stock owned by these stockholders over the applicable testing period. In the event of an ownership change, Section 382 imposes an annual limitation on the amount of taxable income a corporation may offset with NOL carryforwards and Section 383 imposes an annual limitation on the amount of tax a corporation may offset with business credit (including the R&D credit) carryforwards. Any unused annual limitation may be carried over to later years until the applicable expiration date for the respective NOL or R&D credit carryforwards. We have completed several financings since our inception, which may have resulted in a change in control as defined by Sections 382 and 383 of the Code, or could result in a change in control in the future, but we have not completed an analysis of whether a limitation as noted above exists. We have not performed a Section 382 study yet, but we will complete an appropriate analysis before our tax attributes are utilized.

***The recently passed comprehensive tax reform bill could adversely affect our business and financial condition.***

On December 22, 2017, President Trump signed into law new legislation that significantly revises the Code. The newly enacted federal income tax law, among other things, contains significant changes to corporate taxation, including reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for net interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for NOLs to 80% of current year taxable income and elimination of NOL carrybacks, in each case, for losses arising in taxable years beginning after December 31, 2017 (though any such NOLs may be carried forward indefinitely), one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the new federal tax law is uncertain and our business and financial condition could be adversely affected. In addition, it is uncertain how various states will respond to the newly enacted federal tax law. The impact of this tax reform on holders of our common stock is also uncertain and could be adverse. We urge our stockholders to consult with their legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our common stock.

***Acquisitions of companies, businesses, or technologies may substantially dilute our stockholders and increase our operating losses.***

We continue to actively evaluate business partnerships and acquisitions of businesses, technologies, or intellectual property rights that we believe would be necessary, useful, or complementary to our current business. Any such acquisition may require assimilation of the operations, products or product candidates, and personnel of the acquired business and the training and integration of its employees, and could substantially increase our operating costs, without any offsetting increase in revenue. We may also acquire the right to use certain intellectual property through licensing agreements, which could substantially increase our operating costs. Acquisitions and licensing agreements may

not provide the intended technological, scientific or business benefits and could disrupt our operations and divert our limited resources and management's attention from our current operations, which could harm our existing product development efforts. While we may use cash or equity to finance a future acquisition or licensing agreement, it is likely we would issue equity securities as a significant portion or all of the consideration in any acquisition. The issuance of equity securities for an acquisition could be substantially dilutive to our stockholders. Any investment made in, or funds advanced to, a potential acquisition target could also significantly, adversely affect our results of operations and could further reduce our limited capital resources. Any acquisition or action taken in anticipation of a potential acquisition or other change in business activities could substantially depress the price of our stock. In addition, our results of operations may suffer because of acquisition related costs, or the post-acquisition costs of funding the development of an acquired technology or product candidates or operations of the acquired business, or due to amortization or impairment costs for acquired goodwill and other intangible assets.

### **Risks Related to the Development, Regulatory Approval, and Commercialization of Our Product Candidates**

***We are wholly dependent on the success of one product candidate, the Neuro-Spinal Scaffold implant. Even if we are able to complete clinical development and obtain favorable clinical results, we may not be able to obtain regulatory approval for, or successfully commercialize, our Neuro-Spinal Scaffold implant.***

We currently have only one product candidate, the *Neuro-Spinal Scaffold* implant, in clinical development, and our business depends almost entirely on the successful clinical development, regulatory approval, and commercialization of that product candidate, which may never occur. We currently have no products available for sale, generate no revenues from sales of any products, and we may never be able to develop marketable products. Our *Neuro-Spinal Scaffold* implant will require substantial additional clinical development, testing, manufacturing process development, and regulatory approval before we are permitted to commence its commercialization. Before obtaining regulatory approval via the HDE pathway for the commercial sale of any product candidate, we must demonstrate through extensive preclinical testing and clinical trials that the product candidate does not pose an unreasonable or significant risk of illness or injury, and that the probable benefit to health outweighs the risk of injury or illness from its use, taking into account the probable risks and benefits of currently available devices or alternative forms of treatment. Alternatively, if we were to seek PMA for our product candidate, that would require demonstration that the product is safe and effective for use in each target indication. This process can take many years. Of the large number of medical devices in development in the United States, only a small percentage successfully complete the FDA regulatory approval process and are commercialized. Accordingly, even if we are able to obtain the requisite capital to continue to fund our development and clinical programs, we may be unable to successfully develop or commercialize our *Neuro-Spinal Scaffold* implant or any other product candidate.

The clinical trials of any of our current or future product candidates are, and the manufacturing and marketing of any such product candidates will be, subject to extensive and rigorous review and regulation by the FDA and other government authorities in the United States and in other countries where we intend to test and, if approved, market such product candidates.

***We have experienced delays and may experience further delays in our clinical development of our Neuro-Spinal Scaffold implant. Clinical trials for future product candidates may also experience delays or may not be able to commence.***

Before we can obtain regulatory approval for the sale of our *Neuro-Spinal Scaffold* implant, we must complete the clinical studies that are required. In July 2017, The INSPIRE Study of our *Neuro-Spinal Scaffold* implant was placed on hold following the third patient death in the trial. We subsequently closed enrollment in The INSPIRE Study and will follow the active patients until completion. We have proposed, and the FDA has approved the INSPIRE 2.0 Study. We may not be able to pursue the currently defined clinical path forward successfully, or in a timely manner or that is aligned with our cash resources. The INSPIRE 2.0 Study may not be successfully completed or may take longer than anticipated because of any number of factors, including potential delays in the enrollment of subjects in the study, the availability of scaffold implants to supply to our clinical sites, failure to demonstrate safety and probable benefit of our *Neuro-Spinal Scaffold* implant, lack of adequate funding to continue the clinical trial, or unforeseen safety issues. Enrolling patients in the INSPIRE 2.0 Study and any other clinical trial of our *Neuro-Spinal Scaffold* implant will also require the approval of the IRBs at each clinical site.

The INSPIRE 2.0 Study may not be successfully completed or may take longer than anticipated because of any number of factors, including potential delays in the enrollment of subjects in the study, the availability of scaffolds to supply to our clinical sites, failure to demonstrate safety and efficacy of our Neuro-Spinal Scaffold, lack of adequate funding to continue the clinical trial, or unforeseen safety issues.

In addition, our results may subsequently fail to meet the safety and probable benefit standards required to obtain regulatory approvals. For example, in The INSPIRE Study, two of the 16 evaluable patients were initially assessed to have improved from complete AIS A SCI to incomplete AIS B SCI, but each was later assessed to have reverted to complete AIS A SCI prior to the patient's six-month examination. Of these two patients, one patient had converted back to AIS B and the other remained at AIS A at the six-month examination. There is known and published variability in some of the measures used to assess AIS improvement and these measures can vary over time or depending upon the examiner. While we implemented procedures in The INSPIRE Study and the INSPIRE 2.0 Study, and will also implement procedures in any future clinical study to limit such variations, we cannot be certain that regulatory authorities will accept the results of our clinical trials or interpret them the way that we do.

In addition, clinical trials can be delayed or aborted for a variety of reasons, including delay or failure to:

- obtain regulatory approval to commence future clinical trials;
- reach agreement on acceptable terms with prospective contract research organizations, or CROs, and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- obtain IRB approval at each site;
- recruit, enroll, and retain patients through the completion of clinical trials;
- maintain clinical sites in compliance with trial protocols through the completion of clinical trials;
- address patient safety concerns that arise during the course of the trial;
- initiate or add a sufficient number of clinical trial sites; or
- manufacture sufficient quantities of our product candidate for use in clinical trials.

We could encounter delays if a clinical trial is suspended or terminated by us, by the relevant IRB at the sites at which such trials are being conducted, by the Data Safety Monitoring Board for such trial, or by the FDA or other regulatory authorities. Such authorities may suspend or terminate a clinical trial due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or our clinical protocols, a problematic inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse events, or changes in laws or regulations. In addition, regulatory agencies may require an audit with respect to the conduct of a clinical trial, which could cause further delays or increase costs. For example, in December 2017, we and several of our clinical sites and our CRO were subject to an FDA inspection in association with The INSPIRE Study. At the close of the inspection at InVivo, the FDA issued a Form 483 with two observations relating to our oversight of clinical trial sites in The INSPIRE Study. We sought, and will continue to seek, input from the FDA regarding the scope and timing of our proposed remediation efforts and the FDA has indicated that our corrective actions appear adequate. We cannot be certain that we will not be subject to additional regulatory action by the FDA. We anticipate that our remediation efforts will add costs to our clinical development plans. Any delays in completing our clinical trials will increase our costs, slow down our product candidate development and regulatory review process, and jeopardize our ability to obtain approval and commence product sales and generate revenues. Any of these occurrences may harm our business, financial condition, and prospects significantly.

***We may find it difficult to enroll patients in our clinical studies, which could delay or prevent clinical studies of our product candidates.***

Identifying and qualifying patients to participate in clinical studies of our product candidates is critical to our success. The timing of our clinical studies depends on the speed at which we can enroll patients to participate in testing our product candidates. If we have difficulty enrolling a sufficient number of patients to conduct our clinical studies as planned, we may need to delay, limit, or terminate ongoing or planned clinical studies, any of which would have an adverse effect on our business.

Patient enrollment is affected by a number of factors including:

- severity of the disease, injury, or condition under investigation;
- design of the study protocol;
- size and nature of the patient population;
- eligibility criteria for and design of the study in question;
- perceived risks and benefits of the product candidate under study;
- proximity and availability of clinical study sites for prospective patients;
- availability of competing therapies and clinical studies;
- efforts to facilitate timely enrollment in clinical studies;
- patient referral practices of physicians; and
- ability to monitor patients adequately during and after treatment.

For a period in 2016, as a result of an FDA pre-specified enrollment hold, we were unable to enroll patients in The INSPIRE Study pending FDA authorization to proceed with additional enrollment, which delayed our ability to open new sites and enroll patients at the pace we had anticipated. In addition, in July 2017 we halted enrollment in the study, and subsequently closed enrollment in the study. We may experience similar delays with our INSPIRE 2.0 Study. We may not be able to initiate or continue clinical studies if we cannot enroll a sufficient number of eligible patients to participate in the clinical studies required by regulatory agencies. If we have difficulty enrolling a sufficient number of patients to conduct our clinical studies as planned, we may need to delay, limit, or terminate ongoing or planned clinical studies, any of which would have an adverse effect on our business.

***Clinical trials involve a lengthy and expensive process with an uncertain outcome, and results of earlier nonclinical studies and clinical trials may not be predictive of future trial results.***

The results of preclinical studies and early clinical trials of new medical devices do not necessarily predict the results of later-stage clinical trials. The design of our clinical trials is based on many assumptions about the expected effects of our product candidates, and if those assumptions are incorrect, the trials may not produce results to support regulatory approval. We are currently pursuing marketing approval via the HDE regulatory pathway which requires us to show the device does not pose an unreasonable or significant risk of illness or injury, and that the probable benefit of health outweighs the risk of injury or illness from its use. Preliminary results may not be confirmed upon full analysis of the detailed results of an early clinical trial. Product candidates in later stages of clinical development may fail to show safety and probable benefit sufficient to support intended use claims despite having progressed through initial clinical testing. The data collected from clinical trials of our product candidates may not be sufficient to obtain regulatory approval in the United States or elsewhere. It is also possible that patients enrolled in clinical trials will experience adverse events or unpleasant side effects that are not currently part of the product candidate's profile. Because of the uncertainties associated with clinical development and regulatory approval, we cannot determine if or when we will have an approved product ready for commercialization or achieve sales or profits.

***We must obtain FDA approval before we can sell any of our products in the United States and approval of similar regulatory authorities in countries outside the United States before we can sell our products in such countries. We may incur additional costs or experience delays in completing, or ultimately be unable to complete, the development and commercialization of our products if such approval is denied or delayed.***

The development, manufacture, and marketing of our products are subject to government regulation in the United States and other countries. In the United States and most foreign countries, we must complete rigorous preclinical testing and extensive human clinical trials that demonstrate the safety and efficacy of a product in order to apply for regulatory approval to market the product. If the FDA grants regulatory approval of a product, the approval may be limited to specific indications or limited with respect to its distribution. Expanded or additional indications for approved devices may not be approved, which could limit our potential revenues. Foreign regulatory authorities may apply similar or additional limitations or may refuse to grant any approval. Consequently, even if we believe that preclinical and clinical data are sufficient to support regulatory approval for our products, the FDA and foreign regulatory authorities may not ultimately grant approval for commercial sale in any jurisdiction. If our product candidates are not approved, our ability to generate revenues will be limited and our business will be adversely affected.

We are currently pursuing an HDE regulatory pathway in the United States for our *Neuro-Spinal Scaffold* implant. The HDE requires that there is no other comparable device available to provide therapy for a condition and requires sufficient information for the FDA to determine that the device does not pose an unreasonable or significant risk of illness or injury, and that the probable benefit to health outweighs the risk of injury or illness from its use. The amended protocol for The INSPIRE Study, which was approved in February 2016, established an OPC, which is a measure of study success used in clinical studies designed to demonstrate safety and probable benefit in support of an HDE approval. The OPC for The INSPIRE Study is currently defined as 25% or more of the patients in the study demonstrating an improvement of at least one AIS grade by six months post-implantation. While we expect The INSPIRE Study to serve as one source of data used to support HDE approval in the future, we will not complete full enrollment of that study. In addition, although The INSPIRE Study is structured with the OPC as the primary component for demonstrating probable benefit, the OPC is not the only variable that the FDA would evaluate when reviewing a future HDE application.

The FDA had previously recommended that we include a randomized, concurrent control arm in the study and we have proposed and received approval for the INSPIRE 2.0 Study. The primary endpoint is defined as the proportion of patients achieving an improvement of at least one AIS grade at six months post-implantation. The definition of study success is that the difference in the proportion of subjects who demonstrate an improvement of at least one grade on AIS assessment at the six-month primary endpoint follow-up visit between the Scaffold Arm and the Comparator Arm must be equal to or greater than 20%. While our INSPIRE 2.0 Study is structured with a definition of study success requiring a minimum difference between groups in the percentage of subjects achieving improvement, that success definition is not the only factor that the FDA would evaluate in the future HDE application.

Approval is not guaranteed if the OPC is met for The INSPIRE Study or the definition of study success is met for the INSPIRE 2.0 Study, and even if the OPC or definition of study success are not met, the FDA may approve a medical device if probable benefit is supported by a comprehensive review of all clinical endpoints and preclinical results, as demonstrated by the sponsor's body of evidence.

In addition, as one source of comparator data, we initiated the CONTEMPO Registry Study, utilizing existing databases and registries to develop a historical comparator that, to the extent possible, matches patients to those patients enrolled in The INSPIRE Study. There can be no assurance that either our INSPIRE 2.0 Study or the CONTEMPO Registry Study will be successfully completed. Even if we successfully complete the INSPIRE 2.0 Study and the CONTEMPO Registry Study, we cannot be certain that the FDA will agree that these additional studies provide sufficient information for the FDA to determine that the device does not pose an unreasonable or significant risk of illness or injury, and that the probable benefit to health outweighs the risk of injury or illness from its use. Moreover, analysis of data from the CONTEMPO Registry Study may suggest a higher threshold for evidencing probable benefit. For example, AIS conversion rates at approximately six months post-injury across the three registries used in CONTEMPO varied from 16.7% – 23.4%, which are higher than the approximately 15.5% conversion rate from the historical registries that were the basis for the selection of the current OPC for The INSPIRE Study. In the event our clinical data is not acceptable to the FDA, our ability to obtain approval under the HDE pathway may be delayed or may not be feasible. If the FDA does not approve our product candidates in a timely fashion, or at all, our business and financial condition will be adversely affected.



The 21st Century Cures Act recently increased the upper population limit for an HDE from 4,000 to 8,000, which allows us to potentially request an expansion of our current HUD to include additional patient populations beyond our current HUD for complete SCI. If we choose to pursue such an expansion, this may cause our application to be delayed or cause the FDA to request additional information. In addition, our current study is not designed to support approval beyond complete SCI. Thus, expansion would require additional studies. We cannot be certain that we will be able to increase the potential population that we might be able to treat based on the HDE pathway. If any of these events occur, our business and financial condition will be adversely affected.

***There are risks associated with pursuing FDA approval via an HDE pathway, including the possibility that the approval could be withdrawn in the future if the FDA subsequently approves another device for the same intended use, as well as limitations on the ability to profit from sales of the product.***

If the FDA subsequently approves a PMA or clears a 510(k) for the HUD or another comparable device with the same indication, the FDA may withdraw the HDE. Once a comparable device becomes legally marketed through PMA approval or 510(k) clearance to treat or diagnose the disease or condition in question, there may no longer be a need for the HUD and so the HUD may no longer meet the requirements of section 520(m)(2)(B) of the FDCA.

Except in certain circumstances, products approved under an HDE cannot be sold for an amount that exceeds the costs of research and development, fabrication, and distribution of the device (i.e., for profit). Currently, under section 520(m)(6)(A)(i) of the FDCA, as amended by the Food and Drug Administration Safety and Innovation Act, an HUD is only eligible to be sold for profit after receiving HDE approval if the device (1) is intended for the treatment or diagnosis of a disease or condition that occurs in pediatric patients or in a pediatric subpopulation, and such device is labeled for use in pediatric patients or in a pediatric subpopulation in which the disease or condition occurs; or (2) is intended for the treatment or diagnosis of a disease or condition that does not occur in pediatric patients or that occurs in pediatric patients in such numbers that the development of the device for such patients is impossible, highly impracticable, or unsafe. If an HDE-approved device does not meet either of the eligibility criteria, the device cannot be sold for profit. With enactment of the FDA Reauthorization Act of 2017, Congress provided that the exemption for HUD / HDE profitability is available as long as the request for an exemption is submitted before October 1, 2022.

***Some of our future products may be viewed by the FDA as combination products and the review of combination products is often more complex and more time consuming than the review of other types of products.***

Our future products may be regulated by the FDA as combination products. For a combination product, the FDA must determine which center or centers within the FDA will review the product candidate and under what legal authority the product candidate will be reviewed. The process of obtaining FDA marketing clearance or approval is lengthy, expensive, and uncertain, and we cannot be sure that any of our combination products, or any other products, will be cleared or approved in a timely fashion, or at all. In addition, the review of combination products is often more complex and more time consuming than the review of a product candidate under the jurisdiction of only one center within the FDA. We cannot be sure that the FDA will not select to have our combination products reviewed and regulated by only one FDA center and/or different legal authority, in which case the path to regulatory approval would be different and could be more lengthy and costly. If the FDA does not approve or clear our products in a timely fashion, or at all, our business and financial condition will be adversely affected.

***We may face substantial competition, which may result in others discovering, developing, or commercializing products before or more successfully than we do.***

In general, the biotechnology industry is subject to intense competition and rapid and significant technological change. We have many potential competitors, including major drug companies, specialized biotechnology firms, academic institutions, government agencies, and private and public research institutions. Many of these competitors have significantly greater financial and technical resources than us, and superior experience and expertise in research and development, preclinical testing, design and implementation of clinical trials, regulatory processes and approval for products, production and manufacturing, and sales and marketing of approved products. Large and established companies compete in the biotechnology market. In particular, these companies have greater experience and expertise in securing government contracts and grants to support their research and development efforts, conducting testing and clinical trials, obtaining regulatory approvals to market products, manufacturing such products on a broad scale, and marketing approved products. Smaller or early-stage companies and research institutions may also prove to be

significant competitors, particularly if they have collaborative arrangements with larger and more established biotechnology companies. We will also face competition from these parties in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites, and registering subjects for clinical trials.

In order to effectively compete, we will have to make substantial investments in development, clinical testing, manufacturing, and sales and marketing, or partner with one or more established companies. There is no assurance that we will be successful in having our products approved or gaining significant market share for any of our products. Our technologies and products also may be rendered obsolete or noncompetitive as a result of products introduced by our competitors.

***The results of our clinical trials may not support our product candidate claims or may result in the discovery of adverse side effects.***

Our ongoing research and development, preclinical testing, and clinical trial activities are subject to extensive regulation and review by numerous governmental authorities both in the United States and abroad. Clinical studies must be conducted in compliance with FDA regulations or the FDA may take enforcement action. The data collected from these clinical studies may ultimately be used to support market clearance for these products. Even if our clinical trials are completed as planned, we cannot be certain that their results will support our product candidate claims or that the FDA will agree with our conclusions regarding them. Success in preclinical studies and early clinical trials does not ensure that later clinical trials will be successful, and we cannot be sure that the later trials will replicate the results of prior trials and preclinical studies. The clinical trial process may fail to demonstrate that our product candidates are safe and effective for the proposed indicated uses, which could cause us to abandon a product candidate and may delay development of others. Any delay or termination of our clinical trials will delay the filing of our product submissions and, ultimately, our ability to commercialize our product candidates and generate revenues. It is also possible that patients enrolled in clinical trials will experience adverse side effects that are not currently part of the product candidate's profile.

***If approved, our products will require market acceptance to be successful. Failure to gain market acceptance would impact our revenues and may materially impair our ability to continue our business.***

Even if we receive regulatory approvals for the commercial sale of our product candidates, the commercial success of our products will depend on, among other things, their acceptance by physicians, patients, third-party payers such as health insurance companies, and other members of the medical community as a therapeutic and cost-effective alternative to competing products and treatments. Physicians and hospitals will need to establish training and procedures to utilize and implement our *Neuro-Spinal Scaffold* implant, and there can be no assurance that these parties will adopt the use of our device or develop sufficient training and procedures to properly utilize it. Market acceptance of, and demand for, any product that we may develop and commercialize will depend on many factors, both within and outside of our control. Payers may view new products or products that have only recently been launched or with limited clinical data available, as investigational, unproven, or experimental, and on that basis may deny coverage of procedures involving use of our products. If our product candidates fail to gain market acceptance, we may be unable to earn sufficient revenue to continue our business.

***If we or our suppliers fail to comply with FDA regulatory requirements, or if we experience unanticipated problems with any approved products, these products could be subject to restrictions or withdrawal from the market.***

Any product for which we obtain regulatory approval, and the manufacturing processes, reporting requirements, post-approval clinical data, and promotional activities for such product, will be subject to continued regulatory review and oversight by the FDA. In particular, we and our third-party suppliers will be required to comply with the FDA's Quality System Regulations, or QSRs. These FDA regulations cover the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, sterilization, storage, and shipping of products. Compliance with applicable regulatory requirements is subject to continual review and is monitored rigorously through periodic inspections by the FDA. If we, or our manufacturers, fail to adhere to QSR requirements, this could delay production of our product candidates and lead to fines, difficulties in obtaining regulatory clearances, recalls, enforcement actions, including injunctive relief or consent decrees, or other consequences, which could, in turn, have a material adverse effect on our financial condition and results of operations.



In addition, we and our suppliers are required to comply with Good Manufacturing Practices and Good Tissue Practices with respect to any human cells and biologic products we may develop, and International Standards Organization regulations for the manufacture of our products, and other regulations which cover the methods and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage, and shipping of any product for which we obtain clearance or approval. Manufacturing may also be subject to controls by the FDA for parts of the combination products that the FDA may find are controlled by the biologics regulations.

The FDA audits compliance with the QSR and other similar regulatory requirements through periodic announced and unannounced inspections of manufacturing and other facilities. The failure by us or one of our suppliers to comply with applicable statutes and regulations administered by the FDA, or the failure to timely and adequately respond to any adverse inspectional observations or product safety issues, could result in any of the following enforcement actions:

- untitled letters, warning letters, fines, injunctions, consent decrees, and civil penalties;
- unanticipated expenditures to address or defend such actions;
- customer notifications or repair, replacement, refunds, recall, detention, or seizure of our products;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying our requests for premarket approval of new products or modified products;
- withdrawing PMA approvals that have already been granted;
- refusal to grant export approval for our products; or
- criminal prosecution.

Any of these sanctions could have a material adverse effect on our reputation, business, results of operations, and financial condition.

***Our products and operations are subject to extensive governmental regulation both in the United States and abroad, and our failure to comply with applicable requirements could cause our business to suffer.***

Our medical device and biologic products and operations are subject to extensive regulation by the FDA and various other federal, state, and foreign governmental authorities. For example, we expect to initiate a clinical trial in Canada and will be subject to applicable Canadian regulations as we initiate and conduct that trial. Government regulation of medical devices and biologic products is meant to assure their safety and effectiveness, and includes regulation of, among other things:

- design, development, and manufacturing;
- testing, labeling, content, and language of instructions for use and storage;
- clinical trials;
- product safety;
- marketing, sales, and distribution;
- regulatory clearances and approvals including premarket clearance and approval;
- conformity assessment procedures;
- product traceability and record keeping procedures;

- advertising and promotion;
- product complaints, complaint reporting, recalls, and field safety corrective actions;
- post-market surveillance, including reporting of deaths or serious injuries, and malfunctions that, if they were to recur, could lead to death or serious injury;
- post-market studies; and
- product import and export.

The regulations to which we are subject are complex and have tended to become more stringent over time. Regulatory changes could impede our ability to carry on or expand our operations and could result in higher than anticipated costs or lower than anticipated sales.

Before we can market or sell a new regulated medical device product in the United States, we must obtain clearance under Section 510(k) of the FDCA, approval of a PMA, or approval of an HDE, unless the device is specifically exempt from premarket review. Our *Neuro-Spinal Scaffold* implant is expected to be regulated by the FDA as a Class III medical device, requiring either PMA or HDE approval. An HUD designation was granted for the *Neuro-Spinal Scaffold* implant in 2013, opening the HDE pathway.

In the PMA approval process, the FDA must determine that a proposed device is safe and effective for its intended use based, in part, on extensive data, including, but not limited to, technical, preclinical, clinical trial, manufacturing, and labeling data.

Modifications to products that are approved through a PMA generally need FDA approval. The process of obtaining a PMA is costly and generally takes from one to three years, or even longer, from the time the application is submitted to the FDA until an approval is obtained.

An HDE application is similar in form and content to a PMA and, although exempt from the effectiveness requirements of a PMA, an HDE does require sufficient information for the FDA to determine that the device does not pose an unreasonable or significant risk of illness or injury, and that the probable benefit to health outweighs the risk of injury or illness from its use. Like a PMA, changes to HDE devices generally need FDA approval.

Biological products must satisfy the requirements of the Public Health Services Act and its implementing regulations. In order for a biologic product to be legally marketed in the U.S., the product must have a BLA approved by the FDA. The testing and approval process requires substantial time, effort, and financial resources, and each may take several years to complete.

The FDA can delay, limit, or deny clearance or approval of a product for many reasons, including:

- we may not be able to demonstrate to the FDA's satisfaction that our products are safe and effective for their intended uses;
- the data from our preclinical studies and clinical trials may be insufficient to support clearance or approval, where required; and
- the manufacturing process or facilities we use may not meet applicable requirements.

In addition, the FDA may change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions that may prevent or delay approval or clearance of our products under development or impact our ability to modify our currently approved or cleared products on a timely basis.

Further, even after we have obtained the proper regulatory clearance or approval to market a product, the FDA may require us to conduct post-marketing studies. Failure to conduct required studies in a timely manner could result in

the revocation of approval for the product that is subject to such a requirement and could also result in the recall or withdrawal of the product, which would prevent us from generating sales from that product in the United States.

Failure to comply with applicable laws and regulations could jeopardize our ability to sell our products and result in enforcement actions such as:

- warning letters;
- fines;
- injunctions;
- civil penalties;
- termination of distribution;
- recalls or seizures of products;
- delays in the introduction of products into the market;
- total or partial suspension of production;
- refusal of the FDA or other regulators to grant future clearances or approvals;
- withdrawals or suspensions of current clearances or approvals, resulting in prohibitions on sales of our products; and/or
- in the most serious cases, criminal penalties.

Any of these sanctions could result in higher than anticipated costs or lower than anticipated sales and have a material adverse effect on our reputation, business, results of operations, and financial condition.

***If our products, or the malfunction of our products, cause or contribute to a death or a serious injury before or after approval, we will be subject to medical device reporting regulations, which can result in voluntary corrective actions or agency enforcement actions.***

Under the FDA medical device reporting regulations, medical device manufacturers with approved products are required to report to the FDA information that a device has or may have caused or contributed to a death or serious injury or has malfunctioned in a way that would likely cause or contribute to death or serious injury if the malfunction of the device or one of our similar devices were to recur. Any such serious adverse event involving our products could result in future voluntary corrective actions, such as recalls or customer notifications, or agency action, such as inspection or enforcement action. In the context of our ongoing clinical trial, we report adverse events to the FDA in accordance with IDE regulations and to other relevant regulatory authorities in accordance with applicable national and local regulations. Any corrective action, whether voluntary or involuntary, and either pre- or post-market, needed to address any serious adverse events will require the dedication of our time and capital, distract management from operating our business, and may harm our reputation and financial results.

***Our products, once approved, may in the future be subject to product recalls. A recall of our products, either voluntarily or at the direction of the FDA, or the discovery of serious safety issues with our products, could have a significant adverse impact on us.***

If our products are approved for commercialization, the FDA and similar foreign governmental authorities have the authority to require the recall of commercialized products in the event of material deficiencies or defects in design or manufacture. In the case of the FDA, the decision to require a recall must be based on an FDA finding that there is reasonable probability that the device would cause serious injury or death. A government-mandated or voluntary recall by us or one of our partners could occur as a result of an unacceptable risk to health, component failures, malfunctions, manufacturing errors, design or labeling defects, or other deficiencies and issues. Recalls of any of our commercialized

products would divert managerial and financial resources and have an adverse effect on our reputation, results of operations, and financial condition, which could impair our ability to manufacture our products in a cost-effective and timely manner in order to meet our customers' demands. We may also be subject to liability claims, be required to bear other costs, or take other actions that may have a negative impact on our future sales and our ability to generate profits.

***If we obtain approval for our products, we may be subject to enforcement action if we engage in improper marketing or promotion of our products.***

We are not permitted to promote or market our investigational products. After approval, our promotional materials and training methods must comply with FDA and other applicable laws and regulations, including the prohibition of the promotion of unapproved, or off-label, use. Surgeons may use our products off-label, as the FDA does not restrict or regulate a surgeon's choice of treatment within the practice of medicine. However, if the FDA determines that our promotional materials or training constitutes promotion of an off-label use, it could request that we modify our training or promotional materials or subject us to regulatory or enforcement actions, including the issuance of an untitled letter, a warning letter, injunction, seizure, civil fine, or criminal penalties. It is also possible that other federal, state, or foreign enforcement authorities might take action if they consider our promotional or training materials to constitute promotion of an off-label use, which could result in significant fines or penalties under other statutory authorities, such as laws prohibiting false claims for reimbursement. In that event, our reputation could be damaged and adoption of the products could be impaired. In addition, the off-label use of our products may increase the risk of product liability claims. Product liability claims are expensive to defend and could divert our management's attention, result in substantial damage awards against us, and harm our reputation.

***If we obtain approval for our products, their commercial success will depend in part upon the level of reimbursement we receive from third parties for the cost of our products to users.***

The commercial success of any product will depend, in part, on the extent to which reimbursement for the costs of our products and related treatments will be available from third-party payers such as government health administration authorities, private health insurers, managed care programs, and other organizations. Adequate third-party insurance coverage may not be available for us to establish and maintain price levels that are sufficient for us to continue our business or for realization of an appropriate return on investment in product development.

***Legislative or regulatory reform of the healthcare systems in which we operate may affect our ability to commercialize our product candidates and could adversely affect our business.***

The government and regulatory authorities in the United States, the European Union, and other markets in which we plan to commercialize our product candidates may propose and adopt new legislation and regulatory requirements relating to the approval, CE marking, manufacturing, promotion, or reimbursement of medical device and biologic products. It is impossible to predict whether legislative changes will be enacted or applicable regulations, guidance, or interpretations changed, and what the impact of such changes, if any, may be. Such legislation or regulatory requirements, or the failure to comply with such, could adversely impact our operations and could have a material adverse effect on our business, financial condition, and results of operations.

For example, in the United States, legislative changes have been enacted in the past and further changes are proposed that would impact the Affordable Care Act. These new laws may result in additional reductions in Medicare and other healthcare funding. Beginning April 1, 2013, Medicare payments for all items and services, including drugs and biologics, were reduced by 2% under the sequestration (i.e., automatic spending reductions) required by the Budget Control Act of 2011, as amended by the American Taxpayer Relief Act of 2012. Subsequent legislation extended the 2% reduction, on average, to 2025. It is likely that federal and state legislatures within the United States and foreign governments will continue to consider changes to existing healthcare legislation. The Affordable Care Act has faced ongoing legal challenges, including litigation seeking to invalidate some of or all of the law or the manner in which it has been implemented. With the new Presidential administration and Congress, there have been, and may be additional, legislative changes affecting the Affordable Care Act, including repeal of certain provisions of the Affordable Care Act. It remains to be seen, however, precisely what impact legislation to date and any future legislation will have on the availability of healthcare and containing or reducing healthcare costs. We cannot predict the reform initiatives that may be adopted in the future or whether initiatives that have been adopted will be repealed or modified. We cannot quantify or predict with any certainty the likely impact of the Affordable Care Act, its amendment or repeal, or any alternative or

related legislation, or any implementation of any such legislation, on our business model, prospects, financial condition, and results of operations.

These and other legislative and regulatory changes that have been or may be proposed in the future may impact our ability to successfully commercialize our product candidates.

***We have limited experience manufacturing our Neuro-Spinal Scaffold implant for clinical-study scale and no experience for commercial scale.***

To date, we have manufactured our *Neuro-Spinal Scaffold* implant on a small scale, including sufficient supply that is needed for our clinical studies. We may encounter unanticipated problems in the scale-up process that will result in delays in the manufacturing of the *Neuro-Spinal Scaffold* implant and therefore delay our clinical studies. During our clinical trials, we are subject to FDA regulations requiring manufacturing of our scaffolds with the FDA requirements for design controls and subject to inspections by regulatory agencies. Our failure to comply with applicable regulations may result in delays and interruptions to our product supply while we seek to secure another supplier that meets all regulatory requirements. If we are unable to scale up our manufacturing to meet requirements for our clinical studies, we may be required to rely on contract manufacturers. Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured the product ourselves, including the possible breach of the manufacturing agreements by the third parties because of factors beyond our control, and the possibility of termination or nonrenewal of the agreements by the third parties because of our breach of the manufacturing agreement or based on their own business priorities.

### **Risks Related to Our Intellectual Property**

***We license certain technology underlying the development of our Neuro-Spinal Scaffold implant from BCH and MIT, and the loss of the license would result in a material adverse effect on our business, financial position, and operating results and cause the market value of our common stock to decline.***

We license technology from Boston Children's Hospital, or BCH, and the Massachusetts Institute of Technology, or MIT, that is integrated into our *Neuro-Spinal Scaffold* implant under an exclusive license. Under the license agreement, we have agreed to milestone payments and to meet certain reporting obligations. In the event that we were to breach any of the obligations under the agreement and fail to timely cure, BCH and MIT would have the right to terminate the agreement upon notice. In addition, BCH and MIT have the right to terminate our license upon the bankruptcy or receivership of the Company. If we are unable to continue to use or license this technology on reasonable terms, or if this technology fails to operate properly, we may not be able to secure alternatives in a timely manner and our ability to develop our products could be harmed.

***If we cannot protect, maintain and, if necessary, enforce our intellectual property rights, our ability to develop and commercialize products will be adversely impacted.***

Our success, in large part, depends on our ability to protect and maintain the proprietary nature of our technology. We and our licensors must prosecute and maintain our existing patents and obtain new patents. Some of our proprietary information may not be patentable, and there can be no assurance that others will not utilize similar or superior solutions to compete with us. We cannot guarantee that we will develop proprietary products that are patentable, and that, if issued, any patent will give a competitive advantage or that such patent will not be challenged by third parties. The process of obtaining patents can be time consuming with no certainty of success, as a patent may not issue or may not have sufficient scope or strength to protect the intellectual property it was intended to protect. We cannot assure you that our means of protecting our proprietary rights will suffice or that others will not independently develop competitive technology or design around patents or other intellectual property rights issued to us. Even if a patent is issued, it does not guarantee that it is valid or enforceable. Any patents that we or our licensors have obtained or obtain in the future may be challenged, invalidated, or unenforceable. If necessary, we may initiate actions to protect our intellectual property, which can be costly and time consuming.

***If third parties successfully claim that we infringe their intellectual property rights, our ability to continue to develop and commercialize products could be delayed or prevented.***

Third parties may claim that we or our licensors are infringing on or misappropriating their proprietary information. Other organizations are engaged in research and product development efforts that may overlap with our products. Such third parties may currently have, or may obtain in the future, legally blocking proprietary rights, including patent rights, in one or more products or methods under development or consideration by us. These rights may prevent us from commercializing products, or may require us to obtain a license from the organizations to use the technology. We may not be able to obtain any such licenses that may be required on reasonable financial terms, if at all, and cannot be sure that the patents underlying any such licenses will be valid or enforceable. There may be rights that we are not aware of, including applications that have been filed but not published that, when issued, could be asserted against us. These third parties could bring claims against us that would cause us to incur substantial expenses and, if successful, could cause us to pay substantial damages. Further, if a patent infringement suit were brought against us, we could be forced to stop or delay research and development of the product that is the subject of the suit. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our trade secrets or other confidential information could be compromised by disclosure during this type of litigation.

#### **Risks Related to our Dependence on Third Parties**

***We will depend upon strategic relationships to develop, exploit, and manufacture our products. If these relationships are not successful, we may not be able to capitalize on the market potential of these products.***

The near and long-term viability of our products will depend, in part, on our ability to successfully establish new strategic collaborations with biotechnology companies, hospitals, insurance companies, and government agencies. Establishing strategic collaborations is difficult and time-consuming. Potential collaborators may reject collaborations based upon their assessment of our financial, regulatory, or intellectual property position. If we fail to establish a sufficient number of collaborations on acceptable terms, we may not be able to commercialize our products or generate sufficient revenue to fund further research and development efforts.

Even if we establish new collaborations, these relationships may never result in the successful development or commercialization of any of our product candidates for reasons both within and outside of our control.

***There are a limited number of suppliers that can provide materials to us. Any problems encountered by such suppliers may detrimentally impact us.***

We rely on third-party suppliers and vendors for certain of the materials used in the manufacture of our products or other of our product candidates. Any significant problem experienced by one of our suppliers could result in a delay or interruption in the supply of materials to us until such supplier resolves the problem or an alternative source of supply is located. Any delay or interruption could negatively affect our operations.

If the third parties on which we rely to conduct our laboratory testing, animal and human clinical trials do not perform as contractually required or expected, we may not be able to obtain regulatory approval for or commercialize our products.

We have been, and will continue to be, dependent on third-party CROs, medical institutions, investigators, and contract laboratories to conduct certain of our laboratory testing, animal and human clinical studies. We are responsible for confirming that each of our clinical trials is conducted in accordance with our approved plan and protocol. Moreover, the FDA and foreign regulatory agencies require us to comply with regulations and standards, commonly referred to as good clinical practices, for conducting, recording, and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the trial participants are adequately protected. Our reliance on these third parties does not relieve us of these responsibilities and requirements. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, if the third parties need to be replaced, or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our preclinical development activities or clinical trials may be extended, delayed, suspended, or terminated, and we may not be able to obtain regulatory approval or successfully commercialize our products on a timely basis, if at all, and our business, operating results, and prospects may be adversely affected.

***If the third parties on which we rely to conduct our laboratory testing, animal, and human clinical trials do not perform as contractually required or expected, we may not be able to obtain regulatory approval for or commercialize our products.***

We have been, and will continue to be, dependent on third-party CROs, medical institutions, investigators, and contract laboratories to conduct certain of our laboratory testing, animal and human clinical studies. We are responsible for confirming that each of our clinical trials is conducted in accordance with our approved plan and protocol. Moreover, the FDA and foreign regulatory agencies require us to comply with regulations and standards, commonly referred to as good clinical practices, for conducting, recording, and reporting the results of clinical trials to assure that data and reported results are credible and accurate and that the trial participants are adequately protected. Our reliance on these third parties does not relieve us of these responsibilities and requirements. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, if the third parties need to be replaced, or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our preclinical development activities or clinical trials may be extended, delayed, suspended, or terminated, and we may not be able to obtain regulatory approval or successfully commercialize our products on a timely basis, if at all, and our business, operating results, and prospects may be adversely affected.

#### **Risks Related to Employee Matters and Managing Growth**

***Our success depends on our ability to retain our management and other key personnel.***

We depend on our senior management as well as key scientific personnel. We have implemented restructurings that have significantly reduced our workforce over the last few months, leaving only key positions filled. On February 2, 2018, we appointed Richard Toselli M.D. as President, Chief Executive Officer, and a director. The loss of any members of senior management or key scientific personnel could harm our business and significantly delay or prevent the achievement of research, development, or business objectives. Competition for qualified employees is intense among biotechnology companies, and the loss of qualified employees, or an inability to attract, retain, and motivate additional highly skilled employees could hinder our ability to successfully develop marketable products.

Our future success also depends on our ability to identify, attract, hire, train, retain, and motivate other highly skilled scientific, technical, marketing, managerial, and financial personnel. Although we will seek to hire and retain qualified personnel with experience and abilities commensurate with our needs, there is no assurance that we will succeed despite our collective efforts. The loss of the services of any of our senior management or other key personnel could hinder our ability to fulfill our business plan and further develop and commercialize our products and services. Competition for personnel is intense, and any failure to attract and retain the necessary technical, marketing, managerial, and financial personnel would have a material adverse effect on our business, prospects, financial condition, and results of operations.

***We may be subject to claims that our employees, consultants, or independent contractors have wrongfully used or disclosed confidential information of third parties.***

We have received confidential and proprietary information from collaborators, prospective licensees, and other third parties. In addition, we employ individuals who were previously employed at other biotechnology or pharmaceutical companies. We may be subject to claims that we or our employees, consultants, or independent contractors have inadvertently or otherwise used or disclosed confidential information of these third parties or our employees' former employers. We may also be subject to claims that former employees, collaborators, or other third parties have an ownership interest in our patents or other intellectual property. We may be subject to ownership disputes in the future arising, for example, from conflicting obligations of consultants or others who are involved in developing our product candidates. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, valuable intellectual property. Such an outcome could have a material adverse effect on our business. Even if we are successful in defending against these claims, litigation could result in substantial cost and be a distraction to our management and employees.



## **Risks Related to Litigation and Legal Compliance**

***We are, and in the past have been, subject to lawsuits, which could divert management's attention and harm our business.***

We are involved in litigation with our former Chairman, Chief Executive Officer, and Chief Financial Officer. We were previously the subject of a securities derivative lawsuit and a securities class action lawsuit, both of which were dismissed in January 2017. We may face additional lawsuits, including class action or securities derivative lawsuits. The amount of time that is required to resolve these lawsuits is unpredictable and any lawsuits may divert management's attention from the day-to-day operations of our business, which could adversely affect our business, results of operations, and cash flows. Any litigation or claim against us, even those without merit, may cause us to incur substantial costs, and could place a significant strain on our financial resources, divert the attention of management from our core business and harm our reputation. See "Legal Proceedings" for further information regarding our litigation.

***We face potential product liability claims, and, if successful claims are brought against us, we may incur substantial liability and costs.***

We will have exposure to claims for product liability. Product liability coverage for the healthcare industry is expensive and sometimes difficult to obtain. We may not be able to maintain such insurance on acceptable terms or be able to secure increased coverage if the commercialization of our products progresses, nor can we be sure that existing or future claims against us will be covered by our product liability insurance. Moreover, the existing coverage of our insurance policy or any rights of indemnification and contribution that we may have may not be sufficient to offset existing or future claims. A successful claim may prevent us from obtaining adequate product liability insurance in the future on commercially desirable terms, if at all. Even if a claim is not successful, defending such a claim would be time-consuming and expensive, may damage our reputation in the marketplace, and would likely divert our management's attention.

***We are subject to environmental, health, and safety laws. Failure to comply with such environmental, health, and safety laws could cause us to become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.***

We are subject to various environmental, health, and safety laws and regulations, including those relating to safe working conditions, laboratory, and manufacturing practices, the experimental use of animals and humans, emissions and wastewater discharges, and the use and disposal of hazardous or potentially hazardous substances used in connection with our research. Any of these laws or regulations could cause us to incur additional expense or restrict our operations. Compliance with environmental laws and regulations may be expensive, and current or future environmental regulations may impair our research and development efforts.

***Our relationships with customers and third party payers will be subject to applicable anti-kickback, fraud and abuse, and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, program exclusion, contractual damages, reputational harm, and diminished profits and future earnings.***

Healthcare providers, physicians, and third party payers will play a primary role in the recommendation and use of our products and any other product candidates for which we obtain marketing approval. Our future arrangements with healthcare providers, physicians, and third party payers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell, and distribute any products for which we obtain marketing approval. Restrictions under applicable federal and state healthcare laws and regulations include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving, or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward, or in return for, either the referral of an individual for, or the purchase, order, or recommendation or arranging of, any good or service, for which payment may be made under a federal healthcare program such as Medicare and Medicaid;
- the federal False Claims Act imposes criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for, among other things, knowingly presenting, or causing to

be presented, false or fraudulent claims for payment by a federal healthcare program or making a false statement or record material to payment of a false claim or avoiding, decreasing, or concealing an obligation to pay money to the federal government, with potential liability including mandatory treble damages and significant per-claim penalties;

- the federal Health Insurance Portability and Accountability Act of 1996 (“HIPAA”), imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security, and transmission of individually identifiable health information;
- the federal Physician Payments Sunshine Act requires applicable manufacturers of covered products to report payments and other transfers of value to physicians and teaching hospitals; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws and transparency statutes, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third party payers, including private insurers.

Some state laws require device companies to comply with the industry’s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require product manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts.

If our operations are found to be in violation of any of the laws described above or any governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines, and the curtailment or restructuring of our operations. Any penalties, damages, fines, curtailment, or restructuring of our operations could adversely affect our financial results. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions.

Efforts to ensure that our business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations, or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal, and administrative penalties, damages, fines, imprisonment, exclusion of products from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other healthcare providers or entities with whom we expect to do business is found to be not in compliance with applicable laws, they may be subject to criminal, civil, or administrative sanctions, including exclusions from government funded healthcare programs.

## **Risks Related to Investment in Our Securities**

***The price of our common stock has been and may continue to be volatile, which could lead to losses by investors and costly securities litigation.***

The trading price of our common stock is likely to be highly volatile and could fluctuate in response to factors such as:

- the status, completion, and/or results of our clinical trials;
- actual or anticipated variations in our operating results;

- announcements of developments by us or our competitors;
- regulatory actions regarding our products;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures, or capital commitments;
- adoption of new accounting standards affecting our industry;
- additions or departures of key personnel;
- sales of our common stock or other securities in the open market; and
- other events or factors, many of which are beyond our control.

The stock market is subject to significant price and volume fluctuations. In the past, following periods of volatility in the market price of a company's securities, securities class action litigation has often been initiated against such company. Litigation initiated against us, whether or not successful, could result in substantial costs and diversion of our management's attention and resources, which could harm our business and financial condition.

***In the foreseeable future, we do not intend to pay cash dividends on shares of our common stock so any investor gains will be limited to the value of our shares.***

We currently anticipate that we will retain future earnings for the development, operation, and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any gains to stockholders will therefore be limited to the increase, if any, in our share price.

***In the event that we fail to satisfy any of the listing requirements of the Nasdaq Capital Market, our common stock may be delisted, which could affect our market price and liquidity.***

Our common stock is listed on the Nasdaq Capital Market. For continued listing on the Nasdaq Capital Market, we will be required to comply with the continued listing requirements, including the minimum market capitalization standard, the corporate governance requirements and the minimum closing bid price requirement, among other requirements. For example, we were previously listed on the Nasdaq Global Market and on January 23, 2018 we received a deficiency letter from the Listings Qualifications Department of the Nasdaq Stock Market notifying us that, for the last 30 consecutive business days, the bid price for our common stock had closed below the minimum \$1.00 per share requirement for continued inclusion on the Nasdaq Global Market. Although we regained compliance with the Bid Price Rule as a result of the reverse stock split we effected on April 16, 2018, we received a notification from the Listing Qualifications Department of the Nasdaq Stock Market on May 11, 2018, notifying us that, based on our Quarterly Report on Form 10-Q for the quarter ended March 31, 2018, our stockholders' equity was \$8,323,000, and therefore, the we were not in compliance with the minimum stockholders' equity standard which required a minimum of \$10,000,000 in stockholders' equity. We elected to transfer to the Nasdaq Capital Market, and the transfer was effective June 19, 2018. In the event that we fail to satisfy any of the listing requirements of the Nasdaq Capital Market our common stock may be delisted. If our securities are delisted from trading on the Nasdaq Capital Market, and we are not able to list our securities on another exchange our securities could be quoted on the OTC Bulletin Board or on the "pink sheets." As a result, we could face significant adverse consequences including:

- a limited availability of market quotations for our securities;
- a determination that our common stock is a "penny stock," which would require brokers trading in our common stock to adhere to more stringent rules and possibly result in a reduced level of trading activity in the secondary trading market for our securities;
- a limited amount of news and analyst coverage; and
- a decreased ability to issue additional securities (including pursuant to short-form registration statements on Form S-3 or obtain additional financing in the future).

***Anti-takeover effects of certain provisions of our articles of incorporation and Nevada state law may discourage or prevent a takeover.***

Our articles of incorporation divide our Board of Directors into three classes, with three-year staggered terms. The classified board provision could increase the likelihood that, in the event an outside party acquired a controlling block of our stock, incumbent directors nevertheless would retain their positions for a substantial period, which may have the effect of discouraging, delaying, or preventing a change in control. In addition, Nevada has a business combination law, which prohibits certain business combinations between Nevada publicly traded corporations, or Nevada corporations that elect to be subject to the law, and “interested stockholders” for two years after the interested stockholder first becomes an interested stockholder, unless the corporation’s board of directors approves the transaction by which the stockholder becomes an interested stockholder in advance, or the proposed combination in advance of the stockholder becoming an interested stockholder.

The proposed combination may be approved after the stockholder becomes an interested stockholder with preapproval by the board of directors and a vote at a special or annual meeting of stockholders holding at least 60% of the voting power not owned by the interested stockholder or his/her/ its affiliates or associates. After the two-year moratorium period, additional stockholder approvals or fair value requirements must be met by the interested shareholder up to four years after the stockholder became an interested stockholder. In addition, we may become subject to Nevada’s control share laws. A corporation is subject to Nevada’s control share law if it has more than 200 stockholders, at least 100 of whom are stockholders of record and residents of Nevada, and if the corporation does business in Nevada, including through an affiliated corporation. This control share law may have the effect of discouraging corporate takeovers. Currently, we believe that we have less than 100 stockholders of record who are residents of Nevada, and are therefore not subject to the control share laws.

The provisions of our articles of incorporation and Nevada’s business combination and control share laws make it more difficult for a third party to acquire us and make a takeover more difficult to complete, even if such a transaction were in our stockholders’ interest or might result in a premium over the market price for our common stock.

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

During the three months ended June 30, 2018, the Company sold an aggregate of 83,330 shares of its common stock, par value \$0.00001 per share, to Lincoln Park Capital Fund, LLC (“LPC”), for an aggregate purchase price of \$639 thousand. The sales were made pursuant to the terms of that certain purchase agreement dated as of January 25, 2018 by and between the Company and LPC. LPC represented to the Company, among other things, that it was an “accredited investor” (as such term is defined in Rule 501(a) of Regulation D under the Securities Act of 1933, as amended (the “Act”)), and the Company is offering and selling the securities under the Purchase Agreement in reliance upon private placement exemptions from the registration requirements under Section 4(a)(2) of the Act, as well as Rule 506(b) under Regulation D under the Act.

**Item 6. Exhibits**

<b>Exhibit Number</b>	<b>Description</b>
3.1	Articles of Incorporation of InVivo Therapeutics Holdings Corp. as amended (incorporated by reference from Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016 as filed with the SEC on August 4, 2016.)
3.2	Certificate of Amendment to Articles of Incorporation of InVivo Therapeutics Holdings Corp. (incorporated by reference from Exhibit 3.1 to the Company's Current Report on Form 8-K, as filed with the SEC on June 1, 2017.)
3.3	Certificate of Amendment to Articles of Incorporation of InVivo Therapeutics Holdings Corp. (incorporated by reference from Exhibit 3.1 to the Company's Current Report on Form 8-K, as filed with the SEC June 1, 2018.)
3.4	Certificate of Change Pursuant to NRS 78.209 filed with Nevada Secretary of State, dated April 13 2018 (incorporated by reference from Exhibit 3.1 to the Company's Current Report on Form 8-K, as filed with the SEC on April 16, 2018.)
4.1	Form of Series A Warrant (incorporated by reference to Exhibit 4.5 to the Company's Registration Statement on Form S-1, Amendment No. 1, filed with the SEC on June 14, 2018).
4.2	Form of Series B Warrant (incorporated by reference to Exhibit 4.6 to the Company's Registration Statement on Form S-1, Amendment No. 1, filed with the SEC on June 14, 2018).
10.1	Assignment and Assumption of Lease and Consent at Landlord, dated May 3, 2018 by and among Shiseido Americas Corporation, ARE-MA Region No. 59 LLC and InVivo Therapeutics Holdings Corp. (incorporated by reference from Exhibit 10.34 to the Company's Current Report on Form 8-K, as filed with the SEC on June 14, 2018.)
10.2	Sublease, dated May 3, 2018, by and between Shiseido Americas Corporation and InVivo Therapeutics Holdings Corp.(incorporated by reference from Exhibit 10.35 to the Company's Current Report on Form 8-K, as filed with the SEC on June 14, 2018.)
10.3	Letter Agreement, dated May 7, 2018, by and between Christopher McNulty and InVivo Therapeutics Holding Corp. (incorporated by reference from Exhibit 10.36 to the Company's Current Report on Form 8-K, as filed with the SEC on June 14, 2018.)
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
	* Management contract or compensatory plan or arrangement.

**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 7, 2018

By: /s/ Richard Toselli  
Name: Richard Toselli  
Title: Chief Executive Officer, Principal Executive Officer

Date: August 7, 2018

By: /s/ Jeffrey Modestino  
Name: Jeffrey Modestino  
Title: Principal Financial Officer, Principal Accounting Officer, Treasurer

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**ARTICLES OF INCORPORATION**  
**OF**  
**DESIGN SOURCE, INC.**

\* \* \* \* \*

**FIRST**

The name of the corporation is Design Source, Inc.

**SECOND**

Its principal office in the state of Nevada is located at 101 Convention Center Dr. #700, Las Vegas, Nevada 89109. The name and address of its resident agent is Nevada Corporate Headquarters, Inc., 101 Convention Center Dr. #700, Las Vegas, Nevada 89109.

**THIRD**

The purpose or purposes for which the corporation is organized:

To engage in and carry on any lawful business activity or trade, and any activities necessary, convenient, or desirable to accomplish such purposes, not forbidden by law or by these articles of incorporation.

**FOURTH**

The amount of the total authorized capital stock of the corporation is One Thousand Dollars (\$1,000.00) consisting of One Hundred Million (100,000,000) shares of common stock of the par value of \$0.00001 each.

**FIFTH**

The governing board of this corporation shall be known as directors, and the number of directors may from time to time be increased or decreased in such manner as shall be provided by the bylaws of this corporation.

There are three initial members of the Board of Directors and their names and addresses are:

NAME	POST-OFFICE ADDRESS
John Ciannanea	2113 Wisley Way Wake Forest, North Carolina 27514
Bradford B. Walters	32 Wedgewood Road Chapel Hill, North Carolina 27514
Nikola Stefanovic	5630 West Market Street Apartment H Greensboro, North Carolina 27409

The number of members of the Board of Directors shall not be less than one nor more than thirteen.

**SIXTH**

The capital stock, after the amount of the subscription price, or par value, has been paid in shall not be subject to assessment to pay the debts of the corporation.

**SEVENTH**

The name and addresses of each of the incorporators signing the Articles of Incorporation are as follows:

NAME	POST-OFFICE ADDRESS
Conrad C. Lysiak	601 West First Avenue Suite 503 Spokane, Washington 99201

**EIGHTH**

The corporation is to have perpetual existence.

**NINTH**

In furtherance, and not in limitation of the powers conferred by statute, the board of directors is expressly authorized: Subject to the bylaws, if any, adopted by the stockholders, to make, alter or amend the bylaws of the corporation.



To fix the amount to be reserved as working capital over and above its capital stock paid in, to authorize and cause to be executed mortgages and liens upon the real and personal property of this corporation.

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By resolution passed by a majority of the whole board, to designate one (1) or more committees, each committee to consist of one (1) or more of the directors of the corporation, which, to the extent provided in the resolution or in the bylaws of the corporation, shall have and may exercise the powers of the board of directors in the management of the business and affairs of the corporation, and may authorize the seal of the corporation to be affixed to all papers which may require it. Such committee or committees shall have such name or names as may be stated in the bylaws of the corporation or as may be determined from time to time by resolution adopted by the board of directors.

When and as authorized by the affirmative vote of stockholders holding stock entitling them to exercise at least a majority of the voting power given at a stockholders' meeting called for that purpose, or when authorized by the written consent of the holders of at least a majority of the voting stock issued and outstanding, the board of directors shall have power and authority at any meeting to sell, lease or exchange all of the property and assets of the corporation, including its good will and its corporate franchises, upon such terms and conditions as its board of directors deem expedient and for the best interests of the corporation.

#### **TENTH**

Meeting of stockholders may be held outside the State of Nevada, if the bylaws so provide. The books of the corporation may be kept (subject to any provision contained in the statutes) outside the State of Nevada at such place or places as may be designated from time to time by the board of directors or in the bylaws of the corporation.

#### **ELEVENTH**

This corporation reserves the right to amend alter, change or repeal any provision contained in the Articles of Incorporation, in the manner now or hereafter prescribed by statute, or by the Articles of Incorporation, and all rights conferred upon stockholders herein are granted subject to this reservation.

#### **TWELFTH**

The corporation shall indemnify its officers, directors, employees and agents to the full extent permitted by the laws of the State of Nevada.

I, THE UNDERSIGNED, being the incorporator hereinbefore named, for the purpose of forming a corporation pursuant to the General Corporation Law of the State of Nevada, do make and file these Articles of Incorporation, hereby declaring and certifying that the facts herein stated are true, and accordingly have hereunto set my hand this 24th day of March, 2003.

\_\_\_\_\_  
/s/ Conrad C. Lysiak  
CONRAD C. LYSIAK

STATE OF WASHINGTON            )  
  )     SS.  
COUNTY OF SPOKANE         )

On this 24<sup>th</sup> day of March, 2003, before me, a Notary Public, personally appeared CONRAD C. LYSIAK, who severally acknowledged that he executed the above instrument.

\_\_\_\_\_  
/s/ Natasha Spirit Lysiak  
Notary Public, residing in the State of Washington,  
residing in Spokane.

My Commission Expires:

September 18, 2004

[Notary Stamp]

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**ROSS MILLER**  
**Secretary of State**  
204 North Carson Street, Ste 1  
Carson City, Nevada 89701-4299  
(775) 684 5708  
Website: [www.nvsos.gov](http://www.nvsos.gov)

Filed in the office of  
/s/ Ross Miller  
Ross Miller  
Secretary of State  
State of Nevada

Document Number  
**240100747316-61**  
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**10/04/2010 2:20 PM**  
Entity Number  
**C7829-2003**

**Articles of Merger**  
(PURSUANT TO NRS 92A.200)  
Page 1

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**Articles of Merger**  
(Pursuant to NRS Chapter 92A — excluding 92A.200(4b))

**1) Name and jurisdiction of organization of each constituent entity (NRS 92A.200):**

- ☐ If there are more than four merging entities, check box and attach an 8 1/2" x 11" blank sheet containing the required information for each additional entity from article one.

**InVivo Therapeutics Holdings Corp.**

Name of **merging** entity

**Nevada**

Jurisdiction

**Corporation**

Entity Type \*

Name of merging entity

Jurisdiction

Entity Type \*

Name of merging entity

Jurisdiction

Entity Type \*

Name of merging entity

Jurisdiction

Entity Type \*

and,

**Design Source, Inc.**

Name of **surviving** entity

**Nevada**

Jurisdiction

**Corporation**

Entity Type \*

\* Corporation, non-profit corporation, limited partnership, limited-liability company or business trust.

**Filing Fee: \$350.00**

*This form must be accompanied by appropriate fees.*

Nevada Secretary of State 92A Merger  
Revised: 9-20-10

**2) Forwarding address where copies of process may be sent by the Secretary of State of Nevada (if a foreign entity is the survivor in the merger - NRS 92A.1 90):**

Attn:

c/o:

**3) (Choose one)**

- ☐ The undersigned declares that a plan of merger has been adopted by each constituent entity (NRS 92A.200).  
☒ The undersigned declares that a plan of merger has been adopted by the parent domestic entity (NRS 92A.180)

**4) Owner's approval (NRS 92A.200) (options a, b, or c must be used, as applicable, for each entity)**

☐ if there are more than four merging entities, check box and attach an 8 1/2" x 11" blank sheet containing the required information for each additional entity from the appropriate section of article four.

(a) Owner's approval was not required from

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**InVivo Therapeutics Holdings Corp.**

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

and, or;

**Design Source, Inc.**

Name of **surviving** entity, if applicable

*This form must be accompanied by appropriate fees.*

(b) The plan was approved by the required consent of the owners of \*:

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

and, or;

Name of **surviving** entity, if applicable

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\* Unless otherwise provided in the certificate of trust or governing instrument of a business trust, a merger must be approved by all the trustees and beneficial owners of each business trust that is a constituent entity in the merger.

*This form must be accompanied by appropriate fees.*

(c) Approval of plan of merger for Nevada non-profit corporation (NRS 92A.160):

The plan of merger has been approved by the directors of the corporation and by each public officer or other person whose approval of the plan of merger is required by the articles of incorporation of the domestic corporation.

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

Name of **merging** entity, if applicable

and, or;

Name of **surviving** entity, if applicable

*This form must be accompanied by appropriate fees.*

**5) Amendments, if any, to the articles or certificate of the surviving entity. Provide article numbers, if available. (NRS 92A.200)\*:**

Article One of the Articles of Incorporation of Design Source, Inc. is hereby amended to change the name of the Corporation to InVivo Therapeutics Holdings Corp.

**6) Location of Plan of Merger (check a or b):**

☐ (a) The entire plan of merger is attached;

or,

☒ (b) The entire plan of merger is on file at the registered office of the surviving corporation, limited-liability company or business trust, or at the records office address if a limited partnership, or other place of business of the surviving entity (NRS 92A.200).

**7) Effective date (optional)\*\*:**

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\* Amended and restated articles may be attached as an exhibit or integrated into the articles of merger. Please entitle them “Restated” or “Amended and Restated,” accordingly. The form to accompany restated articles prescribed by the secretary of state must accompany the amended and/or restated articles. Pursuant to NRS 92A.180 (merger of subsidiary into parent - Nevada parent owning 90% or more of subsidiary), the articles of merger may not contain amendments to the constituent

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documents of the surviving entity except that the name of the surviving entity may be changed.

\*\* A merger takes effect upon filing the articles of merger or upon a later date as specified in the articles, which must not be more than 90 days after the articles are filed (NRS 92A.240).

*This form must be accompanied by appropriate fees.*

**8) Signatures: Must be signed by: An officer of each Nevada corporation; All general partners of each Nevada limited partnership; All general partners of each Nevada limited-liability limited partnership; A manager of each Nevada limited-liability company with managers or one member if there are no managers; A trustee of each Nevada business trust (NRS 92A.230)\***

☐ **if there are more than four merging entities, check box and attach an 8 1/2" x 11" blank sheet containing the required information for each additional entity from article eight:**

**InVivo Therapeutics Holdings Corp.**

Name of **merging** entity

<u>X /s/ Peter A. Reichard</u>	Chief Executive Officer	October 4, 2010
<b>Signature</b>	Title	Date

Name of **merging** entity

<u>X</u>		
<b>Signature</b>	Title	Date

Name of **merging** entity

<u>X</u>		
<b>Signature</b>	Title	Date

Name of **merging** entity

<u>X</u>		
<b>Signature</b>	Title	Date

**Design Source, Inc.**

Name of **surviving** entity

<u>X /s/ Peter A. Reichard</u>	Chief Executive Officer	October 4, 2010
<b>Signature</b>	Title	Date

\* The articles of merger must be signed by each foreign constituent entity in the manner provided by the law governing it (NRS 92A.230). Additional signature blocks may be added to this page or as an attachment, as needed.

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may cause this filing to be rejected.

*This form must be accompanied by appropriate fees.*

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**ROSS MILLER**  
Secretary of State  
204 North Carson Street, Suite 1  
Carson City, Nevada 89701-4520  
(775) 684-5708  
Website: [www.nvsos.gov](http://www.nvsos.gov)



\*090201\*

**Certificate of Amendment**  
(PURSUANT TO NRS 78.385 AND 78.390)

Filed in the office of

Ross Miller  
Secretary of State  
State of Nevada

Document Number  
**20110584127-31**  
Filing Date and Time  
**08/08/2011 8:36 AM**  
Entity Number  
**C7829-2003**

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**Certificate of Amendment to Articles of Incorporation**  
**For Nevada Profit Corporations**  
(Pursuant to NRS 78.385 and 78.390 - After Issuance of Stock)

**1. Name of corporation:**

InVivo Therapeutics Holdings Corp.

**2. The articles have been amended as follows: (provide article numbers, if available)**

RESOLVED, that Article V of the Corporation's Articles of Incorporation, as amended, be and hereby is amended by adding the following paragraph at the end of Article V:

The directors shall be divided into three (3) classes. Each such class shall consist, as nearly as may be possible, of one-third of the total number of directors, and any remaining directors shall be included within such groups as the Board of Directors shall designate. The first class of directors will be elected for a term which expires in 2012. The second class will be elected for a term which expires in 2013. The third class will be elected to a term which expires in 2014. At each annual meeting of stockholders, beginning in 2012, successors to the class of directors whose term expires at the annual meeting shall be elected for a three-year term. If the number of directors is changed, any increase or decrease shall be apportioned among the classes so as to maintain the number of directors in each class as nearly equal as possible, but in no case shall a decrease in the number of directors shorten the term of any incumbent director. No alteration, amendment or repeal of this Article V or the bylaws of the corporation shall be effective to shorten the term of any director holding office at the time of such alteration, amendment or repeal, unless such alteration, amendment or repeal of this Article V has been approved by the holders of the shares of stock entitled to vote thereon.

**3. The vote by which the stockholders holding shares in the corporation entitling them to exercise a least a majority of the voting power, or such greater proportion of the voting power as may be required in the case of a vote by classes or series, or as may be required by the provisions of the articles of incorporation\* have voted in favor of the amendment is: 64.9% of the voting power.**

**4. Effective date of filing: (optional)**

\_\_\_\_\_  
(must not be later than 90 days after the certificate is filed)

**5. Signature: (required)**

x

**Signature of Officer** Frank M. Reynolds, Chief Executive Officer

\*If any proposed amendment would alter or change any preference or any relative or other right given to any class or series; of outstanding shares, then the amendment must be approved by the vote, in addition to the affirmative vote otherwise required, of the holders of shares representing a majority of the voting power of each class or series affected by the amendment regardless to limitations or restrictions on the voting power thereof.

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may causes this filing to be rejected.

*This form must be accompanied by appropriate fees.*

**Nevada Secretary of State Amend Profit-After**  
**Revised: 3-5-09**

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**ROSS MILLER**  
Secretary of State  
204 North Carson Street, Suite 1  
Carson City, Nevada 89701-4520  
(775) 684-5708  
Website: [www.nvsos.gov](http://www.nvsos.gov)



\*090201\*

**Certificate of Amendment**  
(PURSUANT TO NRS 78.385 AND 78.390)

Filed in the office of

Ross Miller  
Secretary of State  
State of Nevada

Document Number  
**20110593460-61**  
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**08/11/2011 7:28 AM**  
Entity Number  
**C7829-2003**

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**Certificate of Amendment to Articles of Incorporation**  
**For Nevada Profit Corporations**  
(Pursuant to NRS 78.385 and 78.390 - After Issuance of Stock)

**1. Name of corporation:**

InVivo Therapeutics Holdings Corp.

**2. The articles have been amended as follows: (provide article numbers, if available)**

RESOLVED, that Article IV of the Corporation's Articles of Incorporation, as amended, be and hereby is amended by replacing Article IV, in its entirety, with the following:

"The total number of shares that this corporation is authorized to issue is Two Hundred Million (200,000,000) shares of Common Stock having a par value of \$0.00001 per share."

**3. The vote by which the stockholders holding shares in the corporation entitling them to exercise a least a majority of the voting power, or such greater proportion of the voting power as may be required in the case of a vote by classes or series, or as may be required by the provisions of the articles of incorporation\* have voted in favor of the amendments is: 64.7% of the voting power.**

**4. Effective date of filing: (optional)**

\_\_\_\_\_  
(must not be later than 90 days after the certificate is filed)

**5. Signature: (required)**

x

**Signature of Officer** Frank M. Reynolds, Chief Executive Officer

\*If any proposed amendment would alter or change any preference or any relative or other right given to any class or series of outstanding shares, then the amendment must be approved by the vote, in addition to the affirmative vote otherwise required, of the holders of shares representing a majority of the voting power of each class or series affected by the amendment regardless to limitations or restrictions on the voting power thereof.

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may cause this filing to be rejected.

*This form must be accompanied by appropriate fees.*

**Nevada Secretary of State Amend Profit-After**  
**Revised: 3-5-09**



BARBARA K. CEGAVSKE  
Secretary of State  
202 North Carson Street  
Carson City, Nevada 89701-4201  
(775) 684-5708  
Website: [www.nvsos.gov](http://www.nvsos.gov)

**Certificate of Change Pursuant to NRS 78.209**

**USE BLACK INK ONLY - DO NOT HIGHLIGHT**

**ABOVE SPACE IS FOR OFFICE USE ONLY**

**Certificate of Change filed Pursuant to NRS 78.209**  
**For Nevada Profit Corporations**

1. Name of corporation:

INVIVO THERAPEUTICS HOLDINGS CORP.

2. The board of directors have adopted a resolution pursuant to NRS 78.209 and have obtained any required approval of the stockholders.

3. The current number of authorized shares and the par value, if any, of each class or series, if any, of shares before the change:

200,000,000 authorized shares of Common Stock, par value \$0.00001 per share

4. The number of authorized shares and the par value, if any, of each class or series, if any, of shares after the change:

50,000,000 authorized shares of Common Stock, par value \$0.00001 per share

5. The number of shares of each affected class or series, if any, to be issued after the change in exchange for each issued share of the same class or series:

One (1) share of Common Stock will be issued in exchange for every four (4) shares of Common Stock

6. The provisions, if any, for the issuance of fractional shares, or for the payment of money or the issuance of scrip to stockholders otherwise entitled to a fraction of a share and the percentage of outstanding shares affected thereby:

All fractional shares will be rounded up to the nearest whole share.

7. Effective date and time of filing: (optional)

Date: 04/08/2015

Time: 12:01 AM ET

(must not be later than 90 days after the certificate is filed)

8. Signature: (required)

**X** /s/ Steven F. McAllister

Chief Financial Officer

Signature of Officer

Title

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may cause this filing to be rejected.

*This form must be accompanied by appropriate fees.*

Nevada Secretary of State Stock Split

Revised: 1-5-15



BARBARA K. CEGAVSKE  
Secretary of State  
202 North Carson Street  
Carson City, Nevada 89701-4201  
(775) 684-5708  
Website: [www.nvsos.gov](http://www.nvsos.gov)



\*090204\*

**Certificate of Amendment**  
(PURSUANT TO NRS 78.385 AND 78.390)

Filed in the office of <i>Barbara K. Cegavske</i> Barbara K. Cegavske Secretary of State State of Nevada	Document Number <b>20160237571-64</b> Filing Date and Time <b>05/26/2016 10:38 AM</b> Entity Number <b>C7829-2003</b>
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ABOVE SPACE IS FOR OFFICE USE ONLY

**Certificate of Amendment to Articles of Incorporation**  
**For Nevada Profit Corporations**  
(Pursuant to NRS 78.385 and 78.390 - After Issuance of Stock)

1. Name of corporation:

InVivo Therapeutics Holdings Corp.

2. The articles have been amended as follows: (provide article numbers, if available)

Article IV shall be replaced with the following:

**FOURTH**

The total number of shares that this corporation is authorized to issue is One Hundred Million (100,000,000) shares of Common Stock having a par value of \$0.00001 per share.

3. The vote by which the stockholders holding shares in the corporation entitling them to exercise at least a majority of the voting power, or such greater proportion of the voting power as may be required in the case of a vote by classes or series, or as may be required by the provisions of the articles of incorporation\* have voted in favor of the amendment is: Majority of outstanding shares

4. Effective date and time of filing: (optional)

Date:

Time:

(must not be later than 90 days after the certificate is filed)

5. Signature: (required)

X *Steven F. McAdams*

Signature of Officer

\*If any proposed amendment would alter or change any preference or any relative or other right given to any class or series of outstanding shares, then the amendment must be approved by the vote, in addition to the affirmative vote otherwise required, of the holders of shares representing a majority of the voting power of each class or series affected by the amendment regardless to limitations or restrictions on the voting power thereof.

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may cause this filing to be rejected.

This form must be accompanied by appropriate fees.

Nevada Secretary of State Amend Profit-After  
Revised: 1-5-15



BARBARA K. CEGAVSKE  
Secretary of State  
202 North Carson Street  
Carson City, Nevada 89701-4201  
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\*090204\*

## Certificate of Amendment

(PURSUANT TO NRS 78.385 AND 78.390)

USE BLACK INK ONLY - DO NOT HIGHLIGHT

ABOVE SPACE IS FOR OFFICE USE ONLY

**Certificate of Amendment to Articles of Incorporation**  
**For Nevada Profit Corporations**  
**(Pursuant to NRS 78.385 and 78.390 - After Issuance of Stock)**

1. Name of corporation:

InVivo Therapeutics Holdings Corp.

2. The articles have been amended as follows: (provide article numbers, if available)

Article IV shall be replaced with the following:

**FOURTH**

The total number of shares that this corporation is authorized to issue is One Hundred Million (100,000,000) shares of Common Stock having a par value of \$0.00001 per share.

3. The vote by which the stockholders holding shares in the corporation entitling them to exercise at least a majority of the voting power, or such greater proportion of the voting power as may be required in the case of a vote by classes or series, or as may be required by the provisions of the articles of incorporation\* have voted in favor of the amendment is:

Majority of outstanding shares

4. Effective date and time of filing: (optional)

Date:

Time:

(must not be later than 90 days after the certificate is filed)

5. Signature: (required)

X

Signature of Officer

\*If any proposed amendment would alter or change any preference or any relative or other right given to any class or series of outstanding shares, then the amendment must be approved by the vote, in addition to the affirmative vote otherwise required, of the holders of shares representing a majority of the voting power of each class or series affected by the amendment regardless to limitations or restrictions on the voting power thereof.

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may cause this filing to be rejected.

*This form must be accompanied by appropriate fees.*

Nevada Secretary of State Amend Profit-After  
Revised: 1-5-15



**BARBARA K. CEGAVSKE**  
Secretary of State  
202 North Carson Street  
Carson City, Nevada 89701-4201  
(775) 684-5708  
Website: [www.nvsos.gov](http://www.nvsos.gov)



"090204"

Filed in the office of <i>Barbara K. Cegavske</i> Barbara K. Cegavske Secretary of State State of Nevada	Document Number <b>20180250272-69</b> Filing Date and Time <b>06/01/2018 9:50 AM</b> Entity Number <b>C7829-2003</b>
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## Certificate of Amendment

(PURSUANT TO NRS 78.385 AND 78.390)

USE BLACK INK ONLY - DO NOT HIGHLIGHT

ABOVE SPACE IS FOR OFFICE USE ONLY

### **Certificate of Amendment to Articles of Incorporation** **For Nevada Profit Corporations** **(Pursuant to NRS 78.385 and 78.390 - After Issuance of Stock)**

1. Name of corporation:

InVivo Therapeutics Holdings Corp. (the "Corporation")

2. The articles have been amended as follows: (provide article numbers, if available)

RESOLVED, that Article IV of the Corporation's Articles of Incorporation, as amended, be and hereby is amended by replacing Article IV, in its entirety, with the following:

"The total number of shares that this corporation is authorized to issue is Twenty-Five Million (25,000,000) shares of Common Stock having a par value of \$0.00001 per share."

3. The vote by which the stockholders holding shares in the corporation entitling them to exercise at least a majority of the voting power, or such greater proportion of the voting power as may be required in the case of a vote by classes or series, or as may be required by the provisions of the articles of incorporation\* have voted in favor of the amendment is:

866,668

4. Effective date and time of filing: (optional) Date: 06/01/2018 Time: 2:00 pm

(must not be later than 90 days after the certificate is filed)

5. Signature: (required)

X

Signature of Officer

\*If any proposed amendment would alter or change any preference or any relative or other right given to any class or series of outstanding shares, then the amendment must be approved by the vote, in addition to the affirmative vote otherwise required, of the holders of shares representing a majority of the voting power of each class or series affected by the amendment regardless to limitations or restrictions on the voting power thereof.

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may cause this filing to be rejected.

This form must be accompanied by appropriate fees.

Nevada Secretary of State Amend Profit-After  
Revised: 1-5-15





BARBARA K. CEGAVSKE  
Secretary of State  
202 North Carson Street  
Carson City, Nevada 89701-4201  
(775) 684-5700  
Website: www.nvsos.gov



\*000102\*

**Certificate of Change Pursuant  
to NRS 78.209**

Filed in the office of <i>Barbara K. Cegavske</i>	Document Number <b>20180168463-29</b>
Barbara K. Cegavske Secretary of State State of Nevada	Filing Date and Time <b>04/13/2018 10:20 AM</b>
	Entity Number <b>C7829-2003</b>

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ABOVE SPACE IS FOR OFFICE USE ONLY

**Certificate of Change filed Pursuant to NRS 78.209  
For Nevada Profit Corporations**

1. Name of corporation:

INVIVO THERAPEUTICS HOLDINGS CORP.

2. The board of directors have adopted a resolution pursuant to NRS 78.209 and have obtained any required approval of the stockholders.

3. The current number of authorized shares and the par value, if any, of each class or series, if any, of shares before the change:

100,000,000 authorized shares of Common Stock, par value \$0.00001 per share

4. The number of authorized shares and the par value, if any, of each class or series, if any, of shares after the change:

4,000,000 authorized shares of Common Stock, par value \$0.00001 per share

5. The number of shares of each affected class or series, if any, to be issued after the change in exchange for each issued share of the same class or series:

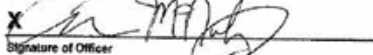
One (1) share of Common Stock will be issued in exchange for every twenty-five (25) shares of Common Stock.

6. The provisions, if any, for the issuance of fractional shares, or for the payment of money or the issuance of scrip to stockholders otherwise entitled to a fraction of a share and the percentage of outstanding shares affected thereby:

All fractional shares will be rounded up to the nearest whole share.

7. Effective date and time of filing: (optional) Date: 04/16/2018 Time: 2:00 pm

8. Signature: (required) (must not be later than 90 days after the certificate is filed)

X   
Signature of Officer

Chief Financial Officer  
Title

**IMPORTANT:** Failure to include any of the above information and submit with the proper fees may cause this filing to be rejected.

This form must be accompanied by appropriate fees.

Nevada Secretary of State Stock Split  
Revised: 1-9-15



## EXHIBIT D-1

## SERIES A COMMON STOCK PURCHASE WARRANT

## INVIVO THERAPEUTICS HOLDINGS CORP.

Warrant Shares:

Initial Exercise Date: , 2018

CUSIP:

ISIN:

THIS SERIES A COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, CEDE & CO. or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on <sup>(1)</sup> (the “Termination Date”) but not thereafter, to subscribe for and purchase from InVivo Therapeutics Holdings Corp., a Nevada corporation (the “Company”), up to shares (as subject to adjustment hereunder, the “Warrant Shares”) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant shall initially be issued and maintained in the form of a security held in book-entry form and the Depository Trust Company or its nominee (“DTC”) shall initially be the sole registered holder of this Warrant, subject to a Holder’s right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agency Agreement, in which case this sentence shall not apply.

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the

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(1) Insert the date that is the 5 year anniversary of the Initial Exercise Date; provided, however, that, if such date is not a Trading Day, insert the immediately following Trading Day.

Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Board of Directors” means the board of directors of the Company.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the common stock of the Company, par value \$0.00001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Registration Statement” means the Company’s registration statement on Form S-1 (File No. 333-224424).

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means Continental Stock Transfer & Trust Company, with offices located at 1 State Street, 30<sup>th</sup> Floor, New York, New York 10004-151, and any successor transfer agent of the Company.

“Underwriting Agreement” means the underwriting agreement, dated as of \_\_\_\_\_, 2018 among the Company and Ladenburg Thalmann & Co. Inc. as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Warrant Agency Agreement” means that certain warrant agency agreement, dated on or about the Initial Exercise Date, between the Company and the Warrant Agent.

“Warrant Agent” means the Transfer Agent and any successor warrant agent of the Company.

“Warrants” means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement.

## Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable

Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

Notwithstanding the foregoing in this Section 2(a), a holder whose interest in this Warrant is a beneficial interest in certificate(s) representing this Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2(a) by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agency Agreement, in which case this sentence shall not apply.

b) Exercise Price. The exercise price per share of Common Stock under this Warrant shall be \$ , subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

(A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of "regular trading hours" (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder,

either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder's execution of the applicable Notice of Exercise if such Notice of Exercise is executed during "regular trading hours" on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of "regular trading hours" on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of "regular trading hours" on such Trading Day;

(B) = the Exercise Price of this Warrant, as adjusted hereunder; and

(X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date, in the event the VWAP provided for in (A) above is greater than then Exercise Price as set forth in (B) above, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

Notwithstanding the foregoing, in no event will the Company be required to net cash settle an exercise of this Warrant.

d) Mechanics of Exercise.

- i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of

Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the “Warrant Share Delivery Date”). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$5 per Trading Day (increasing to \$10 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, “Standard Settlement Period” means the standard settlement period, expressed in a number of Trading Days, on the Company’s primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its

broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental

thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in



(A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61<sup>st</sup> day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution

and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Reserved.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the “Purchase Rights”), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder’s right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution

shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a "Fundamental Transaction"), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the "Alternate Consideration") receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction other than one in which a Successor Entity (as defined below) that is a publicly traded corporation whose stock is quoted or listed on a Trading Market assumes this Warrant such that the Warrant shall be exercisable for the publicly traded common stock of such Successor Entity, the Company or any Successor Entity shall, at the

Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction. Any cash payment will be made by wire transfer of immediately available funds within five Business Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). "Black Scholes Value" means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the "OV" function on Bloomberg, L.P. ("Bloomberg") determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds within five Business Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the "Successor Entity") to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the

Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any

defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

**Section 4. Transfer of Warrant.**

a) **Transferability.** This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) **New Warrants.** If this Warrant is not held in global form through DTC (or any successor depository), this Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) **Warrant Register.** The Warrant Agent shall register this Warrant, upon records to be maintained by the Warrant Agent for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company and the Warrant Agent may deem and treat the registered Holder of this Warrant as the absolute

owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

**Section 5. Miscellaneous.**

a) **No Rights as Stockholder Until Exercise.** This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

b) **Loss, Theft, Destruction or Mutilation of Warrant.** The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) **Saturdays, Sundays, Holidays, etc.** If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) **Authorized Shares.**

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its

certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.



f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at One Kendall Square, Suite B14402, Cambridge, Massachusetts 02139, Attention: Heather Hamel, facsimile number: , email address: hhamel@invivotherapeutics.com, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

i) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

j) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

k) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder or the beneficial owner of this Warrant, on the other hand.

l) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

m) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

n) Warrant Agency Agreement. If this Warrant is held in global form through DTC (or any successor depositary), this Warrant is issued subject to the Warrant Agency Agreement. To the extent any provision of this Warrant conflicts with the express provisions of the Warrant Agency Agreement, the provisions of this Warrant shall govern and be controlling.

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*(Signature Page Follows)*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**INVIVO THERAPEUTICS HOLDINGS CORP.**

By: \_\_\_\_\_  
Name:  
Title:

**NOTICE OF EXERCISE**

TO: INVIVO THERAPEUTICS HOLDINGS CORP.

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: \_\_\_\_\_  
*Signature of Authorized Signatory of Investing Entity:* \_\_\_\_\_  
Name of Authorized Signatory: \_\_\_\_\_  
Title of Authorized Signatory: \_\_\_\_\_  
Date: \_\_\_\_\_

**ASSIGNMENT FORM**

*(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)*

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: \_\_\_\_\_  
(Please Print)

Address: \_\_\_\_\_  
(Please Print)

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Dated: \_\_\_\_\_,

Holder’s Signature: \_\_\_\_\_

Holder’s Address: \_\_\_\_\_

\_\_\_\_\_

EXHIBIT D-2

**SERIES B PRE-FUNDED COMMON STOCK PURCHASE WARRANT**

**INVIVO THERAPEUTICS HOLDINGS CORP.**

Warrant Shares:

Initial Exercise Date: , 2018

CUSIP:

ISIN:

THIS SERIES B PRE-FUNDED COMMON STOCK PURCHASE WARRANT (the “Warrant”) certifies that, for value received, CEDE & CO. or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on (1) (the “Termination Date”) but not thereafter, to subscribe for and purchase from InVivo Therapeutics Holdings Corp., a Nevada corporation (the “Company”), up to shares (as subject to adjustment hereunder, the “Warrant Shares”) of Common Stock. The purchase price of one share of Common Stock under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b). This Warrant shall initially be issued and maintained in the form of a security held in book-entry form and the Depository Trust Company or its nominee (“DTC”) shall initially be the sole registered holder of this Warrant, subject to a Holder’s right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agency Agreement, in which case this sentence shall not apply.

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the bid price of the Common Stock for the time in question (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the

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(1) Insert the date that is the 20 year anniversary of the Initial Exercise Date; provided, however, that if such date is not a Trading Day, insert the immediately following Trading Day.

Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Board of Directors” means the board of directors of the Company.

“Business Day” means any day except any Saturday, any Sunday, any day which is a federal legal holiday in the United States or any day on which banking institutions in the State of New York are authorized or required by law or other governmental action to close.

“Commission” means the United States Securities and Exchange Commission.

“Common Stock” means the common stock of the Company, par value \$0.00001 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Common Stock Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Common Stock, including, without limitation, any debt, preferred stock, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Common Stock.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Registration Statement” means the Company’s registration statement on Form S-1 (File No. 333-224424).

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Trading Day” means a day on which the Common Stock is traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Common Stock is listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, or the New York Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means Continental Stock Transfer & Trust Company, with offices located at 1 State Street, 30<sup>th</sup> Floor, New York, New York 10004-151, and any successor transfer agent of the Company.

“Underwriting Agreement” means the underwriting agreement, dated as of \_\_\_\_\_, 2018 among the Company and Ladenburg Thalmann & Co. Inc. as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Common Stock is then listed or quoted on a Trading Market, the daily volume weighted average price of the Common Stock for such date (or the nearest preceding date) on the Trading Market on which the Common Stock is then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Common Stock for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Common Stock is not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Common Stock are then reported in the “Pink Sheets” published by OTC Markets Group, Inc. (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per share of the Common Stock so reported, or (d) in all other cases, the fair market value of a share of Common Stock as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Warrant Agency Agreement” means that certain warrant agency agreement, dated on or about the Initial Exercise Date, between the Company and the Warrant Agent.

“Warrant Agent” means the Transfer Agent and any successor warrant agent of the Company.

“Warrants” means this Warrant and other Common Stock purchase warrants issued by the Company pursuant to the Registration Statement.

## Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the “Notice of Exercise”). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d)(i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the shares specified in the applicable Notice of Exercise by wire transfer or cashier’s check drawn on a United States bank unless the cashless exercise procedure specified in Section 2(c) below is specified in the applicable



Notice of Exercise. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Business Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

Notwithstanding the foregoing in this Section 2(a), a holder whose interest in this Warrant is a beneficial interest in certificate(s) representing this Warrant held in book-entry form through DTC (or another established clearing corporation performing similar functions), shall effect exercises made pursuant to this Section 2(a) by delivering to DTC (or such other clearing corporation, as applicable) the appropriate instruction form for exercise, complying with the procedures to effect exercise that are required by DTC (or such other clearing corporation, as applicable), subject to a Holder's right to elect to receive a Warrant in certificated form pursuant to the terms of the Warrant Agency Agreement, in which case this sentence shall not apply.

b) Exercise Price. The aggregate exercise price of this Warrant, except for a nominal exercise price of \$0.01 per Warrant Share, was pre-funded to the Company on or prior to the Initial Exercise Date and, consequently, no additional consideration (other than the nominal exercise price of \$0.01 per Warrant Share) shall be required to be paid by the Holder to any Person to effect any exercise of this Warrant. The Holder shall not be entitled to the return or refund of all, or any portion, of such pre-paid aggregate exercise price under any circumstance or for any reason whatsoever, including in the event this Warrant shall not have been exercised prior to the Termination Date. The remaining unpaid exercise price per share of Common Stock under this Warrant shall be \$0.01, subject to adjustment hereunder (the "Exercise Price").

c) Cashless Exercise. If at the time of exercise hereof there is no effective registration statement registering, or the prospectus contained therein is not available for the issuance of the Warrant Shares to the Holder, then this Warrant may also be exercised, in whole or in part, at such time by means of a "cashless exercise" in which the Holder shall be entitled to receive a number of Warrant Shares equal to the quotient obtained by dividing [(A-B) (X)] by (A), where:

- (A) = as applicable: (i) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise if such Notice of Exercise is (1) both executed and delivered pursuant to Section 2(a) hereof on a day that is not a Trading Day or (2) both executed and delivered pursuant to Section 2(a) hereof on a Trading Day prior to the opening of “regular trading hours” (as defined in Rule 600(b)(64) of Regulation NMS promulgated under the federal securities laws) on such Trading Day, (ii) at the option of the Holder, either (y) the VWAP on the Trading Day immediately preceding the date of the applicable Notice of Exercise or (z) the Bid Price of the Common Stock on the principal Trading Market as reported by Bloomberg L.P. as of the time of the Holder’s execution of the applicable Notice of Exercise if such Notice of Exercise is executed during “regular trading hours” on a Trading Day and is delivered within two (2) hours thereafter (including until two (2) hours after the close of “regular trading hours” on a Trading Day) pursuant to Section 2(a) hereof or (iii) the VWAP on the date of the applicable Notice of Exercise if the date of such Notice of Exercise is a Trading Day and such Notice of Exercise is both executed and delivered pursuant to Section 2(a) hereof after the close of “regular trading hours” on such Trading Day;
- (B) = the Exercise Price of this Warrant, as adjusted hereunder; and
- (X) = the number of Warrant Shares that would be issuable upon exercise of this Warrant in accordance with the terms of this Warrant if such exercise were by means of a cash exercise rather than a cashless exercise.

If Warrant Shares are issued in such a cashless exercise, the parties acknowledge and agree that in accordance with Section 3(a)(9) of the Securities Act, the Warrant Shares shall take on the registered characteristics of the Warrants being exercised. The Company agrees not to take any position contrary to this Section 2(c).

Notwithstanding anything herein to the contrary, on the Termination Date, in the event the VWAP provided for in (A) above is greater than then Exercise Price as set forth in (B) above, this Warrant shall be automatically exercised via cashless exercise pursuant to this Section 2(c).

Notwithstanding the foregoing, in no event will the Company be required to net cash settle an exercise of this Warrant.

d) Mechanics of Exercise.

- i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder’s or its designee’s balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system (“DWAC”) if the Company is then a participant in such system and either (A) there is an effective registration statement permitting the issuance of the Warrant Shares to or

resale of the Warrant Shares by Holder or (B) this Warrant is being exercised via cashless exercise, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earliest of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise, (ii) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company and (iii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise (such date, the "Warrant Share Delivery Date"). Upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price (other than in the case of a cashless exercise) is received within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period following delivery of the Notice of Exercise. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Common Stock on the date of the applicable Notice of Exercise), \$5 per Trading Day (increasing to \$10 per Trading Day on the fifth Trading Day after such liquidated damages begin to accrue) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Common Stock as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 12:00 p.m. (New York City time) on the Initial Exercise Date, which may be delivered at any time after the time of execution of the Underwriting Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date, and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, shares of Common Stock to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the shares of Common Stock so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of shares of Common Stock that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Common Stock having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of shares of Common Stock with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver shares of Common Stock upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall round up to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its stockholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of shares of Common Stock beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of shares of Common Stock issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of shares of Common Stock which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Common Stock Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(e), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(e) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and

of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(e), in determining the number of outstanding shares of Common Stock, a Holder may rely on the number of outstanding shares of Common Stock as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of shares of Common Stock outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding shares of Common Stock was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(e), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of shares of the Common Stock outstanding immediately after giving effect to the issuance of shares of Common Stock upon exercise of this Warrant held by the Holder and the provisions of this Section 2(e) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61<sup>st</sup> day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(e) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

f) Call Provision. Subject to the provisions of Section 2(e) and this Section 2(f), if, after the Initial Exercise Date, (i) the VWAP for each of 30 consecutive Trading Days (the "Measurement Period," which 30 consecutive Trading Day period shall not have commenced until after the Initial Exercise Date) exceeds \$ (2) (subject to adjustment for forward and reverse stock splits, recapitalizations, stock dividends and the like after the Initial Exercise Date), (ii) the average daily volume for such Measurement Period exceeds \$500,000 per Trading Day and (iii) the Holder is not in possession of any

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(2) 300% of the then Exercise Price.

information that constitutes, or might constitute, material non-public information which was provided by the Company, any of its Subsidiaries, or any of their officers, directors, employees, agents or Affiliates, then the Company may, within 1 Trading Day of the end of such Measurement Period, call for cancellation of all or any portion of this Warrant for which a Notice of Exercise has not yet been delivered (such right, a “Call”) for consideration equal to \$0.001 per Warrant Share. To exercise this right, the Company must deliver to the Holder an irrevocable written notice (a “Call Notice”), indicating therein the portion of unexercised portion of this Warrant to which such notice applies. If the conditions set forth below for such Call are satisfied from the period from the date of the Call Notice through and including the Call Date (as defined below), then any portion of this Warrant subject to such Call Notice for which a Notice of Exercise shall not have been received by the Call Date will be cancelled at 6:30 p.m. (New York City time) on the tenth Trading Day after the date the Call Notice is received by the Holder (such date and time, the “Call Date”). Any unexercised portion of this Warrant to which the Call Notice does not pertain will be unaffected by such Call Notice. In furtherance thereof, the Company covenants and agrees that it will honor all Notices of Exercise with respect to Warrant Shares subject to a Call Notice that are tendered through 6:30 p.m. (New York City time) on the Call Date. The parties agree that any Notice of Exercise delivered following a Call Notice which calls less than all of the Warrants shall first reduce to zero the number of Warrant Shares subject to such Call Notice prior to reducing the remaining Warrant Shares available for purchase under this Warrant. For example, if (A) this Warrant then permits the Holder to acquire 100 Warrant Shares, (B) a Call Notice pertains to 75 Warrant Shares, and (C) prior to 6:30 p.m. (New York City time) on the Call Date the Holder tenders a Notice of Exercise in respect of 50 Warrant Shares, then (x) on the Call Date the right under this Warrant to acquire 25 Warrant Shares will be automatically cancelled, (y) the Company, in the time and manner required under this Warrant, will have issued and delivered to the Holder 50 Warrant Shares in respect of the exercises following receipt of the Call Notice, and (z) the Holder may, until the Termination Date, exercise this Warrant for 25 Warrant Shares (subject to adjustment as herein provided and subject to subsequent Call Notices). Subject again to the provisions of this Section 2(f), the Company may deliver subsequent Call Notices for any portion of this Warrant for which the Holder shall not have delivered a Notice of Exercise. Notwithstanding anything to the contrary set forth in this Warrant, the Company may not deliver a Call Notice or require the cancellation of this Warrant (and any such Call Notice shall be void), unless, from the beginning of the Measurement Period through the Call Date, (1) the Company shall have honored in accordance with the terms of this Warrant all Notices of Exercise delivered by 6:30 p.m. (New York City time) on the Call Date, and (2) a registration statement shall be effective as to all Warrant Shares and the prospectus thereunder available for use by the Company for the sale of all such Warrant Shares to the Holder, and (3) the Common Stock shall be listed or quoted for trading on the Trading Market, and (4) there is a sufficient number of authorized shares of Common Stock for issuance of all Warrant Shares, and (5) the issuance of all Warrant Shares subject to a Call Notice shall not cause a breach of any provision of Section 2(e) herein. The Company’s right to call the Warrants under this Section 2(f) shall be exercised ratably among the Holders based on each Holder’s initial purchase of Warrants.

Section 3. Certain Adjustments.

a) Stock Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a stock dividend or otherwise makes a distribution or distributions on shares of its Common Stock or any other equity or equity equivalent securities payable in shares of Common Stock (which, for avoidance of doubt, shall not include any shares of Common Stock issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding shares of Common Stock into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding shares of Common Stock into a smaller number of shares, or (iv) issues by reclassification of shares of the Common Stock any shares of capital stock of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of shares of Common Stock (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of shares of Common Stock outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of stockholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) Reserved.

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Common Stock Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of shares of Common Stock (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such shares of Common Stock as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of shares of Common Stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate



rearrangement, scheme of arrangement or other similar transaction) (a “Distribution”), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of shares of Common Stock acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the participation in such Distribution (provided, however, to the extent that the Holder’s right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any shares of Common Stock as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation). To the extent that this Warrant has not been partially or completely exercised at the time of such Distribution, such portion of the Distribution shall be held in abeyance for the benefit of the Holder until the Holder has exercised this Warrant.

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company, directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Common Stock are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Common Stock, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Common Stock or any compulsory share exchange pursuant to which the Common Stock is effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding shares of Common Stock (not including any shares of Common Stock held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(e) or Section 2(f) on the exercise of this Warrant), the number of shares of Common Stock of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the

“Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of shares of Common Stock for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(e) or Section 2(f) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one share of Common Stock in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Common Stock are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction other than one in which a Successor Entity (as defined below) that is a publicly traded corporation whose stock is quoted or listed on a Trading Market assumes this Warrant such that the Warrant shall be exercisable for the publicly traded common stock of such Successor Entity, the Company or any Successor Entity shall, at the Holder's option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction. Any cash payment will be made by wire transfer of immediately available funds within five Business Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). “Black Scholes Value” means the value of this Warrant based on the Black and Scholes Option Pricing Model obtained from the “OV” function on Bloomberg, L.P. (“Bloomberg”) determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds within five Business Days of the Holder's election (or, if later, on the effective date of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder

(without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the shares of Common Stock acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the shares of Common Stock pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of shares of Common Stock deemed to be issued and outstanding as of a given date shall be the sum of the number of shares of Common Stock (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Common Stock, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Common Stock, (C) the Company shall authorize the granting to all holders of the Common Stock rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any stockholders of the Company shall be required in connection with any reclassification of the Common Stock, any consolidation or merger to which the Company is a party, any sale or transfer of all or substantially all of the assets of the Company, or any compulsory share exchange whereby the Common Stock

is converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Common Stock of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Common Stock of record shall be entitled to exchange their shares of the Common Stock for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

**Section 4. Transfer of Warrant.**

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. If this Warrant is not held in global form through DTC (or any successor depository), this Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Warrant Agent shall register this Warrant, upon records to be maintained by the Warrant Agent for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company and the Warrant Agent may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

#### Section 5. Miscellaneous.

a) No Rights as Stockholder Until Exercise. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a stockholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any stock certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or stock certificate, if mutilated, the Company will make and deliver a new Warrant or stock certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or stock certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then, such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Common Stock a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company

further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Common Stock may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and nonassessable and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its certificate of incorporation or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the par value of any Warrant Shares above the amount payable therefor upon such exercise immediately prior to such increase in par value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York. Each party hereby irrevocably submits to the exclusive jurisdiction of the state and

federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, and if the Holder does not utilize cashless exercise, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at One Kendall Square, Suite B14402, Cambridge, Massachusetts 02139, Attention: Heather Hamel, facsimile number: , email address: hhamel@invivotherapeutics.com, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the date of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30

p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Common Stock or as a stockholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder or the beneficial owner of this Warrant, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

o) Warrant Agency Agreement. If this Warrant is held in global form through DTC (or any successor depositary), this Warrant is issued subject to the Warrant



Agency Agreement. To the extent any provision of this Warrant conflicts with the express provisions of the Warrant Agency Agreement, the provisions of this Warrant shall govern and be controlling.

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*(Signature Page Follows)*

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

**INVIVO THERAPEUTICS HOLDINGS CORP.**

By: \_\_\_\_\_  
Name:  
Title:

**NOTICE OF EXERCISE**

TO: INVIVO THERAPEUTICS HOLDINGS CORP.

(1) The undersigned hereby elects to purchase \_\_\_\_\_ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of (check applicable box):

☐ in lawful money of the United States; or

☐ if permitted the cancellation of such number of Warrant Shares as is necessary, in accordance with the formula set forth in subsection 2(c), to exercise this Warrant with respect to the maximum number of Warrant Shares purchasable pursuant to the cashless exercise procedure set forth in subsection 2(c).

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: \_\_\_\_\_

*Signature of Authorized Signatory of Investing Entity:* \_\_\_\_\_

Name of Authorized Signatory: \_\_\_\_\_

Title of Authorized Signatory: \_\_\_\_\_

Date: \_\_\_\_\_

### ASSIGNMENT FORM

*(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)*

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: \_\_\_\_\_  
(Please Print)

Address: \_\_\_\_\_  
(Please Print)

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Dated: \_\_\_\_\_,

Holder's Signature: \_\_\_\_\_

Holder's Address: \_\_\_\_\_

**ASSIGNMENT AND ASSUMPTION OF LEASE**

This ASSIGNMENT AND ASSUMPTION OF LEASE AND CONSENT OF LANDLORD (this “**Assignment**”), is made as of May 3, 2018 by and between IN VIVO THERAPEUTICS CORPORATION, a Delaware corporation, having an address at One Kendall Square, Cambridge, MA (“**Assignor**”), and SHISEIDO AMERICAS CORPORATION, a Delaware corporation having an address at 301 Route 17 North, Rutherford NJ 07070 (“**Assignee**”).

**WITNESSETH**

A. WHEREAS, ARE-MA REGION NO. 59, LLC (“**Landlord**”), as lessor, and Assignor, as lessee, are parties to that certain Lease dated November 29, 2011, as amended by a First Amendment to Lease dated as of September 17, 2012 and by a Second Amendment to Lease dated as of October 31, 2017 (such lease, as so amended, the “**Lease**”), whereby Assignor leases from Landlord certain premises totaling 26,342 rentable square feet (the “**Premises**”) located at One Kendall Square, Building 1400, Cambridge, Massachusetts (the “**Property**”), upon and subject to the terms and conditions set forth in the Lease.

B. WHEREAS, Assignor desires to assign to Assignee all of its right, title and interest in, to and under the Lease; and

C. WHEREAS, Assignee desires to assume all of Assignor’s obligations under the Lease which arise or accrue from and after the Effective Date (as hereinafter defined below), upon the terms and conditions hereinafter set forth.

NOW THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth, and other valuable consideration, the receipt and adequacy of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. Assignment; Premises; Condition, Etc. (a) Assignor hereby assigns and transfers to Assignee, effective as of the Effective Date (as hereinafter defined), all of Assignor’s right, title and interest in, to and under the Lease, together with all of the rights, privileges and appurtenances with respect to the leasehold estate created thereby, and any and all of Assignor’s right, title and interest in and to the leasehold improvements and alterations (as such terms are described in the Lease) located in the Premises, upon all of the terms and conditions herein set forth, to have and to hold the same unto Assignee, for the remaining Term of the Lease and any renewals and extensions thereof, subject to all of the terms, covenants and conditions of the Lease. Capitalized terms used but not defined herein shall have the meanings ascribed to such terms in the Lease.

(b) The Lease is being assigned, and the Premises are being transferred, to Assignee in their current AS IS condition without any representation or warranty by Assignor, except as expressly set forth herein. Assignee represents that it has made or caused to be made a thorough examination and inspection of the Premises and is familiar with the condition of the Premises. Except as contemplated by the IVT Sublease (defined below) and the Moderna

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Sublease (as defined below), Assignor shall vacate the Premises and deliver possession of the Premises to Assignee in the above condition, and free of all Assignor's furniture, equipment, trade fixtures and personal property, except as set forth in subsection (f) below. Assignee acknowledges that (i) it enters into this Assignment without relying upon any representations, warranties or promises by Assignor, its agents, representatives, employees, servants or any other person in respect of the Property or the Premises, (ii) no rights, easements or licenses not set forth in the Lease and incorporated herein are acquired by Assignee by implication or otherwise except as expressly set forth in this Assignment, (iii) Assignor shall have no obligation to do any work or pay any allowance or contribution in order to make the Premises suitable and ready for occupancy and use by Assignee, except as set forth in subsection (e) below, and (iv) the Premises are in satisfactory condition. Assignee's taking of possession of the Premises shall be confirmation that the Premises were at such time in good and satisfactory condition and repair. Notwithstanding the foregoing, Assignor represents and warrants to Assignee that as of the Effective Date: (i) to the best of Assignor's actual knowledge, there are no defaults under the Lease on the part of Landlord that remain uncured, (ii) to the best of Assignor's actual knowledge, there are no defaults under the Lease on the part of Assignor that remain uncured, (iii) Landlord has performed all work obligated to be performed on its part under the Lease with respect to the preparation and delivery of the Premises, and (iv) to the best of Assignor's actual knowledge, there are no outstanding payment obligations on the part of Assignor to Landlord under the Lease. With respect to the Moderna Sublease (as hereinafter defined): Assignor represents and warrants to Assignee that as of the Effective Date: (i) to the best of Assignor's actual knowledge, there are no defaults under the Sublease on the part of Assignor that remain uncured, (ii) to the best of Assignor's actual knowledge, there are no default under the Sublease on the part of Moderna that remain uncured, (iii) Assignor has performed all work obligated to be performed on its part under the Sublease with respect to the preparation and delivery of the Sublease Premises, and (iv) to the best of Assignor's actual knowledge, there are no outstanding payment obligations on the part of Moderna to Assignor under the Sublease.

(c) A complete copy of the Lease is attached hereto as "**Exhibit A.**"

(d) Assignee acknowledges that a portion of the Premises, containing approximately 5,233 rentable square feet of space, has previously been subleased by Assignor to Moderna Therapeutics, Inc. ("**Moderna**") by a Sublease Agreement dated as of June 13, 2017, as affected by that certain Consent to Sublease, dated as of June 23, 2017 by and among Landlord, Assignor and Moderna (the "**Moderna Sublease**"). A complete copy of the Moderna Sublease has been given to Assignee. Assignor shall reasonably cooperate with Assignee in notifying Moderna of this Assignment and in allocating any rent paid under the Moderna Sublease to the extent any rent has been prepaid in advance of the Effective Date. Assignor shall assign and deliver to Assignee as of the Effective Date the \$54,510.42 security deposit being held by Assignor pursuant to the Moderna Sublease.

(e) Assignee acknowledges that, as a material inducement to Assignor's entering into this Assignment, Assignee has agreed to sublease back to Assignor a portion of the Premises currently used by Assignor for certain manufacturing activities, containing approximately 5,104 rentable square feet of space (together with the right to use certain first-floor storage area containing approximately 80 square feet) (the "**IVT Sublease**"). A copy of the form of the IVT Sublease is attached hereto as "**Exhibit B.**" At the time of the execution and

delivery of this Assignment by Assignor and Assignee, Assignor and Assignee shall execute and deliver the IVT Sublease and upon receipt of the Landlord's Consent to both the Assignment and the IVT Sublease, this Assignment shall become effective. Assignor shall deliver the Premises to Assignee with the IVT Sublease space legally demised from the remainder of the Premises pursuant to a mutually agreed upon space plan, with each respective space ready for occupancy by Assignor and Assignee respectively.

(f) Pursuant to a separate agreement of even date, Assignor has given, granted and conveyed to Assignee all of Assignor's office equipment and furnishings currently in the Premises (other than the IVT Sublease space), and all of Assignor's laboratory equipment currently in the Premises, excluding, however (i) any such equipment or furnishings that are leased or hired under contract to Assignor (such as, but not limited to, leased copiers), or otherwise not the property of Assignor, and (ii) all equipment associated with Assignor's manufacturing and/or quality testing activities. NOTE — PARTIES ARE WORKING ON A LIST OF OFFICE FF&E TO BE CONVEYED — ALL LAB EQUIPMENT IS AFFIXED TO THE PREMISES

2. Effective Date; Assumption of Obligations. (a) Assignee hereby accepts the foregoing assignment, effective as of the Effective Date (as hereinafter defined) and expressly assumes for the benefit of Assignor and Landlord, and agrees to fully and punctually pay, perform and observe all of the terms, covenants, conditions and obligations of the Lease required to be paid, performed and observed on the part of the Lessee under the Lease and which arise or accrue from and after the Effective Date. Assignee's assumption of the obligation under the Lease to pay Yearly Rent for the remaining Term (as escalated annually pursuant to the Lease) and additional rent (including without limitation Assignee's share of Taxes and Operating Costs shall be effective as of the Effective Date, with such payments to be made directly to the Landlord. Assignor shall be responsible for payments of Yearly Rent and additional rent due and owing under the Lease accruing through the day immediately preceding the Effective Date (and Assignor shall receive the benefit of any credits for overpayment of such Operating Costs and/or Taxes as determined by any year-end reconciliation or by the exercise of any of Assignor's audit rights under the Lease) that relate to the period preceding the Effective Date. To the extent any year-end reconciliation performed after the Effective Date (with respect to the period prior to the Effective Date) shows an underpayment by Assignor with respect to Operating Costs or Taxes for the period preceding the Effective Date, Assignor shall remit such outstanding payment to Assignee or directly to Landlord within twenty (20) days after receipt of upon demand therefor, together with a copy of such reconciliation from Landlord. Without limitation, Assignee shall assume all of Assignor's obligations and covenants as Sublandlord under the Moderna Sublease and accruing on or after the Effective Date, and Assignor shall have no liability therefor.

(b) For all purposes of this Assignment, the "**Effective Date**" shall mean the last to occur of (i) the date upon which Landlord executes and delivers the attached Landlord Consent, and (ii) the date upon which this Assignment is fully executed and delivered, and (iii) April 1, 2018. Assignor shall deliver possession of the Premises (subject to the Moderna Sublease and the IVT Sublease) on the Effective Date; provided further, that Assignor shall have no liability whatsoever for any failure to deliver possession of the Premises on or before such date.

3. (a) Assignee Indemnity. Assignee shall indemnify and hold Assignor harmless from and against any and all demands, claims, actions, losses, damages, liabilities, litigation and costs and expenses thereof including, without limitation reasonable attorneys' fees and disbursements of any kind and nature whatsoever (collectively, "**Assignor Claims**"), which may be imposed on, asserted against or otherwise incurred by Assignor by or on behalf of any person or entity whatsoever due to or arising from the failure or alleged failure of Assignee to undertake, perform, pay, discharge or observe, to the extent required hereunder, any of the covenants, terms and conditions of the Lease on or after the Effective Date. If any action or proceeding is brought against Assignor by reason of any Assignor Claim, Assignee, upon notice from Assignor, shall defend such action or proceeding, and Assignee shall pay all expenses in respect of defending against such action or proceeding.

(b) Assignor Indemnity. Assignor shall indemnify and hold Assignee harmless from and against any and all demands, claims, actions, losses, damages, liabilities, litigation and costs and expenses thereof including, without limitation, reasonable attorneys' fees and disbursements of any kind and nature whatsoever (collectively, "**Assignee Claims**"), which may be imposed on, asserted against or otherwise incurred by Assignee by or on behalf of any person or entity whatsoever due to or arising from the failure or alleged failure of Assignor to undertake, perform, pay, discharge or observe any of the covenants, terms and conditions of the Lease prior to the Effective Date. If any action or proceeding is brought against Assignee by reason of any Assignee Claim, Assignor, upon notice from Assignee, shall defend such action or proceeding, and Assignor shall pay all expenses in respect of defending against such action or proceeding.

4. Signs. On or before the Effective Date, Assignor shall remove all signs mounted on the exterior of the Premises and repair any damage caused by such removal, provided that, if Landlord consents, Assignor shall be entitled to reasonable signage in connection with the IVT Sublease with respect to the subleased premises. From and after the Effective Date, Assignee may, subject to the rights of Landlord, exercise any and all signage rights that are available to Assignee under the Lease (including without limitation pursuant to Section 17.4 of the Lease).

5. Brokers. Assignor and Assignee each represent and warrant one to another that, except as hereinafter set forth, neither of them has employed any broker in carrying on the negotiations, or had any dealings with any broker, relating to this Assignment, other than CBRE-New England and CBRE (collectively the "Broker"). Assignor shall indemnify and hold Assignee harmless, and Assignee shall indemnify and hold Assignor harmless, from and against all claim or claims for brokerage or other commission arising from or out of any breach of the foregoing representation and warranty by the respective indemnitors, except in each case with respect to any claims by the Broker, whose commission shall be paid by Assignor pursuant to a separate agreement.

6. Assignor's Right to Cure; Re-Assignment. (a) If, after the Effective Date, Assignee fails to make any payment or perform any other obligation of Assignee under the Lease, or is otherwise in breach or default under the Lease, in any case beyond applicable notice and cure periods, then Assignee shall give Assignor prompt written notice thereof, and Assignor has the right, but not the obligation, at Assignor's sole election, to make such payment or perform such other obligation of Assignee in such manner and to such extent as Assignor deems



necessary to cure such breach or default, and in exercising any such right, to pay any reasonable incidental costs and expenses, employ attorneys, and incur and pay reasonable attorneys' fees. Assignee shall pay to Assignor upon demand as additional rent all sums so paid by Assignor and all incidental costs and expenses of Assignor in connection therewith, together with interest thereon at an annual rate equal to the rate two percent (2%) above the base rate or prime rate then published as such in the *Wall Street Journal*, or, if less, the maximum rate permitted by law. Such interest is payable with respect to the period commencing on the date such expenditures are made by Assignor and ending on the date such amounts are repaid by Assignee. Assignee will immediately give Assignor a true and complete copy of any notice or other communication from Landlord claiming or alleging that Assignee is (or, with the passage of time, would be) in default under the Lease. The foregoing obligations of Assignee shall survive this Assignment (and any re-assignment provided for herein).

(b) If, after the Effective Date, Assignee fails to make any payment or perform any other obligation of Assignee under the Lease, or is otherwise in breach or default under the Lease, in any case beyond applicable notice and cure periods, then Assignee shall give Assignor prompt written notice thereof, and Assignor may, at its sole discretion, and without intending to diminish Assignee's liability or obligation under the Lease whatsoever, and regardless of whether Assignor may have been released from further liability under the Lease by Landlord, elect to have Assignee reassign all of its right, title and interest in the Lease back to Assignor, which re-assignment shall (unless otherwise provided by Assignor) be effective immediately upon notice from Assignor to Assignee of Assignor's election. Effectively immediately upon notice from Assignor to Assignee of Assignor's election to take such a re-assignment (or at any later time so stated by Assignor in such notice), Assignee shall be conclusively deemed to have re-assigned all of Assignee's right, title and interest as lessee under the Lease. Assignee shall promptly execute, acknowledge and deliver any document or instrument reasonably requested by Assignor to confirm such a re-assignment, and Assignee hereby irrevocably designates Assignor as Assignee's attorney-in-fact, coupled with an interest, to execute, acknowledge and deliver any such document or instrument if Assignee fails to do so.

7. Landlord Consent. This Assignment is expressly contingent upon the receipt of the Consent of the Landlord to the within assignment and to the IVT Sublease, such Consent to be in a form and in substance reasonably acceptable to each of Assignor and Assignee (the "**Consent Contingency**"). Assignor shall promptly request, and shall use commercially reasonable efforts to obtain, such Landlord Consent. Assignor be responsible for all fees and costs or administrative fees charged by Landlord pursuant to its review and approval of this Assignment and execution of the Landlord Consent. If the Consent Contingency is not satisfied within twenty (20) days after the date hereof, then from and after such twentieth day, either party may terminate this Assignment by providing written notice to the other unless the Consent Contingency is satisfied before the date on which such notice of termination is provided. If this Assignment is terminated under this Paragraph 7, then this Assignment shall cease to have any further force or effect and the parties hereto shall have no further obligations to each other with respect to this Assignment.

8. Further Action. Assignor hereby acknowledges and agrees that Assignor will hereafter execute and deliver to Assignee any further assignments, instruments of transfer, bills of sale, releases or conveyances which may reasonably be deemed necessary by Assignee to

fully vest in Assignee all of the Assignor's right, title and interest in and to the Lease, the tenant improvements and any other alterations in the Premises and any other property being transferred to Assignee.

9. Notices. Any notice, demand, request, consent, approval, submittal or communication that either party desires or is required to give to the other party or any other person shall be in writing and either served personally or sent by prepaid, first-class certified mail or commercial overnight delivery service. Such Notice shall be effective on the date of actual receipt (in the case of personal service or commercial overnight delivery service) or three business days after deposit in the United States mail, to the following addresses:

To the Assignor: InVivo Therapeutics Corporation  
One Kendall Square, Building 1400, 4<sup>th</sup> Floor  
Suite B14402  
Cambridge MA 02139  
Attn: William D'Agostino

With a copy to: Langer & McLaughlin, LLP  
535 Boylston Street  
Boston, MA 02116

To the Subtenant: Shiseido Americas Corporation  
301 Route 17 North  
Rutherford, NJ 07070  
Attn: General Counsel

10. Amendment; Further Transfer. This Assignment may not be amended, modified or terminated except by an instrument, in writing, executed by the parties hereto. This Assignment, and all of the exhibits attached hereto, which are hereby incorporated herein, collectively contain all of the agreements of the parties hereto with respect to any matter covered or mentioned in this Assignment, and no prior agreement or understanding pertaining to any such matter shall be effective for any purpose. Notwithstanding any provision of the Lease or this Assignment to the contrary, in light of the fact that Assignor remains liable to Landlord for the obligations of Assignee under the Lease after the Effective Date, Assignee shall not assign, sell, mortgage, pledge or in any manner transfer the Lease or any interest in the Lease, or the term or estate granted therein or the rentals thereunder, by operation of law or otherwise, or sublet the Premises or any part of the Premises, or grant any concession or license or otherwise permit occupancy of all or any part of the Premises by any other person, or take any action or undertake any such transfer or other transaction, without in each and every instance (and regardless of whether the Landlord's consent is required) obtaining the prior written consent of Assignor. not to be unreasonably withheld, delayed or conditioned, provided, however, that if Landlord fully and irrevocably releases Assignor in writing from all obligations under the Lease, then no consent from Assignor shall thereafter be required in connection with any such action by Assignee.

11. Acid Neutralization. Assignor may continue after the Effective Date to use the existing acid neutralization system pursuant to the terms of the Lease and in accordance with Assignor's existing MWRA permit. Assignee shall have the right to utilize the existing acid

neutralization system pursuant to the terms of the Lease, which system shall be shared with Assignor pursuant to the IVT Sublease. Assignor will work with Assignee to transfer the MWRA permit governing the acid neutralization system to Assignee, and/or to have a new permit issued in Assignee's name as further set forth in the IVT Sublease. Following any such transfer or re-issuance, Assignor shall have the right to continue such usage under the Assignee's permit.

12. Lab Services. As provided further in the IVT Sublease, Assignee shall have the use (to be shared with Assignor) of, and Assignee shall operate and maintain, the existing air compressor system pursuant to the terms of the Lease.

13. Counterparts. This Assignment may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties acknowledge and agree that this Assignment may be executed via facsimile or .pdf format (including computer-scanned or other electronic reproduction of the actual signatures) and that delivery of a facsimile or other signature by electronic or physical means shall be effective to the same extent as delivery of an original signature. Notwithstanding the foregoing, originally signed documents shall be provided upon either party's request.

14. Binding Effect. This Assignment shall be binding upon and shall inure to the benefit of the parties hereto and their respective successor and assigns.

15. Waiver of Jury Trial; Governing Law. Assignor and Assignee each waive any rights which they may have to trial by jury in any summary action or other action, proceeding or counterclaim arising out of or in any way connected with this Assignment, the relationship of Assignor and Assignee, the Premises and the use and occupancy of the Premises, and any claim for injury or damages. This Assignment shall be governed by, construed and enforced in accordance with the laws of the Commonwealth of Massachusetts, without regard to such state's conflict of law principles.

16. No Presumption. Assignor and Assignee understand, agree and acknowledge that this Assignment has been freely negotiated by both parties and that, in any controversy, dispute or contest over the meaning, interpretation, validity or enforceability of this Assignment or any of its terms or conditions, there shall be no influence, presumption or conclusion whatsoever drawn for or against either party by virtue of that party having drafted this Assignment or any portion thereof.

17. Attorney's Fees. If either Assignor or Assignee brings any action or legal proceeding for an alleged breach of any provision of this Assignment, to recover any cost or otherwise to enforce, protect or establish any term or covenant of this Assignment, the prevailing party is entitled to recover as a part of such action or proceeding, or in a separate action brought for that purpose, reasonable attorneys' fees, court costs, and expert fees as may be fixed by the court.

[TEXT ENDS HERE]

IN WITNESS WHEREOF, Assignor and Assignee have executed this Assignment on the date first written above, in multiple copies, each to be considered an original, as a sealed instrument.

Assignor: IN VIVO THERAPEUTICS CORPORATION

By: /s/ Richard Toselli  
Name: Richard Toselli  
Title: CEO

Assignee: SHISEIDO AMERICAS CORPORATION

By: /s/ Ron Gee  
Name: Ron Gee  
Title: Chief Financial Officer

SUBLEASE

This Sublease (this “Sublease”) is made as of the 3rd day of May, 2018 by and between SHISEIDO AMERICAS CORPORATION, a Delaware corporation (“Sublandlord”), and INVIVO THERAPEUTICS CORPORATION, a Delaware corporation (“Subtenant”).

WITNESSETH:

WHEREAS, by that certain Lease Agreement dated November 29, 2011 (the “Original Lease), as amended by that certain First Amendment of Lease dated September 17, 2012 (the “First Amendment,” and by that certain Second Amendment to Lease dated as of October 31, 2017, and together with the Original Lease, the “Master Lease”) (a copy of the Master Lease is attached as Exhibit A hereto), ARE-MA REGION No. 59, a Delaware limited liability company, and successor in interest to RB KENDALL FEE, LLC (“Master Landlord”), as landlord thereunder, leased to Subtenant, as tenant thereunder, approximately 26,150 rentable square feet of space on the fourth floor of Building 1400 and identified as Suite B14402 and 192 square feet of space on the first floor of the Building (the “Premises”) in One Kendall Square, Cambridge, Massachusetts, all as more particularly described in the Master Lease; and

WHEREAS, by an Assignment and Assumption Agreement of even date herewith (the “Assignment”), Subtenant has assigned all of its right, title and interest as tenant under the Lease to Sublandlord; and

WHEREAS, as a condition of the Assignment, Sublandlord and Subtenant agreed to enter into this Sublease; and

WHEREAS, Subtenant desires to sublease from Sublandlord and Sublandlord desires to sublease to Subtenant, a portion of the Premises (hereinafter referred to as the “Subleased Premises”) consisting of approximately 5,104 rentable square feet of space. The Subleased Premises are shown on Exhibit A-1 attached hereto. In addition, Subtenant will have the exclusive right to use approximately 35 square feet of storage space (shown on Exhibit A-2) on the first floor of the Building at no additional cost or charge (it being agreed and acknowledged that Master Landlord has reclaimed the remaining 157 square feet of the 192 square feet initially leased).

NOW, THEREFORE, in consideration of the mutual covenants herein contained and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

1. DEMISE OF SUBLEASED PREMISES; USE. Sublandlord hereby demises and subleases to Subtenant, and Subtenant hereby hires and takes from Sublandlord, exclusive possession of the Subleased Premises for the term and upon the conditions hereinafter set forth. The Subleased Premises may be used for research, development, and medical product manufacturing use, including without limitation, the use of the cleanrooms and acid neutralization, along with uses ancillary thereto, but in all cases subject to the use limitations as set forth in the Master Lease. Sublandlord makes no representations or warranties as to allowed

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uses under this Sublease. Additionally, Subtenant shall be required at all times to maintain all applicable licenses and permits required by law to operate in the Subleased Premises.

## 2. TERM

(a) Subject to the provisions of Section 10 herein (Consent by Master Landlord), , the term of this Sublease (the “Term”) shall commence as of the later of April 1, 2018 and the date the Master Landlord consents in writing to this Sublease (the “Commencement Date”).

(b) The Term shall end on October 31, 2023 (the “Expiration Date”) or such earlier date upon which such Term may be terminated pursuant to the provisions hereof or pursuant to law.

(c) Subtenant is currently in possession and occupancy of the Subleased Premises pursuant to the Master Lease.

## 3. SUBORDINATION TO AND INCORPORATION OF THE MASTER LEASE.

(a) This Sublease is in all respects subject and subordinate to the terms and conditions of the Master Lease and to the matters to which the Master Lease, including any amendments thereto, is or shall be subordinate. Subtenant agrees that Subtenant has reviewed and is familiar with the Master Lease, and will not do or suffer or permit anything to be done which would result in a default or breach (whether or not subject to notice or grace periods) on the part of Sublandlord under the Master Lease or cause the Master Lease to be terminated. If, however, the Master Lease is terminated prior to its scheduled expiration, for any reason whatsoever, this Sublease shall likewise terminate without further notice and without further obligation or liability on the part of the parties. Sublandlord agrees not to voluntarily terminate the Master Lease or enter into any other agreement that would adversely affect the Subtenant’s interest hereunder.

(b) Except as otherwise expressly provided in this Sublease, the terms, covenants, conditions, rights, obligations, remedies and agreements of the Master Lease are incorporated into this Sublease by reference and made a part hereof as if fully set forth herein and shall constitute the terms of this Sublease, mutatis mutandis, Sublandlord being substituted for “Landlord” thereunder, Subtenant being substituted for “Tenant” thereunder, and “Subleased Premises” being substituted for “Premises” thereunder, except to the extent that such terms do not relate to the Subleased Premises or are inapplicable to, or specifically inconsistent with the terms of this Sublease.

(c) While the Sublease remains subordinate to the entire Master Lease as provided in Section 3(a) above, the following provisions of the Master Lease shall not be incorporated herein by reference and are expressly excluded from the terms of this Sublease: Articles 2, 3.1, 3.2, 6, 9, 29.3 and 29.13 – 29.15 of Exhibit 1, Sheet 1; Sections 2.1, 3.3, 4.1 – 4.4, 8.1.(b), 9.1 – 9.7 (except to the extent necessary to properly give effect to sections 9.2 and 9.3 as they relate to Subtenant’s obligation in subsection 4(e) below), 15.7, 27, 29.3, 29.7, 29.11.(b), 29.11(f) and 29.13 – 29.19; and Exhibits 2, 2A – 2D and 3 – 9 of the Original Lease, Section 1 – 15 and Exhibits 1, 1A and A of the First Amendment, and Sections 1 through 5 and 7 through 17 of the Second Amendment.

(d) Any capitalized terms not defined herein shall have the meaning set forth in the Master Lease.

(e) Notwithstanding anything to the contrary contained herein or in the Master Lease, where the Master Lease sets forth a time limit (the "Notice Periods") for the giving of notices or the making of demands by the "Tenant" under the Master Lease, or for the exercise by "Tenant" under the Master Lease of any right, remedy or option, then for the purposes of incorporation in this Sublease by reference, those Notice Periods will be changed by shortening the Notice Periods in each instance by five (5) days (or by three (3) days if the notice period is ten (10) days or less), so that in each instance Subtenant shall have five (5) (or three (3), as applicable) fewer days to give such notices, make demands or exercise of any right, remedy or option, than Sublandlord has as "Tenant" under the Master Lease. Notwithstanding the foregoing provisions of this Paragraph 3(e), if the Master Lease allows the "Tenant" a Notice Period of five (5) days or less, then Subtenant shall nevertheless be allowed the number of days equal to one-half of the number of days in each Notice Period to give any such notices, make any such demands or exercise any such rights, remedies or options. If one-half of the number of days in the Notice Period is not a whole number, Subtenant has the number of days equal to one-half of the number of days in the Notice Period rounded up to the next whole number.

#### 4. RENT.

(a) Subtenant shall pay to Sublandlord annual fixed rent (the "Fixed Rent") at the same rate per square foot per annum as Sublandlord pays to Master Lessor from time to time under the Master Lease, as set forth below, multiplied by 5,104, provided that no Fixed Rent or other charge shall be payable by Subtenant with respect to the 80 square-foot storage space on the first floor. Notwithstanding the foregoing, as an inducement to Subtenant to enter into this Sublease, Sublandlord hereby waives the requirement that Subtenant pay Annual Fixed Rent for the first twelve months of the Term of this Sublease. The first anniversary of the Commencement Date shall be the "Rent Commencement Date."

Period	Fixed Rent/RSF	Annual Fixed Rent	Monthly Fixed Rent
Comm Date – 10/31/18	\$ 49.00	\$ 239,610.00*	\$ 19,967.50*
11/1/18 -10/31/19	\$ 74.00	\$ 361,860.00*	\$ 30,155.00*
11/1/19 -10/31/20	\$ 76.22	\$ 372,715.80	\$ 31,059.65
11/1/20 -10/31/21	\$ 78.51	\$ 383,913.90	\$ 31,992.83
11/1/21 -10/31/22	\$ 80.86	\$ 395,405.40	\$ 32,950.45
11/1/22 -10/31/23	\$ 83.29	\$ 407,288.10	\$ 33,940.68

\* - Subject to the waiver above.

Fixed Rent shall be payable in advance in the monthly installments as set forth above, pro-rated on a per diem basis in the case of any partial months during the Term. Except as otherwise set forth herein, each monthly installment of Fixed Rent shall be payable on or before the first day of each month, without notice or demand and without abatement, set-off or deduction.

(b) In addition to the Fixed Rent, from and after the Commencement Date, Subtenant agrees to pay to Sublandlord all Subtenant Surcharges (as hereinafter defined) as additional rent hereunder. As used herein, the term "Subtenant Surcharges" shall mean any and all amounts which become due and payable by Sublandlord to the Master Landlord under the Master Lease (without additional charge or profit to Sublandlord) as additional rent which would not have become due and payable but for the requests, acts and/or failures to act of Subtenant under this Sublease or which are otherwise attributable to the Subleased Premises, including, but not limited to: (i) any increases in the Master Landlord's fire, rent or other insurance premiums resulting from any act or omission of Subtenant, and (ii) any additional rent or charges under the Master Lease payable by Sublandlord on account of any other additional service as may be provided under the Master Lease, including without limitation the charges for any special service or other accommodation provided for or at the request of Subtenant. Subtenant shall pay any Subtenant Surcharge within thirty (30) days after the presentation of the Master Landlord's statements therefor by the Sublandlord to Subtenant. Without limitation of the foregoing, there are expressly excluded from "Subtenant Surcharges:" (i) any and all amounts payable on account of electricity, water, sewer, gas and any HVAC charges, other than after-hours HVAC charges that may be incurred by Subtenant (hereinafter referred to as the "Utilities and Services"); (ii) Taxes; (iii) Operating Costs, as set forth below, and any items included within the definitions of Taxes or Operating Costs; and (iv) any amounts payable in connection with any emergency generator serving the Subleased Premises.

(c) Any failure or delay by Sublandlord in billing any sum set forth in this Section 4 shall not constitute a waiver of Subtenant's obligation to pay the same in accordance with the terms of this Sublease.

(d) The Fixed Rent and Subtenant Surcharges, and any other amounts payable pursuant to this Sublease, shall be paid by Subtenant to Sublandlord at the address set forth for notices below, or at such other place as Sublandlord may hereafter designate from time to time in writing, in lawful money of the United States of America, by wire transfer, ACH payment or a good unendorsed check, subject to collection, as and when the same become due and payable, without demand therefor and without any deduction, set-off or abatement whatsoever. Any other amounts of additional rents and other charges herein reserved and payable shall be paid by Subtenant in the manner and to the persons set forth in the statement from Sublandlord describing the amounts due as applicable. All Subtenant Surcharges and all other costs, charges and expenses which Subtenant assumes, agrees or is obligated to pay to Sublandlord pursuant to this Sublease shall be additional rent and in the event of nonpayment thereof Sublandlord shall have all the rights and remedies with respect thereto as are herein provided for in case of nonpayment of the Fixed Rent reserved hereunder.

(e) In addition to the Fixed Rent, commencing on the Rent Commencement Date, Subtenant shall reimburse Sublandlord for the Subtenant's pro-rata share (i.e., 5,104/26,150 or 19.51%) of amounts paid by Sublandlord to Master Lessor on account of Tenant's Operating Expense Share and Tenant's Tax Share under the Master Lease (subject in all events to adjustment and reconciliation as set forth in the Master Lease).



(f) Upon Subtenant's execution and delivery of this Sublease, Subtenant shall pay a security deposit (the "Security Deposit") in the amount of \$39,935.00, and Sublandlord shall hold the same throughout the Term as security for the performance by Subtenant of all obligations on the part of Subtenant hereunder. On November 1, 2018, the amount of the required Security Deposit shall be increased to \$60,310.00. Subtenant may, at its option, satisfy the foregoing requirement by delivery of a clean standby letter of credit in the requisite amount and in a form reasonably acceptable to Sublandlord. Sublandlord shall have the right, from time to time, without prejudice to any other remedy Sublandlord may have on account thereof, to apply the Security Deposit, or any part thereof, to Sublandlord's damages arising from, or to cure, any default (beyond any applicable notice and grace/cure periods provided for in this Sublease) of Subtenant. If Sublandlord shall so apply any or all of the Security Deposit, Subtenant shall immediately deposit with Sublandlord, within five (5) business days after demand, the amount necessary to restore the Security Deposit to the then current required amount of Security Deposit. Provided that there is no then-existing default of Subtenant beyond applicable notice and grace/cure periods provided for in this Sublease, Sublandlord shall return the Security Deposit, or so much thereof as shall have theretofore not been applied in accordance with the terms of this paragraph, to Subtenant promptly after the expiration or earlier termination of the Term and surrender of possession of the Subleased Premises by Subtenant to Sublandlord. Sublandlord may commingle the Security Deposit with other funds of Sublandlord and Sublandlord shall not be liable to pay interest on the Security Deposit. If Sublandlord assigns or transfers Sublandlord's interest under this Sublease, the Security Deposit, or any part thereof not previously applied, may be turned over by Sublandlord to Sublandlord's grantee, and, if so turned over, Subtenant agrees to look solely to such grantee for proper application of the Security Deposit in accordance with the terms of this paragraph and the return thereof in accordance herewith. Regardless of whether the Security Deposit is turned over or not, any assignee of Sublandlord will assume and be bound by all the obligations and responsibilities of Sublandlord under this Sublease including but not limited to the return of the Security Deposit in accordance herewith.

5. ACID NEUTRALIZATION FACILITY. Subtenant shall have the right, in common with Sublandlord (and at no additional rent or charge) to use the existing acid neutralization system and facility in the basement of the Building, as described in the Lease. Subtenant currently holds the Massachusetts Water Resources Authority ("MWRA") permit for the acid neutralization facility, and Subtenant will cooperate in any reasonable manner to transfer the MWRA permits to Sublandlord, and/ or to assist Sublandlord in having a new permit issued to Sublandlord in replacement of Subtenant's existing permit, so long as Subtenant will still be able to carry on all activities thereunder as currently done. While the Subtenant holds the MWRA permit, the Subtenant shall use an approved contractor to monitor, maintain, repair and (as necessary) replace all equipment in the acid neutralization facility so as to keep the same in good working order and condition and the Subtenant will be reimbursed by the Sublandlord for the actual costs thereof. If and at such time as the MWRA permit is so transferred to Sublandlord, Sublandlord shall be fully responsible for monitoring, maintaining, repairing and (as necessary) replacing all equipment in the acid neutralization facility so as to keep the same in good working order and condition the same in full force and effect throughout the term of this Sublease.

6. MECHANICAL SUPPORT. (a) The Sublandlord and the Subtenant share the outside Air Handling Unit (AHU) that supplies 55°F make-up air. The Sublandlord is responsible for maintaining the AHU (including without limitation installing or removing ducts, heating coils, air valves, and/or air balancing) unless and until the Master Landlord relocates the AHU to a new location with other Building equipment, after which the Master Landlord will maintain the AHU. If the Master Landlord takes over repair and maintenance, then the costs will be passed to Sublandlord as an Operating Cost.

(b) The Sublandlord and the Subtenant share the exhaust fan EF-2. The Sublandlord is responsible for maintaining EF-2 (including without limitation installing or removing ducts, and/or air balancing). The Sublandlord is responsible for the cost of maintaining and repairing EF-2.

(c) The exhaust fan EF-1 is for the sole use of Subtenant. The Subtenant is responsible at its sole cost and expense for maintaining exhaust fan EF-1.

(d) The Sublandlord is solely responsible the maintenance and repair of exhaust fans EF-3 and EF-4 and supply air fan SF-1, as these systems do not support the Subleased Premises. Sublandlord shall pay the full cost of maintaining and repairing EF-3 and EF-4 and SF-1.

(e) The Subtenant is solely responsible for maintaining the Cleanroom Air Handling Unit.

(f) The Sublandlord and the Subtenant share the Delta Control System which is a heating, ventilation, and air conditioning (HVAC) control system. The Sublandlord will grant access, including remote access, to the Delta Control System to the Subtenant upon request to allow the Subtenant to control the HVAC for the Subleased Premises. The Sublandlord will seek the Subtenant consent, not to be unreasonably withheld, delayed or conditioned, prior to any maintenance work, including software upgrades, that is performed on the Delta Control System.

(g) The Sublandlord and the Subtenant share the Compressed Air System. The Sublandlord is responsible for maintaining the Compress Air System. The Sublandlord will bear the cost of maintaining and repairing the Compressed Air System.

(h) The Sublandlord is solely responsible for maintaining and repairing the Vacuum System (which is not used by Subtenant) and for the cost thereof.

(i) Consent between the Sublandlord and the Subtenant regarding the use, maintenance and repairs concerning the shared systems will not be unreasonably withheld by either the Sublandlord or the Subtenant, and Sublandlord and Subtenant will coordinate and cooperate, each with the other, in all reasonable manners with respect to use, access to and repair and maintenance of, the above-mentioned systems and equipment.

(j) In the event that any of the above shared systems is not operating correctly, and if such condition is having a material and adverse effect on Subtenant's equipment or systems, and the Sublandlord cannot or does not remedy the issue within twenty-four (24) hours following receipt of notice from Subtenant (which need not be in writing), then Sublandlord consents to allow the

Subtenant to use a contractor reasonably acceptable to Sublandlord and, if required, Master Landlord, to remedy the issue with the Sublandlord's proportionate share of actual costs thereof to be reimbursed by the Sublandlord within thirty (30) days after demand (failing which Subtenant may deduct such amounts from the next payment(s) of rent hereunder). Subtenant shall give Sublandlord a further notice (which need not be in writing) of Subtenant's intention to proceed with such remedial action. With respect to the foregoing, Sublandlord hereby approves the following contractors: Albireo Energy (GxP Automation); G&P Service Contractors, Inc.; and PPM Industrial Water Service.

7. **CONDITION OF SUBLEASED PREMISES; SIGNS.** (a) Subtenant represents and warrants that it has occupied the Subleased Premises and it is familiar with the condition thereof. Subtenant acknowledges that it enters into this Sublease without any representation or warranties by Sublandlord or anyone acting or purporting to act on behalf of Sublandlord, as to present or future condition of the Subleased Premises or the appurtenances thereto or any improvements therein or of the Building. It is further agreed that Subtenant does and will accept the Subleased Premises "as is" in its present condition and Sublandlord has no obligation to perform any work therein or contribute to the cost of any work.

(b) Subject to the provisions of the Master Lease, including without limitation Section 17.4, and after Subtenant shall have obtained the written consent of Sublandlord (which will not be unreasonably withheld or delayed) and if applicable, Master Landlord, Subtenant shall have the right to install and maintain signage with Subtenant's name and corporate logo at or near the location currently used for Sublandlord signage in the Fourth Floor West Lobby and near the entrance doors to the Subleased Premises. In addition, after obtaining the written consent of Sublandlord (which will not be unreasonably withheld or delayed) and if applicable, Master Landlord, the Subtenant may maintain signage with Subtenant's name and corporate logo on the Subleased Premises entrance door(s) provided that surfaces of the entrance door(s) are not damaged (e.g., no nail or drill holes). At the expiration or sooner termination of this Sublease, Subtenant shall remove its signage and repair any damage caused by such removal at its sole cost and expense.

7. **FAILURE OF MASTER LANDLORD TO PERFORM OBLIGATIONS.** Subtenant acknowledges and agrees that Sublandlord shall have no obligation to provide any services to the Subleased Premises or to perform the terms, covenants, conditions or obligations contained in the Master Lease on the part of Master Landlord to be performed. Subtenant agrees to look solely to Master Landlord for the furnishing of such services and the performance of such terms, covenants, conditions or obligations. In the event that Master Landlord shall fail to furnish such services or to perform any of the terms, covenants, conditions or obligations contained in the Master Lease on its part to be performed, Sublandlord shall be under no obligation or liability whatsoever to Subtenant for such failure. In any event, Subtenant shall not be allowed any abatement or diminution of rent under this Sublease because of Master Landlord's failure to perform any of its obligations under the Master Lease, unless Sublandlord is entitled to such an abatement or diminution, in which case Subtenant shall be entitled to its pro-rata share thereof. Sublandlord agrees, however, that in the event that Master Landlord shall fail to provide the services or perform the obligations to be provided or performed by it pursuant to the terms of the Master Lease, Sublandlord shall, upon written notice from Subtenant, make demand upon Master

Landlord pursuant to the terms of the Master Lease and use commercially reasonable efforts to enforce Master Landlord's obligations (provided such efforts shall not require the expenditure of funds by Sublandlord except in proportion to the expected relative benefit, if any, to Sublandlord of successful enforcement of such obligations with respect to the remainder of the Premises).

8. **CASUALTY AND CONDEMNATION.** Notwithstanding anything to the contrary contained in this Sublease or in the Master Lease, Subtenant shall not have the right to terminate this Sublease as to all or any part of the Subleased Premises, or be entitled to an abatement of Fixed Rent or any other item of rental, by reason of a casualty or condemnation affecting the Subleased Premises unless Sublandlord is entitled to terminate the Master Lease or is entitled to a corresponding abatement with respect to its corresponding obligation under the Master Lease; provided, however, that in the event of a casualty or condemnation impacting the Subtenant's use of the Subleased Premises or access thereto, and if such damage results in material interference with Subtenant's use of the Subleased Premises, then Subtenant shall be entitled to abatement of Fixed Rent and other charges in proportion to its loss of use of the Subleased Premises until the Subleased Premises have been substantially restored, to the same extent Sublandlord would be provided such abatement rights under the Master Lease. If Sublandlord is entitled to terminate the Master Lease for all or any portion of the Subleased Premises by reason of casualty or condemnation, Subtenant may terminate this Sublease as to any corresponding part of the Subleased Premises by written notice to Sublandlord given at least five (5) business days prior to the date(s) Sublandlord is required to give notice to Master Landlord of such termination under the terms of the Master Lease (provided Subtenant has received reasonable advance notice of such date(s)).

9. **CONSENTS.** In all provisions of the Master Lease requiring the approval or consent of the "Landlord," Subtenant shall be required to obtain the approval or consent of both Master Landlord and Sublandlord (which consent of Sublandlord shall not be unreasonably withheld, delayed or conditioned so long as the consent of Master Landlord has been obtained). In no event shall Sublandlord be liable for failure to give its consent or approval in any situation where consent or approval has been withheld or refused by Master Landlord, whether or not such withholding or refusal was proper. Notwithstanding the foregoing, Sublandlord and Subtenant shall cooperate in good faith to obtain any such consent of Master Landlord.

10. **CONSENT OF MASTER LANDLORD.** Sublandlord and Subtenant agree that this Sublease and the Assignment are subject to Sublandlord obtaining the written consent (the "Consent") of Master Landlord as provided in the Master Lease. It is expressly understood and agreed that notwithstanding anything to the contrary contained herein, the Effective Date of the Assignment shall not occur, and the Term hereof shall not commence, until the Consent has been obtained. Subtenant hereby agrees that it shall reasonably cooperate in good faith with Sublandlord and shall comply with any reasonable requests made of Subtenant by Sublandlord or Master Landlord in the procurement of the Consent provided that no substantive modifications to the Master Lease or this Sublease shall be required. If the Consent is not obtained on or before May 15, 2018, then this Sublease and the Assignment may be terminated by either party by written notice to the other (which shall in any event be given prior to the granting of the Consent), in which case the Assignment and this Sublease shall be void and without any force or effect. In no event shall Sublandlord or Subtenant be obligated to make any payment to Master Landlord in order to obtain the Consent or the consent to any provision hereof, other than as expressly set forth in Section

16.2(a) of the Master Lease providing for a maximum reimbursement of \$1,500.00 (which costs, if any, shall be passed through by Sublandlord to Subtenant). In no event shall Subtenant be required to provide or bear the cost of any “additional security” required by Landlord under Section 16.1 of the Lease, notwithstanding that the Consent may be withheld as a consequence thereof.

11. **DEFAULTS.** Subtenant covenants and agrees that in the event that it shall default in the performance of any of the terms, covenants and conditions of this Sublease or of the Master Lease (to the extent incorporated herein), and such default shall continue following the expiration of one-half (½) of the applicable notice and grace/cure periods (commencing on the date of the giving of notice by Sublandlord to Subtenant) specified for such default in in Section 21.1 or Section 21.7 of the Master Lease, Sublandlord shall be entitled to exercise any and all of the rights and remedies to which it is entitled by law, including, without limitation, the remedy of summary proceeding, and also any and all of the rights and remedies specifically provided for in the Sublease and in the Master Lease, which are incorporated herein and made a part hereof, with the same force and effect as if herein specifically set forth in full, and that wherever in the Master Lease rights and remedies are given to Master Landlord therein named, the same shall be deemed to refer to Sublandlord herein.

12. **NOTICE.** Whenever, by the terms of this Sublease, any notice, demand, request, approval, consent or other communication (each of which shall be referred to as a “notice”) shall or may be given either to Sublandlord or to Subtenant, such notice shall be in writing and shall be sent by hand delivery, reputable overnight courier, or by registered or certified mail, return receipt requested, postage prepaid, addressed as follows (or to such other address or addresses as may from time to time hereafter be designated by Sublandlord or Subtenant, as the case may be, by like notice):

- |                                      |   |
|--------------------------------------|---|
| (a) If intended for Subtenant, to:   | One Kendall Square<br>Building 1400, 4 <sup>th</sup> Floor<br>Suite B14402<br>Cambridge, MA 02139<br>Attn: William D’Agostino |
| (b) If intended for Sublandlord, to: | Shiseido Americas Corp.<br>960 Third Ave.<br>New York, NY 10022<br>Attn: General Counsel                                      |

All such notices shall be deemed to have been served on the date of actual receipt or rejection thereof (in the case of hand delivery), or one (1) business day after such notice shall have been deposited with a reputable overnight courier, or three (3) business days after such notice shall have been deposited in the United States mails within the continental United States (in the case of mailing by registered or certified mail as aforesaid).

13. **BROKER.** Each of Sublandlord and Subtenant represents and warrants to the other that it has not dealt, either directly or indirectly, with any broker to whom a commission or fee is due in connection with this Sublease other than Subtenant’s broker, CBRE-New England

(to whom no fee or commission is payable in connection with this Sublease) and Sublandlord's broker, CBRE (in such capacity, "Sublandlord's Broker"). Each of Sublandlord and Subtenant shall indemnify the other from and against any and all loss, costs and expenses, including reasonable attorney's fees, incurred as a result of a breach of such representation and warranty.

14. COUNTERPARTS. This Sublease may be executed in one or more counterparts, and by different parties hereto on separate counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. The parties acknowledge and agree that this Agreement may be executed via facsimile or email scanned signature and that delivery of a facsimile or email scanned signature shall be effective to the same extent as delivery of an original signature.

15. INSURANCE. Subtenant shall continue to insure the Subtenant's contents, furniture, furnishings, equipment, improvements, fixtures and personal property located at the Subleased Premises pursuant to the requirements of the Master Lease. Additionally, Subtenant shall name Sublandlord as an additional insured under Subtenant's general liability insurance, in addition to the Master Landlord, as required under the Master Lease.

16. COMPUTER; TELEPHONE; INTERNET ACCESS; WIFI; PRINTER; COPIER

(a) Subtenant will be responsible for the costs of its own computer, telephone, data and internet service.

(b) The Subleased Premises "computer room" will be available during the Term for Subtenant to install its computer server and telephone system provided such use and installation does not unreasonably interfere with Sublandlord's use therein.

(c) Upon mutual agreement of Sublandlord and Subtenant, during the Term, Sublandlord will allow the use by Subtenant of the existing computer "rack" and "switch board" subject to certain limitations provided such use does not unreasonably interfere with Sublandlord's use therein (e.g., some computer "ports" will be unavailable for Subtenant's use).

(d) Subtenant is responsible for its own office equipment such as photocopiers and printers.

17. ACCESS AND SECURITY.

(a) The Subleased Premises, including the offices therein, are cardkey controlled access, and the cardkey system is controlled and maintained by Sublandlord.

(b) Sublandlord will issue (or Subtenant may retain) cardkeys for Subtenant's staff for internal access. Subtenant will be charged a fixed fee of \$20 for any new or replacement card. The cardkeys may include Subtenant employee photos and/or Subtenant's company logo or other reasonable request, all subject to Sublandlord's reasonable approval, and the cost would be included as a part of the fixed fee of \$20 (above). There is no fee for all Subtenant cardkeys retained by the Subtenant at the commencement of this sublease.

**BY HAND**

May 7, 2018

Dear Chris:

This letter agreement (this “Agreement”) follows our recent discussions about your employment as Chief Financial Officer of InVivo Therapeutics Corporation (“InVivo” or the “Company”).

As you know, you and the Company entered into an Employment Agreement (the “Employment Agreement”) dated March 29, 2017. Upon the termination of your employment during the Term (as defined in the Employment Agreement), you will be entitled to compensation and benefits described in Section 4(b) of the Employment Agreement and shall have no further rights to any compensation or any other benefits from the Company or any of its affiliates.

After discussions with the Company’s Chief Executive Officer, you have notified the Company’s Board of Directors (the “Board”) that you wish to resign from your employment and related positions. The Company accepts your resignation, to be effective May 11, 2018 (the “Date of Termination”). You will be paid salary continuation in lieu of the notice period specified in your Employment Agreement. All capitalized terms used herein and not otherwise defined shall have the meanings set forth in the Employment Agreement.

This letter also proposes the Separation Agreement and Release (the “Agreement”) referred to in Section 4(b) the Employment Agreement. If you enter into, do not revoke, and comply with this Agreement you will be entitled to the Severance Benefits described below. In any event, and regardless of whether you enter into this Agreement and receive the Severance Benefits, the following bulleted terms and obligations shall apply:

- ☐ To the extent not already paid, the Company shall pay you the Accrued Obligations set forth in Section 4(a) of the Employment Agreement which shall include but not be limited to: (i) any Base Salary earned through the Date of Termination, unpaid expense reimbursements (subject to, and in accordance with, Section 2(c) of the Employment Agreement); and (ii) any vested benefits the Executive may have under any employee benefit plan of the Company through the Date of Termination, which vested benefits shall be paid and/or provided in accordance with the terms of such employee benefit plans. You have 6.75 days of unused vacation accrued through the Date of Termination.
  - ☐ Your eligibility to participate in the Company’s other employee benefit plans and programs will cease on the Date of Termination in accordance with the terms and conditions of each of those benefit plans and programs, with the exception of health insurance coverage, which will cease six (6) months after the Date of Termination (November 11, 2018). Your rights to benefits, if any, are governed by the terms and conditions of those benefit plans and programs.
  - ☐ The Invention and Non-disclosure Agreement dated November 11, 2013 (the “Restrictive Covenants Agreement”) shall remain in effect during and after the Date of
-

Termination in accordance with its terms. A copy of the Restrictive Covenants Agreement is being provided to you with this Agreement.

- ☐ Except as otherwise provided in this Agreement, any equity awards held by you shall be governed by the terms and conditions of the Company's applicable equity incentive plan(s) and the applicable award agreement(s) governing the terms of such equity awards (collectively, the "Equity Documents").

The remainder of this letter proposes the Agreement between you and the Company. You acknowledge that you are entering into this Agreement voluntarily. By entering into this Agreement, you understand that the Company is not admitting in any way that it violated any legal obligation that it owed to you.

With those understandings, you and the Company agree as follows:

1. Resignations

In connection with the ending of your employment, you hereby resign from all officer, director and manager positions you hold with the Company and any of its respective direct or indirect subsidiaries or controlled entities effective May 11, 2018. You agree to execute any documents reasonably requested by the Company or any controlled entities in order to effectuate your resignations.

2. Severance Benefits

For purposes of the Severance Benefits set forth below, the ending of your employment shall be treated pursuant to Section 3(d) of the Employment Agreement. If you enter into, do not revoke and comply with this Agreement, you will be entitled to the following Severance Benefits:

(a) the Company shall pay you an amount equal to twelve (12) months of your Base Salary, currently \$335,000 per year (the "Severance Amount").

(b) Upon your making a timely election pursuant to the provisions of the Consolidated Omnibus Budget Reconciliation Act of 1985 (Cobra), InVivo will pay the standard employer portion of your medical and dental insurance premiums for six months after your last date of employment. InVivo's obligations under this subsection are contingent on your making a timely Cobra election. Additionally InVivo shall only be required to continue and contribute to your medical And dental insurance under this subsection to the same extent that such insurance is provided to persons employed by InVivo. After the six month period , you will have the right to continue your medical and dental insurance pursuant to the provisions under Cobra solely at your own expense. The "qualifying event" under Cobra shall be deemed to have commenced on the Separation date. If during the six (6) months following the Date of Termination, you inform the Company that you are ending your employer-provided health insurance, the Company will cease to pay the monthly employer contribution as of the next calendar month.



The amounts payable under Section 2(a) shall be paid out in substantially equal installments in accordance with the Company's payroll practice over twelve (12) months commencing no later than 30 days after the Date of Termination; *provided*, if you miss a regular payroll date due to the timing of the Effective Date of this Agreement, the Company's initial payment to you shall include a catch-up payment to cover amounts retroactive to the day immediately following the Date of Termination. Each payment pursuant to this Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section 1.409A-2(b)(2). Notwithstanding the foregoing, if you breach any provisions of the Restrictive Covenants Agreement, in addition to all other legal and equitable remedies all payments of the Severance Benefits shall immediately cease.

### 3. Return of Property.

You agree that, in light of the ending of your employment, you agree to return to InVivo all InVivo property (including without limitation, keys, identification cards, computer equipment, computer discs and software, computer access codes, telephones, references guides, company files and documents, company credit cards, institutional manuals, etc.) and documents and any copies thereof (including, without limitation, laboratory notebooks, financial plans, management reports, and other similar documents and information), and that you will abide by any and all common law and/or statutory obligation relating to the protection and non-disclosure of InVivo's trade secrets and/or confidential and proprietary documents and information.

### 4. Cooperation

You agree that during the first thirty (30) days of the Severance Period you will make yourself reasonably available to the Company, upon reasonable notice, either by telephone or, if the Company believes necessary, in person to assist the Company in any matter relating to the services performed by you during your employment with the Company including, but not limited, transitioning your duties to others at the Company ("Cooperation Activities"). In the event any Cooperation Activities exceed 25 hours of your time in the aggregate, you and the Company shall enter into a consulting agreement with mutually agreeable terms, including an hourly rate, to cover services related to any additional Cooperation Activities. You further agree that during the Severance Period and thereafter you will cooperate fully with the Company in the defense or prosecution of any claims or actions now in existence or which may be brought or threatened in the future against or on behalf of the Company, including any claim or action against its directors, officers and employees. Your cooperation in connection with such claims or actions shall include your being available, within reason given the constraints of future employment or job search activities, to meet with the Company to prepare for any proceeding, to provide truthful affidavits and/or testimony, to assist with any audit, inspection, proceeding or other inquiry, and to act as a witness in connection with any litigation or other legal proceeding affecting the Company. You further agree that should an individual representing a party adverse to the business or legal interests of the Company (including, without limitation, anyone threatening any form of legal action against the Company) contact you (directly or indirectly), you will promptly (within 48 hours) inform the Company of that fact. Nothing herein shall be construed to prohibit or prevent you from cooperating with any government investigation (including maintaining the confidentiality of such

investigation if required by the government), nor shall any such cooperation be deemed to be a violation of your obligations of non-disparagement set forth in Section 6.

#### 5. Continuing Obligations

You hereby reaffirm your continuing obligations to the Company pursuant to the Invention and Non-Disclosure Agreement, the terms of which are incorporated herein by reference as material terms of this Agreement. Such continuing obligations include, but are not limited to, the non-disclosure of the Company's confidential information, compliance with your post-termination obligations under the Company's insider trading policy and special trading procedures, the return of the Company's property, and the six (6) month post-employment non-competition and non-solicitation period.

#### 6. Mutual Non-Disparagement

Subject to Section 9 of this Agreement, you agree not to make any disparaging statements concerning the Company or any of its affiliates or its or their products, services or current or former officers, directors, shareholders, employees, members, managers or agents. The Company's Board of Directors and its Officers hereby agree not to make any disparaging statements concerning you.

#### 7. Communications Regarding Your Separation

You will not reveal your separation from the Company to anyone other than your immediate family or legal counsel until the Company has issued a written announcement.

#### 8. Release of Claims

In consideration for, among other terms, the Severance Benefits and the Company's obligations described in the preamble to this Agreement, you voluntarily release and forever discharge the Company, its affiliated and related entities, its and their respective predecessors, successors and assigns, its and their respective employee benefit plans and fiduciaries of such plans, and the current and former officers, directors, shareholders, employees, attorneys, accountants and agents of each of the foregoing in their official and personal capacities (collectively referred to as the "Releasees") generally from all claims, demands, debts, damages and liabilities of every name and nature, known or unknown ("Claims") that, as of the date when you sign this Agreement, you have, ever had, now claim to have or ever claimed to have had against any or all of the Releasees. This release includes, without limitation, all Claims:

- ☐ relating to your employment by and termination of employment with the Company;
- ☐ of wrongful discharge or violation of public policy;
- ☐ of breach of contract;
- ☐ of defamation or other torts;
- ☐ of retaliation or discrimination under federal, state or local law (including, without limitation, Claims of discrimination or retaliation under the Age Discrimination in

- Employment Act, the Americans with Disabilities Act, and Title VII of the Civil Rights Act of 1964);
- under any other federal or state statute (including, without limitation, Claims under the Worker Adjustment and Retraining Notification Act or the Fair Labor Standards Act);
- for wages, bonuses, incentive compensation, stock, stock options, vacation pay or any other compensation or benefits, either under the Massachusetts Wage Act, M.G.L. c. 149, §§148-150C, or otherwise; and
- for damages or other remedies of any sort, including, without limitation, compensatory damages, punitive damages, injunctive relief and attorney's fees; *provided*, however, that this release shall not affect your rights under this Agreement, including the Preamble, your vested rights under any employee benefit plan or the Equity Documents; or your right to seek to be defended and indemnified by the Company in the event a claim is asserted against you for acts that arose within the course and scope of your employment.

You agree not to accept damages of any nature, other equitable or legal remedies for your own benefit or attorney's fees or costs from any of the Releasees with respect to any Claim released by this Agreement. As a material inducement to the Company to enter into this Agreement, you represent that you have not assigned any Claim to any third party.

9. OWBPA.

Because you are at least forty (40) years of age, you have specific rights under the federal Age Discrimination in Employment Act ("ADEA") and Older Workers Benefits Protection Act ("OWBPA"), which prohibit discrimination on the basis of age. The release in Section 7 is intended to release any Claim you may have against InVivo alleging discrimination on the basis of age under the ADEA, OWBPA and other laws. Notwithstanding anything to the contrary in this Agreement, the release in Section 8 does not cover rights or Claims under the ADEA that arise from acts or omissions that occur after the date you sign this Agreement.

10. Legally Binding; Advice of Counsel

This Agreement is a legally binding document and your signature will commit you to its terms. You acknowledge that you been advised by the Company to review this Agreement with counsel before entering into it. You have carefully read and fully understand all of the provisions of this Agreement and you acknowledge that you are voluntarily entering into this Agreement.

11. Protected Disclosures and Other Protected Actions

Nothing contained in this Agreement limits your ability to file a charge or complaint with any federal, state or local governmental agency or commission (a "Government Agency"). In addition, nothing contained in this Agreement limits your ability to communicate with any Government Agency or otherwise participate in any investigation or proceeding that may be conducted by any Government Agency, including your ability to provide documents or other information, without notice to the Company, nor does anything contained in this Agreement apply to truthful testimony in litigation. If you file any charge or complaint with any Government Agency and if the

Government Agency pursues any claim on your behalf, or if any other third party pursues any claim on your behalf, you waive any right to monetary or other individualized relief (either individually or as part of any collective or class action); *provided* that nothing in this Agreement limits any right you may have to receive a whistleblower award or bounty for information provided to the Securities and Exchange Commission. In addition, for the avoidance of doubt, pursuant to the federal Defend Trade Secrets Act of 2016, you shall not be held criminally or civilly liable under any federal or state trade secret law or under this Agreement or the Restrictive Covenants Agreement for the disclosure of a trade secret that (a) is made (i) in confidence to a federal, state, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (b) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal.

#### 12. Tax Treatment

The Company shall undertake to make deductions, withholdings and tax reports with respect to payments and benefits under this Agreement to the extent that it reasonably and in good faith determines that it is required to make such deductions, withholdings and tax reports. Payments under this Agreement are stated in gross amounts and shall be paid in amounts net of any such deductions or withholdings. Nothing in this Agreement shall be construed to require the Company to make any payments to compensate you for any adverse tax effect associated with any payments or benefits or for any deduction or withholding from any payment or benefit. Section 6 of the Employment Agreement is preserved and incorporated by reference herein.

#### 13. Absence of Reliance

In signing this Agreement, you are not relying upon any promises or representations made by anyone at or on behalf of the Company, other than those set forth herein.

#### 14. Enforceability

If any portion or provision of this Agreement (including, without limitation, any portion or provision of any section of the Restrictive Covenants Agreement) shall to any extent be declared illegal or unenforceable by a court of competent jurisdiction, then the remainder of this Agreement, or the application of such portion or provision in circumstances other than those as to which it is so declared illegal or unenforceable, shall not be affected thereby, and each portion and provision of this Agreement shall be valid and enforceable to the fullest extent permitted by law.

#### 15. Waiver

No waiver of any provision of this Agreement shall be effective unless made in writing and signed by the waiving party. The failure of any party to require the performance of any term or obligation of this Agreement, or the waiver by any party of any breach of this Agreement, shall not prevent any subsequent enforcement of such term or obligation or be deemed a waiver of any subsequent breach.

16. Jurisdiction

You hereby agree that the Massachusetts courts shall have the exclusive jurisdiction to consider any matters related to this Agreement, including without limitation any claim for violation of this Agreement. With respect to any such court action, you (i) submit to the jurisdiction of such courts, (ii) consent to service of process, and (iii) waive any other requirement (whether imposed by statute, rule of court or otherwise) with respect to personal jurisdiction or venue.

17. Governing Law; Interpretation

This Agreement shall be interpreted and enforced under the laws of the Commonwealth of Massachusetts without regard to conflict of law principles. In the event of any dispute, this Agreement is intended by the parties to be construed as a whole, to be interpreted in accordance with its fair meaning, and not to be construed strictly for or against either you or the Company or the “drafter” of all or any portion of this Agreement.

18. Entire Agreement and Time to Consider

Except for the Restrictive Covenant Agreement, the Indemnification Agreement, and the Equity Documents, this Agreement constitutes the entire agreement between you and the Company.

You acknowledge that you have knowingly and voluntarily entered into this Agreement and that the Company advises you to consult with an attorney before signing this Agreement. You understand and acknowledge that you have been given the opportunity to consider this Agreement for twenty-one (21) days from your receipt of this Agreement before signing it (the “Consideration Period”). To accept this Agreement, you must return a signed, unmodified original or PDF copy of this Agreement so that it is received by the undersigned at or before the expiration of the Consideration Period. If you sign this Agreement before the end of the Consideration Period, you acknowledge that such decision was entirely voluntary and that you had the opportunity to consider this Agreement for the entire Consideration Period. For the period of seven (7) days from the date when you sign this Agreement, you have the right to revoke this Agreement by written notice to the undersigned, *provided* that such notice is delivered so that it is received at or before the expiration of the seven (7) day revocation period. This Agreement shall not become effective or enforceable during the revocation period. This Agreement shall become effective on the first business day following the expiration of the revocation period (the “Effective Date”).

19. Counterparts

This Agreement may be executed in any number of counterparts, each of which when so executed and delivered shall be taken to be an original, but all of which together shall constitute one and the same document. Facsimile and pdf signatures shall be deemed to have the same legal effect as originals.

Please indicate your agreement to the terms of this Agreement by signing and returning it to me within the time period set forth above. We appreciate your service and wish you the very best in the future.

Very truly yours,

/s/ Richard Toselli

Name: Richard Toselli

Title: President and CEO

5/7/2018

Date

Enclosure (Restrictive Covenants Agreement)

The foregoing is agreed to and accepted by:

/s/ Christopher McNulty

5/7/2018

Date