

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-Q

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

For the Quarterly Period Ended September 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: 001-38677

Ra Medical Systems, Inc.

(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

38-3661826

(I.R.S. Employer
Identification No.)

**2070 Las Palmas Drive
Carlsbad, California**

(Address of principal executive offices)

92011

(Zip Code)

(760) 804-1648

(Registrant's telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

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 every Interactive Data File required to be submitted 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 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

Non-accelerated filer

Accelerated filer

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 November 5, 2018, the registrant had 12,689,251 shares of common stock, par value \$0.0001, outstanding.

RA MEDICAL SYSTEMS, INC.
QUARTERLY REPORT ON FORM 10-Q

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PART I — FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS (UNAUDITED)

Ra Medical Systems, Inc
Condensed Balance Sheets (Unaudited)
(in thousands, except share and per share data)

	September 30, 2018	December 31, 2017
ASSETS		
Current Assets		
Cash and cash equivalents	\$ 4,915	\$ 8,237
Accounts receivable, net	1,346	517
Inventories, net	1,281	1,196
Prepaid expenses and other current assets	237	92
Total current assets	7,779	10,042
Property and equipment, net	2,809	1,159
Other non-current assets	3,601	68
TOTAL ASSETS	\$ 14,189	\$ 11,269
LIABILITIES AND STOCKHOLDERS' EQUITY(DEFICIT)		
Current Liabilities		
Accounts payable	\$ 3,340	\$ 426
Accrued expenses	1,640	324
Current portion of deferred revenue	1,751	1,714
Current portion of equipment financing	30	44
Other current liabilities	72	125
Total current liabilities	6,833	2,633
Deferred revenue	768	775
Equipment financing	—	19
Stock-based compensation liability	—	15,376
Other liabilities	107	81
Total liabilities	7,708	18,884
Commitments and contingencies (Note 11)		
Stockholders' Equity (Deficit)		
Common stock, \$0.0001 par value, 25,000,000 shares authorized; 8,204,251 and 7,888,170 issued and outstanding at September 30, 2018 and December 31, 2017, respectively	1	1
Additional paid-in capital	51,764	21,773
Accumulated deficit	(45,284)	(29,389)
Total stockholders' equity (deficit)	6,481	(7,615)
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY (DEFICIT)	\$ 14,189	\$ 11,269

See notes to condensed financial statements.

Ra Medical Systems, Inc
Condensed Statements of Operations (Unaudited)
(in thousands, except per share data)

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Net revenue				
Product sales	\$ 1,248	\$ 587	\$ 1,958	\$ 1,888
Service and other	816	704	2,311	2,045
Total net revenue	2,064	1,291	4,269	3,933
Cost of revenue				
Product sales	886	358	1,875	1,533
Service and other	394	335	1,131	974
Total cost of revenue	1,280	693	3,006	2,507
Gross profit	784	598	1,263	1,426
Operating expenses				
Selling, general and administrative	5,366	1,904	15,621	11,932
Research and development	224	413	1,532	4,159
Total operating expenses	5,590	2,317	17,153	16,091
Operating loss	(4,806)	(1,719)	(15,890)	(14,665)
Other expense				
Interest expense	1	1	2	3
Total other expense	1	1	2	3
Loss before income tax expense	(4,807)	(1,720)	(15,892)	(14,668)
Income tax expense	0	—	3	1
Net loss	(4,807)	(1,720)	(15,895)	(14,669)
Basic and diluted net loss per share	\$ (0.59)	\$ (0.23)	\$ (1.97)	\$ (1.96)
Basic and diluted weighted average common shares outstanding	8,204	7,479	8,081	7,469

See notes to condensed financial statements.

Ra Medical Systems, Inc
Condensed Statement of Stockholders' Equity (Deficit) (Unaudited)
(in thousands)

	Common Stock Shares	Common Stock Amount	Additional Paid-in- Capital	Accumulated Deficit	Total Stockholders' Equity (Deficit)
Balances at December 31, 2017	7,888	\$ 1	\$ 21,773	\$ (29,389)	\$ (7,615)
Common stock issued	316	—	7,901	—	7,901
Settlement of stock-based compensation liability	—	—	18,243	—	18,243
Forfeitures of liability-classified awards	—	—	1,313	—	1,313
Stock-based compensation	—	—	2,534	—	2,534
Net loss	—	—	—	(15,895)	(15,895)
Balances at September 30, 2018	<u>8,204</u>	<u>\$ 1</u>	<u>\$ 51,764</u>	<u>\$ (45,284)</u>	<u>\$ 6,481</u>

See notes to condensed financial statements.

Ra Medical Systems, Inc
Condensed Statements of Cash Flows (Unaudited)
(in thousands)

	Nine months ended September 30,	
	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net loss	\$ (15,895)	\$ (14,669)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	388	147
Stock-based compensation	6,714	11,528
Changes in operating assets and liabilities:		
Accounts receivable	(829)	269
Inventories	(1,699)	(1,134)
Prepaid expenses and other assets	(122)	(20)
Accounts payable	695	323
Accrued expenses	636	(143)
Deferred revenue	30	(319)
Other liabilities	(27)	—
Net cash used in operating activities	(10,109)	(4,018)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Purchase of property and equipment	(424)	(275)
Net cash used in investing activities	(424)	(275)
CASH FLOWS FROM FINANCING ACTIVITIES:		
Proceeds from issuance of common stock	7,901	1,377
Payments on equipment financing	(33)	(33)
Initial public offering costs	(657)	—
Net cash provided by financing activities	7,211	1,344
NET CHANGE IN CASH AND CASH EQUIVALENTS	(3,322)	(2,949)
CASH AND CASH EQUIVALENTS, beginning of period	8,237	3,921
CASH AND CASH EQUIVALENTS, end of period	\$ 4,915	\$ 972
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:		
Settlement of stock-based compensation liability	\$ 18,243	\$ —
Forfeitures of liability-classified awards	\$ 1,313	\$ —
Deferred initial public offering costs in accounts payable and accrued expenses	\$ 2,899	\$ —
Transfer from inventories to property and equipment for demonstration lasers and lasers placed with customers	\$ 1,614	\$ 239
SUPPLEMENTAL CASH FLOW INFORMATION:		
Cash payments for interest	\$ 1	\$ 1

See notes to condensed financial statements.

Ra Medical Systems, Inc.
Notes to Condensed Financial Statements (Unaudited)

Note 1—Organization and Nature of Operations

Ra Medical Systems, Inc. (the “Company”) was formed in September 4, 2002, in the state of California and reincorporated in Delaware on July 14, 2018. The Company is a medical device company commercializing advanced excimer lasers for use in the treatment of dermatological and vascular diseases. The Company develops, manufactures and markets medical devices targeting the dermatology and vascular specialties. The Company’s product development centers around proprietary applications of its advance excimer laser technology for use as a tool in the treatment of psoriasis, vitiligo, atopic dermatitis, leukoderma, and peripheral artery disease (“PAD”).

Reincorporation—Upon reincorporation in Delaware, the par value of each share of common stock was established to be \$0.0001 and the number of authorized shares of common stock was increased from 10,000,000 to 25,000,000. In connection with the reincorporation, common stock and additional paid-in capital amounts in these financial statements have been adjusted to reflect the par value of common stock. All share information included in these financial statements has been adjusted to reflect this reincorporation.

Initial Public Offering—On October 1, 2018, the Company closed its initial public offering (“IPO”) of 4,485,000 shares of common stock at an offering price to the public of \$17.00 per share, resulting in gross proceeds of approximately \$76.2 million. These amounts include the exercise in full by the underwriters of their option to purchase 585,000 additional shares of common stock at the same price to the public to cover over-allotments. The aggregate net proceeds to the Company from its IPO were \$67.3 million after deducting the underwriters discount and offering costs of \$5.3 million and \$3.6 million, respectively. The Company’s registration statement on Form S-1 relating to its IPO was declared effective by the Securities and Exchange Commission on September 26, 2018. The accompanying condensed financial statements, including share and per share amounts, do not include the effects of the offering as it was completed subsequent to September 30, 2018.

Note 2—Significant Accounting Policies

Interim condensed financial information—The unaudited interim condensed financial statements included within this report have been prepared on the same basis as the annual financial statements and reflect all adjustments of a normal and recurring nature that are necessary for the fair presentation of the Company’s condensed financial position, results of operations, cash flows and statement of stockholders’ equity (deficit) for the periods presented. The results of operations for the three and nine months ended September 30, 2018 are not necessarily indicative of the results to be expected for the year ending December 31, 2018 or for any other future annual or interim period. The balance sheet as of December 31, 2017 included herein was derived from the audited financial statements as of that date. These unaudited condensed financial statements should be read in conjunction with the Company’s audited financial statements included in the Company’s final prospectus filed with the SEC on September 27, 2018 relating to the Company’s Registration Statement on Form S-1 (File No. 333-226191).

Use of estimates—The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and reported disclosures of contingent assets and liabilities at the dates of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from those estimates. The Company’s financial statements are based upon a number of estimates, including but not limited to, allowance for doubtful accounts, inventory reserves, reserves for warranty costs, fair value of stock option awards granted and revenue recognition for multiple element arrangements.

Deferred Initial Public Offering Costs—The Company capitalizes certain legal, accounting and other third party fees that are directly associated with in-process equity financings until such financings are consummated. Deferred IPO costs of \$3.6 million are capitalized and included within Other non-current assets on the condensed balance sheet as of September 30, 2018. There were no deferred IPO costs as of December 31, 2017. The deferred IPO costs will be offset against the proceeds from the IPO in the fourth quarter of 2018 as a component of stockholders’ equity.

Recent accounting pronouncements—On April 5, 2012, President Obama signed the Jump-Start Our Business Startups Act (the “JOBS Act”) into law. The JOBS Act contains provisions that, among other things, reduce certain reporting requirements for an emerging growth company. As an emerging growth company, the Company may elect to adopt new or revised accounting standards when they become effective for non-public companies, which typically is later than public companies must adopt the standards. The Company has elected to take advantage of the extended transition period afforded by the JOBS Act and, as a result, will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-public companies, which are the dates included below.

In May 2014, FASB issued Accounting Standards Update (“ASU”) 2014-09, *Revenue from Contracts with Customers (Topic 606)*, and issued subsequent amendments to the initial guidance in August 2015, March 2016, April 2016 and May 2016 within ASU 2015-14, ASU 2016-08, ASU 2016-10 and ASU 2016-12, respectively. ASU 2014-09 supersedes nearly all existing revenue recognition guidance under generally accepted accounting principles in the United States (“US GAAP”). The core principle of ASU 2014-09 is to recognize revenue when promised goods or services are transferred to customers in an amount that reflects the consideration that the Company expects to receive for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle, and in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than are required under existing US GAAP, including 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, among others. The new standard also requires an entity to recognize as an asset the incremental costs of obtaining a contract with a customer if the entity expects to recover those costs. ASU 2014-09 is effective for annual reporting periods beginning after December 15, 2018, and interim reporting periods within annual reporting periods beginning after December 15, 2019, with (i) retrospective application of ASU 2014-09 to each prior reporting period presented with the option to elect certain practical expedients as defined within ASU 2014-09 or (ii) retrospective application of ASU 2014-09 with the cumulative effect of initially applying ASU 2014-09 recognized at the date of initial application and providing certain additional disclosures as defined per ASU 2014-09 (the modified retrospective method).

While the Company has not completed its evaluation, the Company currently plans to adopt this accounting standard in the first quarter of fiscal year 2019 using the modified retrospective method. Based on the analysis performed through the third quarter of 2018, the Company does not believe adoption of this guidance will have a material impact on the timing and measurement of revenue under its contracts with customers, but it will require additional disclosures.

In February 2016, FASB issued ASU 2016-02, *Leases (Topic 842)* (“ASU 2016-02”). This update requires lessees to recognize on the balance sheet a lease liability and a lease asset for all leases with a term greater than 12 months, including operating leases. The update also expands the required quantitative and qualitative disclosures surrounding leases. Under the new standard, the Company will have to recognize a liability representing its lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term on the balance sheet. ASU 2016-02 is effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020, with early adoption permitted.

Lessor accounting under ASU 2016-02 is similar to the current model but updated to align with certain changes to the lessee model. Lessors will continue to classify leases as operating, direct financing or sales-type leases. In addition, the new standard requires that lease and nonlease components of a contract be bifurcated, with nonlease components subject to the new revenue recognition standard effective upon adoption of the new leasing standard. In January 2018, the FASB issued a proposed amendment that, if adopted by the FASB, would allow lessors to elect to account for the lease and nonlease components as a single combined lease component if (i) the timing and pattern of the revenue recognition is the same, and (ii) the combined lease component would continue to be classified as an operating lease. The Company is evaluating the effect that this guidance will have on the financial statements and related disclosures. The Company plans to adopt the standard using the transition method provided by ASC Update No. 2018-11, *Leases (Topic 842): Targeted Improvements*. Under this method, the Company plans to initially apply the new leasing rules on January 1, 2019, and recognize the cumulative effect of initially applying the standard as an adjustment to our opening balance of retained earnings, rather than at the earliest comparative period presented in the financial statements.

In May 2017, the FASB issued ASU 2017-09, *Compensation-Stock Compensation (Topic 718): Scope of Modification Accounting*. The amendments in this update provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting. Under the ASU, an entity will account for the effects of a modification unless (i) the fair value of the modified award is the same as the fair value of the original award immediately before the original award is modified, (ii) the vesting conditions of the modified award are the same vesting conditions as the original award immediately before the original award is modified and (iii) the classification of the modified award as an equity instrument or a liability instrument is the same as the classification of the original award immediately before the original award is modified. The amendments in this ASU are effective prospectively for fiscal years, and interim periods within those annual periods, beginning after December 15, 2017. The Company adopted ASU 2017-09 on January 1, 2018 and the adoption did not have a material impact on the Company’s financial statements or related financial statement disclosure.

In June 2018, the FASB issued ASU 2018-07, *Improvements to Nonemployee Share-Based Payment Accounting*. ASU 2018-07 expands the scope of Topic 718, *Compensation—Stock Compensation*, to include share-based payments issued to nonemployees for goods or services. Consequently, the accounting for share-based payments to nonemployees and employees will be substantially aligned. ASU 2018-07 supersedes Subtopic 505-50, *Equity—Equity-Based Payments to Non-Employees*. The amendments are effective for fiscal years beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. Early adoption is permitted, but no earlier than a company’s adoption date of Topic 606, *Revenue from Contracts with Customers*. The Company is evaluating the effect that this guidance will have on the financial statements and related disclosures.

Note 3—Inventories, net

Inventories consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Raw materials	\$ 1,051	\$ 705
Work in process	37	110
Finished goods	193	381
Inventories, net	\$ 1,281	\$ 1,196

Note 4—Property and Equipment, net

Property and equipment consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Computer hardware and software	\$ 366	\$ 301
Furniture and fixtures	71	60
Machinery and equipment	1,040	745
Demonstration lasers and lasers placed with customers	2,097	483
Automobiles	200	154
Leasehold improvements	93	13
Construction in progress	50	178
Property and equipment, gross	3,917	1,934
Accumulated depreciation	(1,108)	(775)
Property and equipment, net	\$ 2,809	\$ 1,159

Depreciation expense was \$0.2 million and \$0.1 million for the three months ended September 30, 2018 and 2017, respectively, and was \$0.4 million and \$0.1 million for the nine months ended September 30, 2018 and 2017, respectively.

Note 5—Other non-current assets

Other non-current assets consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Deferred IPO costs	\$ 3,556	\$ —
Deposits	45	68
Other non-current assets	\$ 3,601	\$ 68

Note 6—Accrued Expenses

Accrued expenses consisted of the following (in thousands):

	September 30, 2018	December 31, 2017
Compensation and related benefits	\$ 702	\$ 236
Accrued warranty (Note 7)	50	87
Accrued IPO costs	680	—
Other accrued expenses	208	1
Accrued expenses	\$ 1,640	\$ 324

Note 7—Accrued Warranty

Activity in the product warranty accrual is included in accrued expenses above and consists of the following (in thousands):

	Nine months ended September 30, 2018	Year ended December 31, 2017
Balanced at beginning of period	\$ 87	\$ 97
Increase in warranty accrual	60	198
Claims satisfied	(97)	(208)
Accrued warranty	\$ 50	\$ 87

Warranty expense was \$0.03 million for both the three months ended September 30, 2018 and 2017, respectively, and was \$0.1 million for each of the nine months ended September 30, 2018 and 2017, respectively, and is included in service and other cost of revenue in the accompanying condensed statements of operations.

Note 8—Stockholders' Equity

Common stock—The Company has one class of stock: common shares. The Company issued 316,080 shares of common stock in exchange for \$7.9 million that related to the private placements which took place during the nine months ended September 30, 2018. The Company's Registration Statement on Form S-1 for its initial public offering was effective September 26, 2018 and the transaction closed on October 1, 2018, at which time the Company issued 4,485,000 shares of common stock in exchange for net proceeds of approximately \$67.3 million after deducting underwriting discounts and commissions and offering expenses payable by the Company.

Note 9—Loss per Share

The Company calculates basic loss per share by dividing net loss by the weighted average number of common shares outstanding during the reporting period. Diluted loss per share would reflect the effects of potentially dilutive securities, if any. For each of the three and nine months ended September 30, 2018 and 2017, basic and diluted loss per share were the same.

Note 10—Stock-Based Compensation

In 2003, the Company adopted a stock option plan (the "2003 Plan"), which authorized the board of directors to grant stock option awards to eligible employees, directors, consultants and service providers (together the "Optionees") of the Company. In April 2012, such plan expired. In 2014, the Company established the 2014 Stock Option Plan (the "2014 Plan") whereby 1,000,000 shares of the Company's common stock were reserved for issuance to eligible Optionees. The 2014 Plan provided for the grant of incentive stock options, non-statutory stock options, stock bonuses and rights to acquire restricted stock. Option awards under the 2014 Plan expired up to a maximum of 10 years from the date of the grant.

The Company concluded that option awards communicated to Optionees (the "Communicated Option Awards") under the 2003 Plan and 2014 Plan were not validly authorized and therefore were not valid outstanding option awards. Although the Communicated Option Awards were not outstanding options, the Company believes the awards represented a contractual obligation to the Optionees and therefore the Company classified the option awards as liabilities in the financial statements which were remeasured at fair value each reporting period.

Obligations under the 2003 Plan and 2014 Plan included time and performance-based awards. For time-based awards, vesting generally occurred over the service period of up to four years. Performance based awards vested at the time that the underlying performance conditions were met.

The liabilities for stock-based compensation awards were classified as a component of noncurrent liabilities on the balance sheet as the Company did not expect that such amounts would be settled through the use of current assets or through the creation of current liabilities.

On May 17, 2018, the Company's board of directors terminated the 2014 Stock Option Plan and on June 4, 2018, it was replaced with the 2018 Stock Compensation Plan (the "Compensation Plan") whereby 3,300,000 shares of the Company's common stock were reserved for issuance. On June 4, 2018, the Company's board of directors authorized 1,901,900 replacement equity awards of stock options and, on June 8, 2018, 1,340,832 restricted stock units (collectively, the "Replacement Awards") to the Optionees. On various dates in June 2018, but after the board of directors' authorization, the Replacement Awards were communicated to the Optionees in exchange for the cancellation of, and waiver to any claims related to, the Communicated Option Awards granted under the 2003 Plan and 2014 Plan which were determined to be not validly authorized. The issuance of the Replacement Awards and cancellation of the Communicated Option Awards was treated as a modification. The modification date is the date of the grant of the Replacement Awards, such date being June 4, 2018, for

options and June 8, 2018, for restricted stock unit awards. The Company will recognize the remaining unrecognized compensation cost, as well as any incremental compensation cost of the Replacement Awards of \$17.2 million, over the remaining service period of the Replacement Awards, as described below. As the Replacement Awards have been determined to be equity-classified awards, the Company will no longer record such awards as liabilities.

In September 2018, the Company's board of directors adopted, and the Company's stockholders approved, the Company's 2018 Equity Incentive Plan (the "2018 Plan"). The 2018 Plan became effective on September 25, 2018. A total of 1,632,134 shares of common stock are reserved for issuance pursuant to the Company's 2018 Plan. In addition, the shares reserved for issuance under the 2018 Plan include (1) those shares reserved but unissued under the Compensation Plan as of the date of stockholder approval of the 2018 Plan and (2) shares of common stock subject to or issued pursuant to awards granted under the Compensation Plan that, after the date of stockholder approval of the 2018 Plan, expire or otherwise terminate without having been exercised in full or are forfeited to or repurchased by us (provided that the maximum number of shares that may be added to the 2018 Plan pursuant to (1) and (2) is 3,300,000 shares). The 2018 Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Internal Revenue Code to the Company's employees and any of the Company's parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted stock, restricted stock units, stock appreciation rights, performance units and performance shares to the Company's employees, directors and consultants and the Company's parent and subsidiary corporations' employees and consultants. The number of shares available for issuance under the Company's 2018 Plan also includes an annual increase on the first day of each fiscal year beginning with our 2019 fiscal year, equal to the least of 1) 1,632,134 shares; 2) five percent (5%) of the outstanding shares of our common stock as of the last day of the immediately preceding fiscal year; or 3) such other amount as our board of directors may determine.

Stock options granted under the Compensation Plan, including those granted as a component of the Replacement Awards, generally vest 33% at the first anniversary of the grant date with the balance vesting monthly over the remaining two years. The restricted stock units granted under the Compensation Plan, including those granted as a component of the Replacement Awards, include a service condition and a performance condition. The service condition generally begins on the grant date and continues through January 2020 and the restricted stock units vest at various times commencing the day following the expiration of the lock-up until January 2020. The performance condition related to the Company completing its IPO and the vesting of the restricted stock units were contingent upon the achievement of such IPO.

A summary of the activity and related information of the Communicated Option Awards classified as liabilities and communicated during the nine months ended September 30, 2018, is presented below:

	Liability- Classified Awards (in shares)	Weighted Average Exercise Price	Weighted Average Remaining Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2017	933,500	\$ 3.92	3.57	\$ 19,676
Granted	170,000	25.00		
Forfeited	(67,000)	5.33		
Cancelled and settled with Replacement Awards	(1,036,500)	7.29		22,442
Outstanding at September 30, 2018	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>
Exercisable at September 30, 2018	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>
Vested and expected to vest at September 30, 2018	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>

A summary of the activity and related information of the stock options issued during the nine months ended September 30, 2018 is presented below:

	Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Life (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding at December 31, 2017	—	\$ —	—	\$ —
Granted	1,901,900	28.94		
Forfeited	(9,900)	28.94		
Outstanding at September 30, 2018	<u>1,892,000</u>	<u>\$ 28.94</u>	<u>9.6</u>	<u>\$ —</u>
Exercisable at September 30, 2018	<u>—</u>	<u>\$ —</u>	<u>—</u>	<u>\$ —</u>
Vested and expected to vest at September 30, 2018	<u>1,892,000</u>	<u>\$ 28.94</u>	<u>9.6</u>	<u>\$ —</u>

A summary of the activity and related information of the restricted stock units issued during the nine months ended September 30, 2018 is presented below:

	Restricted Stock Units	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2017	—	\$ —
Granted	1,340,832	28.94
Forfeited	(3,110)	28.94
Outstanding at September 30, 2018	<u>1,337,722</u>	<u>\$ 28.94</u>

Stock-based compensation expense recorded in operating expenses was as follows (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Selling, general and administrative	\$ 1,370	\$ 492	\$ 5,328	\$ 7,659
Research and development	83	77	992	3,181
Stock-based compensation in operating expenses	<u>\$ 1,453</u>	<u>\$ 569</u>	<u>\$ 6,320</u>	<u>\$ 10,840</u>

Stock-based compensation of \$0.1 million was capitalized to inventory during both the three months ended September 30, 2018 and 2017, respectively and stock-based compensation of \$0.4 million and \$0.7 million were capitalized to inventory during the nine months ended September 30, 2018 and 2017, respectively.

Unrecognized compensation expense for stock options issued as of September 30, 2018 was \$15.6 million and is expected to be recognized over a weighted-average period of 2.7 years. Unrecognized compensation expense for the restricted stock units as of September 30, 2018 was \$38.7 million and is subject to the performance condition explained above.

The Communicated Option Awards are presented as a stock-based compensation liability which was revalued at each reporting period with the change in fair value recorded to compensation expense. As of December 31, 2017 and September 30, 2018, the stock-based compensation liability was \$15.4 million and \$0, respectively. As of the date of the modification of the Communicated Option Awards, the stock-based compensation liability was \$18.2 million.

The fair value of the Communicated Option Awards classified as liabilities was estimated using the Black Scholes option pricing model and the weighted-average assumptions used in the model are noted in the following table:

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Risk-free interest rate	N/A	1.44 %	2.49 %	1.44 %
Volatility	N/A	40.67 %	34.13 %	40.67 %
Expected dividend yield	N/A	0.00 %	0.00 %	0.00 %
Expected life	N/A	2.9	2.9	2.9

The weighted-average fair value for Communicated Option Awards granted during the three months ended September 30, 2017 was 18.57 and during the nine months ended September 30, 2018 and 2017 was \$14.00 and \$8.15, respectively. No Communicated Option Awards were granted during the three months ended September 30, 2018. The Company's shares were not traded on any public market during the term of the Communicated Option Awards. The common stock value as of the date of grant was based on the share price of recent equity issuances, if available. If there were no such recent transactions, the Company's share valuation was estimated. As of December 31, 2017, the date at which the stock-based compensation liability was remeasured at fair value, the common stock price was based on the recent equity issuances with third party investors, who were not previous shareholders of the Company. As of the date of the modification of the Communicated Option Awards, which resulted in the settlement of the stock-based compensation liability, the common stock price was estimated utilizing a hybrid method, a combination of the Probability Weighted Expected Return Method ("PWERM") and Option Pricing Model ("OPM"). The estimate incorporated a near-term IPO scenario using PWERM weighted at 80%. Other near-term exit events, a long-term stay private case, and dissolution were all considered as non-IPO scenarios using OPM, and were weighted at 20%. The estimate also reflected a 10% and 15% discount for lack of marketability under PWERM and OPM, respectively. The risk free interest rate approximates the implied yield available on United States Treasury securities with an equivalent remaining term. Expected volatility is based on the historical volatilities of certain "guideline" companies. Expected dividend yield is based on dividends historically paid by the Company. The expected life is based on the "simplified" method using the average of the term and vesting period.

The fair value of the stock options issued was estimated using the Black Scholes option pricing model and the weighted-average assumptions used in the model are noted in the following table:

	Three months ended September 30, 2018	Nine months ended September 30, 2018
Risk-free interest rate	N/A %	2.84 %
Volatility	N/A %	42.18 %
Expected dividend yield	N/A %	0.00 %
Expected life	N/A	6

The weighted average fair value for the stock options granted during the nine months ended September 30, 2018 was \$12.91. No stock options were granted during the three months ended September 30, 2018. The Company's shares were not traded in any public market at the stock option grant dates during the first nine months of 2018. For purposes of determining the fair value of the Company's common stock for the grants made in June 2018, the Company utilized a hybrid method, a combination of the PWERM and OPM as described above. The risk free interest rate approximates the implied yield available on United States Treasury securities with an equivalent remaining term. Expected volatility is based on the historical volatilities of certain "guideline" companies. Expected dividend yield is based on dividends historically paid by the Company. The expected life is based on the "simplified" method using the average of the term and vesting period.

The Company's 2018 Employee Stock Purchase Plan (ESPP) became effective in September 2018. A total of 296,752 shares of common stock are available for sale under our ESPP as of September 30, 2018. The number of shares of common stock that will be available for sale under the ESPP also includes an annual increase on the first day of each fiscal year beginning with our 2019 fiscal year, equal to the least of (1) 296,752 shares; (2) one and one quarter percent (1.25%) of the outstanding shares of our common stock as of the last day of the immediately preceding fiscal year; or (3) such other amount as the administrator may determine.

Note 11—Commitments and Contingencies

Capital stock transactions—The Company has determined that there have been defects with respect to certain capital stock transactions, including stock issuances and a reverse stock split, which were not effected in accordance with the requirements of applicable law. The Company could be subject to claims based on the defects. The Company believes any loss as a result of such defects is remote.

Legal—In the normal course of business, the Company is at times subject to pending and threatened legal actions. In management's opinion, any potential loss resulting from the resolution of these matters will not have a material effect on the results of operations, financial position or cash flows of the Company.

On August 30, 2018, Strata Skin Sciences, Inc. and Uri Geiger, a member of the board of directors of Strata Skin Sciences, Inc. (collectively "Strata") filed an action against the Company in Pennsylvania State Court, Montgomery County (Civil Action No. 18-21421), requesting declaratory relief that: (1) Strata is not liable for tortious interference, defamation, libel, or unfair competition based on an e-mail by Mr. Geiger to an investment bank (the "Geiger Email"); (2) Strata made no actionable

statements about the Company to such investment bank; (3) the Company cannot enforce the 2011 settlement and release agreement between the Company and PhotoMedex, Inc. (“Settlement Agreement”) against Strata; and (4) that any dispute regarding the Geiger Email does not relate to the Settlement Agreement. The action filed by Strata does not request any monetary damages. The Company believes that the action by Strata was filed as a response to a letter that the Company sent to Strata on August 22, 2018 demanding that Strata and Mr. Geiger cease and desist from making statements about alleged patent infringement and affirmatively retract the statements made in the Geiger Email. The Company was served with the action on August 31, 2018, and responded with preliminary objections to the action on September 19, 2018. The Company believes that Strata’s action lacks merit, and plans to vigorously oppose the action on procedural and substantive grounds within the prescribed time limits.

Lease commitments—The Company has various noncancelable operating leases related to office spaces and manufacturing facilities in Carlsbad, California. In 2017, the Company entered into a new operating lease for office space and manufacturing facilities and abandoned its old leases.

Some of these agreements have escalating rent payment provisions. Rent expense under such agreements is recognized on a straight-line basis. Total rent expense for the three months ended September 30, 2018 and 2017 was \$0.1 million and \$0.1 million, respectively and \$0.3 million and \$0.2 million for the nine months ended September 30, 2018 and 2017, respectively.

Future minimum rental payments due are as follows (in thousands):

Years Ending December 31,	
2018 (remaining three months)	\$ 122
2019	500
2020	514
2021	528
2022	432
Thereafter	2,363
Total	\$ 4,459

The Company recorded an expense and a corresponding liability of \$0.2 million as of December 31, 2017 as a result of the lease abandonment, which represents the fair value of the lease termination costs upon initial measurement. The liability includes the estimated costs, net of estimated subleasing proceeds, the Company expects to incur during the lease term using the credit-adjusted risk-free interest rate. The initial expense was recorded in selling, general and administrative expenses in the statement of operations in the fourth quarter of 2017. The initial liability measured at fair value less amortization is included in accrued expenses and other liabilities on the accompanying balance sheet as of December 31, 2017 and September 30, 2018. In periods subsequent to initial measurement, changes to the liability will be measured using the credit-adjusted risk-free rate that was used to measure the liability initially.

Note 12—Segment Information

The Company has organized its business into two operating segments based on the product specialties: the dermatology segment and the vascular segment.

In deciding how to allocate resources and assess performance, the Company’s chief operating decision maker regularly evaluates the sales and gross profit of these segments. Amounts included within selling, general and administrative expense and research and development expense are general to the Company and not specific to a particular segment; therefore, these amounts are not evaluated by the Company’s chief operating decision maker on a segmented basis.

The following tables summarize segment performance for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
Vascular	\$ 789	\$ 43	\$ 973	\$ 68
Dermatology	1,275	1,248	3,296	3,865
Net revenue	\$ 2,064	\$ 1,291	\$ 4,269	\$ 3,933
Vascular	\$ 579	\$ 52	\$ 1,050	\$ 60
Dermatology	701	641	1,956	2,447
Cost of revenue	\$ 1,280	\$ 693	\$ 3,006	\$ 2,507
Vascular	\$ 210	\$ (9)	\$ (77)	\$ 8
Dermatology	574	607	1,340	1,418
Gross profit	\$ 784	\$ 598	\$ 1,263	\$ 1,426

Generally, all assets are common assets, except for demonstration lasers and lasers placed with customers, which are a subset of property and equipment. Demonstration lasers and lasers placed with customers aggregated in the vascular segment was \$1.2 million and \$0.2 million as of September 30, 2018 and December 31, 2017, respectively. Demonstration lasers and lasers placed with customers aggregated in the dermatology segment was \$0.9 million and \$0.3 million as of September 30, 2018 and December 31, 2017, respectively.

No sales to an individual customer or country other than the United States accounted for more than 10% of net revenue for the three or nine months ended September 30, 2018 or 2017. Net revenue, classified by the major geographic areas in which our customers are located, was as follows:

	Three months ended September 30,		Nine months ended September 30,	
	2018	2017	2018	2017
United States	\$ 1,992	\$ 1,178	\$ 3,900	\$ 3,648
All other countries	72	113	369	285
Net revenue	\$ 2,064	\$ 1,291	\$ 4,269	\$ 3,933

Note 13—Subsequent Events

Initial Public Offering

See Note 1.

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

Special Notes Regarding Forward Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements that are based on our management's beliefs and assumptions and on information currently available. This section should be read in conjunction with our unaudited condensed financial statements and related notes included in Part I, Item 1 of this report. The statements contained in this Quarterly Report on Form 10-Q that are not historical facts are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended.

Forward-looking statements can be identified by words such as "believe," "anticipate," "may," "might," "can," "could," "continue," "depends," "expect," "expand," "forecast," "intend," "predict," "plan," "rely," "should," "will," "may," "seek," or the negative of these terms or and other similar expressions, although not all forward-looking statements contain these words. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition, or state other "forward-looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements.

These forward-looking statements are subject to a number of risks, uncertainties, and assumptions, including, but not limited to, those described in "Risk Factors". These forward-looking statements reflect our beliefs and views with respect to future events and are based on estimates and assumptions as of the date of this Quarterly Report on Form 10-Q and are subject to risks and uncertainties. We discuss many of these risks in greater detail in the section entitled "Risk Factors" included in Part II, Item 1A and elsewhere in this report. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We qualify all of the forward-looking statements in this Quarterly Report on Form 10-Q by these cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in any forward-looking statements, whether as a result of new information, future events or otherwise.

This Quarterly Report on Form 10-Q also contains estimates, projections and other information concerning our industry, our business, and the markets for certain diseases, including data regarding the estimated size of those markets. Information that is based on estimates, forecasts, projections, market research or similar methodologies is inherently subject to uncertainties and actual events or circumstances may differ materially from events and circumstances reflected in this information. Unless otherwise expressly stated, we obtained this industry, business, market, and other data from reports, research surveys, studies, and similar data prepared by market research firms and other third parties, industry, medical and general publications, government data, and similar sources.

Overview

We are a commercial-stage medical device company leveraging our advanced excimer laser-based platform for use in the treatment of vascular and dermatological diseases. We believe our products enhance patients' quality of life by restoring blood-flow in arteries and clearing chronic skin conditions. In June 2018, we completed our 12 month commercial launch period, which included training, production, and staffing for the marketing of the DABRA laser system and disposable catheter, together referred to as DABRA, in the United States. Following the temporary placement period for DABRA and once our customers decide to continue using DABRA in their facilities, we typically enter into DABRA laser commercial usage agreements or DABRA laser placement acknowledgements with each customer, which we refer to collectively as Usage Agreements. As of September 30, 2018, we had 34 signed usage agreements for use of our DABRA laser systems in the U.S. DABRA is cleared by the U.S. Food and Drug Administration, or FDA, as a device for crossing chronic total occlusions, or CTOs, in patients with symptomatic infrainguinal lower extremity vascular disease and with an intended use for ablating a channel in occlusive peripheral vascular disease. DABRA is used as a tool in the treatment of peripheral artery disease, or PAD, a form of peripheral vascular disease, which commonly occurs in the legs. These procedures are typically referred to in the medical community as atherectomy procedures, which the medical community commonly defines as any removal by surgery or specialized catheterization of an atheroma, or blockage, in an artery. Even though the medical community refers to it as atherectomy, DABRA is not cleared for atherectomy. Nevertheless, third-party health payers can reimburse a procedure performed by a device which is not cleared or approved for a specific indication or procedure, if the physician determines the device and procedure are medically appropriate for a particular patient. Payers and the medical community can take a broader view than FDA in recognizing the scope of appropriate device use. We currently intend to pursue expanded indications for use for DABRA to include an atherectomy indication for use, which FDA currently defines to include a prespecified improvement in luminal patency, or a prespecified increase in the openness of the artery at a pre-defined time point, and an indication for use for the treatment of in-stent restenosis. To satisfy FDA's data requirements to support an atherectomy indication, we believe that we will need to perform a new clinical study or collect real-world data that demonstrates an acceptable level of openness of the artery at a pre-defined time point, such as six months following a DABRA procedure, using a consistent assessment tool, e.g., an ultrasound. We believe this will allow FDA to evaluate the clinical success of a DABRA atherectomy procedure.

At this time, our strategy to collect the data necessary to expand our indications is not yet certain based on numerous factors, including potential feedback from FDA. If we need to conduct a new clinical study, we may need to obtain FDA approval for an Investigational Device Exemption, or IDE, prior to initiating the study. However, we believe that while these activities will take time to complete, the incremental cost of obtaining an atherectomy indication will not be material. In addition, we intend to pursue additional uses for DABRA, including seeking regulatory clearance for the use of DABRA as a tool for the treatment of vascular blockages associated with coronary artery disease, or CAD, in-stent restenosis, and other venous and arterial occlusions, or blockages in the veins or arteries. However, there can be no assurance that DABRA will receive the necessary clearances for these additional indications. The DABRA laser system is based on the same core technology and utilizes a similar excimer laser as Pharos, a medical device that we have marketed as a tool for the treatment of proliferative skin conditions since October 2004. Pharos is designed for use in the treatment of inflammatory skin conditions and is FDA cleared as a tool used in the treatment of psoriasis, vitiligo, atopic dermatitis, and leukoderma. Because DABRA and Pharos are both based on our core excimer laser technology platform and deploy similar mechanisms of action, we benefit from economies of scale in product development, manufacturing, quality assurance and distribution.

DABRA is our minimally-invasive excimer laser and disposable catheter system that is used by physicians as a tool in the endovascular treatment of vascular blockages resulting from lower extremity vascular disease, a form of PAD, both above- and below-the-knee, by breaking down plaque to its fundamental chemistry, such as proteins, lipids and other chemical compounds, eliminating blockages by essentially dissolving them without generating potentially harmful particulates. The accumulation of plaque in arteries, which is a result of lower extremity vascular disease, most commonly occurs in the pelvis and legs. Plaque accumulation, known as atherosclerosis, causes the narrowing of arteries, thereby reducing the flow of oxygenated blood to tissue and organs. If vascular blockages are left untreated, they can increase the risk of heart attack, stroke, amputation or death. Major risk factors for PAD include age, smoking, diabetes and obesity. Despite its prevalence, PAD is underdiagnosed and undertreated relative to many other serious vascular conditions, including CAD, in part because up to half of the PAD population is asymptomatic, or shows no symptoms, and many dismiss symptoms as normal signs of aging. Recent analysis suggests that approximately 17.6 million people in the U.S. suffer from PAD. However, only 20-30% of PAD patients are actively being treated. We anticipate revenue from this recently commercialized business segment to grow over the near term. Our sales strategy includes either selling the DABRA laser with a transfer in title or placing it in high-volume practices for a nominal periodic fee while we retain title. We sell extended warranties for our lasers that have been purchased. Each vascular procedure requires the one-time use of our proprietary catheters which we expect to be the primary source of revenue for the vascular segment. Therefore, under both the sale and periodic fee options, we anticipate recurring revenue in catheter sales for each laser in operation. We currently use our internal sales force to target the U.S. market and we utilize distributors outside the U.S. The current retail price of the DABRA laser is approximately \$70,000 and of a DABRA catheter is \$1,200. We believe our manufacturing facility is capable of producing 400 lasers per year and 140,000 catheters per year.

Pharos is our excimer laser device that emits highly concentrated ultraviolet light and is used as a tool in the treatment of dermatological skin disorders. Physicians use Pharos by applying 308 nanometer ultraviolet light to the skin. The FDA has granted 510(k) clearance to market Pharos in the U.S. for psoriasis, vitiligo, atopic dermatitis, and leukoderma. Pharos was granted CE mark clearance in September of 2016 for use in the treatment of psoriasis, vitiligo, atopic dermatitis and leukoderma by the application of UVB ultraviolet light. We have also received clearance to market Pharos from the China Food and Drug Administration, or CFDA, and South Korea Ministry of Drug Safety, or KFDA in the applicable jurisdictions. Pharos was commercialized in 2004 and we have shipped over 1,000 systems to customers globally through September 30, 2018. Pharos is in use in nearly every U.S. state and in over 20 markets including several non-U.S. countries. While we have entered into periodic fee arrangements, our primary strategy is to sell Pharos. We recognize additional recurring revenue from the sale of extended warranties for Pharos. We do not anticipate significant organic revenue growth in the near term from this mature product line. The current retail price of Pharos is approximately \$70,000.

We incurred net losses of \$15.9 million, and \$17.8 million for the nine months ended September 30, 2018 and the year ended December 31, 2017, respectively, and had an accumulated deficit of \$45.3 million as of September 30, 2018. As of September 30, 2018, we had available cash and cash equivalents of approximately \$4.9 million and had current liabilities of approximately \$6.8 million and long-term liabilities of approximately \$0.9 million. As of September 30, 2018, we had no preferred stock outstanding and no indebtedness through commercial loans, other than the equipment financings of \$30,000. Since inception, we have financed our operations primarily through sales of our products and services, the net proceeds from our initial public offering, and, to a lesser extent, private placements of our common stock and debt financing arrangements. We expect to continue to incur net losses for the near term as we commercialize our products in the U.S., including building our sales and marketing organization and expanding our manufacturing facilities, continuing research and development efforts, and seeking regulatory clearance for new products and product enhancements, including new indications, both in the U.S. and in select non-U.S. markets. We may need additional funding to pay expenses relating to our operating activities, including selling, general and administrative expenses and research and development expenses. If needed, adequate funding may not be available to us on commercially acceptable terms, or at all. Our failure to obtain sufficient funds on acceptable terms when needed could have a material adverse effect on our business, financial condition, and results of operations.

Initial Public Offering

On October 1, 2018, we closed on our initial public offering ("IPO") of 4,485,000 shares of common stock at an offering price of \$17.00 per share, which included the full exercise of the underwriters' option to purchase 585,000 additional shares of our common stock. We raised a total of \$76.2 million in gross proceeds from the IPO, or approximately \$67.3 million in net proceeds after deducting underwriting discount and commissions of \$5.3 million and offering costs of \$3.6 million. Our registration statement on Form S-1 relating to our IPO was declared effective by the Securities and Exchange Commission on September 26, 2018. The accompanying condensed financial statements, including share and per share amounts, do not include the effects of the offering as it was completed subsequent to September 30, 2018.

Components of our Results of Operations

Net revenue

Product sales consist of the sale of DABRA and Pharos lasers, the sale of catheters for use with the DABRA laser and the sale of consumables and replacement parts.

Service and other revenue consists primarily of sales of extended warranties which is recognized over the contract period and billable services, including repair activity, which is recognized when the service is provided. It also includes income from the rental of our lasers.

We currently use our internal sales force to target the U.S. market, and we utilize distributors outside the U.S. in markets where we have received regulatory approval. We will continue to seek regulatory approvals for our products in additional strategic markets.

Cost of revenue and gross margin

Cost of revenue for product sales consists primarily of costs of components for use in our products, the materials and labor that are used to produce our products, and the manufacturing overhead that directly support production.

Cost of revenue for service and other includes the cost of maintaining and servicing the warranties on our products.

We expect cost of revenue to increase to the extent our total revenue grows.

We calculate gross margin as gross profit divided by total net revenue. Our gross margin has been and will continue to be affected by a variety of factors, primarily production volumes, the cost of direct materials, discounting practices, manufacturing costs, product yields, headcount and cost-reduction strategies. We expect our gross margin to increase over the long term as our production volume increases and certain costs remain fixed. We intend to use our design, engineering and manufacturing capabilities to further advance and improve the efficiency of our manufacturing processes, which we believe will reduce costs and increase our gross margin. While we expect gross margin to increase over the long term, it will likely fluctuate from quarter to quarter as we continue to introduce new products and adopt new manufacturing processes and technologies.

Research and development expenses

Research and development, or R&D, expenses consist of applicable personnel, consulting, materials and clinical trial expenses. R&D expenses include:

- certain employee-related expenses, including salaries, benefits, travel expense and stock-based compensation expense;
- cost of outside consultants who assist with technology development, regulatory affairs, clinical affairs and quality assurance;
- cost of clinical studies to support new products and product enhancements, including expanded indications; and
- supplies used for internal research and development and clinical activities.

We expense R&D costs as incurred. In the future, we expect R&D expenses to increase as we continue to develop new products, enhance existing products and technologies and perform activities related to obtaining additional regulatory approval. However, we expect R&D expenses as a percentage of total revenue to vary over time depending on the level and timing of our new product development efforts, as well as our clinical development, clinical trial and other related activities.

Selling, general and administrative expenses

Selling, general and administrative, or SG&A, expenses consist of employee-related expenses, including salaries, benefits, travel expense, sales commissions and stock-based compensation expense. Other SG&A expenses include promotional activities, marketing, conferences and trade shows, professional services fees, including legal, audit and tax fees, insurance costs, general corporate expenses, allocated facilities-related expenses and shipping and handling costs. We expect to continue to grow our sales force and increase marketing efforts as we continue commercializing DABRA in both domestic and international markets. We also expect increased costs due to the additional legal, accounting, insurance and other expenses associated with being a public company.

Results of Operations

The following table shows our results of operations for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three months ended September 30,			Nine months ended September 30,		
	2018	2017	Change \$	2018	2017	Change \$
Statements of operations data:						
Net revenue						
Product sales	\$ 1,248	\$ 587	\$ 661	\$ 1,958	\$ 1,888	\$ 70
Service and other	816	704	112	2,311	2,045	266
Total net revenue	<u>2,064</u>	<u>1,291</u>	<u>773</u>	<u>4,269</u>	<u>3,933</u>	<u>336</u>
Cost of revenue						
Product	886	358	528	1,875	1,533	342
Service and other	394	335	59	1,131	974	157
Total cost of revenue	<u>1,280</u>	<u>693</u>	<u>587</u>	<u>3,006</u>	<u>2,507</u>	<u>499</u>
Gross profit	<u>784</u>	<u>598</u>	<u>186</u>	<u>1,263</u>	<u>1,426</u>	<u>(163)</u>
Operating expenses:						
Selling, general and administrative	5,366	1,904	3,462	15,621	11,932	3,689
Research and development	224	413	(189)	1,532	4,159	(2,627)
Total operating expenses	<u>5,590</u>	<u>2,317</u>	<u>3,273</u>	<u>17,153</u>	<u>16,091</u>	<u>1,062</u>
Operating loss	<u>(4,806)</u>	<u>(1,719)</u>	<u>(3,087)</u>	<u>(15,890)</u>	<u>(14,665)</u>	<u>(1,225)</u>
Interest expense	1	1	—	2	3	(1)
Loss before income taxes	<u>(4,807)</u>	<u>(1,720)</u>	<u>(3,087)</u>	<u>(15,892)</u>	<u>(14,668)</u>	<u>(1,224)</u>
Income tax expense	0	—	0	3	1	2
Net loss	<u>\$ (4,807)</u>	<u>\$ (1,720)</u>	<u>\$ (3,087)</u>	<u>\$ (15,895)</u>	<u>\$ (14,669)</u>	<u>\$ (1,226)</u>

By reportable segments

We organize our business into two operating segments based on the product specialties: the vascular segment and the dermatology segment. In deciding how to allocate resources and assess performance, we regularly evaluate the net revenue and gross profit of these segments. Amounts included within selling, general and administrative expense and research and development expense are general to us and not specific to a particular segment; therefore, these amounts are not evaluated by us on a segmented basis. Additional information on our reportable segments is contained in Note 12 to the interim condensed financial statements included in Part I, Item 1 in this Quarterly Report on Form 10-Q.

Net revenue

The following table shows our net revenue from our two segments for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three months ended September 30,			Nine months ended September 30,		
	2018	2017	Change \$	2018	2017	Change \$
Vascular	\$ 789	\$ 43	\$ 746	\$ 973	\$ 68	\$ 905
Dermatology	1,275	1,248	27	3,296	3,865	(569)
Total net revenue	<u>\$ 2,064</u>	<u>\$ 1,291</u>	<u>\$ 773</u>	<u>\$ 4,269</u>	<u>\$ 3,933</u>	<u>\$ 336</u>

Vascular

Net revenue was \$0.8 million and \$43,000 for the three months ended September 30, 2018 and 2017, respectively. The \$0.7 million increase was primarily due to increased catheter sales following the completion of our 12-month commercial launch in June 2018 resulting in a full quarter of production revenue in the current period compared to nominal catheter sales during our commercial launch in the same period in the prior year. We expect our vascular revenue to increase over time as our growing sales force and marketing efforts establish a larger customer base.

Net revenue was \$1.0 million and \$0.1 million for the nine months ended September 30, 2018 and 2017, respectively. The \$0.9 million increase was primarily due to increased catheter sales following the completion of our 12-month commercial launch period in June 2018, resulting in a full quarter of production revenue in the current period compared to nominal catheter sales during our commercial launch following FDA clearance of our DABRA system in May 2017 in the same period in the prior year.

Dermatology

Net revenue was \$1.3 million and \$1.2 million for the three months ended September 30, 2018 and 2017, respectively. The increase of approximately \$27,000 was due primarily to an increase of \$0.1 million in income from service contracts on our lasers, partially offset by a decrease of \$0.1 million in direct unit product sales as a result of us devoting more of our sales resources in 2018 to commercializing the DABRA system aggregated in our vascular segment. We anticipate hiring additional sales resources in the dermatology segment devoted to addressing direct unit product sales.

Net revenue was \$3.3 million and \$3.9 million for the nine months ended September 30, 2018 and 2017, respectively. The decrease of approximately \$0.6 million was due primarily to a decrease of \$0.9 million in direct unit product sales as a result of us devoting more of our sales resources in 2018 to commercializing the DABRA system aggregated in our vascular segment, partially offset by an increase of \$0.3 million in income from service contracts on our lasers.

Cost of revenue

The following table shows our cost of revenue from our two segments for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three months ended September 30,			Nine months ended September 30,		
	2018	2017	Change \$	2018	2017	Change \$
Vascular	\$ 579	\$ 52	\$ 527	\$ 1,050	\$ 60	\$ 990
Dermatology	701	641	60	1,956	2,447	(491)
Total cost of revenue	<u>\$ 1,280</u>	<u>\$ 693</u>	<u>\$ 587</u>	<u>\$ 3,006</u>	<u>\$ 2,507</u>	<u>\$ 499</u>

Vascular

Cost of revenue was \$0.6 million and \$0.1 million for the three months ended September 30, 2018 and 2017, respectively. The \$0.5 million increase was primarily due to increased labor, material and overhead costs to support the increased sales of our vascular products.

Cost of revenue was \$1.1 million and \$0.1 million for the nine months ended September 30, 2018 and 2017, respectively. The \$1.0 million increase was primarily due to increased labor, material and overhead costs to support the increased sales of our vascular products.

Dermatology

Cost of revenue was \$0.7 million and \$0.6 million for the three months ended September 30, 2018 and 2017, respectively. The increase of \$0.1 million was primarily due to an increase in service costs of \$0.1 million due to an increase in the number of leased machines under service agreements.

Cost of revenue was \$2.0 million and \$2.4 million for the nine months ended September 30, 2018 and 2017, respectively. The decrease of \$0.4 million was primarily due to a \$0.6 million decrease in stock based compensation charges, partially offset by an increase in service costs and depreciation of \$0.2 million due to an increase in the number of leased machines under service agreements.

Gross profit (loss)

The following table shows our gross profit (loss) from our two segments for the three and nine months ended September 30, 2018 and 2017 (in thousands):

	Three months ended September 30,			Nine months ended September 30,		
	2018	2017	Change \$	2018	2017	Change \$
Vascular	\$ 210	\$ (9)	\$ 219	\$ (77)	\$ 8	\$ (85)
Dermatology	574	607	(33)	1,340	1,418	(78)
Total gross profit	<u>\$ 784</u>	<u>\$ 598</u>	<u>\$ 186</u>	<u>\$ 1,263</u>	<u>\$ 1,426</u>	<u>\$ (163)</u>

Vascular

Gross profit was \$0.2 million for the three months ended September 30, 2018 and gross loss was \$9,000 for the three months ended September 30, 2017. The \$0.2 million change was primarily due to increased catheter sales following the completion of our 12-month commercial launch period in June 2018 resulting in a full quarter of production revenue in the current period compared to nominal catheter sales during our commercial launch in the same period in the prior year. We expect our gross profit to improve over time as our growing sales force and marketing efforts establish a larger customer base.

Gross loss was \$0.1 million for the nine months ended September 30, 2018 and gross profit was \$8,000 for the nine months ended September 30, 2017. The \$0.1 million change was primarily due to increased costs for staffing and capacity ahead of customer adoption. We expect our gross profit to improve over time as our growing sales force and marketing efforts establish a larger customer base.

Dermatology

Gross profit was \$0.6 million for both the three months ended September 30, 2018 and 2017.

Gross profit was \$1.3 million and \$1.4 million for the nine months ended September 30, 2018 and 2017. The decrease of \$0.1 million was primarily due to the decrease in revenue in the current period compared to the same period in 2017.

General

Selling, general and administrative expenses.

SG&A expenses were \$5.4 million and \$1.9 million for the three months ended September 30, 2018 and 2017, respectively. The \$3.5 million increase was primarily related to an increase of \$1.2 million in personnel costs due to expanding our sales force and hiring administrative staff as we prepared to operate as a public company, an increase of \$0.8 million of stock-based compensation primarily due to the modification accounting treatment of replacement awards, an increase of \$0.6 million in travel and trade shows, an increase of \$0.3 million in legal and consulting fees as we prepared to operate as a public company, \$0.1 million in increased facility costs due to our expansion to a larger facility, an increase of \$0.1 million in marketing and advertising costs and an increase of \$0.4 million in various other administrative costs.

SG&A expenses were \$15.6 million and \$11.9 million for the nine months ended September 30, 2018 and 2017, respectively. The \$3.7 million increase was primarily related to an increase of \$2.6 million in personnel costs due to expanding our sales force and hiring administrative staff as we prepared to operate as a public company, an increase of \$1.0 million in legal and consulting fees as we prepared to operate as a public company, an increase of \$0.9 million in travel and trade shows, an increase of \$0.3 million in marketing and advertising costs, \$0.1 million in increased facility costs due to our expansion to a larger facility, \$0.1 million in increased shipping costs, and an increase of \$1.0 million in various other administrative costs, partially offset by a \$2.3 million decrease in stock-based compensation expense mainly due to the impact of larger stock price increases in the prior year on share-based awards that were revalued at each reporting period with the change in fair value recorded to compensation expense.

Research and development expenses.

R&D expenses were \$0.2 million and \$0.4 million for the three months ended September 30, 2018 and 2017, respectively. The \$0.2 million decrease was primarily due to \$0.2 million less personnel and resources devoted to catheter research in 2018 as a result of the completion of our initial commercial product development in 2017.

R&D expenses were \$1.5 million and \$4.2 million for the nine months ended September 30, 2018 and 2017, respectively. The \$2.7 million decrease was primarily due to a decrease of \$2.2 million in stock-based compensation expense mainly due to the impact of larger stock price increases in the prior year on share-based awards that were revalued at each

reporting period with the change in fair value recorded to compensation expense and \$0.5 million less personnel and resources devoted to catheter research in 2018 as a result of the completion of our initial commercial product development in 2017.

Liquidity and Capital Resources

As of September 30, 2018, we had cash and cash equivalents of \$4.9 million and an accumulated deficit of \$45.3 million. Our primary sources of capital have been from the sale of our products and services, the net proceeds from our initial public offering and, to a lesser extent, private placements of common stock and debt financing arrangements. Through September 30, 2018, we raised an aggregate of \$27.5 million in proceeds from private placements of our common stock.

On October 1, 2018, we completed our initial public offering including the underwriters full exercise of their over-allotment option, selling 4,485,000 shares of our common stock at \$17.00 per share. Net proceeds from our initial public offering were \$67.3 million, after deducting underwriting discounts and commissions and offering expenses.

We believe that our cash and cash equivalents as of September 30, 2018 and the net proceeds raised from our initial public offering will be sufficient to fund our operations for at least the next 12 months. As we continue to commercialize DABRA, we expect our costs and expenses to increase as we continue the development of a direct sales force, the expansion of our manufacturing facilities, and as we continue to make substantial expenditures on research and development, including the costs of any future clinical studies. Additionally, we are incurring additional costs as a result of operating as a public company. Our future capital requirements will depend on many factors, including:

- the revenue generated by sales of our DABRA and Pharos products, related consumables, and other products that may be approved in the U.S. and select non-U.S. markets;
- the costs and expenses of expanding our U.S. and international sales and marketing infrastructure and our manufacturing operations;
- the extent to which our excimer lasers are adopted by the physician community;
- the ability of our customers to obtain adequate reimbursement from third-party payors for procedures performed using DABRA;
- the degree of success we experience in commercializing our excimer lasers and related consumables;
- the costs, timing and outcomes of any future clinical studies and regulatory reviews, including to seek and obtain approvals for new indications for our products;
- the costs and timing of developing variations of our excimer lasers, and, if necessary, obtaining FDA clearance to market such variations;
- the emergence of competing or complementary technologies;
- the number and types of future products we develop and commercialize;
- the cost, timing and outcomes of any litigation involving our company, products, and business activities;
- the costs of preparing, filing and prosecuting patent applications and maintaining, enforcing and defending intellectual property-related claims; and
- the level of our selling, general and administrative expenses.

Cash Flows

	Nine Months Ended September 30,		
	Actual		Change
	2018	2017	\$
Net cash (used in) provided by:			
Operating activities	\$ (10,109)	\$ (4,018)	\$ (6,091)
Investing activities	(424)	(275)	(149)
Financing activities	7,211	1,344	5,867
Net decrease in cash and cash equivalents	<u>\$ (3,322)</u>	<u>\$ (2,949)</u>	<u>\$ (373)</u>

Net cash used in operating activities

Net cash used in operating activities was \$10.1 million for the nine months ended September 30, 2018. The use of cash in operating activities in the nine months ended September 30, 2018, was primarily a result of a net loss of \$15.9 million, partially offset by non-cash charges of \$6.7 million of stock-based compensation, and \$0.4 million of depreciation expense.

Adding to the use of cash was \$1.7 million payments for inventory partially offset by changes of \$0.4 million in net operating asset and liabilities.

Net cash used in operating activities was \$4.0 million for the nine months ended September 30, 2017. The use of cash in operating activities in the nine months ended September 30, 2017, was primarily a result of a net loss of \$14.7 million partially offset by non-cash charges of \$11.5 million of stock-based compensation and \$0.1 million of depreciation expense. Adding to the use of cash was \$1.1 million payments for inventory, partially offset by changes of \$0.2 million in net operating asset and liabilities.

Net cash used in investing activities

Net cash used in investing activities was \$0.4 million for the nine months ended September 30, 2018, consisting primarily of purchases of manufacturing equipment, tenant improvements and computers and vehicles for our sales force.

Net cash used in investing activities was \$0.3 million for the nine months ended September 30, 2017, consisting primarily of purchases of manufacturing equipment.

Net cash provided by financing activities

Net cash provided by financing activities was \$7.2 million for the nine months ended September 30, 2018, and was primarily a result of proceeds of \$7.9 million from the issuance of common stock related to a private placement financing, partially offset by \$0.7 million in payments related to our initial public offering and \$33,000 of payments on our financed equipment.

Net cash provided by financing activities was \$1.3 million for the nine months ended September 30, 2017, and was primarily a result of proceeds of \$1.4 million from the issuance of common stock related to a private placement financing, partially offset by \$33,000 of payments on our financed equipment.

Critical Accounting Policies and Estimates

Management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles, or GAAP. The preparation of these financial statements requires us to make estimates and assumptions for the reported amounts of assets, liabilities, revenue, expenses and related disclosures. Our estimates are based on our 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 and any such differences may be material.

During the nine months ended September 30, 2018, there were no significant changes in our critical accounting policies or in the methodology used for estimates. Please refer to Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our final prospectus filed with the SEC on September 27, 2018 relating to our Registration Statement on Form S-1 (File No. 333-226191) for a more complete discussion of our critical accounting policies and estimates.

Off-Balance Sheet Arrangements

We do not engage in transactions that generate relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, as a part of our ongoing business. Accordingly, we did not have any off-balance sheet arrangements during any of the periods presented.

Contractual Obligations

During the nine months ended September 30, 2018, there have been no material changes outside the ordinary course of business to our contractual obligations disclosed in our "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of our final prospectus filed with the SEC on September 27, 2018 relating to our Registration Statement on Form S-1 (File No. 333-226191) for our initial public offering.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks in the ordinary course of our business, including the effects of interest rate changes and foreign currency fluctuations. Information relating to quantitative and qualitative disclosures about these market risks is described below.

Interest Rate Sensitivity

We had cash and cash equivalents of \$4.9 million as of September 30, 2018, which came from sales of our products and services and, to a lesser extent, private placements of common stock and debt financing arrangements. The goals of our investment policy are liquidity and capital preservation; we do not enter into investments for trading or speculative purposes. We believe that we do not have any material exposure to changes in the fair value of these assets as a result of changes in interest rates due to the short term nature of our cash and cash equivalents. A hypothetical 10% relative change in interest rates during any of the periods presented would not have had a material impact on our financial statements.

Foreign Currency Exchange Risk

As we expand internationally our results of operations and cash flows may become increasingly subject to fluctuations due to changes in foreign currency exchange rates. Most of our revenue is denominated in U.S. dollars. Our expenses are generally denominated in the currencies in which our operations are located, which is primarily in the United States. As of September 30, 2018, the effect of a 10% adverse change in exchange rates on foreign denominated cash, receivables and payables would not have been material for the periods presented. As our operations in countries outside of the United States grow, our results of operations and cash flows may be subject to fluctuations due to changes in foreign currency exchange rates, which could harm our business in the future. To date, we have not entered into any material foreign currency hedging contracts although we may do so in the future.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, as of September 30, 2018. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives of ensuring that information we are required to disclose in the reports we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures, and is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. There is no assurance that our disclosure controls and procedures will operate effectively under all circumstances.

As we disclosed in our Registration Statement on Form S-1, in connection with our 2017 audit, we identified a material weakness in our internal control over financial reporting in the design of our internal controls related to the administration of capital stock transactions, including stock issuances and a reverse stock split which were not effected in accordance with the requirements of applicable law and the communication of stock option awards which were not validly authorized.

As described in our Registration Statement on Form S-1 and as discussed below, we are taking steps to remediate this material weakness in internal control over financial reporting; however, we are not yet able to determine whether the steps we are taking will fully remediate this material weakness.

Because of the material weakness in our internal control over financial reporting as previously disclosed, our Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2018, our disclosure controls and procedures were not effective at the reasonable assurance level. Our management, including our Chief Executive Officer and Chief Financial Officer, has concluded that notwithstanding the material weakness in our internal control over financial reporting, the condensed financial statements in this Quarterly Report fairly present, in all material respects, our financial position, results of operations and cash flows for the periods presented in conformity with U.S. GAAP.

Management's Remediation Efforts

As we disclosed in our Registration Statement on Form S-1, we commenced measures to remediate the identified material weakness during 2018, including:

- hiring qualified personnel with expertise to perform specific functions, including our Chief Financial Officer, General Counsel and Corporate Controller;
- the engagement of third-party legal counsel to assist in the administration of capital stock transactions; and

- designing and implementing improved processes and internal controls, including ongoing senior management review and audit committee oversight.

We believe we are making progress toward achieving the effectiveness of our internal controls and disclosure controls. The actions that we are taking are subject to ongoing senior management review, as well as audit committee oversight. We will not be able to conclude whether the steps we are taking will fully remediate this material weakness in our internal control over financial reporting until we have completed our remediation efforts and subsequent evaluation of their effectiveness. We may also conclude that additional measures may be required to remediate the material weakness in our internal control over financial reporting, which may necessitate additional implementation and evaluation time. We will continue to assess the effectiveness of our internal control over financial reporting and take steps to remediate the known material weakness expeditiously.

Changes in Internal Control over Financial Reporting

We are taking actions to remediate the material weakness relating to our internal controls over financial reporting, as described above. Except as otherwise discussed above under Management's Remediation Efforts, there was no change in our internal control over financial reporting that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Management recognizes that a control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud or error, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

PART II — OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

On August 30, 2018, Strata Skin Sciences, Inc. and Uri Geiger, a member of the board of directors of Strata Skin Sciences, Inc. (collectively “Strata”) filed an action against us in Pennsylvania State Court, Montgomery County (Civil Action No. 18-21421), requesting declaratory relief that: (1) Strata is not liable for tortious interference, defamation, libel, or unfair competition based on an e-mail by Mr. Geiger to an investment bank (the “Geiger Email”); (2) Strata made no actionable statements about us to such investment bank; (3) we cannot enforce the 2011 settlement and release agreement between us and PhotoMedex, Inc. (“Settlement Agreement”) against Strata; and (4) that any dispute regarding the Geiger Email does not relate to the Settlement Agreement. The action filed by Strata does not request any monetary damages. We believe that the action by Strata was filed as a response to a letter that we sent to Strata on August 22, 2018 demanding that Strata and Mr. Geiger cease and desist from making statements about alleged patent infringement and affirmatively retract the statements made in the Geiger Email. We were served with the action on August 31, 2018, and we responded with preliminary objections to the action on September 19, 2018. We believe that Strata’s action lacks merit, and plan to vigorously oppose the action on procedural and substantive grounds within the prescribed time limits.

From time to time, we may be involved in various claims and legal proceedings relating to claims arising out of our operations. We are not currently a party to any legal proceedings that, in the opinion of our management, are likely to have a material adverse effect on our business, financial condition, and results of operations. Regardless of outcome, litigation can have an adverse impact on us because of defense and settlement costs, diversion of management resources and other factors.

ITEM 1A. RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks described below, as well as all of the other information contained in this Quarterly Report on Form 10-Q, including our financial statements and related notes and the section entitled “Management’s Discussion and Analysis of Financial Condition and Results of Operations”, before investing in our common stock. While we believe that the risks and uncertainties described below are the material risks currently facing us, additional risks that we do not yet know of or that we currently think are immaterial may also arise and materially affect our business. If any of the following risks materialize, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you may lose some or all of your investment.

Risks Related to our Business and Products

We have incurred losses in recent periods and may be unable to achieve profitability in the future.

We incurred net losses of \$15.9 million and \$14.7 million for the nine months ended September 30, 2018 and 2017, respectively. As of September 30, 2018, we had an accumulated deficit of \$45.3 million. We expect to continue to incur significant sales and marketing, product development, regulatory and other expenses as we continue to expand our marketing efforts to increase adoption of our products and expand existing relationships with our customers, to obtain regulatory clearances or approvals for our products in additional jurisdictions and for additional indications, and to develop new products or add new features to our existing products. In addition, our general and administrative expenses have increased following our initial public offering and we expect these costs to continue to increase due to the additional costs associated with being a public company. The net losses that we incur may fluctuate significantly from period to period. We will need to generate significant additional revenue in order to achieve and sustain profitability and, even if we achieve profitability, we cannot be sure that we will remain profitable for any substantial period of time. Our failure to achieve or maintain profitability would have a material adverse effect on our business, financial condition, and results of operations and could negatively impact the value of our common stock.

We may be unable to achieve revenue growth.

Our ability to grow our revenue in future periods will depend on our ability to successfully penetrate our target markets and increase sales of our products and any new product indications that we introduce, which will, in turn, depend in part on our success in growing our installed unit base and driving continued use of our systems. New product indications will also need to be approved or cleared by the FDA and comparable non-U.S. regulatory agencies to help drive revenue growth. If we cannot achieve revenue growth, it could have a material adverse effect on our business, financial condition, and results of operations.

Our success depends in large part on DABRA. If we are unable to successfully market and sell DABRA, our business prospects will be significantly harmed.

Our future financial success will depend substantially on our ability to effectively and profitably market and sell DABRA. The commercial success of DABRA will depend on a number of factors, including the following:

- the effectiveness of our and our distributors' marketing and sales efforts in the U.S. and abroad, including our efforts to build out our sales team;
- the availability, perceived advantages, relative cost, relative safety, and relative efficacy of alternative and competing treatments;
- the availability of coverage and adequate levels of reimbursement under private and governmental health insurance plans for DABRA-based procedures;
- our ability to obtain, maintain, and enforce our intellectual property rights in and to DABRA;
- our ability to achieve and maintain compliance with regulatory requirements applicable to DABRA;
- our ability to continue to develop, validate and maintain a commercially viable manufacturing process that is compliant with current Good Manufacturing Practices, or cGMP; and
- whether we are required by the FDA or comparable non-U.S. regulatory authorities to conduct additional clinical trials for future or current indications.

If we fail to successfully market and sell DABRA, we will not be able to achieve or maintain profitability, which will have a material adverse effect on our business, financial condition, and results of operations.

Our products may not gain or maintain market acceptance among physicians and patients and others in the medical community.

Our success will depend, in part, on the acceptance of our products as safe, useful and, with respect to physicians, cost effective. We cannot predict how quickly, if at all, catheterization laboratories and physicians will accept our products or, if accepted, how frequently they will be used. Patients and their care providers must believe our products offer benefits over alternative treatment methods. Additional factors that will influence whether our products gain and maintain market acceptance, include:

- whether physicians, catheterization laboratory owners and operators, patients, and others in the medical community consider our products safe, effective, and cost-effective treatment methods;
- the potential and perceived advantages of our products over alternative treatment methods;
- the prevalence and severity of any side effects associated with using our products;
- product labeling or product insert requirements of the FDA or other regulatory authorities;
- limitations or warnings contained in the labeling cleared or approved by the FDA or other authorities;
- the cost of treatment in relation to alternative treatments methods;
- the convenience and ease of use of DABRA and Pharos relative to alternative treatment methods;
- pricing pressure, including from group purchasing organizations, or GPOs, seeking to obtain discounts on DABRA and Pharos based on the collective buying power of the GPO members;
- the availability of adequate coverage, reimbursement and pricing by third-party payors, including government authorities;
- the willingness of patients to pay out-of-pocket in the absence of coverage by third-party payors, including government authorities;
- our ability to provide incremental clinical and economic data that shows the safety and clinical efficacy and cost effectiveness of, and patient benefits from, our products; and
- the effectiveness of our sales and marketing efforts for DABRA and Pharos.

If we do not adequately educate physicians about PAD and the existence of our products, DABRA may not gain market acceptance, as many physicians do not routinely screen for PAD while screening for CAD. Additionally, even if our products achieve market acceptance, they may not maintain that market acceptance over time if competing products or technologies are introduced that are received more favorably or are more cost effective. Failure to achieve or maintain market acceptance and/or market share would limit our ability to generate revenue and would have a material adverse effect on our business, financial condition, and results of operations.

The continuing development of our products depends upon our maintaining strong working relationships with physicians.

The research, development, marketing and sale of our current products and any potential new and improved products or future product indications for which we receive regulatory clearance or approval depend upon our maintaining working relationships with physicians. We rely on these professionals to provide us with considerable knowledge and experience regarding the development, marketing and sale of our products. Physicians assist us as researchers, marketing and product consultants and public speakers. If we cannot maintain our strong working relationships with these professionals and continue to receive their advice and input, the development and marketing of our products could suffer, which could have a material adverse effect on our business, financial condition, and results of operations. At the same time, the medical device industry's relationship with physicians is under increasing scrutiny by the U.S. Department of Health and Human Services Office of Inspector General, or OIG, and the U.S. Department of Justice, or DOJ. Our failure to comply with requirements governing the industry's relationships with physicians, including the reporting of certain payments to physicians under the National Physician Payment Transparency Program (Open Payments) or an investigation into our compliance by the OIG or the DOJ, could have a material adverse effect on our business, financial condition, and results of operations.

Physicians and staff may not commit enough time to sufficiently learn how to use our products.

In order for physicians and staff to learn to use our products, we encourage physicians to attend structured training sessions in order to familiarize themselves with our technology. There are many nuances to using our products as intended. For example, the DABRA catheter is fragile and may be prone to bending at the entry of the artery, a problem known as kinking. Further, physicians and their staff must utilize the technology on a regular basis to ensure they maintain the skill set necessary to use our products. Market acceptance of DABRA could be delayed by lack of physician or staff willingness to attend training sessions or sufficiently familiarize themselves with DABRA. An inability to train a sufficient number of physicians to generate adequate demand for our products could have a material adverse effect on our business, financial condition, and results of operations.

If our sole manufacturing facility becomes damaged or inoperable, or we are required to vacate the facility, our ability to manufacture and sell our products and to pursue our research and development efforts may be jeopardized.

We currently manufacture and assemble our products in our sole manufacturing facility in Carlsbad, California. Our products consist of components sourced from a variety of suppliers, with final assembly completed at our facility. Our facility and equipment, or those of our suppliers, could be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, fires, power shortages, telecommunications failures, water shortages, floods, hurricanes, typhoons, extreme weather conditions, medical epidemics, and other natural or man-made disasters or other business interruptions, for which we are predominantly self-insured. Any of these may render it difficult or impossible for us to manufacture products for an extended period of time. If our facility is inoperable for even a short period of time, the inability to manufacture our current products, and the interruption in research and development of any future products, may result in harm to our reputation, increased costs, lower revenue and the loss of customers, which would have a material adverse effect on our business, financial condition, and results of operations. Furthermore, it could be costly and time-consuming to repair or replace our facilities and the equipment we use to perform our research and development work and manufacture our products. We also rely on third-party component suppliers, and our ability to obtain commercial supplies of our products could be disrupted if the operations of these suppliers are affected by a man-made or natural disaster or other business interruption, which would have a material adverse effect on our business, financial condition, and results of operations.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit or halt the marketing and sale of our products.

We face an inherent risk of product liability as a result of the marketing and sale of our products. For example, we may be sued if our products cause or are perceived to cause injury or are found to be otherwise unsuitable during manufacturing, marketing or sale. Any such product liability claim may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or breach of warranty. In addition, we may be subject to claims against us even if the apparent injury is due to the actions of others or the pre-existing health of the patient. For example, we rely on physicians in connection with the use of our products on patients. If these physicians are not properly trained or are negligent, the capabilities of our products may be diminished or the patient may suffer critical injury. We may also be subject to claims that are caused by the activities of our suppliers, such as those who provide us with components and sub-assemblies.

If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit, delay or halt commercialization of our products. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our products;
- harm to our reputation;
- initiation of investigations by regulators;
- costs to defend the related litigation;
- diversion of management's time and our resources;
- monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;
- loss of revenue;
- exhaustion of any available insurance and our capital resources;
- inability to market and sell our products; and
- a resulting decline in the price of our common stock.

We believe our product liability insurance is customary for similarly situated companies, but it may not be adequate to cover all liabilities that we may incur. Insurance coverage is increasingly expensive. We may not be able to maintain or obtain insurance at a reasonable cost or in an amount adequate to satisfy any liability that may arise, if at all. Our insurance policy contains various exclusions, and we may be subject to a product liability claim for which we have no coverage. The potential inability to obtain sufficient product liability insurance at an acceptable cost to protect against product liability claims could prevent or inhibit the marketing and sale of products we develop. We may have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts, which would have a material adverse effect on our business, financial condition, and results of operations.

We face substantial competition, which may result in others discovering, developing or commercializing products more successfully than us.

The medical device industry is intensely competitive and subject to rapid and significant technological change. Many of our competitors have significantly greater financial, technical and human resources. Smaller and early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Our competitors may also develop products that are more effective, more convenient, more widely used, less costly, or have a better safety profile than our products and these competitors may also be more successful than us in manufacturing and marketing their products.

Our competitors also compete with us in recruiting and retaining qualified scientific, management and commercial personnel, as well as in acquiring technologies complementary to, or necessary for, our programs. Because of the complex and technical nature of our systems and the dynamic market in which we compete, any failure to attract and retain a sufficient number of qualified employees could materially harm our ability to develop and commercialize our technology, which would have a material adverse effect on our business, financial condition, and results of operations.

We may be unable to compete successfully with companies in our highly competitive industry, many of whom have substantially greater resources than we do.

The healthcare industry is highly competitive. There are numerous approved products for treating vascular and dermatological diseases in the indications in which we have received clearance or approval and those that we may pursue in the future. Many of these cleared or approved products are well-established and are widely accepted by physicians, patients and third-party payors. Insurers and other third-party payors may encourage the use of competitors' products. In addition, many companies are developing products, and we cannot predict what the standard of care will be in the future.

Our primary competitors for DABRA include Medtronic plc, Cardiovascular Systems Inc., Boston Scientific Corp., Avinger, Inc., Koninklijke Philips N.V., or Philips, including Volcano Corporation and Spectranetics Corporation, including products from the C.R. Bard acquisition, and Abbott Laboratories. These companies are manufacturers of products used in competing therapies within the peripheral and coronary atherectomy markets such as:

- atherectomy, using mechanical methods to remove vascular blockages;
- balloon angioplasty and stents;
- specialty balloon angioplasty, such as scoring balloons, pillowing balloons, cutting balloons and drug-coated balloons;
- bypass surgery; and
- amputation.

We also face competition from pharmaceutical companies that produce drugs which aim to destroy plaque or remove blockages in the bloodstream.

Our primary competitors for Pharos are Daavlin, National Biological, STRATA Skin Sciences and large pharmaceutical companies producing biologicals used in the treatment of chronic skin conditions.

Many of our competitors have substantially greater financial, manufacturing, commercial, and technical resources than we do. There has been consolidation in the industry, and we expect that to continue. Larger competitors may have substantially larger sales and marketing operations than we do. This may allow those competitors to spend more time with current and potential customers and to focus on a larger number of current and potential customers, which gives them a significant advantage over our sales and marketing team and our international distributors in making sales. In addition, we are often selling to customers who already utilize our competitors' products and who have established relationships with our competitors' sales representatives and familiarity with our competitors' products.

Larger competitors may also have broader product lines, which enables them to offer customers bundled purchase contracts and quantity discounts. These competitors may have more experience than we have in research and development, marketing, manufacturing, preclinical testing, conducting clinical trials, obtaining FDA and non-U.S. regulatory clearances or approvals and marketing cleared or approved products. Our competitors may discover technologies and techniques, or enter into partnerships and collaborations, to develop competing products that are more effective or less costly than our products or the products we may develop. This may render our technology or products obsolete or noncompetitive. Our competitors may also be better equipped than we are to respond to competitive pressures. If we are unable to compete successfully in our industry, it would have a material adverse effect on our business, financial condition, and results of operations.

If DABRA and Pharos are not approved for new indications, our commercial opportunity will be limited.

We market and sell DABRA for use as a tool in the treatment of vascular blockages resulting from lower extremity vascular disease and Pharos for use in the treatment of psoriasis, vitiligo, atopic dermatitis and leukoderma. Although physicians, in the practice of medicine, may prescribe or use marketed products for unapproved indications, manufacturers may promote their products only for the approved indications and in accordance with the provisions of the approved label. However, one of our strategies in the future is to pursue additional vascular indications for DABRA and additional dermatological indications for Pharos. Submitting the required applications for additional indications may require substantial additional funding beyond our cash and cash equivalents as of September 30, 2018 and the net proceeds of our initial public offering. We cannot assure you that we will be able to successfully obtain approval for any of these additional product indications through the application process.

Even if we obtain FDA clearance or approval to market our products for additional indications in the U.S., we cannot assure you that any such indications will be successfully commercialized, widely accepted in the marketplace or more effective than other commercially available alternatives. If we are unable to successfully develop our products for additional indications, our commercial opportunity will be limited, which would have a material adverse effect on our business, financial condition, and results of operations.

We may experience development or manufacturing problems or delays that could limit the potential growth of our revenue or increase our losses.

We may encounter unforeseen situations in the manufacturing and assembly of our products that would result in delays or shortfalls in our production. For example, our production processes and assembly methods may have to change to accommodate any significant future expansion of our manufacturing capacity, which may increase our manufacturing costs, delay production of our products, reduce our product margin, and adversely impact our business. Conversely, if demand for our

products shifts such that a manufacturing facility is operated below its capacity for an extended period, we may adjust our manufacturing operations to reduce fixed costs, which could lead to uncertainty and delays in manufacturing times and quality during any transition period.

Additionally, since all of our products are manufactured at our facility in Carlsbad, any contamination of the controlled environment, equipment malfunction, or failure to strictly follow procedures can significantly reduce our yield. A drop in yield can increase our cost to manufacture our products or, in more severe cases, require us to halt the manufacture of our products until the problem is resolved. Identifying and resolving the cause of a drop in yield can require substantial time and resources.

If our manufacturing activities are adversely impacted, or if we are otherwise unable to keep up with demand for our products by successfully manufacturing, assembling, testing, and shipping our products in a timely manner, our revenue could be impaired, market acceptance for our products could be adversely affected and our customers might instead purchase our competitors' products, which would have a material adverse effect on our business, financial condition, and results of operations.

We may require additional capital to finance our planned operations, which may not be available to us on acceptable terms or at all. As a result, we may not be able to continue our marketing efforts to increase the adoption of our products.

Our operations have consumed substantial amounts of cash since inception, primarily due to our research and development and marketing efforts. We expect our sales and marketing expenses to increase substantially in connection with our plan to continue our commercialization efforts of the DABRA system in the U.S. and internationally. These expenditures will also include costs associated with manufacturing and supply, sales and marketing costs, and general operations. In addition, other unanticipated costs may arise.

As of September 30, 2018, we had cash and cash equivalents of \$4.9 million. On October 1, 2018, we completed our initial public offering, selling 4,485,000 shares of our common stock at \$17.00 per share. Proceeds from our initial public offering, net of underwriting discounts and commissions and offering expenses, were \$67.3 million. We believe that the net proceeds from our initial public offering, together with our existing cash and cash equivalents, will fund our projected operating expenses and capital expenditure requirements for at least the next 12 months.

The amount and timing of any expenditures needed to implement our sales and marketing programs will depend on numerous factors, including:

- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and acceptable market share for DABRA and Pharos;
- the cost to establish, maintain, expand, and defend the scope of our intellectual property portfolio, as well as any other action required in connection with licensing, preparing, filing, prosecuting, defending, and enforcing any patents or other intellectual property rights;
- the emergence of competing technologies and other adverse market developments;
- the costs associated with manufacturing, selling, and marketing DABRA and Pharos for their cleared or approved indications or any other indications for which we receive regulatory clearance or approval, including the cost and timing of expanding our manufacturing capabilities, as well as establishing our sales and marketing capabilities;
- our ability to establish and maintain strategic licensing or other arrangements and the financial terms of such agreements;
- the timing, receipt, and amount of license fees and sales of, or royalties on, our future products or future improvements on our existing products, if any;
- the time and cost necessary to complete post-marketing studies that could be required by regulatory authorities or other studies required to obtain clearance for additional indications; and
- our need to implement additional internal systems and infrastructure, including financial and reporting systems, as a public company.

If we raise additional capital through marketing and distribution arrangements or other collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish certain valuable rights to our products, technologies, future revenue streams or research programs or grant licenses on terms that may not be favorable to us. If we raise additional capital through public or private equity offerings, the ownership interest of our existing stockholders will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect our stockholders' rights. If we raise additional capital through debt financing, we may be subject to covenants limiting or restricting our ability to take specific actions, such as incurring additional debt or making capital expenditures. If we are unable to obtain adequate financing on commercially reasonable terms when needed, we may have to delay, reduce the scope of or suspend our sales and marketing efforts, which would have a material adverse effect on our business, financial condition, and results of operations.

If we make acquisitions or divestitures, we could encounter difficulties that harm our business.

To date, the growth of our business has been organic, and we have no experience in acquiring other businesses, products or technologies. We may acquire companies, products or technologies that we believe to be complementary to the present or future direction of our business. If we engage in such acquisitions, we may have difficulty integrating the acquired personnel, financials, operations, products or technologies. Acquisitions may dilute our earnings per share, disrupt our ongoing business, distract our management and employees, increase our expenses, subject us to liabilities, and increase our risk of litigation, all of which could harm our business. If we use cash to acquire companies, products or technologies, it may divert resources otherwise available for other purposes. If we use our common stock to acquire companies, products or technologies, our stockholders may experience substantial dilution.

Technological change may adversely affect sales of our products and may cause our products to become obsolete.

The medical device market is characterized by extensive research and development and rapid technological change. Technological progress or new developments in our industry could adversely affect sales of our products. Our products could be rendered obsolete because of future innovations by our competitors or others in the treatment of vascular diseases and dermatological diseases, which would have a material adverse effect on our business, financial condition, and results of operations.

Consolidation in the medical device industry could have an adverse effect on our revenue and results of operations.

Many medical device industry companies are consolidating to create new companies with greater market power. For example, Spectranetics was acquired by Philips in August 2017. As the medical device industry consolidates, competition to provide goods and services to industry participants will become more intense. These industry participants may try to use their market power to negotiate price concessions or reductions for medical devices that incorporate components produced by us. If we reduce our prices because of consolidation in the healthcare industry, our revenue would decrease and our earnings, financial condition, or cash flows would suffer, which would have a material adverse effect on our business, financial condition, and results of operations.

We may be subject to enforcement actions, competitor lawsuits, or other claims if we engage in the off-label promotion of our products.

Our promotional materials and training methods must comply with FDA regulations and other applicable laws, including restraints and prohibitions on the promotion of off-label, or uncleared use, of our products. Physicians may use our products for off-label use without regard to these prohibitions, as FDA regulations do not restrict or regulate a physician's choice of treatment within the practice of medicine. Although our policy is to follow published FDA guidance in order to avoid promoting our products improperly, the FDA or other regulatory agencies or third parties could disagree and conclude that we have engaged in off-label promotion. For example, our DABRA Laser System has been cleared by the FDA for crossing chronic total occlusions in patients with symptomatic infrainguinal lower extremity vascular disease and has an intended use for ablating a channel in occlusive peripheral vascular disease. We have not received FDA clearance or approval to market DABRA for an atherectomy indication. While our pivotal clinical study of the DABRA Laser System would not be sufficient to expand our FDA-cleared indication for use to an atherectomy indication for use, which the FDA currently defines to include a prespecified improvement in luminal patency, or prespecified increase in the openness of the artery at a pre-defined time point, such as six months following a DABRA procedure, using a consistent assessment tool, we believe that we can promote the device using the truthful and not misleading information from this study that is not inconsistent with our cleared indication.

We recently received correspondence from a competitor claiming our promotion for DABRA as an atherectomy tool used by surgeons to treat peripheral vascular disease is off-label promotion for the product. We disagree with our competitors' claims and believe FDA's regulations and judicial case law allow companies to engage in certain forms of truthful, non-misleading and non-promotional speech concerning the off-label use of products, and we believe that we comply with these restrictions. We operate in an industry characterized by extensive litigation. However, the scope of potential liability with respect to any such claims, enforcement actions, or lawsuits is uncertain, and we cannot assure you that we will not receive claims from competitors or other third parties or be subject to enforcement actions in the future from regulatory agencies. For example, the FDA, FTC, the Office of the Inspector General of the Department of Health and Human Services ("HHS"), the DOJ and various state Attorneys General actively enforce laws and regulations that prohibit the promotion of off-label uses. If we are found to have improperly promoted off-label uses, we may be subject to significant liability, including civil fines, criminal fines and penalties, civil damages, exclusion from federal funded healthcare programs and potential liability under the federal False Claims Act and any applicable state false claims act. In addition, 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, which could negatively impact our marketing and decrease demand for our products. Conduct giving rise to such liability could also form the basis for private civil litigation by third-party payers, competitors, or other persons claiming to be harmed by such conduct. Notwithstanding the regulatory restrictions on off-label promotion, the FDA's regulations, guidance and judicial case law allow companies to engage in certain forms of truthful, non-misleading and non-promotional speech

concerning the off-label use of products, for example FDA's June 2018 guidance document, "Medical Product Communications That Are Consistent With the FDA-Required Labeling — Questions and Answers." Nonetheless, the FDA, HHS, DOJ, and/or state Attorneys General, competitors, and other third parties may take the position that we are not in compliance with such requirements, and if such non-compliance is proven, it could harm our reputation, financial condition or divert financial and management resources from our core business, and would have a material adverse effect on our business, financial condition and results of operations. Moreover, any threatened or actual government enforcement actions or lawsuits by third parties could also generate adverse publicity, which could decrease demand for our products and require that we devote substantial resources that could be used productively on other aspects of our business.

Litigation and other legal proceedings may adversely affect our business.

From time to time we are involved in and may become involved in legal proceedings relating to patent and other intellectual property matters, product liability claims, employee claims, tort or contract claims, federal regulatory investigations, securities class action, and other legal proceedings or investigations, which could have an adverse impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business. Litigation is inherently unpredictable and can result in excessive or unanticipated verdicts and/or injunctive relief that affect how we operate our business. We could incur judgments or enter into settlements of claims for monetary damages or for agreements to change the way we operate our business, or both. There may be an increase in the scope of these matters or there may be additional lawsuits, claims, proceedings or investigations in the future, which could have a material adverse effect on our business, financial condition, and results of operations. Adverse publicity about regulatory or legal action against us could damage our reputation and brand image, undermine our customers' confidence and reduce long-term demand for our products, even if the regulatory or legal action is unfounded or not material to our operations.

We must indemnify officers and directors, including, in certain circumstances, former employees and directors, against all losses, including expenses, incurred by them in legal proceedings and advance their reasonable legal defense expenses, unless certain conditions apply. A prolonged uninsured expense and indemnification obligation could have a material adverse effect on our business, financial condition, and results of operations.

We are subject to numerous laws and regulations related to health care fraud and abuse, false claims, anti-bribery and anti-corruption laws, such as the U.S. Anti-Kickback Statute and Foreign Corrupt Practices Act of 1977, in which violations of these laws could result in substantial penalties and prosecution.

In the United States, we are subject to various state and federal fraud and abuse laws, including, without limitation, the federal Anti-Kickback Statute and federal False Claims Act. There are similar laws in other countries. These laws may impact, among other things, the sales, marketing and education programs for our products. The federal Anti-Kickback Statute prohibits persons from knowingly and willingly soliciting, offering, receiving or providing remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing or arranging for a good or service, for which payment may be made under a federal health care program. The federal False Claims Act prohibits persons from knowingly filing, or causing to be filed, a false claim to, or the knowing use of false statements to obtain payment from the federal government. Any allegation, investigation, or violation of these domestic health care fraud and abuse laws could result in government or internal investigations, significant diversion of resources, exclusion from government health care reimbursement programs and the curtailment or restructuring of our operations, significant fines, penalties, or other financial consequences, any of which may ultimately have a material adverse effect on our business, financial condition, and results of operations.

For our sales and operations outside the United States, we are similarly subject to various heavily-enforced anti-bribery and anti-corruption laws, such as the U.S. Foreign Corrupt Practices Act of 1977, as amended, or FCPA, U.K. Bribery Act, and similar laws around the world. These laws generally prohibit U.S. companies and their employees and intermediaries from offering, promising, authorizing or making improper payments to foreign government officials for the purpose of obtaining or retaining business or gaining any advantage. We face significant risks if we, which includes our third parties, fail to comply with the FCPA and other anti-corruption and anti-bribery laws.

We leverage various third parties to sell our products and conduct our business abroad, including to government owned universities and hospitals. We, our distributors and channel partners, and our other third-party intermediaries may have direct or indirect interactions with officials and employees of government agencies or state-owned or affiliated entities (such as in the context of obtaining government approvals, registrations, or licenses or sales to government owned or controlled health care facilities, universities, institutes, clinics, etc.) and may be held liable for the corrupt or other illegal activities of these third-party business partners and intermediaries, our employees, representatives, contractors, partners, and agents, even if we do not explicitly authorize such activities. In many foreign countries, particularly in countries with developing economies, it may be a local custom that businesses engage in practices that are prohibited by the FCPA or other applicable laws and regulations. To that end, while we have adopted and implemented internal control policies and procedures and employee training and compliance programs to deter prohibited practices, such compliance measures ultimately may not be effective in prohibiting our employees, contractors, third parties, intermediaries or agents from violating or circumventing our policies and/or the law.

Responding to any enforcement action or related investigation may result in a materially significant diversion of management's attention and resources and significant defense costs and other professional fees. Any violation of the FCPA, other applicable anti-bribery, anti-corruption laws, and anti-money laundering laws could result in whistleblower complaints, adverse media coverage, investigations, loss of export privileges, severe criminal or civil sanctions and, in the case of the FCPA, suspension or debarment from U.S. government contracts, which could have a material and adverse effect on our reputation, business, financial condition, and results of operations.

Governmental export or import controls could limit our ability to compete in foreign markets and subject us to liability if we violate them.

Our products may be subject to U.S. export controls. Governmental regulation of the import or export of our products, or our failure to obtain any required import or export authorization for our products, when applicable, could harm our international sales and adversely affect our revenue. Compliance with applicable regulatory requirements regarding the export of our products may create delays in the introduction of our products in international markets or, in some cases, prevent the export of our products to some countries altogether. Furthermore, U.S. export control laws and economic sanctions prohibit the shipment of certain products and services to countries, governments, and persons targeted by U.S. sanctions. If we fail to comply with export and import regulations and such economic sanctions, we may be fined or other penalties could be imposed, including a denial of certain export privileges. Moreover, any new export or import restrictions, new legislation or shifting approaches in the enforcement or scope of existing regulations, or in the countries, persons, or technologies targeted by such regulations, could result in decreased use of our products by, or in our decreased ability to export our products to existing or potential customers with international operations. Any decreased use of our products or limitation on our ability to export or sell access to our products would likely materially and adversely affect our business, financial condition, and results of operations.

A variety of risks associated with marketing our products internationally could materially adversely affect our business.

In addition to selling our products in the U.S., we sell DABRA and Pharos outside of the U.S. We are subject to additional risks related to operating in foreign countries, including:

- differing regulatory requirements in foreign countries;
- differing reimbursement regimes in foreign countries, including price controls and lower payment;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the U.S.;
- potential liability under the FCPA or comparable foreign regulations;
- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the U.S.;
- product shortages resulting from any events affecting raw material or finished good supply or distribution or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism.

These and other risks associated with our international operations may materially adversely affect our ability to attain or maintain profitable operations, which would have a material adverse effect on our business, financial condition, and results of operations.

We face additional credit and compliance risks related to our international sales using foreign distributors.

We partner with distributors for DABRA and Pharos in select geographies outside of the U.S. Specifically, in the nine months ended September 30, 2018, we sold to distributors located in the Netherlands, China, Thailand, United Arab Emirates, Italy, United Kingdom, Japan and Saudi Arabia. In the nine months ended September 30, 2018, less than 10% of our sales were outside of the U.S. For calendar year 2017, approximately 10% of our sales were outside of the U.S. We may not be able to collect all of the funds owed to us by our foreign distributors. Some foreign distributors may experience financial difficulties,

including bankruptcy, which may hinder our collection of accounts receivable. Where we extend credit terms to distributors, we periodically review the collectability and creditworthiness when determining the payment terms for such distributors. If our uncollectible accounts exceed our expectations, this could adversely impact our operating results. In addition, failure by our foreign distributors to comply with the Foreign Corrupt Practices Act or similar laws, insurance requirements, or other contract terms could have a negative impact on our business. Failure to manage the risks related to our foreign distributors would have a material adverse effect on our business, financial condition, and results of operations.

We are highly dependent on our key personnel, and if we are not successful in attracting and retaining highly qualified personnel, we may not be able to successfully implement our business strategy.

Our ability to compete in the highly competitive medical devices industry depends upon our ability to attract and retain highly qualified managerial, scientific and medical personnel. We are highly dependent on our senior management team. The loss of the services of any of our executive officers and other key employees, and our inability to find suitable replacements could result in delays in product development and harm our business.

Competition for skilled personnel in our market is intense and may limit our ability to hire and retain highly qualified personnel on acceptable terms or at all. To induce valuable employees to remain at our company, in addition to salary and cash incentives, we have issued stock options and restricted stock units that vest over time. The value to employees of stock options and restricted stock units that vest over time may be significantly affected by movements in our stock price that are beyond our control, and may at any time be insufficient to counteract more lucrative offers from other companies. Despite our efforts to retain valuable employees, members of our management, scientific and development teams may terminate their employment with us on short notice. Although we have employment agreements with our key employees, these employment agreements provide for at-will employment, which means that any of our employees could leave our employment at any time, with or without notice. We do not maintain “key man” insurance policies on the lives of these individuals or the lives of any of our other employees, with the exception of the “key man” insurance policy for our Chief Executive Officer, Dean Irwin. Our success also depends on our ability to continue to attract, retain and motivate highly skilled junior, mid-level and senior managers as well as junior, mid-level and senior scientific and medical personnel. If we are not successful in attracting and retaining highly qualified personnel, it would have a material adverse effect on our business, financial condition, and results of operations

If we experience significant disruptions in our information technology systems, our business may be adversely affected.

We depend on our information technology systems for the efficient functioning of our business, including the manufacture, distribution and maintenance of DABRA and Pharos, as well as for accounting, data storage, compliance, purchasing and inventory management. We do not have redundant information technology systems at this time. Our information technology systems may be subject to computer viruses, ransomware or other malware, attacks by computer hackers, failures during the process of upgrading or replacing software, databases or components thereof, power outages, hardware failures, telecommunication failures and user errors, among other malfunctions. In addition, a variety of our software systems are cloud-based data management applications hosted by third-party service providers whose security and information technology systems are subject to similar risks. Technological interruptions would impact our business operations would disrupt our operations, including our ability to timely ship and track product orders, project inventory requirements, manage our supply chain and otherwise adequately service our customers or disrupt our customers’ ability use our products for treatments. In the event we experience significant disruptions, we may be unable to repair our systems in an efficient and timely manner. Accordingly, such events may disrupt or reduce the efficiency of our entire operation and have a material adverse effect on our business, financial condition, and results of operations. Currently, we carry business interruption coverage to mitigate certain potential losses, but this insurance is limited in amount and we cannot be certain that such potential losses will not exceed our policy limits. We are increasingly dependent on complex information technology to manage our infrastructure. Our information systems require an ongoing commitment of significant resources to maintain, protect and enhance our existing systems. Failure to maintain or protect our information systems and data integrity effectively could have a material adverse effect on our business, financial condition, and results of operations

We have identified a material weakness in our internal control over financial reporting. Failure to maintain effective internal controls could cause our investors to lose confidence in us and adversely affect the market price of our common stock. If our internal controls are not effective, we may not be able to accurately report our financial results or prevent fraud.

Section 404 of the Sarbanes-Oxley Act of 2002, or Section 404, requires that we maintain internal control over financial reporting that meets applicable standards. We may err in the design or operation of our controls, and all internal control systems, no matter how well designed and operated, can provide only reasonable assurance that the objectives of the control system are met. Because there are inherent limitations in all control systems, there can be no assurance that all control issues have been or will be detected. If we are unable, or are perceived as unable, to produce reliable financial reports due to internal control deficiencies, investors could lose confidence in our reported financial information and operating results, which could result in a negative market reaction and a decrease in our stock price.

We will be required, pursuant to Section 404, to furnish a report by management on, among other things, the effectiveness of our internal control over financial reporting. Such report will not be required until our annual report filed on Form 10-K for the year ended December 31, 2019. We will need to disclose any material weaknesses identified by our management in our internal control over financial reporting. As an “emerging growth company,” we will avail ourselves of the exemption from the requirement that our independent registered public accounting firm attest to the effectiveness of our internal control over financial reporting under Section 404. However, we may no longer avail ourselves of this exemption when we cease to be an “emerging growth company.” When our independent registered public accounting firm is required to undertake an assessment of our internal control over financial reporting, the cost of our compliance with Section 404 will correspondingly increase. Our compliance with applicable provisions of Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues as we implement additional corporate governance practices and comply with reporting requirements. Moreover, if we are not able to comply with the requirements of Section 404 applicable to us in a timely manner, or if we or our independent registered public accounting firm identifies deficiencies in our internal control over financial reporting that are deemed to be material weaknesses, the market price of our stock could decline and we could be subject to sanctions or investigations by the U.S. Securities and Exchange Commission, or SEC, or other regulatory authorities, which would require additional financial and management resources.

In prior periods we identified certain material weaknesses in our internal controls related to revenue recognition and lack of staffing in the accounting and finance organization. In connection with these prior material weaknesses we implemented remediation measures including training of accounting personnel as well as hiring additional personnel with experience in the ongoing identification, design and implementation of internal control over financial reporting.

In connection with our 2017 audit, as part of the restatement to the 2016 financial statements, we identified a material weakness in the design of our internal controls related to the administration of capital stock transactions, including stock issuances and a reverse stock split which were not effected in accordance with the requirements of applicable law and the communication of stock option awards which were not validly authorized. While we have designed and implemented, or expect to implement, measures that we believe address this material weakness, we continue to develop our internal controls, processes and reporting systems by, among other things, hiring qualified personnel with expertise to perform specific functions, including our Chief Financial Officer, General Counsel and Corporate Controller, the engagement of third-party legal counsel to assist in the administration of capital stock transactions, and designing and implementing improved processes and internal controls, including ongoing senior management review and board of directors oversight. We expect to continue to build a more experienced administrative organization with expertise to perform specific functions and to design and implement improved processes and internal controls. We have incurred significant costs to remediate these weaknesses, primarily personnel costs, external consulting and legal fees, system implementation costs, and related indirect costs including the use of facilities and technology, and we expect to incur additional costs to remediate these weaknesses. We may not be successful in implementing these remediation efforts or in developing other internal controls, which may undermine our ability to provide accurate, timely and reliable reports on our financial and operating results. Further, we will not be able to fully assess whether the steps we are taking will remediate the material weakness in our internal control over financial reporting until we have completed our implementation efforts and sufficient time passes in order to evaluate their effectiveness. In addition, if we identify additional errors that result in material weaknesses in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. Moreover, in the future we may engage in business transactions, such as acquisitions, reorganizations or implementation of new information systems that could negatively affect our internal control over financial reporting and result in material weaknesses.

If we identify new material weaknesses in our internal control over financial reporting, if we are unable to comply with the requirements of Section 404 in a timely manner, if we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, we may be late with the filing of our periodic reports, investors may lose confidence in the accuracy and completeness of our financial reports and the market price of our common stock could be negatively affected. As a result of such failures, we could also become subject to investigations by the stock exchange on which our securities are listed, the SEC, or other regulatory authorities, and become subject to litigation from investors and stockholders, which could harm our reputation, financial condition or divert financial and management resources from our core business, and would have a material adverse effect on our business, financial condition and results of operations.

We could be subject to claims based on defects with respect to certain corporate transactions that were not authorized in accordance with applicable law.

We have determined that due to the material weakness in our internal controls related to the administration of capital stock transactions, there have been defects with respect to certain corporate transactions, including (i) stock issuances that were not or may not have been properly approved by our board of directors and/or adequately documented, (ii) a reverse stock split for which we failed to file the amendment to our articles of incorporation, and (iii) the communication of option awards that were not validly authorized by our board of directors as a result of non-existent or defective board approvals, in each case in accordance with applicable law.

To remediate these defects, we have taken a number of actions. Our board of directors has ratified the defective stock issuances; we obtained agreements from holders of the vast majority of our common stock which include a confirmation of the securities each stockholder holds, a release of potential claims with respect to issuance of securities to such stockholders, and a surrender specifically of any claims to the equity of the Delaware corporation except for the shares of the Delaware corporation that such stockholder has received in the reincorporation merger pursuant to the merger agreement; we confirmed with the vast majority of the applicable stockholders that the appropriate number of shares of common stock outstanding immediately prior to the time of the intended reverse stock split were contributed to the capital of the Company effective as of the intended time of, and to give effect to, the intended reverse stock split; and we have approved compensation to and obtained releases from our impacted employees and other service providers to resolve potential claims, if any, related to the communicated grants of option awards and to promote retention and align their interests with the long-term interests of our stockholders. While we have attempted to narrow potential future claims by taking certain remedial corporate actions, the scope of liability with respect to such defects is uncertain and we cannot assure that these actions will entirely remediate these defects or that we will not receive claims in the future from other persons asserting rights to shares of our capital stock or to stock options or other equity. To the extent any such claims are successful, they could have a material adverse effect on our business, financial condition and results of operations.

Under certain authority, common law ratification by our board of directors of prior stock issuances may have caused such issuances to be valid stock issuances by us at the time of the respective issuances. However, there is uncertainty under applicable law as to whether such common law ratification may be effective under all circumstances. There can be no assurance that stockholders will not assert claims that a defective corporate act or putative stock issuance ratified by us is void or voidable due to the identified failure of proper authorization by our board of directors, as well as other claims related thereto, and, if asserted, that any such claims will not be successful. If such ratification is deemed not to be effective, then the issuances of certain shares of our stock and other attempted corporate actions would be invalid and we could have liability to grantees of our common stock, which may have a material adverse effect on our business and results of operations.

We have also confirmed that the vast majority of the applicable stockholders as of the time of the intended reverse stock split contributed a number of shares of common stock sufficient to give effect to the recapitalization intended by the reverse stock split. However, a holder of our common stock could argue that this process does not represent an adequate remedy for a potential failure to properly implement the reverse stock split. If the contribution of shares to the capital of the Company was not effective, then we could have liability to certain holders of our common stock, which may have a material adverse effect on our business and results of operations.

Additionally, we may have potential liability to certain of our employees, directors, consultants, and other service providers for communicated grants of option awards that were not authorized in compliance with applicable law. With respect to the communicated grants of option awards that were not validly authorized, we approved compensation and obtained a release of potential claims from such persons. We approved compensation to our impacted employees, directors, consultants, and other service providers to mitigate potential claims related to the communicated grants of option awards, if any. However, an impacted individual could argue that such compensation is not an adequate remedy for prior invalid option awards and, if a court were to impose a greater remedy, our financial exposure could be greater and have a material adverse effect on our business and results of operations. The foregoing could also result in tax withholding, employment taxes or other tax liabilities, including penalties and interest, all of which could have a material adverse effect on our business, financial condition and results of operations.

We will need to grow the size of our organization, and we may experience difficulties in managing this growth.

At September 30, 2018, we had 95 full-time employees. As our sales and marketing strategies develop, we expect to need additional managerial, operational, sales, marketing, financial, and other personnel. Future growth would impose significant added responsibilities on members of management, including:

- identifying, recruiting, integrating, maintaining, and motivating additional employees;
- managing our internal development efforts effectively, while complying with our contractual obligations to contractors and other third parties; and
- improving our operational, financial and management controls, reporting systems and procedures.

Our future financial performance and our ability to successfully market and sell our products will depend, in part, on our ability to effectively manage any future growth, and our management may also have to divert a disproportionate amount of its attention away from day-to-day activities in order to devote a substantial amount of time to managing these growth activities.

If we are not able to effectively expand our organization by hiring new employees and expanding our groups of consultants and contractors, we may not be able to successfully implement the tasks necessary to further develop and commercialize our products and, accordingly, may not achieve our research, sales and marketing goals, which would have a material adverse effect on our business, financial condition, and results of operations.

We actively employ social media as part of our marketing strategy, which could give rise to regulatory violations, liability, breaches of data security or reputational damage.

Despite our efforts to monitor evolving social media communication guidelines and comply with applicable rules, there is risk that the use of social media by us, our employees or our customers to communicate about our products or business may cause us to be found in violation of applicable requirements, including requirements of regulatory bodies such as the FDA and Federal Trade Commission. For example, promotional communications and endorsements on social media that, among other things, promote our products for uses or in patient populations that are not described in the product's approved labeling (known as "off-label uses"), do not contain a fair balance of information about risks associated with using our products, make comparative or other claims about our products that are not supported by sufficient evidence, and/or do not contain required disclosures could result in an enforcement actions against us. In addition, adverse events, product complaints, off-label usage by physicians, unapproved marketing or other unintended messages posted on social media could require an active response from us, which may not be completed in a timely manner and could result in regulatory action by a governing body. Further, our employees may knowingly or inadvertently make use of social media in ways that may not comply with our corporate policies or other legal or contractual requirements, which may give rise to liability, lead to the loss of trade secrets or other intellectual property, or result in public exposure of personal information of our employees, clinical trial patients, customers and others. Furthermore, negative posts or comments about us or our products in social media could seriously damage our reputation, brand image and goodwill, which would have a material adverse effect on our business, financial condition, and results of operations.

Risks Related to Regulatory Approval and our Industry

Regulatory compliance is expensive, complex and uncertain, and a failure to comply could lead to enforcement actions against us and other negative consequences for our business.

The FDA and similar agencies regulate our products as medical devices. Complying with these regulations is costly, time consuming, complex and uncertain. FDA regulations and regulations of similar agencies are wide-ranging and include, among other things, oversight of:

- product design, development, manufacture (including suppliers) and testing;
- pre-clinical and clinical studies;
- product safety and effectiveness;
- product labeling;
- product storage and shipping;
- record keeping;
- pre-market clearance or approval;
- marketing, advertising and promotion;
- product sales and distribution;
- product changes;
- product recalls; and
- post-market surveillance and reporting of deaths or serious injuries and certain malfunctions.

Our current products are subject to extensive regulation by the FDA and non-U.S. regulatory agencies. Further, all of our potential products and improvements of our current products will be subject to extensive regulation and will likely require permission from regulatory agencies and ethics boards to conduct clinical trials, and clearance or approval from the FDA and non-U.S. regulatory agencies prior to commercial sale and distribution. Failure to comply with applicable U.S. requirements regarding, for example, promoting, manufacturing or labeling our products, may subject us to a variety of administrative or judicial actions and sanctions, such as Form 483 observations, warning letters, untitled letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties, and criminal prosecution. The FDA can also refuse to clear or approve pending applications. Any enforcement action by the FDA and other comparable non-U.S. regulatory agencies could have a material adverse effect on our business, financial condition, and results of operations.

Our medical device operations are subject to pervasive and continuing FDA regulatory requirements.

Medical devices regulated by the FDA are subject to “general controls” which include: registration with the FDA; listing commercially distributed products with the FDA; complying with cGMPs under the Quality System Regulations, or QSR; filing reports with the FDA of and keeping records relative to certain types of adverse events associated with devices under the medical device reporting regulation; assuring that device labeling complies with device labeling requirements; reporting certain device field removals and corrections to the FDA; and obtaining premarket notification 510(k) clearance for devices prior to marketing. Some devices known as “510(k)-exempt” devices can be marketed without prior marketing clearance or approval from the FDA. In addition to the “general controls,” some Class II medical devices are also subject to “special controls,” including adherence to a particular guidance document and compliance with the performance standard. Instead of obtaining 510(k) clearance, most Class III devices are subject to premarket approval, or PMA. None of our current products are Class III devices, but future products could be, which would subject them to the PMA process.

Many medical devices, such as medical lasers, are also regulated by the FDA as “electronic products.” In general, manufacturers and marketers of “electronic products” are subject to certain FDA regulatory requirements intended to ensure the radiological safety of the products. These requirements include, but are not limited to, filing certain reports with the FDA about the products and defects/safety issues related to the products as well as complying with radiological performance standards.

The medical device industry is now experiencing greater scrutiny and regulation by federal, state and foreign governmental authorities. Companies in our industry are subject to more frequent and more intensive reviews and investigations, often involving the marketing, business practices, and product quality management. Such reviews and investigations may result in the civil and criminal proceedings; the imposition of substantial fines and penalties; the receipt of warning letters, untitled letters, demands for recalls or the seizure of our products; the requirement to enter into corporate integrity agreements, stipulated judgments or other administrative remedies, and result in our incurring substantial unanticipated costs and the diversion of key personnel and management’s attention from their regular duties, any of which may have an adverse effect on our financial condition, results of operations and liquidity, and may result in greater and continuing governmental scrutiny of our business in the future.

Additionally, federal, state and foreign governments and entities have enacted laws and issued regulations and other standards requiring increased visibility and transparency of our interactions with healthcare providers. For example, the U.S. Physician Payment Sunshine Act, now known as Open Payments, requires us to report to the Centers for Medicare & Medicaid Services, or CMS, payments and other transfers of value to all U.S. physicians and U.S. teaching hospitals, with the reported information made publicly available on a searchable website. Failure to comply with these legal and regulatory requirements could impact our business, and we have had and will continue to spend substantial time and financial resources to develop and implement enhanced structures, policies, systems and processes to comply with these legal and regulatory requirements, which may also impact our business and which could have a material adverse effect on our business, financial condition, and results of operations.

Product clearances and approvals can often be denied or significantly delayed.

Under FDA regulations, unless exempt, a new medical device may only be commercially distributed after it has received 510(k) clearance, is authorized through the de novo classification process, or is the subject of an approved PMA. The FDA will clear marketing of a medical device through the 510(k) process if it is demonstrated that the new product is substantially equivalent to another legally marketed product not subject to a PMA. Sometimes, a 510(k) clearance must be supported by preclinical and clinical data.

The PMA process typically is more costly, lengthy and stringent than the 510(k) process. Unlike a 510(k) review which determines “substantial equivalence,” a PMA requires that the applicant demonstrate reasonable assurance that the device is safe and effective by producing valid scientific evidence, including data from preclinical studies and human clinical trials. Therefore, to obtain regulatory clearance or approvals, we typically must, among other requirements, provide the FDA and similar foreign regulatory authorities with preclinical and clinical data that demonstrate to their satisfaction that our products satisfy the criteria for approval. Preclinical testing and clinical trials must comply with the regulations of the FDA and other government authorities in the U.S. and similar agencies in other countries.

We may be required to obtain PMAs, PMA supplements or additional 510(k) premarket clearances to market modifications to our existing products. The FDA requires device manufacturers to make and document a determination of whether a modification requires approval or clearance; however, the FDA can review a manufacturer’s decision. The FDA may not agree with our decisions not to seek approvals or clearances for particular device modifications. If the FDA requires us to obtain PMAs, PMA supplements or pre-market clearances for any modification to a previously cleared or approved device, we may be required to cease manufacturing and marketing the modified device and perhaps also to recall such modified device until we obtain FDA clearance or approval. We may also be subject to significant regulatory fines or penalties.

The FDA may not approve our current or future PMA applications or supplements or clear our 510(k) applications on a timely basis or at all. Such delays or refusals could have a material adverse effect on our business, financial condition, and results of operations.

The FDA may also change its clearance and approval policies, adopt additional regulations or revise existing regulations, or take other actions which 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. Any of these actions could have a material adverse effect on our business, financial condition, and results of operations.

International regulatory approval processes may take more or less time than the FDA clearance or approval process. If we fail to comply with applicable FDA and comparable non-U.S. regulatory requirements, we may not receive regulatory clearances or approvals or may be subject to FDA or comparable non-U.S. enforcement actions. We may be unable to obtain future regulatory clearance or approval in a timely manner, or at all, especially if existing regulations are changed or new regulations are adopted. For example, the FDA clearance or approval process can take longer than anticipated due to requests for additional clinical data and changes in regulatory requirements. A failure or delay in obtaining necessary regulatory clearances or approvals would materially adversely affect our business, financial condition, and results of operations.

Although we have obtained regulatory clearance for our products in the U.S. and certain non-U.S. jurisdictions, they will remain subject to extensive regulatory scrutiny.

Although our products have obtained regulatory clearance in the U.S. and certain non-U.S. jurisdictions, they will be subject to ongoing regulatory requirements for manufacturing, labeling, packaging, storage, advertising, promotion, sampling, record-keeping, conduct of post-marketing studies, and submission of safety, effectiveness, and other post-market information, including both federal and state requirements in the U.S. and requirements of comparable non-U.S. regulatory authorities.

Our manufacturing facility is required to comply with extensive requirements imposed by the FDA and comparable foreign regulatory authorities, including ensuring that quality control and manufacturing procedures conform to the QSR or similar regulations set by foreign regulatory authorities. As such, we will be subject to continual review and inspections to assess compliance with the QSR and adherence to commitments made in any 510(k) application. Accordingly, we continue to expend time, money, and effort in all areas of regulatory compliance, including manufacturing, production and quality control.

Any regulatory clearances or approvals that we have received for our products will be subject to limitations on the cleared or approved indicated uses for which the product may be marketed and promoted or to the conditions of approval, or contain requirements for potentially costly post-marketing testing. We are required to report certain adverse events and production problems, if any, to the FDA and comparable foreign regulatory authorities. Any new legislation addressing product safety issues could result in increased costs to assure compliance. The FDA and other agencies, including the Department of Justice, closely regulate and monitor the post-clearance or approval marketing and promotion of products to ensure that they are marketed and distributed only for the cleared or approved indications and in accordance with the provisions of the cleared or approved labeling. We have to comply with requirements concerning advertising and promotion for our products.

Promotional communications with respect to devices are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's cleared or approved labeling. As such, we may not promote our products for indications or uses for which they do not have clearance or approval. However, many physicians use our products for off-label purposes and are allowed to do so. For certain changes to a cleared product, including certain changes to product labeling, the holder of a cleared 510(k) application may be required to submit a new application and obtain clearance.

If a regulatory agency discovers previously unknown problems with a product, such as adverse events of unanticipated severity or frequency, or problems with our facility where the product is manufactured, or disagrees with the promotion, marketing or labeling of a product, such regulatory agency may impose restrictions on that product or us, including requiring withdrawal of the product from the market. If we fail to comply with applicable regulatory requirements, a regulatory agency or enforcement authority may, among other things:

- subject our facility to an adverse inspectional finding or Form 483, or other compliance or enforcement notice, communication, or correspondence;
- issue warning or untitled letters that would result in adverse publicity or may require corrective advertising;
- impose civil or criminal penalties;
- suspend or withdraw regulatory clearances or approvals;
- refuse to clear or approve pending applications or supplements to approved applications submitted by us;
- impose restrictions on our operations, including closing our sub-assembly suppliers' facilities;

- seize or detain products; or
- require a product recall.

In addition, violations of the Federal Food, Drug, and Cosmetic Act, or FDCA, relating to the promotion of approved products may lead to investigations alleging violations of federal and state healthcare fraud and abuse and other laws, as well as state consumer protection laws.

Any government investigation of alleged violations of law could require us to expend significant time and resources in response, and could generate negative publicity. Any failure to comply with ongoing regulatory requirements may significantly and adversely affect our ability to commercialize and generate revenue from our products. If regulatory sanctions are applied or if regulatory clearance or approval is withdrawn, it would have a material adverse effect on our business, financial condition, and results of operations.

Our products may be subject to recalls after receiving FDA or foreign approval or clearance, which could divert managerial and financial resources, harm our reputation, and adversely affect our business.

The FDA and similar foreign governmental authorities have the authority to require the recall of our products because of any failure to comply with applicable laws and regulations, or defects in design or manufacture. A government mandated or voluntary product recall by us could occur because of, for example, component failures, device malfunctions, or other adverse events, such as serious injuries or deaths, or quality-related issues such as manufacturing errors or design or labeling defects. Any future recalls of our products could divert managerial and financial resources, harm our reputation and adversely affect our business.

In addition, we are subject to medical device reporting regulations that require us to report to the FDA or similar foreign governmental authorities if one of our products may have caused or contributed to a death or serious injury or if we become aware that it has malfunctioned in a way that would be likely to cause or contribute to a death or serious injury if the malfunction recurred. After a May 2018 inspection, the FDA issued to us a Form 483 that included observations for failure to properly evaluate whether certain complaints related to Pharos and DABRA that we have received rose to a level required to be reported to the FDA. In response, we informed the FDA that we have modified our complaint review procedures and we completed a retrospective evaluation and have not found any complaints which require a submission to the FDA. Failures to properly identify reportable events or to file timely reports, as well as failure to address each of the observations to FDA's satisfaction, can subject us to sanctions and penalties, including warning letters and recalls. Physicians, hospitals and other healthcare providers may make similar reports to regulatory authorities. Any such reports may trigger an investigation by the FDA or similar foreign regulatory bodies, which could divert managerial and financial resources, harm our reputation and have a material adverse effect on our business, financial condition, and results of operations.

If we fail to comply with the FDA's Quality System Regulation or any applicable state equivalent, our operations could be interrupted and our potential product sales and operating results could suffer.

We are required to comply with the FDA's QSR, which delineates the design controls, document controls, purchasing controls, identification and traceability, production and process controls, acceptance activities, nonconforming product requirements, corrective and preventive action requirements, labeling and packaging controls, handling, storage, distribution and installation requirements, complaint handling, records requirements, servicing requirements, and statistical techniques potentially applicable to the production of our medical devices. We and our suppliers are also subject to the regulations of foreign jurisdictions regarding the manufacturing process if we market products overseas. The FDA enforces the QSR through periodic and announced or unannounced inspections of manufacturing facilities. Our facilities have been inspected by the FDA and other regulatory authorities, and we anticipate that we and certain of our third-party component suppliers will be subject to additional future inspections. If our facilities are found to be in non-compliance or fail to take satisfactory corrective action in response to adverse QSR inspectional findings, FDA could take legal or regulatory enforcement actions against us and/or our products, including but not limited to the cessation of sales or the recall of distributed products, which could impair our ability to produce our products in a cost-effective and timely manner in order to meet our customers' demands. We may also 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.

Current regulations depend heavily on administrative interpretation. If the FDA does not believe that we are in compliance with applicable FDA regulations, the agency could take legal or regulatory enforcement actions against us and/or our products. We are also subject to periodic inspections by the FDA, other governmental regulatory agencies, as well as certain third-party regulatory groups. Future interpretations made by the FDA or other regulatory bodies made during the course of these inspections may vary from current interpretations and may adversely affect our business and prospects. The FDA's and other comparable non-U.S. regulatory agencies' statutes, regulations, or policies may change, and additional government regulation or statutes may be enacted, which could increase post-approval regulatory requirements, or delay,

suspend, prevent marketing of any cleared or approved products or necessitate the recall of distributed products. We cannot predict the likelihood, nature or extent of adverse governmental regulation that might arise from future legislative or administrative action, either in the U.S. or abroad.

The medical device industry has been under heightened FDA scrutiny as the subject of government investigations and enforcement actions. If our operations and activities are found to be in violation of any FDA laws or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and other legal and/or agency enforcement actions. Any penalties, damages, fines, or curtailment or restructuring of our operations or activities could adversely affect our ability to operate our business and our financial results. The risk of us being found in violation of FDA laws is increased by the fact that many of these laws are broad and their provisions are open to a variety of interpretations. Any action against us for violation of these laws, even if we successfully defend ourselves against that action and its underlying allegations, could cause us to incur significant legal expenses and divert management's attention from the operation of our business. Where there is a dispute with a federal or state governmental agency that cannot be resolved to the mutual satisfaction of all relevant parties, we may determine that the costs, both real and contingent, are not justified by the commercial returns to us from maintaining the dispute or the product.

Various claims, design features or performance characteristics of our medical devices, that we regarded as permitted by the FDA without marketing clearance or approval, may be challenged by the FDA or state or foreign regulators. The FDA or state or foreign regulatory authorities may find that certain claims, design features or performance characteristics, in order to be made or included in the products, may have to be supported by further studies and marketing clearances or approvals, which could be lengthy, costly and possibly unobtainable.

If any of our products cause or contribute to a death or a serious injury, or malfunction in certain ways, we will be required to report under applicable medical device reporting regulations, which can result in voluntary corrective actions or agency enforcement actions.

Under the FDA medical device reporting regulations, or MDR regulations, medical device manufacturers 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. For example, in 2015 we submitted to the FDA an MDR for an event that involved a patient who experienced significant erythema, or skin reddening, and transient blistering after treatment with Pharos. The patient was treated with topical antibiotics and subsequently continued treatment. For DABRA, the most frequent complication reported to us as a result of post-market surveillance is clinically non-significant vessel perforation. To date, we do not believe that we have received any complaints for DABRA that require submission of an MDR to the FDA. If we fail to report events required to be reported to the FDA within the required timeframes, or at all, the FDA could take enforcement action against us. Any such adverse event involving our products also could result in future voluntary corrective actions, such as recalls or customer notifications, or agency action, such as inspection or enforcement action. Any corrective action, whether voluntary or involuntary, as well as defending ourselves in a lawsuit, will require our time and capital, distract management from operating our business, and may harm our reputation and have a material adverse effect on our business, financial condition, and results of operations.

Healthcare reform initiatives and other administrative and legislative proposals may adversely affect our business, financial condition, results of operations and cash flows in our key markets.

There have been and continue to be proposals by the federal government, state governments, regulators and third-party payors to control or manage the increased costs of health care and, more generally, to reform the U.S. healthcare system. Certain of these proposals could limit the prices we are able to charge for our products or the coverage and reimbursement available for our products and could limit the acceptance and availability of our products. The adoption of proposals to control costs could have a material adverse effect on our business, financial condition, and results of operations.

For example, in the United States, in March 2010, the Patient Protection and Affordable Care Act, or ACA, was passed. The ACA has made significant changes to the way healthcare is financed by both federal and state governments and private insurers, and has directly impacted the medical device industry. Among other provisions that may affect our business, including provisions that are meant to contain healthcare costs, improve quality and/or expand access, the ACA implemented, with limited exceptions, a deductible excise tax of 2.3% on sales of medical devices by entities, including us, which manufacture or import certain medical devices offered for sale in the U.S., including many of our products. The tax was to become effective January 1, 2013, but is currently suspended until January 1, 2020. Revenue from many of our products will be subject to that excise tax.

There have been judicial and Congressional challenges to certain aspects of the ACA, as well as recent efforts by the Trump administration to repeal or replace certain aspects of the ACA and we expect such challenges and amendments to continue. For example, the Tax Cuts and Jobs Act of 2017 includes a provision repealing, effective January 1, 2019, the tax-based shared responsibility payment imposed by the ACA on certain individuals who fail to maintain qualifying health coverage for all or part of a year that is commonly referred to as the “individual mandate.” Additionally, on January 22, 2018, President Trump signed a continuing resolution on appropriations for fiscal year 2018 that delayed the implementation of certain ACA-mandated fees, including the 2.3% excise tax imposed on manufacturers and importers for certain sales of medical devices, the so-called “Cadillac” tax on certain high cost employer-sponsored insurance plans, and the annual fee imposed on certain health insurance providers based on market share. Congress may consider additional legislation to repeal or repeal and replace all or certain elements of the ACA, including the medical device excise tax. We continue to evaluate the impact of the ACA and its possible repeal or replacement on our business.

In addition, other legislative changes have been proposed and adopted in the United States since the ACA was enacted. In August 2011, the Budget Control Act of 2011, among other things, led to aggregate reductions of Medicare payments to providers of 2% per fiscal year. These reductions went into effect in April 2013 and, due to subsequent legislative amendments to the statute, including the Bipartisan Budget Act of 2018, will remain in effect through 2027 unless additional action is taken by Congress. In January 2013, the American Taxpayer Relief Act of 2012 was signed into law, which, among other things, further reduced Medicare payments to several types of providers, including hospitals, imaging centers and cancer treatment centers, and increased the statute of limitations period for the government to recover overpayments to providers from three to five years.

Further, recently there has been heightened governmental scrutiny over the manner in which manufacturers set prices for their marketed products, which has resulted in several U.S. Congressional inquiries and proposed and enacted federal legislation designed to bring transparency to product pricing and reduce the cost of products and services under government healthcare programs. Congress and the Trump administration have each indicated that it will continue to seek new legislative and/or administrative measures to control product costs. Additionally, individual states in the United States have also become increasingly active in passing legislation and implementing regulations designed to control product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures. Moreover, regional healthcare authorities and individual hospitals are increasingly using bidding procedures to determine what products to purchase and which suppliers will be included in their healthcare programs. Adoption of price controls and other cost-containment measures, and adoption of more restrictive policies in jurisdictions with existing controls and measures may prevent or limit our ability to generate revenue, attain profitability.

Various new healthcare reform proposals are emerging at the federal and state level. Any new federal and state healthcare initiatives that may be adopted could limit the amounts that federal and state governments will pay for healthcare products and services, and could have a material adverse effect on our business, financial condition, and results of operations.

Healthcare cost containment pressures and legislative or administrative reforms resulting in restrictive coverage and reimbursement practices of third-party payors could decrease the demand for our products and the number of procedures performed using our devices, which could have an adverse effect on our business.

Our products are purchased principally by catheterization laboratories, which typically bill various third-party payors, including governmental programs, such as Medicare and Medicaid, private insurance plans and managed care plans, for the healthcare services provided to their patients. The ability of our customers to obtain reimbursement for procedures that are performed using our products from government and private third-party payors is critical to our success. The availability of coverage and reimbursement for procedures performed using our products affects which products customers purchase and the prices they are willing to pay to us.

Reimbursement varies based on country, geographical location, type of provider/customer, and third-party payor and can significantly influence the acceptance of new products and services. Third-party payors may view some procedures performed using our products as experimental and may not provide coverage. Third-party payors may not cover and reimburse our customers for certain procedures performed using our products in whole or in part in the future, or payment rates may decline and not be adequate, or both. Further, coverage and reimbursement by third-party payors to our customers is also related to billing codes to describe procedures performed using our products. Hospitals and physicians use several billing codes to bill for such procedures. Third-party payors may not continue to recognize the CPT codes available for use by our customers. The CPT codes may change undermining our customer’s ability to use those codes and reimbursement may be interrupted. Furthermore, some payors may not recognize these codes for payment. If payors do not cover atherectomy, physicians may not perform as many DABRA treatments as they otherwise would perform. Consequently, we may not be able to sell as many catheters for DABRA treatments as projected.

Reimbursement rates are unpredictable, and we cannot project how our business may be affected by future legislative and regulatory developments. Future legislation or regulation, or changing payment methodologies, may have a material adverse effect on our business, financial condition, and results of operations, and reimbursement may not be adequate for all customers. From time to time, typically on an annual basis, payment amounts are updated and revised by third-party payors. Because the cost of our products generally is recovered by the healthcare provider as part of the payment for performing a procedure and not separately reimbursed, these updates, especially lower payments could directly impact the demand for our products. For example, in July 2013, the CMS proposed reimbursement changes that would have decreased reimbursement for procedures in an outpatient based facility, such as a catheterization lab. Although CMS chose not to implement those changes in 2013, we cannot assure you that CMS will not take similar actions in the future.

After we develop new products or seek to market our products for new approved or cleared indications, we may find limited demand for the product unless government and private third-party payors provide adequate coverage and reimbursement to our customers. Obtaining codes and reimbursement for new products may require an extended, multi-year effort. Even with reimbursement approval and coverage by government and private payors, providers submitting reimbursement claims may face delay in payment if there is confusion by providers or payors regarding the appropriate codes to use in seeking reimbursement. Such delays may create an unfavorable impression within the marketplace regarding the level of reimbursement or coverage available for our products.

Demand for our products or new approved indications for our existing products may fluctuate over time if federal or state legislative or administrative policy changes affect coverage or reimbursement levels for our products or the services related to our products. In the U.S., there have been and we expect there will continue to be legislative and regulatory proposals to change the healthcare system, such as the potential repeal of the ACA, some of which could significantly affect our business. It is uncertain what impact the current U.S. presidential administration will have on health care spending including a campaign promise to repeal the ACA. If enacted and implemented, any measures to restrict health care spending could result in decreased revenue from our products and decreased potential returns from our research and development initiatives. Other legislative or administrative reforms to the U.S. or international reimbursement systems in a manner that significantly reduces reimbursement for procedures performed using our products or denies coverage for those procedures could have a material adverse effect on our business, financial condition, and results of operations.

Modifications to our products may require new 510(k) clearances or premarket approvals or may require us to recall or cease marketing our products until clearances are obtained.

Modifications to our products may require new 510(k) clearances or PMAs or require us to recall or cease marketing the modified devices until these clearances or approvals are obtained. The FDA requires device manufacturers to initially make and document a determination of whether or not a modification requires a new approval, supplemental approval or clearance; however, the FDA will review and can disagree with a manufacturer's decision. Any modification to an FDA-cleared device that would significantly affect its safety or efficacy or that would constitute a major change in its intended use would require a new 510(k) clearance or possibly a PMA. We may not be able to obtain additional 510(k) clearances or PMAs for new products or for modifications to, or additional indications for, our products in a timely fashion, or at all. Delays in obtaining required future clearances or approvals would adversely affect our ability to introduce new or enhanced products in a timely manner, which in turn would harm our future growth. We may make modifications in the future that we believe do not or will not require additional clearances or approvals. If the FDA disagrees and requires new clearances or approvals for the modifications, we may be required to recall and to stop marketing our products as modified, which could harm our operating results and require us to redesign our products. In these circumstances, we may be subject to significant enforcement actions.

Our employees, independent contractors, consultants, commercial partners, distributors, and vendors may engage in misconduct or other improper activities, including noncompliance with regulatory standards and requirements.

We are exposed to the risk that our employees, independent contractors, consultants, commercial partners, distributors, and vendors may engage in fraudulent or illegal activity. Misconduct by these parties could include intentional, reckless and/or negligent conduct or disclosure of unauthorized activities to us that violates: (i) the laws of the FDA and other similar foreign regulatory bodies, including those laws requiring the reporting of true, complete and accurate information to such regulators; (ii) manufacturing standards; (iii) healthcare fraud and abuse laws in the U.S. and similar foreign fraudulent misconduct laws; or (iv) laws that require the true, complete and accurate reporting of financial information or data. These laws may impact, among other things, future sales, marketing, and education programs. In particular, the promotion, sales and marketing of healthcare items and services, as well as certain business arrangements in the healthcare industry, are subject to extensive laws designed to prevent fraud, kickbacks, self-dealing and other abusive practices. These laws and regulations may restrict or prohibit a wide range of pricing, discounting, marketing and promotion, structuring and commissions, certain customer incentive programs and other business arrangements generally. Activities subject to these laws also involve the improper use of information obtained in the course of patient recruitment for clinical trials.

We have adopted a code of ethics and business conduct, but it is not always possible to identify and deter misconduct by our employees and other third parties, and the precautions we take to detect and prevent these activities may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us and we are not successful in defending ourselves or asserting our rights, those actions could result in the imposition of significant fines or other sanctions, including the imposition of civil, criminal and administrative penalties, damages, monetary fines, additional integrity reporting and oversight obligations, possible exclusion from participation in Medicare, Medicaid and other federal healthcare programs, contractual damages, reputational harm, diminished profits and future earnings and curtailment of operations, any of which could adversely affect our ability to operate our business and our results of operations. Whether or not we are successful in defending against such actions or investigations, we could incur substantial costs, including legal fees, and divert the attention of management in defending ourselves against any of these claims or investigations, which could have a material adverse effect on our business, financial condition, and results of operations.

Environmental and health safety laws may result in liabilities, expenses and restrictions on our operations.

Federal, state, local and foreign laws regarding environmental protection, hazardous substances and human health and safety may adversely affect our business. Using hazardous substances in our operations exposes us to the risk of accidental injury, contamination or other liability from the use, storage, importation, handling, or disposal of hazardous materials. If our or our suppliers' operations result in the contamination of the environment or expose individuals to hazardous substances, we could be liable for damages and fines, and any liability could significantly exceed our insurance coverage and have a material adverse effect on our on our business, financial condition, and results of operations. Future changes to environmental and health and safety laws could cause us to incur additional expenses or restrict our operations, which could have a material adverse effect on our business, financial condition, and results of operations.

Our operations and relationships with customers and third-party payors are subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to penalties including criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers and third-party payors play a primary role in the recommendation of our cleared devices and any future cleared or approved devices. Our current and future arrangements with providers, third-party payors and customers 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 our cleared devices.

Restrictions under applicable U.S. federal and state healthcare laws and regulations may include the following:

- the federal Anti-Kickback Statute prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal healthcare programs such as Medicare and Medicaid. A person or entity does not need to have actual knowledge of the federal Anti-Kickback Statute or specific intent to violate it in order to have committed a violation. In addition, the government may assert that a claim including items or services resulting from a violation of the federal Anti-Kickback Statute constitutes a false or fraudulent claim for purposes of the federal False Claims Act;
- federal false claims laws, including the federal False Claims Act, imposes criminal and civil penalties, including through civil whistleblower or qui tam actions, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government. Persons and entities can be held liable under these laws if they are deemed to "cause" the submission of false or fraudulent claims by, for example, providing inaccurate billing or coding information to customers or promoting a product off-label;
- the federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for, among other things, knowingly and willfully executing or attempting to execute a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters. Similar to the federal Anti-Kickback Statute, a person or entity does not need to have actual knowledge of the health care fraud statute implemented under HIPAA or specific intent to violate it in order to have committed a violation;
- HIPAA, as amended by the Health Information Technology for Economic and Clinical Health, or HITECH, Act and its implementing regulations, also imposes obligations, including mandatory contractual terms, on covered entities subject to the rule, such as health plans, healthcare clearinghouses and certain healthcare providers, as well as their business associates that perform certain services for or on their behalf involving the use or disclosure of individually identifiable health information with respect to safeguarding the privacy, security and transmission of individually identifiable health information. We believe we are not a covered entity for purposes of HIPAA, and we believe that we generally do not conduct our business in a manner that would cause us to be a business associate under HIPAA;

- the U.S. Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies for which payment is available under Medicare, Medicaid or the Children’s Health Insurance Program (with certain exceptions) to report annually to the government information related to payments or other “transfers of value” made to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, and requires applicable manufacturers and group purchasing organizations to report annually to the government ownership and investment interests held by the physicians described above and their immediate family members; and
- analogous state and foreign laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers.

Some state laws require medical device companies to comply with the medical device industry’s voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government and may require medical device manufacturers to report information related to payments and other transfers of value to physicians and other healthcare providers or marketing expenditures. In addition, we may be subject to state and non-U.S. laws governing 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.

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 product candidates from government-funded healthcare programs, such as Medicare and Medicaid, disgorgement, contractual damages, reputational harm, diminished profits and future earnings, and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations. Defending against any such actions can be costly, time-consuming and may require significant financial and personnel resources. Therefore, even if we are successful in defending against any such actions that may be brought against us, our business may be impaired. If any of the above occurs, it could adversely affect our ability to operate our business and our results of 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, which could have a material adverse effect on our business, financial condition, and results of operations.

Risks Related to our Intellectual Property

If we are unable to obtain and maintain patent protection for our products, our competitors could develop and commercialize products and technology similar or identical to ours, and our ability to successfully commercialize our existing products and any products we may develop, and our technology may be adversely affected.

As with other medical device companies, our ability to maintain and solidify a proprietary position for our products will depend upon our success in obtaining effective patent claims that cover such products, their manufacturing processes and their intended methods of use, and enforcing those claims once granted. Furthermore, in some cases, we may not be able to obtain issued claims covering DABRA and Pharos, as well as other technologies that are important to our business, which are sufficient to prevent third parties, such as our competitors, from utilizing our technology. Any failure to obtain or maintain patent protection with respect to DABRA and Pharos could have a material adverse effect on our business, financial condition, and results of operations.

Changes in either the patent laws or their interpretation in the U.S. and other countries may diminish our ability to protect our inventions, obtain, maintain, and enforce our intellectual property rights and, more generally, could affect the value of our intellectual property or narrow the scope of our issued patents. Additionally, we cannot predict whether the patent applications we are currently pursuing will issue as patents in any particular jurisdiction or whether the claims of any issued patents will provide sufficient protection from competitors or other third parties.

The patent prosecution process is expensive, time-consuming, and complex, and we may not be able to file, prosecute, maintain, enforce, or license all necessary or desirable patent applications at a reasonable cost or in a timely manner. It is also possible that we will fail to identify patentable aspects of our research and development output in time to obtain patent protection. Although we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development output, such as our employees, corporate collaborators, outside scientific collaborators, suppliers, consultants, advisors and other third parties, any of these parties may breach the agreements and

disclose such output before a patent application is filed, thereby jeopardizing our ability to seek patent protection. In addition, our ability to obtain and maintain valid and enforceable patents depends on whether the differences between our inventions and the prior art allow our inventions to be patentable over the prior art. Furthermore, publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the U.S. and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we were the first to make the inventions claimed in any of our pending patent applications, or that we were the first to file for patent protection of such inventions. Moreover, in some circumstances, we may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the patents, covering technology that we license from or license to third parties and are therefore reliant on our licensors or licensees. Therefore, these and any of our patents and applications may not be prosecuted and enforced in a manner consistent with the best interests of our business. Defects of form in the preparation or filing of our patents or patent applications may exist, or may arise in the future, for example, with respect to proper priority claims, inventorship, and the like, although we are unaware of any such defects that we believe are of material importance. If we or any future licensors or licensees, fail to establish, maintain or protect such patents and other intellectual property rights, such rights may be reduced or eliminated. If any future licensors or licensees are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised. If there are material defects in the form, preparation or prosecution of our patents or patent applications, such patents or applications may be invalid and unenforceable. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

In addition, if any patents are issued in the future, they may not provide us with any competitive advantages, or may be successfully challenged by third parties. Agreement terms that address non-competition are difficult to enforce in many jurisdictions and may not be enforceable in any particular case. To the extent that our intellectual property and other proprietary rights are not adequately protected, third parties might gain access to our proprietary information, develop and market products or services similar to ours, or use trademarks similar to ours, each of which could materially harm our business. Existing United States federal and state intellectual property laws offer only limited protection. Moreover, the laws of other countries in which we now, or may in the future, conduct operations or contract for services may afford little or no effective protection of our intellectual property. The failure to adequately protect our intellectual property and other proprietary rights could materially harm our business.

The strength of patent rights involves complex legal and scientific questions and can be uncertain. This uncertainty includes changes to the patent laws through either legislative action to change statutory patent law or court action that may reinterpret existing law or rules in ways affecting the scope or validity of issued patents. The patent applications that we own may fail to result in issued patents in the United States or foreign countries with claims that cover our products or services. Even if patents do successfully issue from the patent applications that we own, third parties may challenge the validity, enforceability or scope of such patents, which may result in such patents being narrowed, invalidated or held unenforceable. Any successful challenge to our patents could deprive us of exclusive rights necessary for the successful commercialization of our products and services. Furthermore, even if they are unchallenged, our patents may not adequately protect our products and services, provide exclusivity for our products and services, or prevent others from designing around our claims. If the breadth or strength of protection provided by the patents we hold or pursue with respect to our products and services is challenged, it could dissuade companies from collaborating with us to develop, or threaten our ability to commercialize, our products and services.

Patents have a limited lifespan. In the United States, the natural expiration of a utility patent is generally 20 years after its effective filing date and the natural expiration of a design patent is generally 14 years after its issue date, unless the filing date occurred on or after May 13, 2015, in which case the natural expiration of a design patent is generally 15 years after its issue date. Various extensions may be available; however the life of a patent, and the protection it affords, is limited. Without patent protection for our products and services, we may be open to competition. Further, if we encounter delays in our development efforts, the period of time during which we could market our products and services under patent protection would be reduced.

In addition to the protection afforded by patents, we also rely on trade secret protection to protect proprietary know-how that may not be patentable or that we elect not to patent, processes for which patents may be difficult to obtain or enforce, and any other elements of our products and services that involve proprietary know-how, information or technology that is not covered by patents. However, trade secrets can be difficult to protect. If the steps taken to maintain our trade secrets are deemed inadequate, we may have insufficient recourse against third parties for misappropriating any trade secrets. Misappropriation or unauthorized disclosure of our trade secrets could significantly affect our competitive position and may have a material adverse effect on our business. Furthermore, trade secret protection does not prevent competitors from independently developing substantially equivalent.

If the scope of any patent protection we obtain is not sufficiently broad, or if we lose any of our patent protection, our ability to prevent our competitors from commercializing similar or identical technology and products would be adversely affected.

The patent position of medical device companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. As a result, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. Our pending and future patent applications may not result in patents being issued which protect our products or which effectively prevent others from commercializing competitive technologies and products.

Moreover, the coverage claimed in a patent application can be significantly reduced before the patent is issued, and its scope can be reinterpreted after issuance. Even if patent applications we license or own currently or in the future issue as patents, they may not issue in a form that will provide us with any meaningful protection, prevent competitors or other third parties from competing with us, or otherwise provide us with any competitive advantage. Any patents that we own may be challenged, narrowed, circumvented, or invalidated by third parties. Consequently, we do not know whether DABRA and Pharos will be protectable or remain protected by valid and enforceable patents. Our competitors or other third parties may be able to circumvent our patents by developing similar or alternative technologies or products in a non-infringing manner which could materially adversely affect our business, financial condition, results of operations and prospects.

The issuance of a patent is not conclusive as to its inventorship, scope, validity, or enforceability, and our patents may be challenged in the courts or patent offices in the U.S. and abroad. We may be subject to a third-party preissuance submission of prior art to the United States Patent and Trademark Office, or USPTO, or become involved in opposition, derivation, revocation, reexamination, post-grant and *inter partes* review, or interference proceedings or other similar proceedings challenging our patent rights. An adverse determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate or render unenforceable, our patent rights, allow third parties to commercialize our products and compete directly with us, without payment to us, or result in our inability to manufacture or commercialize products without infringing third-party patent rights. Moreover, we may have to participate in interference proceedings declared by the USPTO to determine priority of invention or in post-grant challenge proceedings, such as oppositions in a foreign patent office, that challenge our priority of invention or other features of patentability with respect to our patents and patent applications. Such challenges may result in loss of patent rights, loss of exclusivity, or in patent claims being narrowed, invalidated, or held unenforceable, which could limit our ability to stop others from using or commercializing similar or identical technology and products, or limit the duration of the patent protection of DABRA and Pharos. Such proceedings also may result in substantial cost and require significant time from our scientists and management, even if the eventual outcome is favorable to us, which would have a material adverse effect on our business, financial condition, and results of operations.

Obtaining and maintaining our patent protection depends on compliance with various procedural measures, document submissions, fee payments and other requirements imposed by government patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other government fees on patents and applications will be due to be paid to the USPTO and various government patent agencies outside of the U.S. over the lifetime of our patents and applications. The USPTO and various non-U.S. government agencies require compliance with several procedural, documentary, fee payment and other similar provisions during the patent application process. In some cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. There are situations, however, in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in a partial or complete loss of patent rights in the relevant jurisdiction. In such an event, potential competitors might be able to enter the market with similar or identical products or technology, which could have a material adverse effect on our business, financial condition, and results of operations.

We may not be able to protect our intellectual property and proprietary rights throughout the world.

Third parties may attempt to commercialize competitive products or services in foreign countries where we do not have any patents or patent applications where legal recourse may be limited. This may have a significant commercial impact on our foreign business operations.

Filing, prosecuting, and defending patents on our products in all countries throughout the world would be prohibitively expensive, and the laws of foreign countries may not protect our rights to the same extent as the laws of the U.S. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the U.S., or from selling or importing products made using our inventions in and into the U.S. or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and, further, may export otherwise infringing products to territories where we have patent protection but enforcement is not as strong as that in the U.S. These products may compete with our products, and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets, and other intellectual property protection, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our intellectual property and proprietary rights generally. Proceedings to enforce our intellectual property and proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly, could put our patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate, and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property and proprietary rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

Many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. In addition, many countries limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we are forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business, financial condition, results of operations and prospects may be adversely affected.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

Changes in either the patent laws or interpretation of the patent laws in the U.S. could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. Assuming that other requirements for patentability are met, prior to March 2013, in the U.S., the first to invent the claimed invention was entitled to the patent, while outside the U.S., the first to file a patent application was entitled to the patent. After March 2013, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 2011, the U.S. transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application will be entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. A third party that files a patent application in the USPTO after March 2013, but before us could therefore be awarded a patent covering an invention of ours even if we had made the invention before it was made by such third party. This will require us to be cognizant going forward of the time from invention to filing of a patent application. Since patent applications in the U.S. and most other countries are confidential for a period of time after filing or until issuance, we cannot be certain that we were the first to either (i) file any patent application related to our products or (ii) invent any of the inventions claimed in our patents or patent applications.

The America Invents Act also includes a number of significant changes that affect the way patent applications will be prosecuted and also may affect patent litigation. These include allowing third-party submission of prior art to the USPTO during patent prosecution and additional procedures to attack the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review, and derivation proceedings. Because of a lower evidentiary standard in USPTO proceedings compared to the evidentiary standard in U.S. federal courts necessary to invalidate a patent claim, a third party could potentially provide evidence in a USPTO proceeding sufficient for the USPTO to hold a claim invalid even though the same evidence would be insufficient to invalidate the claim if first presented in a district court action. Accordingly, a third party may attempt to use the USPTO procedures to invalidate our patent claims that would not have been invalidated if first challenged by the third party as a defendant in a district court action. Therefore, the America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, and results of operations.

Issued patents covering our products could be found invalid or unenforceable if challenged in court or before administrative bodies in the U.S. or abroad.

If we initiated legal proceedings against a third party to enforce a patent covering our products, the defendant could counterclaim that such patent is invalid or unenforceable. In patent litigation in the U.S., defendant counterclaims alleging invalidity or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness, or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the USPTO, or made a misleading statement, during prosecution. Third parties may raise claims challenging the validity or enforceability of our patents before administrative bodies in the U.S. or abroad, even outside the context of litigation. Such mechanisms include re-examination, post-grant review, *inter partes* review, interference proceedings, derivation proceedings, and equivalent proceedings in foreign jurisdictions (e.g., opposition proceedings). Such proceedings could result in the revocation of, cancellation of, or amendment to our patents in such a way that they no longer cover our products. The outcome

following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on our products. Such a loss of patent protection would have a material adverse effect on our business, financial condition, and results of operations.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to seeking patents for our products, we rely upon unpatented trade secrets, know-how and continuing technological innovation to develop and maintain a competitive position. We seek to protect our proprietary information, in part, through confidentiality agreements with our employees, collaborators, contractors, advisors, consultants, and other third parties, and invention assignment agreements with our employees. We also have agreements with some of our consultants that require them to assign to us any inventions created as a result of their working with us. The confidentiality agreements are designed to protect our proprietary information and, in the case of agreements or clauses requiring invention assignment, to grant us ownership of technologies that are developed through a relationship with a third party.

Despite these efforts, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Enforcing a claim that a party illegally disclosed or misappropriated a trade secret is difficult, expensive, and time-consuming, and the outcome is unpredictable. In addition, some courts inside and outside the U.S. are less willing or unwilling to protect trade secrets. If any of our trade secrets were to be lawfully obtained or independently developed by a competitor or other third party, we would have no right to prevent them from using that technology or information to compete with us. If any of our trade secrets were to be disclosed to or independently developed by a competitor or other third party, our competitive position would be materially and adversely harmed. Furthermore, we expect these trade secrets, know-how and proprietary information to over time be disseminated within the industry through independent development, the publication of journal articles describing the methodology, and the movement of personnel from academic to industry scientific positions.

We also seek to preserve the integrity and confidentiality of our data and trade secrets by maintaining physical security of our premises and physical and electronic security of our information technology systems. While we have confidence in these individuals, organizations and systems, agreements or security measures may be breached, and we may not have adequate remedies for any breach. In addition, our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our consultants, contractors or collaborators use intellectual property owned by others in their work for us, disputes may arise as to the rights in related or resulting know-how and inventions, which could have a material adverse effect on our business, financial condition, and results of operations.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We may be subject to claims that former employees, collaborators or other third parties have an interest in our patents, trade secrets, or other intellectual property as an inventor or co-inventor. For example, we may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our products. Litigation may be necessary to defend against these and other claims challenging inventorship or our patents, trade secrets or other intellectual property. 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, intellectual property that is important to our products. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees. Any of the foregoing could have a material adverse effect on our business, financial condition, and results of operations.

We may become involved in intellectual property litigation either due to claims by others that we are infringing their intellectual property rights or due to our own assertions that others are infringing upon our intellectual property rights.

The medical device industry in general has been characterized by extensive litigation and administrative proceedings regarding patent infringement and intellectual property rights. Our competitors hold a significant number of patents relating to medical laser technology. From time to time, we may commence litigation to enforce our intellectual property rights. An adverse decision in these actions or in any other legal action could limit our ability to assert our intellectual property rights, limit the value of our technology or otherwise negatively impact our business, financial condition and results of operations.

Monitoring unauthorized use of our intellectual property is difficult and costly. Unauthorized use of our intellectual property may have occurred or may occur in the future. Although we have taken steps to minimize the risk of this occurring, any such failure to identify unauthorized use and otherwise adequately protect our intellectual property would adversely affect our business. Moreover, if we are required to commence litigation, whether as a plaintiff or defendant, not only will this be time-consuming, but we will also be forced to incur significant costs and divert our attention and efforts of our employees, which could, in turn, result in lower revenue and higher expenses.

We cannot provide assurance that our products or methods do not infringe the patents or other intellectual property rights of third parties. Additionally, if our business is successful, the possibility may increase that others will assert infringement claims against us.

Determining whether a product infringes a patent involves complex legal and factual issues, and the outcome of a patent litigation action is often uncertain. We have not conducted an extensive search of patents issued or assigned to other parties, including our competitors, and no assurance can be given that patents containing claims covering our products, parts of our products, technology or methods do not exist, have not been filed or could not be filed or issued. Because of the number of patents issued and patent applications filed in our technical areas, our competitors or other parties may assert that our products and the methods we employ in the use of our products are covered by U.S. or foreign patents held by them. In addition, because patent applications can take many years to issue and because publication schedules for pending applications vary by jurisdiction, there may be applications now pending of which we are unaware and which may result in issued patents which our current or future products infringe. Also, because the claims of published patent applications can change between publication and patent grant, there may be published patent applications that may ultimately issue with claims that we infringe. There could also be existing patents that one or more of our products or parts may infringe and of which we are unaware. As the number of competitors in the market for medical lasers and as the number of patents issued in this area grows, the possibility of patent infringement claims against us increases. In certain situations, we may determine that it is in our best interests or their best interests to voluntarily challenge a party's products or patents in litigation or other proceedings, including patent interferences or re-examinations. As a result, we may become involved in unwanted litigation that could be costly, result in diversion of management's attention, require us to pay damages and force us to discontinue selling our products.

Infringement and other intellectual property claims and proceedings brought against us, whether successful or not, could result in substantial costs and harm to our reputation. Such claims and proceedings can also distract and divert management and key personnel from other tasks important to the success of the business. We cannot be certain that we will successfully defend against allegations of infringement of patents and intellectual property rights of others. In the event that we become subject to a patent infringement or other intellectual property lawsuit and if the other party's patents or other intellectual property were upheld as valid and enforceable and we were found to infringe the other party's patents or violate the terms of a license to which we are a party, we could be required to do one or more of the following:

- cease selling or using any of our products that incorporate the asserted intellectual property, which would adversely affect our revenue;
- pay substantial damages for past use of the asserted intellectual property;
- obtain a license from the holder of the asserted intellectual property, which license may not be available on reasonable terms, if at all, and which could reduce profitability; and
- redesign or rename, in the case of trademark claims, our products to avoid violating or infringing the intellectual property rights of third parties, which may not be possible and could be costly and time-consuming if it is possible to do so.

Third-party claims of intellectual property infringement, misappropriation or other violation against us or our collaborators may prevent or delay the sale and marketing of our products.

The medical devices industry is highly competitive and dynamic. Due to the focused research and development that is taking place by several companies, including us and our competitors, in this field, the intellectual property landscape is in flux, and it may remain uncertain in the future. As such, there may be significant intellectual property related litigation and proceedings relating to our, and other third party, intellectual property and proprietary rights in the future.

Our commercial success depends in part on our and any potential future collaborators' ability to avoid infringing, misappropriating and otherwise violating the patents and other intellectual property rights of third parties. It is uncertain whether the issuance of any third-party patent would require us or any licensee to alter our development or commercial strategies, obtain licenses, or cease certain activities. The medical device industry is characterized by extensive litigation regarding patents and other intellectual property rights, as well as administrative proceedings for challenging patents, including interference, derivation and reexamination proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. As discussed above, recently, due to changes in U.S. law referred to as patent reform, new procedures including *inter partes* review and post-grant review have been implemented. As stated above, this reform adds uncertainty to the possibility of challenge to our patents in the future.

Third parties may currently have patents or obtain patents in the future and claim that the manufacture, use or sale of our products infringes upon these patents. In the event that any third-party claims that we infringe their patents or that we are otherwise employing their proprietary technology without authorization and initiates litigation against us, even if we believe

such claims are without merit, a court of competent jurisdiction could hold that such patents are valid, enforceable and infringed by our products. In this case, the holders of such patents may be able to block our ability to commercialize the applicable products or technology unless we obtain a license under the applicable patents, or until such patents expire or are finally determined to be held invalid or unenforceable. Such a license may not be available on commercially reasonable terms or at all. Even if we are able to obtain a license, the license would likely obligate us to pay license fees or royalties or both, and the rights granted to us might be nonexclusive, which could result in our competitors gaining access to the same intellectual property. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, we may be unable to commercialize our products, or such commercialization efforts may be significantly delayed, which could in turn significantly harm our business.

For example, in December of 2017, we were contacted by a third party suggesting that we should consider licensing three U.S. patents directed to the treatment of vitiligo, U.S. Pat. No. 6,979,327 (“‘327 patent”), U.S. Pat. No. 7,261,729 (“‘729 patent”), and U.S. Pat. No. 8,387,621 (“‘621 patent”). In addition, we were also previously contacted in 2006 by the same third party suggesting that we should consider licensing the ‘327 patent as well as the then pending application that became the ‘729 patent. We believe that we will be meritorious if a claim of infringement of the ‘327 patent, the ‘729 patent, or the ‘621 patent is asserted against us in a legal proceeding by this or any other third party. However, although we believe that we do not infringe the claims of the ‘327 patent, the ‘729 patent, or the ‘621 patent, nor do we believe that we need a license to the ‘327 patent, the ‘729 patent, or the ‘621 patent in order to freely commercialize our products, there is a possibility that a suit claiming infringement of the ‘327 patent, the ‘729 patent, or the ‘621 patent will be brought against us, and we cannot assure that a court or an administrative agency will agree with our assessment with regard to non-infringement of the ‘327 patent, the ‘729 patent, or the ‘621 patent. If it was necessary to obtain a license to the ‘327 patent, the ‘729 patent, or the ‘621 patent and a license was not available on commercially reasonable terms or available at all, that could affect our ability to commercialize our products and materially and adversely affect our business.

If a third party commences a patent infringement action against us it could consume significant financial and management resources, regardless of the merit of the claims or the outcome of the litigation. Defense of infringement claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of management and other employee resources from our business, and may impact our reputation. In the event of a successful claim of infringement against us, we may be enjoined from further developing or commercializing our infringing products. In addition, we may have to pay substantial damages, including treble damages and attorneys’ fees for willful infringement, obtain one or more licenses from third parties, pay royalties and/or redesign our infringing products or technologies, which may be impossible or require substantial time and monetary expenditure. In that event, we would be unable to further develop and commercialize our products, which could harm our business significantly.

Engaging in litigation to defend against third parties alleging that we have infringed their patents or other intellectual property rights is very expensive, particularly for a company of our size, and time-consuming. Some of our competitors may be able to sustain the costs of litigation or administrative proceedings more effectively than we can because they may have greater financial resources. Patent litigation and other proceedings may also consume significant management time. Uncertainties resulting from the initiation or continuation of patent litigation or other proceedings against us could impair our ability to compete in the marketplace. The occurrence of any of the foregoing could have a material adverse effect on our business, financial condition or results of operations.

We may become involved in lawsuits to protect or enforce our patents and other intellectual property rights, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our patents, or we may be required to defend against claims of infringement. In addition, our patents also may become involved in inventorship, priority or validity disputes. To counter or defend against such claims can be expensive and time consuming. In an infringement proceeding, a court may decide that a patent owned by us is invalid or unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation proceeding could put one or more of our patents at risk of being invalidated or interpreted narrowly. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation.

Even if resolved in our favor, litigation or other legal proceedings relating to intellectual property claims may cause us to incur significant expenses and could distract our personnel from their normal responsibilities. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on our common stock price. Such litigation or proceedings could substantially increase our operating losses and reduce the resources available for development activities or any future sales, marketing or distribution activities. We may not have sufficient financial or other

resources to conduct such litigation or proceedings adequately. Some of our competitors may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. Uncertainties resulting from the initiation and continuation of patent litigation or other proceedings could have a material adverse effect on our ability to compete in the marketplace.

We may be subject to claims that our employees, consultants or advisors have wrongfully used or disclosed alleged trade secrets of their current or former employers or claims asserting ownership of what we regard as our own intellectual property.

Many of our employees, consultants and scientific advisors are currently or were previously employed at universities or healthcare companies, including our competitors and potential competitors. Although we try to ensure that our employees, consultants and advisors do not use the proprietary information or know-how of others in their work for us, we have been and may in the future become subject to claims that we or these individuals have used or disclosed intellectual property, including trade secrets or other proprietary information, of any such individual's current or former employer. For example, in 2018, we received letters from a competitor concerning one of their former employees who is currently working for us. The letters allege, among other things, that the employee is in violation of the employee's continuing obligations to the employee's prior employer. While we dispute the validity of the claims and would vigorously defend against them and assert appropriate defenses, litigation may be necessary to defend against these claims. If we fail in defending any such claims, it could have a material adverse effect on our business, financial condition, and results of operations. Even if we are successful in defending against such claims, litigation could result in substantial costs to us and be a distraction to management.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Such claims could have a material adverse effect on our business, financial condition, and results of operations.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our markets of interest and our business may be adversely affected.

Our trademarks or trade names may be challenged, infringed, circumvented or declared generic or determined to be violating or infringing on other marks. We may not be able to protect our rights to these trademarks and trade names, which we need to build name recognition among potential partners or customers in our markets of interest. At times, competitors or other third parties may adopt trade names or trademarks similar to ours, thereby impeding our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement or dilution claims brought by owners of other trademarks. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may not be able to compete effectively and our business may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources and could adversely affect our business, financial condition, and results of operations.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to our products or utilize similar technology but that are not covered by the claims of the patents that we may own or that incorporate certain technology in our products that is in the public domain;
- we, or our future licensors or collaborators, might not have been the first to make the inventions covered by the issued patent or pending patent application that we own now or in the future;
- we, or our future licensors or collaborators, might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;
- it is possible that our current or future pending patent applications will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors or other third parties;

- our competitors or other third parties might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;
- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent in order to maintain certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could have a material adverse effect on our business, financial condition, and results of operations.

Risks Related to Our Reliance on Third Parties

We depend on third-party suppliers for key components and sub-assemblies used in our manufacturing processes, and the loss of these third-party suppliers or their inability to supply us with adequate components and sub-assemblies could harm our business.

We may encounter unforeseen situations that would result in delays or shortfalls in manufacturing. Key components and sub-assemblies of DABRA and Pharos are currently provided by a limited number of suppliers, and we do not maintain large inventory levels of these components and sub-assemblies. For example, we rely on a limited number of suppliers for the Thyatron used to manufacture our lasers. If we experience a shortage in any of these components or sub-assemblies, we would need to identify and qualify new supply sources, which could increase our costs, result in manufacturing delays, and cause delays in the delivery of our products. We may also experience a delay in completing validation and verification testing or sterility audits for controlled-environment rooms at our facility.

We also depend on limited source suppliers for some of our product components and sub-assemblies, and if any of those suppliers are unable or unwilling to produce these components or sub-assemblies or supply them in the quantities that we need, and at acceptable prices, we would experience manufacturing delays and may not be able to deliver our products on a timely or cost-effective basis to our customers, or at all, which could reduce our product sales, increase our costs, and harm our business. While we believe that we could obtain replacement components from alternative suppliers, we may be unable to do so. Losing any of these suppliers could cause a disruption in our production. Our suppliers may encounter problems during manufacturing due to a variety of reasons, including failure to follow specific protocols and procedures, failure to comply with applicable regulations, equipment malfunction and environmental factors. Establishing additional or replacement suppliers for these materials may take significant time, as certain of these suppliers must be approved by regulatory authorities, which could disrupt our production. As a result, we could experience significant delays in manufacturing and delivering our products to customers. We cannot assure you we can continue obtaining required materials, components, and sub-assemblies that are in short supply within the time frames we require at an affordable cost, if at all. If we cannot secure on a timely basis sufficient quantities of the materials we depend on to manufacture our products, if we encounter delays or contractual or other difficulties in our relationships with these suppliers, or if we cannot find replacement suppliers at an acceptable cost, then manufacturing our products may be disrupted, which could increase our costs, prevent or impair our development or commercialization efforts, and have a material adverse effect on our business, financial condition, and results of operations.

We and our component suppliers may not meet regulatory quality standards applicable to our manufacturing processes, which could have an adverse effect on our business, financial condition, and results of operations.

As a medical device manufacturer, we must register with the FDA and non-U.S. regulatory agencies, and we are subject to periodic inspection by the FDA and foreign regulatory agencies, for compliance with certain good manufacturing practices, including design controls, product validation and verification, in process testing, quality control and documentation procedures. Compliance with applicable regulatory requirements is subject to continual review and is rigorously monitored through periodic inspections by the FDA and foreign regulatory agencies. Our component suppliers are also required to meet certain standards applicable to their manufacturing processes.

We cannot assure you that we or our component suppliers comply or can continue to comply with all regulatory requirements. A failure by us or one of our component suppliers to achieve or maintain compliance with these requirements or quality standards may disrupt our ability to supply products sufficient to meet demand until compliance is achieved or, with a component supplier, until a new supplier has been identified and evaluated. Our or any of our component supplier's failure to comply with applicable regulations could cause sanctions to be imposed on us, including warning letters, fines, injunctions, civil penalties, failure of regulatory authorities to grant marketing approval of our products, delays, suspension or withdrawal of approvals or clearances, license revocation, seizures or recalls of products, operating restrictions and criminal prosecutions, which could harm our business. We cannot assure you that if we need to engage new suppliers to satisfy our business

requirements, we will be able to locate new suppliers in compliance with regulatory requirements at a reasonable cost and in an acceptable timeframe. Our failure to do so could have a material adverse effect on our business, financial condition, and results of operations.

In the European Union, we must maintain certain International Organization for Standardization, or ISO, certifications to sell our products and must undergo periodic inspections by notified bodies, including the British Standards Institution, to obtain and maintain these certifications. If we fail these inspections or fail to meet these regulatory standards, it could have a material adverse effect on our business, financial condition, and results of operations.

We may form or seek strategic alliances or enter into licensing arrangements in the future, and we may not realize the benefits or costs of such alliances or licensing arrangements.

We may form or seek strategic alliances, create joint ventures or collaborations or enter into additional licensing arrangements with third parties that we believe will complement or augment our sales and marketing efforts with respect to our products and any future product candidates that we may develop. Any of these relationships may require us to incur non-recurring and other charges, increase our near and long-term expenditures, issue securities that dilute our existing stockholders or disrupt our management and business. In addition, we face significant competition in seeking appropriate strategic partners and the negotiation process is time-consuming and complex. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for our products. If we license products or businesses, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture. We cannot be certain that, following a strategic transaction or license, we will achieve the revenue or specific net income that justifies such transaction. Any delays in entering into new strategic partnership agreements related to our products could delay the commercialization of our products in certain geographies for certain indications, which would harm our business prospects, financial condition and results of operations.

Risks Related to Ownership of Our Common Stock

Our operating results may fluctuate significantly, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or our guidance.

Our quarterly and annual operating results may fluctuate significantly in the future, which makes it difficult for us to predict our future operating results. Our operating results may fluctuate due to a variety of factors, many of which are outside of our control and may be difficult to predict, including the following:

- the timing and cost of, and level of investment in, research and development activities relating to our current and any future products, which will change from time to time;
- the cost of manufacturing our current and any future products, which may vary depending on FDA guidelines and requirements, the quantity of production and the terms of our agreements with suppliers;
- the degree and rate of market acceptance for DABRA and Pharos, including the ability of our customers to receive adequate reimbursement for procedures performed using our products;
- expenditures that we will or may incur to acquire or develop additional products and technologies;
- competition from existing and potential future products that compete with our products, and changes in the competitive landscape of our industry, including consolidation among our competitors or partners;
- the level of demand for our current and future products, if approved, which may fluctuate significantly and be difficult to predict;
- the risk/benefit profile, cost and reimbursement policies with respect to our products, and existing and potential future products that compete with our products;
- our ability to commercialize additional products, if approved, inside and outside of the U.S., either independently or working with third parties;
- our ability to establish and maintain collaborations, licensing, or other arrangements;
- our ability to adequately support future growth;
- potential unforeseen business disruptions that increase our costs or expenses;
- changes in FDA regulations and comparable foreign regulations;
- future accounting pronouncements or changes in our accounting policies; and
- the changing and volatile global economic environment.

In addition, we measure compensation cost for stock-based awards made to employees at the grant date of the award, based on the fair value of the award as determined by our board of directors, and recognize the cost as an expense over the employee's requisite service period. As the variables that we use as a basis for valuing these awards change over time, including our underlying stock price and stock price volatility, the magnitude of the expense that we must recognize may vary significantly.

From time to time, we may also enter into license or collaboration agreements with other companies that include development funding and significant upfront and milestone payments and/or royalties, which may become an important source of our revenue. Accordingly, our revenue may depend in part on any potential future license and collaboration agreements and sales of our products. These upfront and milestone payments may vary significantly from period to period and any such variance could cause a significant fluctuation in our operating results from one period to the next.

The cumulative effect of these factors could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance. This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If our revenue or operating results fall below the expectations of analysts or investors or below any forecasts we may provide to the market, or if the forecasts we provide to the market are below the expectations of analysts or investors, the price of our common stock could decline substantially. Such a stock price decline could occur even when we have met any previously publicly stated revenue and/or earnings guidance we may provide.

The price of our stock may be volatile, which could result in substantial losses for investors. Further, an active, liquid and orderly trading market for our common stock may not be sustained and we do not know what the market price of our common stock will be, and as a result it may be difficult for you to sell your shares of our common stock.

Prior to our listing on the New York Stock Exchange ("NYSE") in September 2018, there was no public market for shares of our common stock. Although our common stock is listed on the NYSE, the market for our shares has demonstrated varying levels of trading activity. Furthermore, an active trading market for our shares may not be sustained in the future. You may not be able to sell your shares quickly or at the market price if trading in shares of our common stock is not active. Further, an inactive market may also impair our ability to raise capital by selling shares of our common stock and may impair our ability to enter into strategic partnerships or acquire companies or products by using shares of our common stock as consideration, which could have a material adverse effect on our business, financial condition, and results of operations. In addition, the trading price of our common stock is likely to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control, including limited trading volume. In addition to the factors discussed in this "Risk factors" section and elsewhere in this Quarterly Report on Form 10-Q, these factors include:

- our failure to increase the sales of our products, specifically DABRA;
- the failure by our customers to obtain adequate reimbursements or reimbursement levels that would be sufficient to support product sales to our customers and pricing of our products to support revenue projections;
- unanticipated serious safety concerns related to the use of our products;
- introduction of new products or services offered by us or our competitors;
- announcements of significant acquisitions, strategic partnerships, joint ventures or capital commitments by us or our competitors;
- our ability to effectively manage our growth;
- the size and growth of our target markets;
- actual or anticipated variations in quarterly operating results;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;
- significant lawsuits, including stockholder litigation or litigation related to intellectual property;
- our cash position;
- our failure to meet the estimates and projections of the investment community or that we may otherwise provide to the public;
- publication of research reports about us or our industry, or positive or negative recommendations or withdrawal of research coverage by securities analysts;

- any delay in any regulatory filings for our future products and any adverse development or perceived adverse development with respect to the applicable regulatory authority’s review of such products;
- adverse regulatory decisions, including failure to receive regulatory approval of our future products, failure to maintain regulatory approval for our existing products or failure to obtain regulatory approval for additional indications for our existing products;
- changes in laws or regulations applicable to our products;
- adverse developments concerning our suppliers or distributors;
- our inability to obtain adequate supplies and components for our products or inability to do so at acceptable prices;
- our inability to establish and maintain collaborations if needed;
- changes in the market valuations of similar companies;
- overall performance of the equity markets;
- sales of large blocks of our common stock including sales by our executive officers and directors;
- trading volume of our common stock;
- limited “public float” in the hands of a small number of persons whose sales or lack of sales of our common stock could result in positive or negative pricing pressure on the market price for our common stock;
- additions or departures of key scientific or management personnel;
- changes in accounting practices;
- ineffectiveness of our internal controls;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

In addition, the stock market in general, and medical device companies in particular, have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of these companies. Broad market and industry factors may negatively affect the market price of our common stock, regardless of our actual operating performance. In the past, securities class action litigation has often been instituted against companies following periods of volatility in the market price of a company’s securities. This type of litigation, if instituted, could result in substantial costs and a diversion of management’s attention and resources, which could have a material adverse effect on our business, financial condition, and results of operations.

We do not intend to pay dividends on our common stock so any returns will be limited to increases, if any, in our stock’s value.

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 future determination to declare dividends will be made at the discretion of our board of directors and will depend on, among other factors, our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant. Any return to stockholders will therefore be limited to the appreciation in the value of their stock, if any.

Our ability to use our net operating loss carryforwards may be limited.

As of December 31, 2017, we had net operating loss, or NOL, carryforwards of approximately \$7.2 million for federal income tax purposes, and \$7.0 million for state income tax purposes. These federal and state NOL carryforwards begin expiring in 2029. Utilization of these NOLs depends on many factors, including our future income, which cannot be assured. These NOLs could expire unused and be unavailable to offset our future income tax liabilities. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, and corresponding provisions of state law, if a corporation undergoes an “ownership change,” which is generally defined as a greater than 50% change, by value, in its equity ownership by 5% stockholders over a three-year period, the corporation’s ability to use its pre-change NOLs and other pre-change tax attributes to offset its post-change income may be limited. We have not determined if we have experienced Section 382 ownership changes in the past and if a portion of our NOLs is subject to an annual limitation under Section 382. In addition, we may experience ownership changes in the future as a result of subsequent changes in our stock ownership, some of which may be outside of our control. If we determine that an ownership change has occurred and our ability to use our historical NOLs is materially limited, it could harm our future operating results by effectively increasing our future tax obligations. In addition, under the Tax Cuts and Jobs Act of 2017, federal NOLs incurred in 2018 and in future years may be carried forward indefinitely and the deductibility of such federal NOLs is limited.

Changes in tax laws or regulations that are applied adversely to us or our customers may have a material adverse effect on our business, cash flow, financial condition or results of operations.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could affect the tax treatment of our domestic and foreign earnings. Any new taxes could adversely affect our domestic and international business operations, and our business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. For example, on December 22, 2017, President Trump signed tax legislation into law, commonly referred to as the Tax Cuts and Jobs Act of 2017, that contains many significant changes to the U.S. tax laws, the consequences of which have not yet been fully determined. Changes in corporate tax rates, the realization of net deferred tax assets relating to our U.S. operations, the taxation of foreign earnings, and the deductibility of expenses contained in the Tax Cuts and Jobs Act of 2017 or other tax reform legislation could have a material impact on the value of our deferred tax assets, could result in significant one-time charges in the current or future taxable years, and could increase our future U.S. tax expense. The foregoing items could have a material adverse effect on our business, cash flow, financial condition or results of operations. In addition, it is uncertain if and to what extent various states will conform to the newly enacted federal tax legislation. The impact of this tax legislation on holders of our common stock is also uncertain and could be adverse. We urge our stockholders and investors to consult with our legal and tax advisors with respect to this legislation and the potential tax consequences of investing in or holding our common stock.

Our principal stockholders and management own a significant percentage of our stock and will be able to exert significant control over matters subject to stockholder approval.

As of November 7, 2018, our executive officers, directors, and 5% stockholders beneficially owned approximately 41% of the outstanding shares of our common stock. In addition, as of November 7, 2018, our officers, directors, 5% stockholders, and their affiliates held (i) options to purchase an aggregate of 1,221,000 shares of our common stock at exercise prices of \$28.94 per share; and (ii) 900,101 restricted stock units, which would give our officers, directors, and 5% stockholders ownership of approximately 45% of our outstanding common stock if such awards are fully vested and are exercised in full. Therefore, these stockholders have the ability to influence us through this ownership position. These stockholders may be able to determine all matters requiring stockholder approval. For example, these stockholders may be able to control elections of directors, amendments of our organizational documents, or approval of any merger, sale of assets, or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that you may feel are in your best interest as one of our stockholders, which could have a material adverse effect on our business, financial condition, and results of operations.

We are an emerging growth company and a smaller reporting company, and we cannot be certain if the reduced reporting requirements applicable to emerging growth companies and smaller reporting companies will make our common stock less attractive to investors.

We are an emerging growth company, as defined in the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding nonbinding advisory votes on executive compensation and stockholder approval of any golden parachute payments not previously approved. We could be an emerging growth company for up to five years following the year in which we completed our initial public offering, although circumstances could cause us to lose that status earlier. We will remain an emerging growth company until the earlier of (i) the last day of the fiscal year (a) following the fifth anniversary of the completion of our initial public offering, (b) in which we have total annual gross revenue of at least \$1.07 billion or (c) in which we are deemed to be a large accelerated filer, which requires the market value of our common stock that is held by non-affiliates to exceed \$700.0 million as of the prior June 30th, and (ii) the date on which we have issued more than \$1.0 billion in non-convertible debt during the prior three-year period.

Even after we no longer qualify as an emerging growth company, we may still qualify as a “smaller reporting company” which would allow us to take advantage of many of the same exemptions from disclosure requirements including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements. We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock, and our stock price may be more volatile.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. We have elected to avail ourselves of this exemption and, therefore, we are not subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, changes in rules of U.S. generally accepted accounting principles or their interpretation, the adoption of new guidance or the application of existing guidance to changes in our business could significantly affect our financial position and results of operations.

We have incurred and will continue to incur significant increased costs as a result of operating as a public company, and our management has devoted and will continue to devote substantial time to new compliance initiatives, including maintaining an effective system of internal controls over financing reporting.

As a public company, we have incurred and will continue to incur significant legal, accounting, and other expenses that we did not incur as a private company. We are subject to the reporting requirements of the Exchange Act, which require, among other things, that we file with the SEC, annual, quarterly and current reports with respect to our business and financial condition. In addition, the Sarbanes-Oxley Act, as well as rules subsequently adopted by the SEC and the New York Stock Exchange to implement provisions of the Sarbanes-Oxley Act, impose significant requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. Further, in July 2010, the Dodd-Frank Wall Street Reform and Consumer Protection Act, or the Dodd-Frank Act, was enacted. There are significant corporate governance and executive compensation related provisions in the Dodd-Frank Act that require the SEC to adopt additional rules and regulations in these areas such as “say on pay” and proxy access. Emerging growth companies are permitted to implement many of these requirements over a longer period and up to five years from the completion of our initial public offering. We intend to take advantage of this legislation but cannot guarantee that we will not be required to implement these requirements sooner than anticipated or planned and thereby incur unexpected expenses. Stockholder activism, the current political environment and the current high level of government intervention and regulatory reform may lead to substantial new regulations and disclosure obligations, which may lead to additional compliance costs and impact the manner in which we operate our business in ways we cannot currently anticipate.

These rules and regulations applicable to public companies have increased and will continue to substantially increase our legal and financial compliance costs and to make some activities more time consuming and costly. If these requirements divert the attention of our management and personnel from other business concerns, they could have a material adverse effect on our business, financial condition, and results of operations. The increased costs will decrease our net income or increase our net loss, and may require us to reduce costs in other areas of our business or increase the prices of our products or services. We cannot predict or estimate the amount or timing of additional costs we may incur to respond to these requirements. The impact of these requirements could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors, our board committees or as executive officers.

Future sales and issuances of a substantial number of shares of our common stock or rights to purchase common stock by our stockholders in the public market could result in additional dilution of the percentage ownership of our stockholders and cause our stock price to fall.

If our stockholders sell, or indicate an intention to sell, substantial amounts of our common stock in the public market after the lock-up and other legal restrictions on resale discussed in our prospectus relating to our initial public offering lapse, the trading price of our common stock could decline. As of November 7, 2018 we had outstanding 12,689,251 shares of our common stock. Of these shares, the 4,485,000 shares sold in our initial public offering may be sold in the public market without restriction, unless purchased by our affiliates. Of the remaining shares, 316,431 restricted shares will be eligible for sale in the public market beginning 90 days after the date of the prospectus relating to our initial public offering under Rule 144 and 7,887,820 shares will become eligible for sale upon expiration of the lock-ups in the public market to the extent permitted by the provisions of various vesting schedules, the lock-up agreements, Rule 144 and Rule 701 under the Securities Act, and our insider trading policy. The lock-up agreements pertaining to our initial public offering will expire on March 26, 2019. The underwriters, however, may, in their sole discretion, permit our officers, directors and other stockholders who are subject to these lock-up agreements to sell shares prior to the expiration of the lock-up agreements.

In addition, subject to certain limitations, shares issued or issuable upon the exercise of options vested as of the expiration of the lock-up period will be eligible for sale at that time, as well as shares to be issued upon settlement of outstanding restricted stock units that vest in the future. Moreover, pursuant to our 2018 Equity Incentive Plan, or 2018 Plan, our Board is authorized to grant equity incentive awards representing up to an aggregate of 1,702,412 shares of our common stock to our employees, directors and consultants. The 2018 Plan includes an annual increase in the number of shares available for future grant each year pursuant to the “evergreen” provision of our 2018 Plan. Additionally, pursuant to our 2018 Employee Stock Purchase Plan, or ESPP a total of 296,752 shares are available for sale under our ESPP. The ESPP also includes an annual increase in the number of shares available for sale under our ESPP each year pursuant to the “evergreen” provision of our ESPP. If these additional shares of common stock are issued and sold, or if it is perceived that they will be sold, in the public market, this could result in additional dilution and the trading price of our common stock could decline.

Further, additional capital may be needed in the future to continue our planned operations, including commercialization efforts, expanded research and development activities and costs associated with operating a public company. To raise capital, we may sell common stock, convertible securities or other equity securities in one or more transactions at prices and in a manner we determine from time to time. If we sell common stock, convertible securities or other equity securities, investors may be materially diluted by subsequent sales. Such sales may also result in material dilution to our existing stockholders, and new investors could gain rights, preferences and privileges senior to the holders of our common stock.

Anti-takeover provisions under our charter documents and Delaware law could delay or prevent a change of control which could limit the market price of our common stock and may prevent or frustrate attempts by our stockholders to replace or remove members of our board of directors or our current management and may adversely affect the market price of our common stock.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that could delay or prevent a change of control of our company or changes in our board of directors that our stockholders might consider favorable. Some of these provisions include:

- our board of directors is divided into three classes serving staggered three-year terms, such that not all members of the board is elected at one time, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- the ability of our board of directors to issue shares of preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- a prohibition on stockholder action through written consent, which requires that all stockholder actions be taken at an annual or special meeting of our stockholders;
- a requirement that special meetings of stockholders be called only by the chairperson of the board of directors, the chief executive officer or president (in the absence of a chief executive officer) or a majority vote of our board of directors, which could delay the ability of our stockholders to force consideration of a proposal or to take action, including the removal of directors;
- the requirement for the affirmative vote of holders of at least 66 2/3% of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to amend the provisions of our amended and restated certificate of incorporation relating to the issuance of preferred stock and management of our business or our amended and restated bylaws, which may inhibit the ability of an acquirer to affect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors, by majority vote, to amend our amended and restated bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend our amended and restated bylaws to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of us.

In addition, because we are now incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporate Law, which may prohibit certain business combinations with stockholders owning 15% or more of our outstanding voting stock. These anti-takeover provisions and other provisions in our amended and restated certificate of incorporation and amended and restated bylaws could make it more difficult for stockholders or potential acquirers to obtain control of our board of directors or initiate actions that are opposed by the then-current board of directors and could also delay or impede a merger, tender offer or proxy contest involving our company. These provisions could also discourage proxy contests and make it more difficult for you and other stockholders to elect directors of your choosing or cause us to take other corporate actions you desire. Any delay or prevention of a change of control transaction or changes in our board of directors could cause the market price of our common stock to decline.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware and the federal district courts of the United States are the exclusive forums for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees.

Our amended and restated certificate of incorporation provides that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf; any action asserting a breach of fiduciary duty; any action asserting a claim against us arising under the Delaware General Corporation Law, our amended and restated certificate of incorporation or our amended and restated bylaws; any action to interpret, apply, enforce or determine the validity of our amended and restated certificate of incorporation or our amended and restated bylaws; and any action asserting a claim against us that is governed by the internal affairs doctrine. Our amended and restated certificate of incorporation further provides that the federal district courts of the United States is the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

These exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find either exclusive forum provision in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could have a material adverse effect on our business, financial condition, and results of operations.

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock depends in part on the research and reports that securities or industry analysts publish about us or our business.

If one or more of the analysts covering us downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price may decline. In addition, if one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Recent Sales of Unregistered Securities

None.

Recent Repurchases of Equity Securities

None.

Use of Proceeds

On September 26, 2018, our Registration Statement on Form S-1 (File No. 333-226191) relating to our initial public offering was declared effective by the SEC. Pursuant to such Registration Statement, we sold an aggregate of 4,485,000 shares of our common stock, including 585,000 shares sold pursuant to the underwriters' full exercise of their option to purchase additional shares, at a price of \$17.00 per share. The aggregate offering price for shares sold in the offering was approximately \$76.2 million. Piper Jaffray & Co. and Cantor Fitzgerald & Co. acted as lead joint book-running managers for the offering. SunTrust Robinson Humphrey, Inc. acted as lead manager and Nomura Securities International, Inc. and Maxim Group LLC acted as co-managers for the offering. On October 1, 2018, we closed the sale of such shares, resulting in aggregate cash proceeds to us of approximately \$67.3 million, net of \$5.3 million of underwriting discounts and commissions and \$3.6 million of offering expenses paid or payable by us. No offering expenses were paid or are payable, directly or indirectly, to our directors or officers, to persons owning 10% or more of any class of our equity securities or to any of our affiliates.

There has been no material change in the expected use of the net proceeds from our IPO, as described in our final prospectus filed with the SEC on September 27, 2018 pursuant to Rule 424(b) under the Securities Act of 1933, as amended.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	Exhibit Title
3.1	<u>Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on October 1, 2018 (File No. 001-38677)).</u>
3.2	<u>Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed on October 1, 2018 (File No. 001-38677)).</u>
10.1+	<u>Change in Control and Severance Agreement, by and between the Registrant and Daniel Horwood, dated as of October 24, 2018.</u>
10.2+	<u>Employment Letter by and between the Registrant and Daniel Horwood, dated as of October 12, 2018.</u>
31.1	<u>Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
31.2	<u>Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.</u>
32.1(*)	<u>Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
32.2(*)	<u>Certification of Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.</u>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

(*) In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release No. 33-8238 and 34-47986, Final Rule: Management's Reports on Internal Control Over Financial Reporting and Certification of Disclosure in Exchange Act Periodic Reports, the certifications furnished pursuant to this item will not be deemed "filed" for purposes of Section 18 of the Exchange Act (15 U.S.C. 78r), or otherwise subject to the liability of that section. Such certification will not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the registrant specifically incorporates it by reference.

+ Indicates management contract or compensatory plan

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.

RA MEDICAL SYSTEMS, INC.

(Registrant)

Date: November 14, 2018

By: /s/ Dean Irwin

Dean Irwin

Chief Executive Officer, Chairman of the Board, Co-President, and Chief Technology Officer (Principal Executive Officer)

Date: November 14, 2018

By: /s/ Andrew Jackson

Andrew Jackson

Chief Financial Officer and Secretary

(Principal Financial and Accounting Officer)

RA MEDICAL SYSTEMS, INC.

CHANGE IN CONTROL AND SEVERANCE AGREEMENT

This Change in Control and Severance Agreement (the “**Agreement**”) is made between Ra Medical Systems, Inc. (the “**Company**”) and Daniel Horwood (the “**Executive**”), effective as of October 24, 2018 (the “**Effective Date**”).

This Agreement provides certain protections to the Executive in connection with a change in control of the Company or in connection with the involuntary termination of the Executive’s employment under the circumstances described in this Agreement.

The Company and the Executive agree as follows:

1. Term of Agreement. This Agreement will have an initial term of three (3) years commencing on the Effective Date (the “**Initial Term**”). On the third (3rd) anniversary of the Effective Date, this Agreement will renew automatically for additional, one (1) year terms (each, an “**Additional Term**”) unless either party provides the other party with written notice of nonrenewal at least one (1) year prior to the date of automatic renewal. Notwithstanding the foregoing, if a Change in Control occurs (a) when there are fewer than twelve (12) months remaining during the Initial Term or (b) during an Additional Term, the term of this Agreement will extend automatically through the date that is twelve (12) months following the date of the Change in Control. If the Executive becomes entitled to the benefits under Section 3 of this Agreement, then the Agreement will not terminate until all of the obligations of the parties hereto with respect to this Agreement have been satisfied.

2. At-Will Employment. The Company and the Executive acknowledge that the Executive’s employment is and will continue to be at-will, as defined under applicable law.

3. Severance Benefits.

(a) Qualifying Non-CIC Termination. On a Qualifying Non-CIC Termination (as defined below), the Executive will be eligible to receive the following payments and benefits from the Company:

(i) Salary Severance. If the Qualifying Non-CIC Termination occurs prior to December 31, 2019, a single, lump sum payment equal to three (3) months of the Executive’s Salary (as defined below), less applicable withholdings, and if the Qualifying Non-CIC Termination occurs on or following December 31, 2019, a single, lump sum payment equal to six (6) months of the Executive’s Salary (as defined below), less applicable withholdings.

(ii) COBRA Coverage. Subject to Section 3(d), the Company will pay the premiums for coverage under COBRA (as defined below) for the Executive and the Executive’s eligible dependents, if any, at the rates then in effect, subject to any subsequent changes in rates that are generally applicable to the Company’s active employees (the “**COBRA Coverage**”), until the earliest of (A) if the Qualifying Non-CIC Termination occurs prior to December 31, 2019, a period of three (3) months from the date of the Executive’s termination of employment, and if the Qualifying

Non-CIC Termination occurs on or following December 31, 2019, a period of six (6) months from the date of the Executive's termination of employment, (B) the date upon which the Executive (and the Executive's eligible dependents, as applicable) becomes covered under similar plans, or (C) the date upon which the Executive ceases to be eligible for coverage under COBRA.

(b) Qualifying CIC Termination. On a Qualifying CIC Termination, the Executive will be eligible to receive the following payments and benefits from the Company:

(i) Salary Severance. A single, lump sum payment equal to twelve (12) months of the Executive's Salary, less applicable withholdings.

(ii) Bonus Severance. A single, lump sum payment equal to 100% of the Executive's target annual bonus as in effect for the fiscal year in which the Qualifying CIC Termination occurs, less applicable withholdings.

(iii) COBRA Coverage. Subject to Section 3(d), the Company will provide COBRA Coverage until the earliest of (A) a period of twelve (12) months from the date of the Executive's termination of employment, (B) the date upon which the Executive (and the Executive's eligible dependents, as applicable) becomes covered under similar plans, or (C) the date upon which the Executive ceases to be eligible for coverage under COBRA.

(iv) Equity Vesting Acceleration. Vesting acceleration (and exercisability, as applicable) as to 100% of the then-unvested shares subject to each of the Executive's then-outstanding Company equity awards. In the case of an equity award with performance-based vesting, unless otherwise specified in the applicable equity award agreement governing such award, all performance goals and other vesting criteria will be deemed achieved at target. For the avoidance of doubt, in the event of the Executive's Qualifying Pre-CIC Termination (as defined below), any unvested portion of the Executive's then-outstanding equity awards will remain outstanding until the earlier of (x) sixty (60) days following the Qualifying Termination or (y) the occurrence of a Change in Control, solely so that any benefits due on a Qualifying Pre-CIC Termination can be provided if a Change in Control occurs within sixty (60) days following the Qualifying Termination (provided that in no event will the Executive's stock options or similar equity awards remain outstanding beyond the equity award's maximum term to expiration). If no Change in Control occurs within sixty (60) days following a Qualifying Termination, any unvested portion of the Executive's equity awards automatically and permanently will be forfeited on the sixtieth (60th) day following the date of the Qualifying Termination without having vested.

(c) Termination Other Than a Qualifying Termination. If the termination of the Executive's employment with the Company Group is not a Qualifying Termination, then the Executive will not be entitled to receive severance or other benefits.

(d) Conditions to Receipt of COBRA Coverage. The Executive's receipt of COBRA Coverage is subject to the Executive electing COBRA continuation coverage within the time period prescribed pursuant to COBRA for the Executive and the Executive's eligible dependents, if any. If the Company determines in its sole discretion that it cannot provide the COBRA Coverage without potentially violating, or being subject to an excise tax under, applicable law (including,

without limitation, Section 2716 of the Public Health Service Act), then in lieu of any COBRA Coverage, the Company will provide to the Executive a taxable monthly payment payable on the last day of a given month (except as provided by the immediately following sentence), in an amount equal to the monthly COBRA premium that the Executive would be required to pay to continue his or her group health coverage in effect on the date of his or her Qualifying Termination (which amount will be based on the premium rates applicable for the first month of COBRA Coverage for the Executive and any of eligible dependents of the Executive) (each, a “**COBRA Replacement Payment**”), which COBRA Replacement Payments will be made regardless of whether the Executive elects COBRA continuation coverage and will end on the earlier of (x) the date upon which the Executive obtains other employment or (y) the date the Company has paid an amount totaling the number of COBRA Replacement Payments equal to the number of months in the applicable COBRA Coverage period. For the avoidance of doubt, the COBRA Replacement Payments may be used for any purpose, including, but not limited to continuation coverage under COBRA, and will be subject to any applicable withholdings. Notwithstanding anything to the contrary under this Agreement, if the Company determines in its sole discretion at any time that it cannot provide the COBRA Replacement Payments without violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Executive will not receive the COBRA Replacement Payments or any further COBRA Coverage.

(e) Non-Duplication of Payment or Benefits. For purposes of clarity, in the event of a Qualifying Pre-CIC Termination, any severance payments and benefits to be provided to the Executive under Section 3(b) will be reduced by any amounts that already were provided to the Executive under Section 3(a). Notwithstanding any provision of this Agreement to the contrary, if the Executive is entitled to any cash severance, continued health coverage benefits, or vesting acceleration of any equity awards (other than under this Agreement) by operation of applicable law or under a plan, policy, contract, or arrangement sponsored by or to which any member of the Company Group is a party (“**Other Benefits**”), then the corresponding severance payments and benefits under this Agreement will be reduced by the amount of Other Benefits paid or provided to the Executive.

(f) Death of the Executive. In the event of the Executive’s death before all payments or benefits the Executive is entitled to receive under this Agreement have been provided, the unpaid amounts will be provided to the Executive’s designated beneficiary, if living, or otherwise to the Executive’s personal representative in a single lump sum as soon as possible following the Executive’s death.

(g) Transfer Between Members of the Company Group. For purposes of this Agreement, if the Executive is involuntarily transferred from one member of the Company Group to another, the transfer will not be a termination without Cause but may give the Executive the ability to resign for Good Reason.

(h) Exclusive Remedy. In the event of a termination of the Executive’s employment with the Company Group, the provisions of this Agreement are intended to be and are exclusive and in lieu of any other rights or remedies to which the Executive may otherwise be entitled, whether at law, tort or contract, or in equity. The Executive will be entitled to no benefits, compensation or other payments or rights upon termination of employment other than those benefits expressly set forth in this Agreement.

4. Accrued Compensation. On any termination of the Executive's employment with the Company Group, the Executive will be entitled to receive all accrued but unpaid vacation, expense reimbursements, wages, and other benefits due to the Executive under any Company-provided plans, policies, and arrangements.

5. Conditions to Receipt of Severance.

(a) Separation Agreement and Release of Claims. The Executive's receipt of any severance payments or benefits upon the Executive's Qualifying Termination under Section 3 is subject to the Executive signing and not revoking the Company's then-standard separation agreement and release of claims (which may include an agreement not to disparage any member of the Company Group, non-solicit provisions, an agreement to assist in any litigation matters, and other standard terms and conditions) (the "**Release**" and that requirement, the "**Release Requirement**"), which must become effective and irrevocable no later than the 60th day following the Executive's Qualifying Termination (the "**Release Deadline**"). If the Release does not become effective and irrevocable by the Release Deadline, the Executive will forfeit any right to severance payments or benefits under Section 3.

(b) Payment Timing. Any lump sum Salary or bonus payments under Sections 3(a)(i), 3(b)(i), and 3(b)(ii) will be provided on the first regularly scheduled payroll date of the Company following the date the Release becomes effective and irrevocable (the "**Severance Start Date**"), subject to any delay required by Section 5(d) below. Any taxable installments of any COBRA-related severance benefits that otherwise would have been made to the Executive on or before the Severance Start Date will be paid on the Severance Start Date, and any remaining installments thereafter will be provided as specified in the Agreement. Any restricted stock units, performance shares, performance units, and/or similar full value awards that accelerate vesting under Section 3(b)(iv) will be settled (x) on a date no later than ten (10) days following the date the Release becomes effective and irrevocable, or (y) if later, in the event of a Qualifying Pre-CIC Termination, on a date no later than the Change in Control.

(c) Return of Company Property. The Executive's receipt of any severance payments or benefits upon the Executive's Qualifying Termination under Section 3 is subject to the Executive returning all documents and other property provided to the Executive by any member of the Company Group (with the exception of a copy of the Company employee handbook and personnel documents specifically relating to the Executive), developed or obtained by the Executive in connection with his or her employment with the Company Group, or otherwise belonging to the Company Group.

(d) Section 409A. The Company intends that all payments and benefits provided under this Agreement or otherwise are exempt from, or comply with, the requirements of Section 409A of the Code and any guidance promulgated under Section 409A of the Code (collectively, "**Section 409A**") so that none of the payments or benefits will be subject to the additional tax imposed under Section 409A, and any ambiguities in this Agreement will be interpreted in accordance with this intent. No payment or benefits to be paid to the Executive, if any, under this Agreement or otherwise, when considered together with any other severance payments or separation benefits that are considered deferred compensation under Section 409A (together, the "**Deferred Payments**") will be paid or

otherwise provided until the Executive has a “separation from service” within the meaning of Section 409A. If, at the time of the Executive’s termination of employment, the Executive is a “specified employee” within the meaning of Section 409A, then the payment of the Deferred Payments will be delayed to the extent necessary to avoid the imposition of the additional tax imposed under Section 409A, which generally means that the Executive will receive payment on the first payroll date that occurs on or after the date that is 6 months and 1 day following the Executive’s termination of employment. The Company reserves the right to amend this Agreement as it considers necessary or advisable, in its sole discretion and without the consent of the Executive or any other individual, to comply with any provision required to avoid the imposition of the additional tax imposed under Section 409A or to otherwise avoid income recognition under Section 409A prior to the actual payment of any benefits or imposition of any additional tax. Each payment, installment, and benefit payable under this Agreement is intended to constitute a separate payment for purposes of U.S. Treasury Regulation Section 1.409A-2(b)(2). In no event will any member of the Company Group reimburse, indemnify, or hold harmless the Executive for any taxes, penalties and interest that may be imposed, or other costs that may be incurred, as a result of Section 409A.

(e) Resignation of Officer and Director Positions. The Executive’s receipt of any severance payments or benefits upon the Executive’s Qualifying Termination under Section 3 is subject to the Executive resigning from all officer and director positions with all members of the Company Group and the Executive executing any documents the Company may require in connection with the same.

6. Limitation on Payments.

(a) Reduction of Severance Benefits. If any payment or benefit that the Executive would receive from any Company Group member or any other party whether in connection with the provisions in this Agreement or otherwise (the “**Payment**”) would (i) constitute a “parachute payment” within the meaning of Section 280G of the Code and (ii) but for this sentence, be subject to the excise tax imposed by Section 4999 of the Code (the “**Excise Tax**”), then the Payment will be equal to the Best Results Amount. The “**Best Results Amount**” will be either (x) the full amount of the Payment or (y) a lesser amount that would result in no portion of the Payment being subject to the Excise Tax, whichever of those amounts, taking into account the applicable federal, state and local employment taxes, income taxes and the Excise Tax, results in the Executive’s receipt, on an after-tax basis, of the greater amount. If a reduction in payments or benefits constituting parachute payments is necessary so that the Payment equals the Best Results Amount, reduction will occur in the following order: (A) reduction of cash payments in reverse chronological order (that is, the cash payment owed on the latest date following the occurrence of the event triggering the Excise Tax will be the first cash payment to be reduced); (B) cancellation of equity awards that were granted “contingent on a change in ownership or control” within the meaning of Section 280G of the Code in the reverse order of date of grant of the awards (that is, the most recently granted equity awards will be cancelled first); (C) reduction of the accelerated vesting of equity awards in the reverse order of date of grant of the awards (that is, the vesting of the most recently granted equity awards will be cancelled first); and (D) reduction of employee benefits in reverse chronological order (that is, the benefit owed on the latest date following the occurrence of the event triggering the Excise Tax will be the first benefit to be reduced). In no event will the Executive have any discretion with respect to the ordering of Payment reductions. The Executive will be solely responsible for the payment of all personal tax liability that is

incurred as a result of the payments and benefits received under this Agreement, and the Executive will not be reimbursed, indemnified, or held harmless by any member of the Company Group for any of those payments of personal tax liability.

(b) Determination of Excise Tax Liability. Unless the Company and the Executive otherwise agree in writing, the Company will select a professional services firm (the “**Firm**”) to make all determinations required under this Section 6, which determinations will be conclusive and binding upon the Executive and the Company for all purposes. For purposes of making the calculations required by this Section 6, the Firm may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and the Executive will furnish to the Firm such information and documents as the Firm reasonably may request in order to make determinations under this Section 6. The Company will bear the costs and make all payments for the Firm’s services in connection with any calculations contemplated by this Section 6. The Company will have no liability to the Executive for the determinations of the Firm.

7. Definitions. The following terms referred to in this Agreement will have the following meanings:

(a) “**Board**” means the Company’s Board of Directors.

(b) “**Cause**” means the occurrence of any of the following: (i) any willful, material violation by the Executive of any law or regulation applicable to the business of any Company Group member, the Executive’s conviction for, or plea of guilty or no contest to, a felony or a crime involving moral turpitude, or any willful perpetration by the Executive of a common law fraud, (ii) the Executive’s commission of an act of personal dishonesty which involves personal profit in connection with any Company Group member or any other entity having a business relationship with any Company Group member; (iii) any material breach by the Executive of any provision of any agreement or understanding between any Company Group member and the Executive regarding the terms of the Executive’s service as an employee, officer, director or consultant to any Company Group member, including without limitation, the willful and continued failure or refusal of the Executive to perform the material duties required of the Executive as an employee, officer, director or consultant of any Company Group member, other than as a result of having a Disability, or a breach of any applicable invention assignment and confidentiality agreement or similar agreement between any Company Group member and the Executive, (iv) the Executive’s disregard of the policies of any Company Group member so as to cause loss, damage or injury to the property, reputation or employees of any Company Group member, or (v) any other misconduct by the Executive which is materially injurious to the financial condition or business reputation of, or is otherwise materially injurious to, any Company Group member.

(c) “**Change in Control**” means the occurrence of any of the following events:

(i) A change in the ownership of the Company which occurs on the date that any one person, or more than one person acting as a group (“**Person**”), acquires ownership of the stock of the Company that, together with the stock held by such Person, constitutes more than 50% of the total voting power of the stock of the Company; provided, however, that for purposes of this

subsection, (A) the acquisition of additional stock by any one Person, who is considered to own more than 50% of the total voting power of the stock of the Company will not be considered a Change in Control, and (B) if the stockholders of the Company immediately before such change in ownership continue to retain immediately after the change in ownership, in substantially the same proportions as their ownership of shares of the Company's voting stock immediately prior to the change in ownership, the direct or indirect beneficial ownership of 50% or more of the total voting power of the stock of the Company or of the ultimate parent entity of the Company, such event will not be considered a Change in Control under this subsection (i). For this purpose, indirect beneficial ownership will include, without limitation, an interest resulting from ownership of the voting securities of one or more corporations or other business entities which own the Company, as the case may be, either directly or through one or more subsidiary corporations or other business entities; or

(ii) A change in the effective control of the Company which occurs on the date that a majority of members of the Board is replaced during any 12 month period by members of the Board whose appointment or election is not endorsed by a majority of the members of the Board prior to the date of the appointment or election. For purposes of this subsection (ii), if any Person is considered to be in effective control of the Company, the acquisition of additional control of the Company by the same Person will not be considered a Change in Control; or

(iii) A change in the ownership of a substantial portion of the Company's assets which occurs on the date that any Person acquires (or has acquired during the 12-month period ending on the date of the most recent acquisition by such person or persons) assets from the Company that have a total gross fair market value equal to or more than 50% of the total gross fair market value of all of the assets of the Company immediately prior to such acquisition or acquisitions; provided, however, that for purposes of this subsection (iii), the following will not constitute a change in the ownership of a substantial portion of the Company's assets: (A) a transfer to an entity that is controlled by the Company's stockholders immediately after the transfer, or (B) a transfer of assets by the Company to: (1) a stockholder of the Company (immediately before the asset transfer) in exchange for or with respect to the Company's stock, (2) an entity, 50% or more of the total value or voting power of which is owned, directly or indirectly, by the Company, (3) a Person, that owns, directly or indirectly, 50% or more of the total value or voting power of all the outstanding stock of the Company, or (4) an entity, at least 50% of the total value or voting power of which is owned, directly or indirectly, by a Person described in this subsection (iii)(B)(3). For purposes of this subsection (iii), gross fair market value means the value of the assets of the Company, or the value of the assets being disposed of, determined without regard to any liabilities associated with such assets.

For purposes of this definition, persons will be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the Company.

Notwithstanding the foregoing, a transaction will not be deemed a Change in Control unless the transaction qualifies as a change in control event within the meaning of Section 409A.

Further and for the avoidance of doubt, a transaction will not constitute a Change in Control if: (i) its sole purpose is to change the state of the Company's incorporation, or (ii)

its sole purpose is to create a holding company that will be owned in substantially the same proportions by the persons who held the Company's securities immediately before such transaction.

(d) **"Change in Control Period"** means the period beginning three (3) months prior to a Change in Control and ending twelve (12) months following a Change in Control.

(e) **"COBRA"** means the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended.

(f) **"Code"** means the Internal Revenue Code of 1986, as amended.

(g) **"Company Group"** means the Company and its subsidiaries.

(h) **"Confidentiality Agreement"** means the At-Will Employment, Confidential Information, Invention Assignment, Nonsolicitation, and Arbitration Agreement.

(i) **"Disability"** means a total and permanent disability as defined in Section 22(e)(3) of the Code.

(j) **"Good Reason"** means the termination of the Executive's employment with the Company Group by the Executive in accordance with the next sentence after the occurrence of one or more of the following events without the Executive's express written consent: (i) a material reduction of the Executive's duties, authorities, or responsibilities relative to the Executive's duties, authorities, or responsibilities in effect immediately prior to the reduction; provided, however, that continued employment following a Change in Control with substantially the same duties, authorities, or responsibilities with respect to the Company Group's business and operations will not constitute "Good Reason" (for example, "Good Reason" does not exist if the Executive is employed by the Company Group or a successor with substantially the same duties, authorities, or responsibilities with respect to the Company Group's business that the Executive had immediately prior to the Change in Control regardless of whether the Executive's title is revised to reflect the Executive's placement within the overall corporate hierarchy or whether the Executive provides services to a subsidiary, affiliate, business unit or otherwise); (ii) a reduction by a Company Group member in the Executive's rate of annual base salary by more than 10%; provided, however, that, a reduction of annual base salary that also applies to substantially all other similarly situated employees of the Company Group members will not constitute "Good Reason"; (iii) a material change in the geographic location of the Executive's primary work facility or location by more than 35 miles from the Executive's then present location; provided, that a relocation to a location that is within 35 miles from the Executive's then-present primary residence will not be considered a material change in geographic location, or (iv) failure of a successor corporation to assume the obligations under this Agreement as contemplated by Section 8. In order for the termination of the Executive's employment with a Company Group member to be for Good Reason, the Executive must not terminate employment without first providing written notice to the Company of the acts or omissions constituting the grounds for "Good Reason" within 60 days of the initial existence of the grounds for "Good Reason" and a cure period of 30 days following the date of written notice (the **"Cure Period"**), the grounds must not have been cured during that time, and the Executive must terminate the Executive's employment within 30 days following the Cure Period.

(k) **“Qualifying Pre-CIC Termination”** means a Qualifying CIC Termination that occurs prior to the date of the Change in Control.

(l) **“Qualifying Termination”** means a termination of the Executive’s employment either (i) by a Company Group member without Cause (excluding by reason of Executive’s death or Disability) or (ii) by the Executive for Good Reason, in either case, during the Change in Control Period (a **“Qualifying CIC Termination”**) or outside of the Change in Control Period (a **“Qualifying Non-CIC Termination”**).

(m) **“Salary”** means the Executive’s annual base salary as in effect immediately prior to the Executive’s Qualifying Termination (or if the termination is due to a resignation for Good Reason based on a material reduction in base salary, then the Executive’s annual base salary in effect immediately prior to the reduction) or, if the Executive’s Qualifying Termination is a Qualifying CIC Termination and the amount is greater, at the level in effect immediately prior to the Change in Control.

8. Successors. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors, and legal representatives of the Executive upon the Executive’s death, and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, “successor” means any person, firm, corporation, or other business entity which at any time, whether by purchase, merger, or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of the Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance, or other disposition of the Executive’s right to compensation or other benefits will be null and void.

9. Notice.

(a) General. All notices and other communications required or permitted under this Agreement shall be in writing and will be effectively given (i) upon actual delivery to the party to be notified, (ii) upon transmission by email, (iii) 24 hours after confirmed facsimile transmission, (iv) 1 business day after deposit with a recognized overnight courier, or (v) 3 business days after deposit with the U.S. Postal Service by first class certified or registered mail, return receipt requested, postage prepaid, addressed (A) if to the Executive, at the address the Executive shall have most recently furnished to the Company in writing, (B) if to the Company, at the following address:

Ra Medical Systems, Inc.
2070 Las Palmas Drive
Carlsbad, CA 92011
Attention: CEO

(b) Notice of Termination. Any termination by a Company Group member for Cause will be communicated by a notice of termination to the Executive, and any termination by the Executive for Good Reason will be communicated by a notice of termination to the Company, in each case given in accordance with Section 9(a) of this Agreement. The notice will indicate the specific

termination provision in this Agreement relied upon, will set forth in reasonable detail the facts and circumstances claimed to provide a basis for termination under the provision so indicated, and will specify the termination date (which will be not more than thirty (30) days after the later of (i) the giving of the notice or (ii) the end of any applicable cure period).

10. Resignation. The termination of the Executive's employment for any reason will also constitute, without any further required action by the Executive, the Executive's voluntary resignation from all officer and/or director positions held at any member of the Company Group, and at the Board's request, the Executive will execute any documents reasonably necessary to reflect the resignations.

11. Miscellaneous Provisions.

(a) No Duty to Mitigate. The Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any payment be reduced by any earnings that the Executive may receive from any other source except as specified in Section 3(e).

(b) Waiver; Amendment. No provision of this Agreement will be modified, waived or discharged unless the modification, waiver or discharge is agreed to in writing and signed by an authorized officer of the Company (other than the Executive) and by the Executive. No waiver by either party of any breach of, or of compliance with, any condition or provision of this Agreement by the other party will be considered a waiver of any other condition or provision or of the same condition or provision at another time.

(c) Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

(d) Entire Agreement. This Agreement constitutes the entire agreement of the parties and supersedes in their entirety all prior representations, understandings, undertakings or agreements (whether oral or written and whether expressed or implied) of the parties with respect to the subject matter of this Agreement, including, for the avoidance of doubt, any other employment letter or agreement, severance policy or program, or equity award agreement.

(e) Choice of Law. This Agreement will be governed by the laws of the State of California without regard to California's conflicts of law rules that may result in the application of the laws of any jurisdiction other than California. To the extent that any lawsuit is permitted under this Agreement, Employee hereby expressly consents to the personal and exclusive jurisdiction and venue of the state and federal courts located in California for any lawsuit filed against the Executive by the Company.

(f) Arbitration. Any and all controversies, claims, or disputes with anyone under this Agreement (including the Company and any employee, officer, director, stockholder or benefit plan of the Company in their capacity as such or otherwise) arising out of, relating to, or resulting from the Executive's employment with the Company Group, shall be subject to arbitration in accordance with the provisions of the Confidentiality Agreement.

(g) Severability. The invalidity or unenforceability of any provision or provisions of this Agreement will not affect the validity or enforceability of any other provision of this Agreement, which will remain in full force and effect.

(h) Withholding. All payments and benefits under this Agreement will be paid less applicable withholding taxes. The Company is authorized to withhold from any payments or benefits all federal, state, local, and/or foreign taxes required to be withheld from the payments or benefits and make any other required payroll deductions. No member of the Company Group will pay the Executive's taxes arising from or relating to any payments or benefits under this Agreement.

(i) Counterparts. This Agreement may be executed in counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

[Signature page follows.]

By its signature below, each of the parties signifies its acceptance of the terms of this Agreement, in the case of the Company by its duly authorized officer.

COMPANY

RA MEDICAL SYSTEMS, INC.

By: /s/ Andrew Jackson

Title: Chief Financial Officer

Date: October 24, 2018

EXECUTIVE

/s/ Daniel Horwood

Daniel Horwood

Date: October 24, 2018

October 12, 2018

Daniel Horwood
c/o Ra Medical Systems,
Inc. 2070 Las Palmas Drive
Carlsbad, CA 92011

Re: Employment Letter

Dear Dan:

I am pleased to offer you a position with Ra Medical Systems, Inc. (the "Company") as its General Counsel, reporting to the Company's Chief Executive Officer. If you decide to join us, you will be eligible to receive the compensation and benefits set forth below, subject to the terms and conditions of this letter agreement (the "Agreement"). You should note that the Company may modify job titles, salaries and benefits from time to time as it deems necessary.

1. *Title; Position.* As the Company's General Counsel, you will perform the duties and responsibilities customary for such position and such other related duties as are lawfully assigned by the Company's Chief Executive Officer. While you render services to the Company, you will not engage in any other employment, consulting or other business activity (whether full-time or part-time) that would create a conflict of interest with the Company. You may engage in civic and not-for-profit activities as long as such activities do not interfere with the performance of your duties under this Agreement.
 2. *Base Salary.* Your initial annual base salary will be \$291,000, which will be payable, less any applicable withholdings, in accordance with the Company's normal payroll practices. Your annual base salary will be subject to review and adjustment from time to time by our Board of Directors (the "Board") or its Compensation Committee (the "Committee"), as applicable, in its sole discretion.
 3. *Annual Bonus.* For the Company's 2018 fiscal year, you will have the opportunity to earn a target annual cash bonus equal to 35% of your annual base salary earned during the fiscal year (subject to proration for the amount of time actually served with the Company during such year), based on achieving performance objectives established by the Board or Committee, as applicable, in its sole discretion and payable upon achievement of those objectives as determined by the Board or Committee. Unless determined otherwise by the Board or Committee, as applicable, any such bonus will be subject to your continued employment through and until the date of payment. Your annual bonus opportunity and the applicable terms and conditions may be adjusted from time to time by our Board or the Committee, as applicable, in its sole discretion.
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4. *Equity Awards.* Subject to the approval of the Board (or a committee thereof), the Company will grant you an award of restricted stock units (the "RSUs") with respect to shares of the Company's common stock having an approximate grant date value equal to \$225,000. The number of shares of the Company's common stock subject to the RSU's shall be calculated on the closing price per share as of the date of grant with the result rounded down to the nearest whole share. The RSU's shall vest in accordance with the Company's standard vesting schedule for RSUs as in effect on the date of grant, subject to your continuing to be a service provider to the Company through each vesting date. The RSU's will be subject to the terms and conditions of the Company's 2018 Equity Incentive Plan and forms of RSU award agreement thereunder (collectively, the "Stock Agreements"), in each case, which will be made available to you following the date your RSUs are granted. No right to any stock is earned or accrued until such time that vesting occurs, nor does the grant confer any right to continue vesting or employment.
 5. *Employee Benefits.* You will be eligible to participate in the benefit plans and programs established by the Company for its employees from time to time, subject to their applicable terms and conditions, including without limitation any eligibility requirements. The Company reserves the right to modify, amend, suspend or terminate the benefit plans and programs it offers to its employees at any time.
 6. *Severance.* You will be eligible to enter into a Change in Control and Severance Agreement (the "Severance Agreement") applicable to you based on your position within the Company. The Severance Agreement will specify the severance payments and benefits you may become entitled to receive in connection with certain qualifying terminations of your employment with the Company. These protections will supersede all other severance payments and benefits to which you otherwise may be entitled, or may become entitled in the future, under any plan, program or policy that the Company may have in effect from time to time.
 7. *Confidentiality Agreement.* As a condition of your employment, you are also required to sign and comply with an At Will Employment, Confidential Information, Invention Assignment and Arbitration Agreement (the "Confidentiality Agreement") which requires, among other provisions, the assignment of patent rights to any invention made during your employment at the Company, and non-disclosure of Company proprietary information. In the event of any dispute or claim relating to or arising out of our employment relationship, you and the Company agree that (i) any and all disputes between you and the Company shall be fully and finally resolved by binding arbitration, (ii) you are waiving any and all rights to a jury trial but all court remedies will be available in arbitration, (iii) all disputes shall be resolved by a neutral arbitrator who shall issue a written opinion, (iv) the arbitration shall provide for adequate discovery, and (v) the Company shall pay all the arbitration fees, except an amount equal to the filing fees you would have paid had you filed a complaint in a court of law. Please note that we must receive your signed Agreement before your first day of employment.
 8. *At-Will Employment.* The Company is excited about your joining and looks forward to a beneficial and productive relationship. Nevertheless, you should be aware that your employment with the Company is for no specified period and constitutes at will employment. As a result, you are free to resign at any time, for any reason or for no reason. Similarly, the
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Company is free to conclude its employment relationship with you at any time, with or without cause, and with or without notice. We request that, in the event of resignation, you give the Company at least two weeks notice.

9. *Eligibility for Employment in the United States.* For purposes of federal immigration law, you will be required to provide to the Company documentary evidence of your identity and eligibility for employment in the United States. Such documentation must be provided to us within three (3) business days of your date of hire, or our employment relationship with you may be terminated.
 10. *Background Investigation.* The Company reserves the right to conduct background investigations and/or reference checks on all of its potential employees. Your job offer, therefore, is contingent upon a clearance of such a background investigation and/or reference check, if any.
 11. *Prior Employment.* We also ask that, if you have not already done so, you disclose to the Company any and all agreements relating to your prior employment that may affect your eligibility to be employed by the Company or limit the manner in which you may be employed. It is the Company's understanding that any such agreements will not prevent you from performing the duties of your position and you represent that such is the case. Similarly, you agree not to bring any third party confidential information to the Company, including that of your former employer, and that in performing your duties for the Company you will not in any way utilize any such information. By signing this Agreement, you confirm that you have no contractual commitments or other legal obligations that would prohibit you from performing your duties for the Company.
 12. *Employee Handbook.* As a Company employee, you will be expected to abide by the Company's rules and standards. Specifically, you will be required to sign an acknowledgment that you have read and that you understand the Company's rules of conduct which are included in the Company Handbook.
 13. *Miscellaneous.* This Agreement, together with the Confidentiality Agreement, the Stock Agreements and the Severance Agreement, constitute the entire agreement between you and the Company regarding the material terms and conditions of your employment, and they supersede and replace all prior negotiations, representations or agreements between you and the Company. This Agreement may be modified only by a written agreement signed by you and a duly authorized officer of the Company.
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To confirm the current terms and conditions of your employment, please sign and date in the spaces indicated and return this Agreement to me.

Sincerely,

RA MEDICAL SYSTEMS, INC.

By: /s/ Dean Irwin
Dean Irwin
Chief Executive Officer

Agreed to and accepted:

/s/ Daniel Horwood
Daniel Horwood

Dated: October 12, 2018

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7\ Excimer Laser

ramed.com
2070 Las Palmas Dr, Carlsbad, CA 92011
Office: (760) 804-1648 • Fax: (760) 804-1657 • info@r a m ed.co m

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CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Dean Irwin, certify that:

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

Date: November 14, 2018

By: /s/ Dean Irwin

Dean Irwin
Chief Executive Officer, Chairman of the Board,
Co-President and Chief Technology Officer
(Principal Executive Officer)

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT
TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Andrew Jackson, certify that:

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

Date: November 14, 2018

By: /s/ Andrew Jackson

Andrew Jackson
Chief Financial Officer
(Principal Financial Officer)

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

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), I, Dean Irwin, hereby certify that, to my knowledge:

- (i) the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 to which this Certification is attached as Exhibit 32.1 (the "Report") fully complies with the requirements of section 13(a) or 15(d) of the Exchange Act, and
- (ii) that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Ra Medical Systems, Inc.

Date: November 14, 2018

By: /s/ Dean Irwin
Dean Irwin
Chief Executive Officer, Co-President, Chief
Technology Officer, Chairman of the Board
of Directors (Principal Executive Officer)

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

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

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), I, Andrew Jackson, hereby certify that, to my knowledge:

- (i) the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2018 to which this Certification is attached as Exhibit 32.2 (the "Report") fully complies with the requirements of section 13(a) or 15(d) of the Exchange Act, and
- (ii) that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of Ra Medical Systems, Inc.

Date: November 14, 2018

By: /s/ Andrew Jackson
Andrew Jackson
Chief Financial Officer (Principal Financial Officer)

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