REVA MEDICAL, INC.

FORM 10-Q
(Quarterly Report)

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Address	5751 COPLEY DRIVE SAN DIEGO, CA, 92111
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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, 2017

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: 000-54192

REVA MEDICAL, INC.

(Exact name of registrant as specified in its charter)

Delaware	**33-0810505**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification No.)*
5751 Copley Drive **San Diego, CA 92111** *(Address of principal executive offices, including zip code)*	**(858) 966-3000** *(Registrant's telephone number including area code)*

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

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

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

Large accelerated filer	☐	Accelerated filer	☑
Non-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 Act). Yes ☐ No ☑

As of November 3, 2017, a total of 41,245,820 shares of the registrant's Common Stock, $0.0001 par value per share, were outstanding.

REVA MEDICAL, INC.

FORM 10-Q — QUARTERLY REPORT
For the Quarter Ended September 30, 2017

Table of Contents

REFERENCES

Corporate Information

We incorporated in Delaware in October 2010. Our principal executive offices are located at 5751 Copley Drive, San Diego, CA 92111, U.S.A., and our telephone number is (858) 966-3000. Our website address is *www.revamedical.com* . The information on, or accessible through, our website is not part of this report. Unless the context implies otherwise, references in this report and the information incorporated herein by reference to "REVA Medical," "REVA," the "Company," "we," "us," and "our" refer to REVA Medical, Inc.

Currency

Unless indicated otherwise in this report, all references to "$" or "dollars" refer to United States dollars, the lawful currency of the United States of America. References to "A$" refer to Australian dollars, the lawful currency of the Commonwealth of Australia.

Trademarks

The names Fantom ® , Fantom Encore and Tyrocore are trademarked by us. All other trademarks, trade names, and service marks appearing in this report are the property of their respective owners. Use or display by us of other parties' trademarks, trade dress, or products is not intended to and does not imply a relationship with, or endorsement or sponsorship of, us by the trademark or trade dress owner.

P ART I. FINANCIAL INFORMATION

Item 1. Unaudited Consolidated Financial Statements

REVA Medical, Inc.
Consolidated Balance Sheets
(Unaudited)
(in thousands, except share and per share amounts)

	September 30, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	$ 22,613	$ 6,674
Investment securities	1,470	—
Accounts receivable	65	—
Inventory	370	—
Prepaid expenses and other current assets	368	472
Total current assets	24,886	7,146
Property and equipment, net	1,766	2,277
Other non-current assets	31	60
Total assets	$ 26,683	$ 9,483
Liabilities and Stockholders' Deficit		
Current liabilities:		
Accounts payable	$ 363	$ 778
Accrued expenses and other current liabilities	1,835	2,173
Deferred revenue	88	—
Convertible notes payable	—	91,655
Accrued interest on convertible notes payable	—	4,204
Total current liabilities	2,286	98,810
Convertible notes payable	105,697	—
Accrued interest on convertible notes payable	7,258	—
Common stock warrant liability	4,958	—
Other long-term liabilities	500	266
Total liabilities	120,699	99,076
Commitments and contingencies (Note 8)		
Stockholders' deficit:		
Common stock — $0.0001 par value; 100,000,000 shares authorized; 41,245,820 and 42,851,477 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively	4	4
Additional paid-in capital	288,299	299,643
Accumulated other comprehensive loss	(2)	(2)
Accumulated deficit	(382,317)	(389,238)
Total stockholders' deficit	(94,016)	(89,593)
Total liabilities and stockholders' deficit	$ 26,683	$ 9,483

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

REVA Medical, Inc.
Consolidated Statements of Operations and Comprehensive Income (Loss)
(Unaudited)
(in thousands, except share and per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Revenue	$ 17	$ —	$ 17	$ —
Cost of revenue	7	—	7	—
Gross profit	10	—	10	—
Operating expenses:				
Research and development	3,092	4,212	10,139	14,165
Selling, general, and administrative	1,687	1,937	5,766	6,496
Total operating expenses	4,779	6,149	15,905	20,661
Loss from operations	(4,769)	(6,149)	(15,895)	(20,661)
Other income (expense):				
Interest income	34	1	36	3
Interest expense	(1,499)	(512)	(5,169)	(1,522)
Loss on issuance of convertible notes payable and warrants to purchase common stock	—	—	(520)	—
Gain (loss) on change in fair value of convertible notes payable and warrant liability	12,304	(17,269)	28,620	(47,067)
Other expense	(17)	(14)	(98)	(49)
Total other income (expense)	10,822	(17,794)	22,869	(48,635)
Net income (loss)	$ 6,053	$ (23,943)	$ 6,974	$ (69,296)
Net income (loss) per share - basic	$ 0.15	$ (0.56)	$ 0.17	$ (1.65)
Weighted average shares outstanding - basic	41,197,348	42,681,176	42,001,898	41,909,945
Net loss per share - diluted	$ (0.04)	$ (0.56)	$ (0.30)	$ (1.65)
Weighted average shares outstanding - diluted	52,703,504	42,681,176	53,508,054	41,909,945
Comprehensive Income (Loss):				
Net income (loss)	$ 6,053	$ (23,943)	$ 6,974	$ (69,296)
Other comprehensive income (loss)	0	0	0	0
Comprehensive income (loss)	$ 6,053	$ (23,943)	$ 6,974	$ (69,296)

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

REVA Medical, Inc.
Consolidated Statements of Cash Flows
(Unaudited)
(in thousands)

	Nine Months Ended September 30,	
	2017	**2016**
Cash flows from operating activities:		
Net income (loss)	$ 6,974	$ (69,296)
Non-cash adjustments to reconcile net income (loss) to net cash used for operating activities:		
Depreciation and amortization	806	851
Loss on sale of property and equipment	45	—
Stock-based compensation	1,003	3,754
Interest expense on convertible notes payable	5,169	1,522
Loss on issuance of convertible notes payable and warrants to purchase common stock	520	—
Loss (gain) on change in fair value of convertible notes payable and warrant liability	(28,620)	47,067
Other non-cash expenses	—	15
Changes in operating assets and liabilities:		
Accounts receivable	(65)	—
Inventory	(370)	—
Prepaid expenses and other current assets	104	195
Other non-current assets	30	—
Accounts payable	(420)	(133)
Accrued expenses and other current liabilities	(338)	(236)
Deferred revenue	88	—
Other long-term liabilities	234	115
Net cash used for operating activities	(14,840)	(16,146)
Cash flows from investing activities:		
Purchases of property and equipment	(335)	(624)
Purchases of investment securities	(1,470)	—
Net cash used for investing activities	(1,805)	(624)
Cash flows from financing activities:		
Proceeds from issuances of common stock	92	11,428
Repurchase of common stock	(12,493)	—
Proceeds from issuances of convertible notes payable and warrants, net	44,985	—
Net cash provided by financing activities	32,584	11,428
Net increase (decrease) in cash and cash equivalents	15,939	(5,342)
Cash and cash equivalents at beginning of period	6,674	16,895
Cash and cash equivalents at end of period	$ 22,613	$ 11,553
Supplemental non-cash information:		
Property and equipment in accounts payable at end of period	$ 23	$ 12
Adjustment to beginning accumulated deficit upon adoption of ASU 2016-09	$ 53	$ —
Warrant liability transferred to equity upon exercise	$ —	$ 28,579

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

1. Background and Basis of Presentation

Background **:** REVA Medical, Inc. ("REVA" or the "Company") was incorporated in California in 1998 under the name MD3, Inc. In March 2002, we changed our name to REVA Medical, Inc. In October 2010, we reincorporated in Delaware. We established a non-operating wholly owned subsidiary, REVA Germany GmbH, in 2007. In these notes the terms "us," "we," or "our" refer to REVA and our consolidated subsidiary unless context dictates otherwise.

We are a medical device company that is focused on developing and commercializing products for use in humans, utilizing our proprietary bioresorbable polymer technologies. On April 3, 2017, our first product was approved for sale under CE Mark, which allows us to market and sell in Europe and other jurisdictions that recognize the CE Mark. The product is our Fantom scaffold, a sirolimus-eluting bioresorbable scaffold used to treat coronary artery disease in humans. We received our initial customer order late in the second quarter and order shipments and revenues were first recorded in the third quarter of 2017. Prior to CE Mark, Fantom had been implanted in 247 patients in the FANTOM I and FANTOM II clinical trials conducted in eight countries outside the United States. We used the six-month clinical results from 117 patients in the FANTOM II clinical trial for CE Mark application, which we submitted in 2016.

In December 2010 we completed an initial public offering of our common stock in Australia and registered with the U.S. Securities and Exchange Commission ("SEC") and, consequently, became an SEC filer. Our stock is traded in the form of CHESS Depositary Interests ("CDIs") on the Australian Securities Exchange ("ASX"); each share of our common stock is equivalent to ten CDIs. Our trading symbol is "RVA.AX." We may pursue a listing of our common stock on a U.S. stock exchange, at which time we would become dual-listed.

Basis of Presentation **:** We have prepared the accompanying consolidated financial statements in accordance with U.S. generally accepted accounting principles ("GAAP") and the rules and regulations of the SEC for reporting of interim financial information and, therefore, certain information and footnote disclosures normally included in annual financial statements have been omitted. Accordingly, these interim financial statements should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations contained in this report and with the audited financial statements and accompanying footnotes included in our Annual Report on Form 10-K ("Form 10-K") for the year ended December 31, 2016.

Our consolidated financial statements include the accounts of REVA and our wholly owned subsidiary. All intercompany transactions and balances, if any, have been eliminated in consolidation. These interim consolidated financial statements are unaudited; the consolidated balance sheet as of December 31, 2016 was derived from the Company's audited financial statements included in our Form 10-K for the year ended December 31, 2016. These interim financial statements have been prepared on the same basis as our annual financial statements and, in our opinion, all adjustments, consisting only of normal recurring accruals, considered necessary for a fair statement of the results of these interim periods have been included.

The results of operations for the three and nine months ended September 30, 2017 are not necessarily indicative of the results to be expected for the year ending December 31, 2017 or for any other interim period.

Capital Resources **:** We had cash, cash equivalents and investment securities totaling $24.1 million as of September 30, 2017, which we believe will be sufficient to fund our operating and capital needs into 2019. These cash resources include approximately $32.5 million in cash proceeds received during the second quarter of 2017 upon the issuance of convertible notes and warrants, net of costs of the transaction and the repurchase of common stock from one investor in the transaction.

Although we have received CE Mark of our Fantom scaffold and have initiated commercial sales, until we generate revenue at a level to support our cost structure, we expect to continue to incur substantial operating losses and net cash outflows. Even if we do attain revenue, we may never become profitable and even if we do attain profitable operations, we may not be able to sustain profitability or positive cash flows on a recurring basis. Until we generate positive cash flows from operations, we plan to continue to fund our operating and capital needs by utilizing current cash resources. We may need to raise further capital in the future if we determine to conduct a U.S. clinical trial, if our operations cannot support our ongoing costs, or if unanticipated cash needs arise. While we may consider raising additional funds concurrent with a U.S. listing of our common stock or through other debt or equity

financings , there can be no assurance that we will be successful in raising additional capital if needed, or that it will be on terms that are acceptable to us.

2. Summary of Significant Accounting Policies

Use of Estimates **:** In order to prepare our financial statements in conformity with GAAP, we make estimates and assumptions that affect the reported amounts in the financial statements and accompanying notes. Our most significant estimates relate to the fair value of convertible notes payable, the fair value of the warrant liability, inventory reserves, operating expense accruals, and stock-based compensation. Actual results could differ from our estimates.

Inventory **:** We received CE Mark regulatory approval of our Fantom scaffold on April 3, 2017, at which time we began capitalizing raw material purchases and commercial scaffold production costs to inventory. As of September 30, 2017, inventory consisted of $185,000 in raw materials, $99,000 of work-in-process, and $53,000 of finished goods, stated at the lower of cost or net realizable value based on the first-in, first-out cost method ("FIFO"). Our inventory balance at September 30, 2017 also includes $33,000 of deferred cost of revenue. Our policy is to record an estimated allowance against inventory for unsalable, obsolete, or impaired inventory, with a corresponding increase to cost of revenue; through September 30, 2017, no inventory was considered to be unsalable, obsolete, or impaired and, therefore, no allowance was recorded. We record the cost of product to be used in research and development or clinical trials as research and development expense.

Convertible Notes Payable **:** We analyze convertible notes payable at issue date to determine balance sheet classification, issue discounts or premiums, and embedded or derivative features. If embedded or derivative features give rise to separate accounting, we make an election to account for the notes at cost or at fair value. If fair value accounting is elected, on the issue date we record the difference between the issue price and the fair value of the combined securities issued in a transaction as a gain or loss in the consolidated statement of operations. We remeasure the fair value of the notes at each reporting date and record the change in fair value as a gain (upon a decrease in fair value) or a loss (upon an increase in fair value) as a component of other income (expense) in our consolidated statement of operations. Following analysis of their embedded and derivative features, we elected fair value accounting for all issues of convertible notes payable as management believes the notes will be converted into common stock, rather than repaid, and the fair value method presents an estimate of the value of the underlying common stock, and, therefore a more appropriate value of these liabilities than would be provided under the cost method.

Common Stock Warrants **:** The fair value of warrants issued for the purchase of common stock is recorded as a liability whenever warrants call for issuance of registered shares upon exercise, a condition that we may not be able to accommodate and which would then result in a net settlement of the warrants. Until the time warrants are exercised or expire, we remeasure their fair value at each reporting date and record the change in fair value as a gain or loss component of other expense in our consolidated statement of operations.

Revenue **:** We received our first order for Fantom in June 2017. We sell Fantom to hospitals, and title and risk of loss transfer upon delivery to these hospitals. We recognize revenue when all of the following four criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. We also consider any return or exchange rights. We analyze product reorder rates to evaluate and determine whether exchange rights exist and are likely to be exercised. If the revenue recognition criteria are not met, we defer the recognition of revenue by recording deferred revenue until such time that all criteria are met.

We recognized $17,000 of revenue in the three months ended September 30, 2017. Total billings for shipped product for this period were $105,000; the variance between total billings for shipped product and recognized revenue was recorded as deferred revenue.

Accounts receivable consist of trade receivables recorded upon shipment of product reduced by reserves when necessary for estimated bad debts. Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Credit is extended based on an evaluation of the customer's financial condition. The allowance for doubtful accounts is determined based on current customer information and other relevant factors, including specific

identification of past due accounts. Once a receivable is deemed to be uncollectible, such balance is charged against the allowance. As of September 30, 2017, our allowance for doubtful accounts is $0 .

Research and Development Costs **:** We expense research and development costs as incurred. These costs include salaries, employee benefits, laboratory supplies, consulting services, production materials and services, preclinical and clinical costs, technology license fees, laboratory equipment depreciation, facility costs, certain indirect costs, and the costs to commercially manufacture our Fantom scaffold prior to receiving the CE Mark regulatory approval. Following regulatory approval on April 3, 2017, the costs of commercial manufacturing are capitalized to inventory.

Recent Accounting Pronouncements **:** We adopted ASU 2016-09, *Stock Compensation: Improvements to Employee Share-Based Payment Accounting* , effective January 1, 2017. ASU 2016-09 simplifies certain aspects of accounting for stock-based compensation, including the accounting for income taxes, the option to recognize forfeiture credits as they occur rather than as an estimate of future activity, and classifications in the statement of cash flows. Upon the adoption, we recorded a cumulative effect adjustment to our accumulated deficit of approximately $53,000, with a corresponding increase to additional paid-in capital, to reverse our forfeiture estimate for unvested awards. All forfeitures occurring after adoption are being recognized in the consolidated statement of operations in the reporting period in which they occur. We had $1,831,000 of forfeitures during the nine months ended September 30, 2017 related to a reduction in force that occurred in July 2017.

In May 2014, ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* , was issued; several subsequent pronouncements were issued to clarify and refine the guidance in ASU 2014-09. The standard outlines a single comprehensive model to use in accounting for revenue arising from contracts with customers and supersedes most current revenue recognition guidance. Revenue recognized under ASU 2014-09 will represent the consideration an entity expects to be entitled to in exchange for the transfer of goods or services to a customer; it also requires additional disclosures about the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts. We will be required to adopt this pronouncement in the first quarter of 2018, using either a full retrospective or modified retrospective approach. Since we have recently launched commercial operations and have limited commercial sales through September 30, 2017, we are still evaluating ASU 2014-09 and plan to determine an implementation approach in the fourth quarter of 2017.

In February 2016, ASU 2016-02, *Leases (Topic 842)* , was issued. ASU 2016-02 requires lessees to recognize assets and liabilities for all leases with terms exceeding 12 months, including those currently identified and accounted for as operating leases. ASU 2016-02 is effective the first quarter of 2019. We currently have only one lease to which the ASU would apply; we will continue to evaluate the impact of implementation on this lease and potential new leases.

3 . Investment Securities

Investment securities are marketable equity or debt securities. All of our investment securities are “available-for-sale” securities and carried at fair value. Fair value for securities with short maturities and infrequent secondary market trades typically is determined by using a curve-based evaluation model that utilizes quoted prices for similar securities. The evaluation model takes into consideration the days to maturity, coupon rate and settlement date convention. Net unrealized gains or losses on these securities are included in accumulated other comprehensive loss, which is a separate component of stockholders’ deficit. Realized gains and realized losses are included in other expense while amortization of premiums and accretion of discounts are included in interest income. Interest and dividends on available-for-sale securities are included in interest income. We periodically evaluate our investment securities for impairment. If we determine that a decline in fair value of any investment security is other than temporary, then the cost basis would be written down to fair value and the decline in value would be charged to earnings.

Our investment securities are under the custodianship of a major financial institution and consist of FDIC-insured certificates of deposit. We have classified all of our available-for-sale investment securities as current assets on our consolidated balance sheets because we consider them to be highly liquid and available for use, if needed, in current operations. As of September 30, 2017, none of our investment securities had contractual maturity dates of more than one year.

At September 30, 2017 , we had $1,470,000 of investment securi ties.

4. Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. Property and equipment are depreciated using the straight-line method over the estimated useful lives of the assets, which is generally three to five years. Leasehold improvements are amortized over the economic life of the asset or the lease term, whichever is shorter.

Property and equipment at September 30, 2017 and December 31, 2016 are as follows (in thousands):

	September 30, 2017	December 31, 2016
Furniture, office equipment, and software	$ 704	$ 655
Laboratory equipment	6,180	6,604
Leasehold improvements	2,417	2,412
	9,301	9,671
Accumulated depreciation and amortization	(7,535)	(7,394)
	$ 1,766	$ 2,277

5. Accrued Expenses and Other Current Liabilities

Accrued expenses and other current liabilities at September 30, 2017 and December 31, 2016 are as follows (in thousands):

	September 30, 2017	December 31, 2016
Accrued salaries and other employee costs	$ 1,125	$ 1,456
Accrued operating expenses	631	519
Accrued use taxes and other	79	198
	$ 1,835	$ 2,173

6 . Convertible Notes Payable and Warrants to Purchase Common Stock

In May 2017, we issued 338 convertible notes and in June 2017 we issued 133 convertible notes (collectively, the “2017 Notes”), each with a face value of $100,000, for total gross cash proceeds of $47.1 million. From these cash proceeds, we repurchased 1,732,260 shares of our common stock from one of the 2017 Note investors at $7.212 per share, for a total repurchase of $12.5 million, and incurred transaction costs of $2.1 million, leaving us with net proceeds of $32.5 million. The 2017 Notes are convertible at any time at the holders’ election; the conversion rate as of September 30, 2017 was $8.655 per share, which would result in issuing 5,441,941 shares of common stock upon conversion. The conversion rate is downward adjustable based on the issue price of securities in a future Company financing, if any, to a minimum of $7.212 per share. The 2017 Notes mature five years from issue date, if not converted or redeemed earlier. Interest accrues at the rate of 8.0 percent per annum, compounded annually, and is payable upon redemption or maturity; accrued interest is not payable or convertible upon conversion of the notes. Holders of the 2017 Notes have a right to request redemption of the notes (face value plus accrued interest) on November 4, 2019, if they have not been previously converted or redeemed, if the holders have provided at least 30 days’ written notice to elect such a redemption.

On their issue dates, we evaluated the 2017 Notes and, following an analysis of the embedded and derivative features, made an irrevocable election to account for the notes at fair value. The fair value on September 30, 2017 was estimated to be $38.5 million, $8.6 million below the $47.1 million face value of the 2017 Notes.

In N ovember 2014, we issued 250 convertible notes (the "2014 Notes"), each with a face value of $100,000, for total gross cash proceeds of $ 25.0 million . The 2014 Notes are convertible at any time at the holders' election into a total of 11,506,156 shares of c ommon stock, which is a conversion rate of $2.17275 per share. The 2014 Notes mature on November 14, 2019, if not converted or redeemed earlier. Interest accrues at the rate of 7.54 percent per annum, compounded annually, and is payable upon redemption or maturity; accrued interest is not payable or convertible upon conversion of the 2014 Notes. Effective June 1, 2017, upon stockholder approval, the one-time option for holders to redeem the notes on June 30, 2017 and the provision for an automatic conversio n of the notes were eliminated and the 2014 Notes were modified to be subordinated to the 2017 Notes.

On their issue date, we evaluated the 2014 Notes and, following an analysis of the embedded and derivative features, we made an irrevocable election to account for the notes at fair value. Following the June 1, 2017 modifications, we continued to account for the 2014 Notes under the fair value method. The fair values of the 2014 Notes as of September 30, 2017 and December 31, 2016 were calculated to be $67.2 million and $91.7 million, respectively.

Changes in the fair value of the 2014 and 2017 Notes (collectively, the "Notes") are recorded as gains or losses in the other income (expense) portion of our consolidated statement of operations. During the three months ended September 30, 2017 and 2016, we accrued $1.5 million and $0.5 million in interest expense on the Notes, respectively. During the nine months ended September 30, 2017 and 2016, we accrued $3.1 million and $1.5 million in interest expense on the Notes, respectively. An additional $2.1 million of transaction costs related to the issuance of the 2017 Notes was booked to interest expense during the nine months ended September 30, 2017.

In connection with issuing the 2017 Notes, in May 2017 and June 2017 we issued warrants to purchase up to 2,119,500 shares of common stock. The warrants are immediately exercisable and expire five years from issue date. Through September 30, 2017, the exercisable price of the warrants was $5.00 per share; the exercise price could be adjusted upward to a maximum of $7.212 per share, based on the issue price of securities in a future Company financing, if any. The fair value of the warrants on September 30, 2017 was estimated to be $5.0 million. Changes in the fair value of the warrants are recorded as gains or losses in the other income (expense) portion of our consolidated statement of operations.

The aggregate fair value of the 2017 Notes and warrants on their issue dates was estimated to be $47.6 million, which was $0.5 million higher than the $47.1 million issue price; we recorded this difference as a loss on issuance in the consolidated statement of operations.

The warrants we issued in November 2014 in connection with issuing the 2014 Notes were exercised in full on or before February 12, 2016. Prior to their exercise, we recorded their change in fair value in our consolidated statement of operations. The loss on change in fair value from January 1, 2016 to February 12, 2016 was $9.0 million.

7. Fair Va lue Measurements

Our investment securities, Notes and common stock warrant liability are carried at fair value. The fair value of financial assets and liabilities is measured under a framework that establishes "levels" which are defined as follows: (i) Level 1 fair value is determined from observable, quoted prices for identical assets or liabilities; (ii) Level 2 fair value is determined from quoted prices for similar items in active markets or quoted prices for identical or similar items in markets that are not active, and (iii) Level 3 fair value is determined using the entity's own assumptions about the inputs that market participants would use in pricing an asset or liability.

The fair values of our investment securities, Notes and common stock warrant liability are summarized in the following tables (in thousands):

	September 30, 2017			
	Total Fair Value	Fair Value Determined Under:		
		Level 1	Level 2	Level 3
Investment securities	$ 1,470	$ —	$ 1,470	$ —
Convertible notes payable	$ 105,697	$ —	$ —	$ 105,697
Common stock warrant liability	$ 4,958	$ —	$ —	$ 4,958

	December 31, 2016			
	Total Fair Value	Fair Value Determined Under:		
		Level 1	Level 2	Level 3
Convertible notes payable	$ 91,655	$ —	$ —	$ 91,655

The fair values of our 2017 Notes as of September 30, 2017 and the fair values of our 2014 Notes as of December 31, 2016 were determined utilizing a Least Squares Monte Carlo simulation model; the fair value of our warrants to purchase common stock was determined using either a Least Squares Monte Carlo simulation model or a Black-Scholes valuation model, depending on their exercise price and other features. These models require use of unobservable inputs that are determined by management, with the assistance of independent experts. These inputs represent our best estimates, but involve certain inherent uncertainties. We use the market value of the underlying stock, a life equal to the contractual life of the financial instrument, incremental borrowing rates and bond yields that correspond to instruments of similar credit worthiness and the instrument's remaining life, an estimate of volatility based on the historical prices of our trading securities, and we make assumptions as to our abilities to test and commercialize our product(s), to obtain future financings when and if needed, to comply with the terms and conditions of our Notes, and the probability of a change in control event.

A summary of the assumptions used to value these Level 3 liabilities is as follows:

	September 30, 2017	December 31, 2016
Market price per share of common stock	$ 5.85	$ 7.88
Risk-free interest rate	1.90%	2.00%
Expected volatility of common stock	45.00%	80.00%
Expected life (in years)	4.59 - 4.71	2.87
Bond yield of equivalent securities	26.50%	27.00%

A significant change in the market price per share, expected volatility, or bond yield of equivalent securities, in isolation, would result in significantly higher or lower fair value measurements. In combination, changes in these inputs could result in a significantly higher or lower fair value measurement if the input changes were to be aligned, or could result in a minimally higher or lower fair value measurement if the input changes were of a compensating nature.

As the 2014 Notes were significantly in the money and no longer had complex features as of September 30, 2017, we used an "as-converted" method for calculating the fair value of such notes. This involved multiplying the number of shares the 2014 Notes convert to (11,506,156 shares) by the Company's stock price as of September 29, 2017 (the last trading day of the quarter). We performed an evaluation as to whether the as converted method would yield a materially different result from the Least Squares Monte Carlo simulation model used in previous quarters and determined that it would not.

A reconciliation of the convertible n otes payable and common stock warrant liability that are measured and recorded at fair value on a recurring basis using significant unobservable inputs (Level 3) is as follows:

	Nine Months Ended September 30, 2017	
	Convertible Notes Payable	Common Stock Warrant Liability
Beginning balance	$ 91,655	$ —
Net issuances	40,954	6,666
Total unrealized gains on change in fair value	(26,912)	(1,708)
Ending balance	$ 105,697	$ 4,958

8 . Commitments and Contingencies

We have licensed certain patents and other intellectual property rights related to the composition and coating of our scaffolds and other biomaterial technologies. Terms of these licenses include provisions for royalty payments upon sales of products utilizing the technology. The amount of royalty varies depending upon type of product, use of product, stage of product, location of sale, and ultimate sales volume, and ranges from a minimum of approximately $15 per unit to a maximum of approximately $50 per unit sold, with license provisions for escalating minimum royalties that could be as high as $2.2 million per year. Additionally, in the event we sublicense the technology and receive certain milestone payments, the licenses require that up to 40 percent of the milestone amount be paid to the licensors.

Additional terms of the technology licenses include annual licensing payments of $175,000 until the underlying technology has been commercialized. Since we began commercial sales of our *Fantom* scaffold in July 2017, these annual license fees will not continue after 2017. Terms of the licenses also include other payments to occur during commercialization that could total $950,000, payment of $350,000 upon a change in control of ownership, payments of up to $300,000 annually to extend filing periods related to certain technology (of which, payments totaling $250,000 per year during 2016, 2017, and 2018 may be deferred to January 1, 2019), and payment of patent filing, maintenance, and defense fees. The license terms remain in effect until the last patent expires.

9 . Capital Stock

Our certificate of incorporation, as amended, authorizes us to issue 100,000,000 shares of common stock, par value $0.0001 per share, 25,000,000 shares of Class B common stock, par value $0.0001 per share and 5,000,000 shares of undesignated preferred stock, par value $0.0001 per share. As of September 30, 2017 and December 31, 2016, 41,245,820 and 42,851,477, respectively, shares of common stock were outstanding and no shares of Class B common stock or undesignated preferred stock were outstanding.

1 0 . Stock-Based Compensation

The Plan **:** Our 2010 Equity Incentive Plan, as amended (the "Plan"), provides for grants of incentive and non-qualified stock options for purchase of our common stock at a price per share equal to the closing market price on the date of grant and for awards of restricted stock units ("RSUs") and restricted stock, for which there is no consideration payable by the recipient. The number of shares reserved for issuance under the Plan may be increased annually by up to three percent of the outstanding stock of the Company and on January 1, 2017, an additional 1,285,544 shares were reserved for issuance under the Plan. An aggregate of 9,232,012 shares are reserved for issuance under the Plan as of September 30, 2017. One share of common stock is issued for each stock option that is exercised or each RSU that vests. All stock issuances under the Plan are made with new shares from our authorized but unissued common stock. The term of grants and awards under the Plan may not exceed ten years.

Employees, non-employee directors, a nd consultants are eligible to participate in the Plan. For purposes of determining stock-based compensation expense, we include non-employee directors with employees; we account for consultant compensation expense separately. Option activity under the Pla n is as follows:

	Options Outstanding	Weighted Average Exercise Price
Balance at December 31, 2015	5,912,425	$ 6.46
Granted	570,100	8.22
Cancelled	(106,834)	10.81
Exercised	(247,499)	4.04
Balance at December 31, 2016	6,128,192	$ 6.65
Granted	897,100	6.80
Cancelled	(336,466)	7.04
Exercised	(121,678)	2.81
Balance at September 30, 2017	6,567,148	$ 6.72

Vesting periods of stock and unit awards and option grants are determined by the Company's Board of Directors. The majority of options granted by the Company vest over four years, with 25 percent vesting on the one-year anniversary of the vesting commencement date and 75 percent vesting in equal monthly installments thereafter. A majority of those options are exercisable at any time but, if exercised, are subject to a lapsing right of repurchase by us at the exercise price until fully vested. During March 2015, we granted a total of 316,000 options that vest based on certain performance milestones of the Company. We estimated the vesting term for each performance objective on the date of grant, and on each reporting date thereafter, based on our internal timelines and operating projections. Our estimates of vesting ranged from approximately nine to 30 months at the grant date in March 2015; we estimated the remaining vesting term to be 12 months as of December 31, 2016 and to be fifteen months as of September 30, 2017. A total of 65 percent of these options had vested as of September 30, 2017. 12,250 of these options were cancelled during the year ended December 31, 2016 and 63,000 were cancelled during the nine months ended September 30, 2017.

During January 2013 and May 2013 we awarded 40,000 shares, and 47,500 shares, respectively, of restricted stock; 25 percent of each award vests on each annual anniversary date of the award. As of September 30, 2017, all of these awards had vested and none had been cancelled.

RSU activity under the Plan is as follows:

	RSUs Outstanding	Performance Based	Time Based
Balance at December 31, 2014	—	—	—
Granted	824,200	824,200	—
Cancelled	—	—	—
Vested	—	—	—
Balance at December 31, 2015	824,200	824,200	—
Granted	47,800	—	47,800
Cancelled	(118,000)	(118,000)	—
Vested	—	—	—
Balance at December 31, 2016	754,000	706,200	47,800
Granted	322,300	87,500	234,800
Cancelled	(479,200)	(479,200)	—
Vested	(47,800)	—	(47,800)
Balance at September 30, 2017	549,300	314,500	234,800

We estimated the vesting term for each performance objective on the award date, and on each reporting date thereafter, based on our internal timelines and operating projections. As of September 30, 2017, we estimated the remaining weighted average vesting term to be 11.1 months for the RSUs granted in 2015 and 9.0 months for the R S Us granted in 2017.

Time-based RSUs generally vest over one year for non-employee directors and ratably over three years for employees.

No tax benefits arising from stock-based compensation have been recognized in the consolidated statements of operations and comprehensive loss through September 30, 2017.

Grants and Awards to Employees **:** We account for option grants, restricted stock awards, and RSU awards to employees based on their estimated fair values on the date of grant or award, with the resulting stock-based compensation recorded over the requisite service period on a straight-line basis. For the options and RSUs that vest upon performance milestones, we estimate the probability that the performance milestones will be met and record the related stock-based compensation expense. During the three months ended March 31, 2016, we determined that two of the three performance targets for our performance-based awards continued to be probable of being achieved and, therefore, we recorded straight-line quarterly expense of $344,000 for those awards only. During the three months ended June 30, 2016, we determined that all three of the performance targets were probable of being achieved, and, therefore, recorded cumulative expense for the third performance target during the second quarter of 2016. We continued to believe all three performance targets were probable of being achieved through September 30, 2017 and recorded straight-line expense of $34,000 and $268,000 for the awards during the respective three and nine months ended September 30, 2017. In the three months ended September 30, 2017, we reversed approximately $1,831,000 of stock-based compensation related to unvested awards for employees that were terminated in association with our transition from research and development activities to commercial operations.

Stock-based compensation arising from employee options and awards under the Plan is as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Research and development expense	(548)	(104)	(202)	1,060
Selling, general, and administrative expense	(338)	788	1,205	2,654
	$ (886)	$ 684	$ 1,003	$ 3,714

The fair value of restricted stock and RSU awards is equal to the closing market price of our common stock on the date of award. The fair value of options granted was estimated on the date of grant using the following weighted-average assumptions:

	Nine Months Ended September 30,	
	2017	2016
Risk-free interest rate	2.17%	1.56%
Expected volatility of common stock	65.44%	57.60%
Expected life in years	6.21	6.13
Dividend yield	0%	0%

The assumed risk-free interest rate was based on the implied yield on a U.S. Treasury zero-coupon issue with a remaining term equal to the expected life of the option. The assumed volatility through June 30, 2016 was calculated based on the historical market prices of a selected group of publicly traded companies considered to be our peers; we used peer group data due to our limited historical trading data but adjusted the 2016 volatility upward by approximately ten percent to allow us to move toward using our trading history, which is more volatile than our peer group. Beginning in 2017, we use our historical market prices; our securities began trading on our IPO date of December 23, 2010, which provides approximately 6.75 years' history as of September 30, 2017. For options that vest based on passage of time, the expected option life was calculated using the simplified method under the accounting standard for stock compensation and a ten-year option expiration; we use the simplified method because we do not yet have adequate option activity history to establish a reasonable expected life. For options that vest

based on performance achievements, the expected life was calculated based on the requisite service periods estimated by management and a ten-year opti on expiration. The expected dividend yield of zero reflects that we have not paid cash dividends since inception and do not intend to pay cash dividends in the foreseeable future. The options granted to employees during the nine months ended September 30, 2017 had a weighted average grant date fair value of $ 4.15 .

The aggregate intrinsic value of options exercised during the nine months ended September 30, 2017 and 2016 was $362,000 and $92,000; respectively.

At September 30, 2017, total unrecognized estimated compensation cost related to non-vested share-based awards granted prior to that date was $8.0 million, which is expected to be recognized over a weighted-average period of 1.9 years.

1 1 . Net Income (Loss) Per Common Share

Basic net income (loss) per common share is calculated by dividing the net income (loss) attributable to common stockholders by the weighted average number of common shares outstanding for the period, without consideration for common stock equivalents. Diluted net loss per share is computed by dividing the net loss attributable to common stockholders by the weighted average number of common share equivalents outstanding for the period determined using the treasury-stock method and the if-converted method, as applicable. For this calculation, common stock options and restricted stock subject to forfeiture are considered to be common stock equivalents; common stock equivalents are used in the calculation of diluted net loss per share only when their effect is dilutive.

Basic net income (loss) per share reconciles to fully diluted net loss per share as follows (dollars in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Diluted Net Loss:				
Net income (loss) used for basic net income (loss) per share	$ 6,053	$ (23,943)	$ 6,974	$ (69,296)
Interest expense on 2014 convertible notes payable	550	—	1,631	—
Gain on change in fair value of 2014 convertible notes payable	(8,741)	—	(24,459)	—
	$ (2,138)	$ (23,943)	$ (15,854)	$ (69,296)
Weighted Average Shares Used to Compute Diluted Net Loss per Share:				
Shares used for basic net income (loss) per share	41,197,348	42,681,176	42,001,898	41,909,945
Common share equivalents	11,506,156	—	11,506,156	—
	52,703,504	42,681,176	53,508,054	41,909,945

The following weighted average shares were excluded from the computations of diluted net loss per share because including them would have been antidilutive.

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2017	2016	2017	2016
Options to purchase common stock	6,478,522	6,462,165	6,410,462	6,354,540
Unvested restricted stock	—	23,310	6,914	34,769
Restricted stock units	691,833	862,848	797,412	926,018
Warrants to purchase common stock	2,119,500	—	1,070,291	670,620
Common share equivalents of convertible notes	16,948,097	11,506,156	14,254,192	11,506,156
	26,237,952	18,854,479	22,539,271	19,492,103

12. Income Taxes

We have reported tax net operating losses since our inception through September 30, 2017; therefore, no provision for income taxes has been recorded since our inception. The net operating tax loss carryforwards arising from our net losses may be available to offset future taxable income for income tax purposes; however, under Internal Revenue Code ("IRC") Sections 382 and 383, use of the net operating tax loss carryforwards, as well as our research tax credit carryforwards, may be limited based on cumulative changes in ownership. We have established a valuation allowance against our net deferred tax assets due to the uncertainty surrounding the realization of those assets and we, therefore, have no deferred asset or liability balance for any reporting period. We periodically evaluate the recoverability of the deferred tax assets and, when it is determined that it is more-likely-than-not that the deferred tax assets are realizable, the valuation allowance will be reduced. Due to our valuation allowance, future changes in our unrecognized tax benefits will not impact our effective tax rate.

13. Subsequent Event

In October 2017, we amended our existing facility lease. The lease expiration date was extended for a period of 88 months from January 31, 2018 to May 31, 2025. Our monthly rent will be $65,573 per month starting on February 1, 2018, with increases of 3.0% annually on February 1 st of each following year. In coordination with our amendment, we also received a tenant improvement allowance of up to $786,870. We intend to start our tenant improvement work in early 2018 and complete all work in time for the allowance to be paid out by June 30, 2019, in accordance with the amendment.

I tem 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our unaudited consolidated financial statements and related notes thereto included in this Quarterly Report on Form 10-Q and with our consolidated financial statements and the related notes thereto that are contained in our Annual Report on Form 10-K for the year ended December 31, 2016. In addition to historical information, the following discussion and analysis includes forward-looking statements that involve risks, uncertainties, and assumptions. Forward-looking statements are all statements other than statements of historical facts, such as those statements regarding the projections and timing surrounding our commercial operations and sales, clinical trials, pipeline product development, future financings, listing our securities for sales on a U.S. stock exchange, and operating and capital requirements

We caution readers that forward-looking statements are not guarantees of future performance and actual results and the timing of events could differ materially from those anticipated by these forward-looking statements as a result of many factors, including those discussed under "Risk Factors" in our Form 10-K for the year ended December 31, 2016 and as may be updated in our periodic reports thereafter. Investors are cautioned that many of the assumptions on which our forward-looking statements are based are likely to change after our forward-looking statements are made. Further, we may make changes to our business plans that could or will affect our results. We caution investors that we do not intend to update our forward-looking statements more frequently than quarterly, notwithstanding any changes in our assumptions, changes in our business plans, our actual experience, or other changes, and we undertake no obligation to update any forward-looking statements.

Overview

We are a medical device company that is focused on the development and commercialization of bioresorbable products for vascular applications . On April 3, 2017, our first product, Fantom, was approved for sale under a CE Mark, which allows us to commercialize in Europe and other jurisdictions that recognize the CE Mark. Fantom is a sirolimus-eluting bioresorbable scaffold designed specifically for coronary vascular applications. We believe Fantom is uniquely positioned to meet a market opportunity because of its distinctive features. Earlier generations of bioresorbable scaffolds created excitement as a solution to metal stents because they potentially reduce the long-term complications inherent with permanent metal implants. Fantom is the only bioresorbable scaffold made from our Tyrocore™, our proprietary tyrosine-derived polymer designed specifically for vascular scaffold applications. Tyrocore is inherently radiopaque, making Fantom the first and only BRS that is visible under fluoroscopy. Fantom is designed with thin struts while maintaining strength and with distinct ease-of-use features such as expansion with one continuous inflation and no requirement for refrigeration.

We commenced commercial operations in the second quarter of 2017 and revenues were first recorded in the third quarter of 2017. Prior to its approval, Fantom had been implanted in 247 patients in the FANTOM I and FANTOM II clinical trials conducted in eight countries outside the United States. We used six-month clinical results from 117 patients in the FANTOM II clinical trial for our CE Mark application.

Bioresorbable stents are called "scaffolds" because they are not permanent devices like metal stents. In clinical use, a scaffold is implanted by an interventional cardiologist during a minimally invasive procedure. It is delivered to a coronary artery location with a balloon catheter system, whereupon it is deployed to restore blood flow through the artery and support the artery to prevent further blocking, or "restenosis."

Prior to receiving CE Mark for Fantom, we invested significant time and funds in development, having performed scientific research, engineering development, and testing in laboratory and preclinical studies. We developed, tested, and selected the polymer formulation, tested and selected the anti-restenotic drug and coating process, created and iterated the device design, and identified and implemented methods and processes to produce and test the scaffold. We designed and performed extensive preclinical tests that ranged from bench and engineering studies to in vitro and in vivo laboratory studies. In 2007, we enrolled patients in a small human clinical study that proved the viability of the technology while confirming areas for further development. We have been developing and advancing our scaffolds in both design and polymer composition since that study and have undertaken significant testing, including enrollment of 165 patients in two clinical trials between 2011 and 2014 with a prior generation product design. We follow all clinical trial patients for a period of five years, including the 247 patients implanted with our Fantom scaffold between December 2014 and March 2016.

We have prepared our manufacturing capabilities for commercialization and have developed our sales, marketing, and distribution strategies. We began our commercial launch late in the second quarter of 2017 and shipped our first product in the third quarter of 2017. Once we have successfully completed the initial phases of our launch in certain countries in Europe, we will expand our commercial capabilities to allow for additional

jurisdictions. We have been preparing our systems and back-office needs for commercialization and will continue to expand these during the remainder of 2017 and early 2018 .

During the course of our product development and testing, we have invented, co-invented, and licensed a portfolio of proprietary technologies. Our design-related technologies have been invented by our employees and consultants and our materials-related technologies have been either invented by our employees or licensed from, or co-invented with, Rutgers, The State University of New Jersey. We consider our patent portfolio to be significant and have invested considerable time and funds to develop and maintain it. Our goal is to continue to perform feasibility tests on additional technologies in our patent portfolio as our resources allow and, if feasibility is proven, determine a course of development for additional products.

We manage all of our research, development, and manufacturing activities from one location in San Diego, California. As of September 30, 2017, we had 49 employees, a majority of whom are degreed professionals and two of whom are PhDs. We have begun to establish a small sales force in Europe to perform our commercial sales activities; our Vice President, Europe was hired on August 1, 2017, and we will continue to build the sales team during the remainder of 2017 and beyond. We augment our internal expertise with contract research and preclinical laboratories, outside catheter manufacturing, a third-party distribution and logistics service, and other outside services as needed. We have three clean rooms, a polymer manufacturing lab, and multiple engineering and chemistry labs at our facility in San Diego, in addition to our corporate and administrative offices. We are ISO certified to the medical device standard 13485:2012 and intend to maintain this certification.

As of September 30, 2017, our cash, cash equivalents and investment securities balance was approximately $24.1 million, which we believe will be sufficient to fund our operating and capital needs into 2019. These cash resources include approximately $32.5 million in cash proceeds received during the second quarter of 2017 upon the issuance of convertible notes and warrants, net of transaction costs and the repurchase of 1,732,260 shares of our common stock for $12.5 million from one of the investors to the transaction.

We have incurred substantial losses since our inception; as of September 30, 2017, we had accumulated a deficit of approximately $382.3 million. We expect our losses to continue as we launch commercial operations, continue to conduct clinical trials, and develop and test additional products. While Fantom has been approved for sale and we recognized revenue in the third quarter of 2017, our efforts to generate substantial revenue and achieve positive cash flows from our operations may take several years, even if we are successful with our initial commercial efforts. In order to successfully transition to profitable operations, we will need to achieve a level of revenues and product margins to support the Company's cost structure. Until such time as we generate positive cash flow, we plan to continue to fund our operating and capital needs by utilizing current cash resources. Also, management expects to pursue listing of our common stock on NASDAQ, or another exchange approved by our noteholders, in 2018 and may consider raising additional funds concurrent with that listing in order to conduct a U.S. clinical trial or through other debt or equity financings.

Our company was founded in California in June 1998 and named MD3, Inc. We changed our name to REVA Medical, Inc. in March 2002. We reincorporated from the State of California to the State of Delaware in October 2010; as a result, the rights of our stockholders are governed by the Delaware General Corporation Law. We formed a wholly owned subsidiary in Germany in 2007 to facilitate our clinical trials and our planned commercialization of products; we have not used this subsidiary yet for any operating activities.

Key Components of our Results of Operations

We sold our first commercial product and revenues were first recorded in the third quarter of 2017. We received CE Mark regulatory approval of our Fantom scaffold on April 3, 2017; prior to that date, our activities focused on research and development, including clinical studies and commercial preparations, and our operating costs consisted of research and development and general and administrative expenses. Upon CE Mark, we began capitalizing raw material purchases and commercial scaffold production costs to inventory, recording a total of $370,000 in inventory as of September 30, 2017. We began to incur selling expenses during the second quarter of 2017. Along with revenue, we recorded cost of revenue for the first time in the third quarter of 2017. In addition to our operating expenses, we record other income or expense that primarily arises from the convertible notes we issued in 2014 and the second quarter of 2017 and the warrants we issued in the second quarter of 2017. Following are the significant components contributing to our results of operations through September 30, 2017.

Research and Development Expenses **:** Our research and development expenses arise from internal and external costs. Our internal costs primarily consist of employee salaries and benefits, facility and other overhead expenses, and engineering and other supplies that we use in our labs for prototyping, testing, and producing our scaffolds and other product possibilities. Our external costs primarily consist of contract research, engineering

consulting, polymer consulting, polymer lasing costs, catheter system and anti-restenotic drug purchases, preclinical and clinical study expenses, regulatory consulting, and license fees paid for the technolo gy underlying our polymer materials. All research and development costs are expensed when incurred.

We recorded the costs to commercially manufacture our Fantom scaffold prior to receiving the CE Mark as research and development expense. Following receipt of CE Mark, costs of commercial manufacturing have been capitalized to inventory.

Historically, our research and development expenses have represented between 70 and 75 percent of our total operating expenses; they represented 68 percent of total operating expenses for the year ended December 31, 2016 and 64 percent for the nine months ended September 30, 2017, reflecting our decreasing development and clinical trial activities as we pivot to commercial operations. We expect our research and development expenses to continue to decrease during the remainder of 2017 and to decrease as a percentage of our total expenses as we continue this transition; however, we expect our research and development expenses to continue to be a significant portion of our operating expenses as we continue to research, prove feasibility, and develop additional products.

Selling, General, and Administrative Expenses **:** Our selling, general, and administrative expenses consist primarily of salaries and benefits for our executive officers and administrative staff, corporate office and other overhead expenses, legal expenses including patent filing and maintenance costs, audit and tax fees, investor relations and other public company costs, and travel expenses. Through September 30, 2017, we incurred a limited amount of selling expenses. Although our patent portfolio is one of our most valuable assets, we record legal costs related to patent development, filing, and maintenance as expense when the costs are incurred since the underlying technology associated with these assets is purchased or incurred in connection with our research and development efforts and the future realizable value cannot be determined.

Historically, our selling, general and administrative expenses have represented between 25 and 30 percent of our total operating expenses; they represented 32 percent of total operating expenses for the year ended December 31, 2016 and 36 percent for the nine months ended September 30, 2017. We anticipate continuing to invest in patents at similar levels as we have in the past. Additionally, we anticipate that we will expand our corporate infrastructure during the remainder of 2017 and early 2018 to support the commercialization of Fantom and the ongoing needs of being a public company. We also began to incur sales and marketing expenses, including salaries and overhead for our sales team, in the third quarter of 2017.

Revenue and Cost of Revenue **:** We initiated commercial sales and recorded $17,000 in revenue and $7,000 in cost of revenue for the three months ended September 30, 2017. Total billings from shipped product were $105,000 for the three months ended September 30, 2017. As we hire sales personnel throughout the remainder of 2017 and early 2018, we anticipate revenues to grow. We are implementing a controlled launch plan, with a direct sales force, for our initial target territories of Germany, Switzerland, Austria, Denmark and the Benelux region. We currently have customers in Germany and Switzerland. We are targeting large hospitals that perform over 1,000 percutaneous coronary intervention (“PCI”) procedures annually in these territories. Our goal is to grow share within these hospitals through physician experience with Fantom, by providing additional clinical evidence, and by introducing new product offerings, including a 95 micron scaffold that we anticipate will have CE Mark in early 2018.

Other Income (Expense) **:** The components of other income (expense) include interest expense on our convertible notes and the gains or losses arising from the changes in fair values of our outstanding convertible notes and warrants. We elected to account for our convertible notes using the fair value method; consequently, we recorded the offering costs arising from our financing transactions as interest expense when incurred and we recognize a gain or loss on issuance of convertible notes and warrants, measured as the difference between the issue price and fair value on the date of issuance. We remeasure fair value at each reporting date and if those fair values change, we record a corresponding gain (upon a decrease in fair value) or loss (upon an increase in fair value) in the consolidated statement of operations.

The fair values of our convertible notes and warrants have fluctuated significantly during the periods they have been outstanding due to a variety of factors. These factors include the successful completion of operating milestones such as enrollment of patients in clinical trials, positive clinical results, receipt of CE Mark, and completion of financings, as well as uncertainties, delays in milestones and progress, and changes in the market price of our trading securities. We recorded a $28.6 million gain from decreases in fair value during the nine months ended September 30, 2017 and a $47.1 million loss on increases in fair value during the nine months ended September 30, 2016. Until the Notes are either converted into common stock or repaid and the warrants are either exercised or expire, we expect our other income (expense) to fluctuate, possibly by significant amounts, by future gains or losses on changes in their fair values. Also, we will continue to accrue and record interest expense on the notes at their stated rates until they are either converted or repaid.

Critical Accounting Polici es and Estimates

Our consolidated financial statements are prepared in accordance with accounting principles generally accepted in the United States. In preparing our financial statements and related disclosures, we are required to use estimates, assumptions, and judgments that affect the reported amounts of assets, liabilities, stockholders' equity, expenses, and the presentation and disclosures related to those items. We base our estimates and assumptions on historical experience and other factors that we believe are reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis; changes in our estimates and assumptions are reasonably likely to occur from period to period. Additionally, actual results could differ significantly from the estimates we make. To the extent there are material changes in our estimates or material differences between our estimates and our actual results, our future financial statement presentation, financial condition, results of operations, and cash flows will be affected.

We believe the following accounting policies involve a greater degree of judgment and complexity than any other of our accounting policies and, therefore, are the most critical to understanding and evaluating our consolidated financial condition and results of operations through September 30, 2017.

Revenue **:** We received our first order for Fantom in June 2017. We sell Fantom to hospitals, and title and risk of loss transfer upon delivery to these hospitals. We recognize revenue when all of the following four criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. We also consider any return or exchange rights. We analyze product reorder rates to evaluate and determine whether exchange rights exist and are likely to be exercised. If the revenue recognition criteria are not met, we defer the recognition of revenue by recording deferred revenue until such time that all criteria are met.

We recognized $17,000 of revenue in the three months ended September 30, 2017. Total billings for shipped product for this period were $105,000; the variance between total billings for shipped product and recognized revenue was recorded as deferred revenue.

Accounts receivable consist of trade receivables recorded upon shipment of product reduced by reserves when necessary for estimated bad debts. Trade accounts receivable are recorded at the invoiced amount and do not bear interest. Credit is extended based on an evaluation of the customer's financial condition. The allowance for doubtful accounts is determined based on current customer information and other relevant factors, including specific identification of past due accounts. Once a receivable is deemed to be uncollectible, such balance is charged against the allowance. As of September 30, 2017, our allowance for doubtful accounts is $0.

Research and Development Costs **:** We expense research and development ("R&D") costs as incurred. Our preclinical and clinical study costs are incurred on a contract basis and generally span a period from a few months to several years. We record costs incurred under these contracts as the work occurs and make payments according to contractual terms. Until a contract is completed, we estimate the amount of work performed and accrue for estimated costs that have been incurred but not paid. As actual costs become known, we adjust our accruals. Until such time as we commence another large clinical trial, we expect our clinical expense accruals to continue to decrease since we have passed the primary measurement points for the patients in our Fantom trial. We will continue to make estimates of work performed throughout the term of our clinical trials, each of which is expected to be five years or longer. If our estimates are inaccurate, possible material changes to our accruals could be required, which could materially affect our results of operations within any fiscal period. To date, there have been no material changes in our research and development expense estimates, including our estimates for accrued clinical costs.

Stock-Based Compensation: We recognize stock-based compensation expense in connection with equity grants and awards to employees, directors, and consultants. Most of these grants and awards vest based on the passage of time; in 2015 we awarded restricted stock units ("RSU") and stock options that vest based on achievement of performance milestones.

For awards to employees and directors, we determine the amount of compensation expense by estimating fair value on the date of award and recording the resulting stock-based compensation over the vesting period, which ranges from one to four years, on a straight-line basis. For awards that vest upon achievement of performance milestones, we record compensation expense for only the performance milestones that are probable of being achieved, on a straight-line basis over the vesting period. Through March 31, 2016, we determined that two of the three milestones for the 2015 performance-based awards were probable of being achieved and, therefore, recorded expense for those two milestones only. During the second quarter of 2016, we determined that all three performance milestones were probable of being achieved and, therefore, recorded cumulative expense for the third milestone at that time and have been recording straight line expense for all three performance milestones since that time. We reverse cumulative expense recorded whenever unvested performance based awards are cancelled.

Stock-based compensation expense has been recorded as either cost of revenue , research and development or selling, general and administrative expense based on a recipient's work classification. For stock options, we estimate the grant date fair value by using the Black-Scholes option pricing model. For the model inputs, we use the fair value of the underlying common stock, a risk-free interest rate that corresponds to the expected life of the option, an expected option life ranging between 5.50 and 6.25 years, and an estimate of volatility based on the market trading prices of comparative peer companies. W e used peer group data through December 31, 2016 due to the fact that we had limited historical trading data. Beginning in 2017, we use our historical market prices; our securities began trading on our IPO date of December 23, 2010, which provides approximately 6. 7 5 years' history as of September 30, 2017. The fair values of RSUs a nd restricted stock awards are equal to the closing market price of our common stock on the date of award.

Through December 31, 2016, we reduced the amount of recorded compensation expense to allow for potential forfeitures of awards; the forfeiture rate was based on actual historical forfeitures and ranged from approximately 1.7 percent to 3.4 percent. Upon adoption of ASU 2016-09 on January 1, 2017, we recorded a cumulative effect adjustment to our accumulated deficit of approximately $53,000, with a corresponding increase to additional paid-in capital, to reverse the forfeiture estimate for unvested awards. All forfeitures occurring after January 1, 2017 will be recognized in the consolidated statement of operations in the reporting period in which they occur.

We occasionally grant options to consultants; no consultant options remained subject to vesting at either September 30, 2017 or 2016. When we grant or have unvested consultant options, we estimate the fair value at date of grant and at each subsequent reporting date until vesting is complete and record compensation expense based on the fair value during the service period of the consultant.

As a result of our use of estimates for the fair value calculations and the performance-based achievement probabilities, if factors change and we use different assumptions, the amount of our stock-based compensation expense could fluctuate materially in the future. Also, we may grant additional employee options or awards during the remainder of 2017 as we expand our workforce, including the addition of a direct sales force, and begin commercial sales, which could result in an increase of our stock-based compensation in the future. In July 2017, we announced a reduction in workforce; this reduction resulted in a one-time reversal during the third quarter of 2017 of approximately $1,831,000 in stock compensation expense that had been recorded from March 2015 to July 2017.

Inventory **:** We received CE Mark regulatory approval of our Fantom scaffold on April 3, 2017, at which time we began capitalizing raw material purchases and commercial scaffold production costs to inventory. As of September 30, 2017, our inventory consisted of $185,000 in raw materials, $99,000 of work-in-process, and $53,000 of finished goods, stated at the lower of cost or net realizable value based on the first-in, first-out cost method ("FIFO"). Our inventory balance at September 30, 2017 also includes $33,000 of deferred cost of revenue. Our policy is to record an estimated allowance against inventory for unsalable, obsolete, or impaired inventory, with a corresponding increase to cost of revenue; through September 30, 2017, no inventory was considered to be unsalable, obsolete, or impaired and, therefore, no allowance was recorded. We record the cost of product to be used in research and development or clinical trials as research and development expense. Since we have limited history of commercial inventory or estimating an inventory allowance, if our initial or future estimates are inaccurate, possible material changes to our inventory or the related allowance could be required, which could materially affect our results of operations.

Notes Payable **:** We analyze notes payable as of their issue date to determine their balance sheet classification, issue discounts or premiums, and embedded or derivative features, if any. If embedded or derivative features exist, such as a right to convert notes into common stock, we evaluate the features in accordance with accounting guidance, determine whether such features would give rise to separate accounting, and, if they do, make an election to account for the notes at cost or at fair value. On the issue date of convertible notes, we record the difference, if any, between the issue price of the combined securities issued in a transaction and their fair value as a gain or loss in the consolidated statement of operations. We additionally remeasure the fair value of the notes at each reporting date and record a gain (upon decrease in fair value) or loss (upon an increase in fair value) for any change in fair value.

Following our analyses of their embedded and derivative features, we elected to utilize fair value accounting for the convertible notes issued in November 2014 and those issued during the second quarter of 2017. The fair values of the 2017 Notes are determined using a Least Squares Monte Carlo simulation model, which requires the use of subjective assumptions, including unobservable inputs that are supported by little or no market activity. The assumptions represent our best estimates, but involve certain inherent uncertainties. Inputs to the model include the market value of the underlying stock, a life equal to the contractual life of the notes, incremental borrowing rates that correspond to debt with similar credit worthiness, estimated volatility based on the historical prices of our trading securities, and we make assumptions as to our abilities to test and commercialize our product(s), to obtain future financings when and if needed, and to comply with the terms and conditions of the notes.

Since the determination of fair value is complex and involves the use of subjective assumptions, if our assumptions, estima tes, or modeling approaches change and we use different assumptions or methods, our fair values could be materially different in the future.

Until such time as they are converted into common stock or repaid, we accrue interest on the notes at the stated interest rate.

Common Stock Warrants **:** The fair value of warrants issued for the purchase of common stock is recorded as a liability whenever warrants call for issuance of registered shares upon exercise, a condition that we may not be able to accommodate and which would then result in a net settlement of the warrants. Whenever we have a warrant liability, we remeasure the fair value of the underlying warrants at each reporting date and record the change in fair value as a gain or loss component of other income (expense) in our consolidated statement of operations. We value warrants utilizing either a Least Squares Monte Carlo simulation model or a Black-Scholes valuation model, depending on the exercise price and other features. Inputs to the valuation models would be of the same nature as those used to value our notes payable and involve the use of subjective assumptions.

Results of Operations

During the first nine months of 2017, our operating activities focused on finalizing processes for commercial operations which commenced in the third quarter of 2017. Additionally, we completed our financing transaction with issuances of convertible notes and warrants in May 2017 and June 2017, receiving net cash proceeds of approximately $32.5 million.

During the first nine months of 2016, our operating activities consisted of clinical trial enrollments, which were completed in March 2016 with a total of 240 patients enrolled, performing follow-up assessments of the patients, collecting the related clinical data to support the CE Mark submission that was completed in August 2016, and refining our manufacturing processes in preparation for the commercialization of Fantom.

Comparison of the Three Months Ended September 30, 2017 and 2016

Our operating results for the three months ended September 30, 2017 and 2016 are as follows (dollars in thousands):

	Three Months Ended September 30,		Change	
	2017	2016	$	%
Revenues	$ 17	$ —	$ 17	100%
Gross profit	$ 10	$ —	$ 10	100%
Research and development expense	$ 3,092	$ 4,212	$ (1,120)	(27%)
Selling, general, and administrative expense	$ 1,687	$ 1,937	$ (250)	(13%)
Interest expense	$ 1,499	$ 512	$ 987	193%
Gain (loss) on change in fair values of convertible notes and warrant liability	$ 12,304	$ (17,269)	$ 29,573	(171%)

We recognized $17,000 of revenue in the three months ended September 30, 2017 compared to no revenue for the same period in 2016.

Gross profit for the three months ended September 30, 2017 was $10,000 or approximately 59%. Gross profit this quarter was higher than expected due to a portion of manufacturing costs being allocated to R&D expenses as they were incurred prior to CE Mark in April 2017. We anticipate that future gross profits will be lower than our third quarter results and industry standards until we reach higher sales and manufacturing volumes.

Research and development expense decreased by $1.1 million, or 27 percent, to $3.1 million for the three months ended September 30, 2017 compared to $4.2 million for the same period in 2016. The decrease is due primarily to net decreases in personnel costs of $0.4 million, material costs and testing services of $0.4 million related to our transition from research and development to commercialization and overhead allocations of $0.3 million as we continue to assess our overhead rates during this initial period of commercial activities.

Selling, general, and administrative expense decreased $0.2 million, or 13 percent, to $1.7 million for the three months ended September 30, 2017 compared to $1.9 million for the same period in 2016. The decrease is due

primarily to decreases in personnel costs of $0.7 million, of which a significant portion is related to the forfeiture of performance based stock awards in connection with executive retirements and the reduction in force that occur red in the third quarter of 2017 . This decrease was offset by increases of $0.3 million in audit related and legal fees attributed to the accounting for our 2017 Notes and $0.2 million in sales an d marketing expenses.

Interest expense increased by $1.0 million, or 193%, to $1.5 million for the three months ended September 30, 2017 compared to $0.5 million for the same period in 2016. The increase is due to a full quarter of interest on both the 2014 and 2017 Notes in the third quarter of 2017 as compared to a full quarter of interest on only the 2014 Notes in the third quarter of 2016.

We recorded a gain of $12.3 million on the change in fair values of convertible notes and warrant liability for the three months ended September 30, 2017, as compared to a loss of $17.3 million for the same period in 2016. The gain/(loss) on change in fair values of convertible notes is impacted by the number of Notes outstanding for each period, as well as other factors that drive fair value, most significantly, the market trading price of our stock. The market price of our stock decreased by approximately 12% in the three months ended September 30, 2017 and increased by approximately 19% in the three months ended September 30, 2016.

Comparison of the Nine Months Ended September 30, 2017 and 2016

Our operating results for the nine months ended September 30, 2017 and 2016 are as follows (dollars in thousands):

	Nine Months Ended September 30,		Change	
	2017	2016	$	%
Revenues	$ 17	$ —	$ 17	100%
Gross profit	$ 10	$ —	$ 10	100%
Research and development expense	$ 10,139	$ 14,165	$ (4,026)	(28%)
Selling, general, and administrative expense	$ 5,766	$ 6,496	$ (730)	(11%)
Interest expense	$ 5,169	$ 1,522	$ 3,647	240%
Loss on issuance of convertible notes payable and warrants	$ 520	$ —	$ 520	100%
Gain (loss) on change in fair values of convertible notes and warrant liability	$ 28,620	$ (47,067)	$ 75,687	(161%)

We recognized $17,000 of revenue in the nine months ended September 30, 2017 compared to no revenue for the same period in 2016.

Gross profit for the nine months ended September 30, 2017 was $10,000 or approximately 59%. Gross profit was higher than expected due to a portion of manufacturing costs being allocated to R&D expenses as they were incurred prior to CE Mark in April 2017. We anticipate that future gross profits will be lower than this period's results and industry standards until we reach higher sales and manufacturing volumes.

Research and development expense decreased by $4.1 million, or 28 percent, to $10.1 million for the nine months ended September 30, 2017 compared to $14.2 million for the same period in 2016. The decrease is due primarily to net decreases in personnel costs of $1.4 million, material costs and testing services of $1.3 million related to our transition from research and development to commercialization and clinical costs of $1.1 million as our FANTOM II study completed enrollment in March 2016 and patient follow-ups with invasive imaging were substantially complete by March 2017.

Selling, general, and administrative expense decreased $0.7 million, or 11 percent, to $5.8 million for the nine months ended September 30, 2017 compared to $6.5 million for the same period in 2016. The decrease is due primarily to net decreases in personnel costs of $1.1 million, of which a significant portion is related to the forfeiture of performance based stock awards in connection with executive retirements and the reduction in force that occurred in the third quarter of 2017. This decrease was offset by increases of $0.4 million in sales and marketing expenses and $0.3 million in audit related and legal fees attributed to the accounting for our 2017 Notes.

Interest expense increased by $3.6 million, or 240%, to $5.2 million for the nine months ended September 30, 2017 compared to $1.5 million for the same period in 2016. The nine months ended September 30, 2017 included transaction expenses of $2.1 million related to the 2017 Notes as well as interest expense on the 2017 Notes for four

to five months and interest expense on the 2014 Notes for nine months. The nine months ended September 30, 2016 included interest expense for the 2014 Notes only for nine months.

We recognized a $0.5 million loss on issuance of convertible notes payable and warrants in the nine months ended September 30, 2017. This loss is a non-recurring charge that represents the difference between the issue price and the market value of our 2017 notes payable and warrants on the date of issue. This difference was recorded in the statement of operations since we elected to account for the notes payable at fair value.

We recorded a gain of $28.6 million on the change in fair values of convertible notes and warrant liability for the nine months ended September 30, 2017, as compared to a loss of $47.1 million for the same period in 2016. The gain/(loss) on change in fair values of convertible notes is impacted by the number of Notes outstanding for each period, as well as other factors that drive fair value, most significantly, the market trading price of our stock. The market price of our stock decreased by approximately 26% in the nine months ended September 30, 2017 and increased by approximately 54% in the nine months ended September 30, 2016.

Liquidity and Capital Resources

Sources of Liquidity

We received CE Mark regulatory approval of our Fantom scaffold on April 3, 2017 and initiated commercial sales in July 2017. Fantom is our first commercial product; we have not commercialized any products or generated any revenue since our inception in June 1998.

During the second quarter of 2017, we completed a two-stage financing. On May 4, 2017 we issued $33.8 million in convertible notes and on June 16, 2017 we issued $13.3 million in convertible notes, for total cash proceeds of $47.1 million. From these proceeds we repurchased 1,732,260 shares of our common stock from one of the investors at a total repurchase price of $12.5 million and incurred transaction costs of $2.1 million, leaving us with net proceeds from the financing of $32.5 million. As of September 30, 2017, we had a cash, cash equivalents and investment securities balance of $24.1 million, which we believe is sufficient to fund our operating and capital needs into 2019. As part of the financing, we issued warrants to purchase 2,119,500 shares of our common stock at an initial exercise price of $5.00 per share.

The convertible notes we issued in November 2014 mature in November 2019 and the convertible notes we issued in 2017 mature the second quarter of 2022. While no payments of interest or principal are required on any of the notes until maturity, if the notes are not converted prior to that time, holders of the 2017 notes have a one-time right to request redemption on November 4, 2019 for face value plus accrued interest, provided they have given at least 30 days' written notice of the redemption request and the notes have not been otherwise converted or repaid. Management believes that it is more likely the notes will be converted, rather than redeemed, if the value of the underlying equity continues to increase and, therefore, has no plans for redemption.

While the warrants we issued in May and June 2017 are immediately exercisable, have a five-year life, and only provide for cash exercise, management does not look to the warrants as a source of funding for operating or capital needs as exercise is at the holders' option.

We have incurred substantial losses since our inception; as of September 30, 2017, we had accumulated a deficit of approximately $382.3 million. We expect our losses to continue as we launch Fantom, continue to conduct clinical trials, and develop and test additional products. While we have initiated commercial sales of Fantom, our efforts to generate substantial revenue and achieve positive cash flows from our operations may take several years, even if we are successful with our initial efforts. In order to successfully transition to profitable operations, we will need to achieve a level of revenues and product margins to support our cost structure. Until such time as we generate positive cash flow, we plan to continue to fund our operating and capital needs by utilizing current cash resources. We may need to raise further capital in the future if we determine to conduct a U.S. clinical trial, if our operations cannot support our ongoing costs, or if unanticipated cash needs arise. While we may consider raising additional funds concurrent with a U.S. listing of our common stock or through other debt or equity financings, there can be no assurance that we will be successful in raising additional capital if needed, or that it will be on terms that are acceptable to us.

Cash Flows

Our cash flows for the periods indicated are as follows (in thousands):

	Nine Months Ended September 30,	
	2017	**2016**
Net cash used for operating activities	$ (14,840)	$ (16,146)
Net cash used for investing activities	$ (1,805)	$ (624)
Net cash provided by financing activities	$ 32,584	$ 11,428
Net increase (decrease) in cash and cash equivalents	$ 15,939	$ (5,342)

Net Cash Flow from Operating Activities

Net cash used for operating activities of $14.8 million for the nine months ended September 30, 2017 primarily reflects the loss from operations of $15.9 million and the changes in operating assets and liabilities of $0.7 million. These items were offset primarily by non-cash expenses of $1.0 million for stock-based compensation, $0.8 million of depreciation and amortization. The interest on convertible notes payable, loss on issuance of convertible notes payable and warrants to purchase common stock, and the gain on change in fair value of convertible notes payable and warrant liability are non-cash items that had no effect on cash flows.

Net cash used for operating activities of $16.1 million for the nine months ended September 30, 2016 primarily reflects the loss from operations of $20.7 million, offset by non-cash expenses of $3.8 million for stock-based compensation and $0.9 million of depreciation and amortization. The interest on convertible notes payable and the loss on change in fair value of convertible notes payable and warrant liability are non-cash items that had no effect on cash flows.

Net Cash Flow from Investing Activities

Cash used for investing activities of $1.8 million for the nine months ended September 30, 2017 included purchases of $1.5 million of investment securities and $0.3 million of lab and other equipment. Cash used for investing activities of $0.6 million for the nine months ended September 30, 2016 was for purchases of lab and other equipment.

Net Cash Flow from Financing Activities

Cash provided by financing activities of $32.6 million for the nine months ended September 30, 2017 consisted of $47.1 million in proceeds from the issuance of convertible notes payable and warrants and $0.1 million from the issuance of common stock upon the exercise of stock options, offset by $12.5 million to repurchase 1,732,260 shares of our common stock and $2.1 million for transaction costs.

Cash provided by financing activities of $11.4 million for the nine months ended September 30, 2016 consisted of $11.4 million in proceeds from the issuance of common stock upon the exercise of 4,375,000 warrants that had been issued in 2014 and the exercise of stock options.

Operating Capital and Capital Expenditure Requirements

We received CE Mark regulatory approval of our Fantom scaffold on April 3, 2017 and initiated commercial sales in July 2017. Fantom is our first commercial product; prior to 2017, we have not commercialized any products or generated any revenue since our inception in June 1998. We have incurred substantial losses since our inception and anticipate that we will continue to incur substantial net losses and cash outflows through the remainder of 2017 and 2018 as we establish commercial operations, continue current and initiate new clinical trials, develop and test new technologies and product opportunities, and expand our corporate infrastructure.

Until we reach a sales volume to generate positive cash flow, we plan to fund our operating and capital needs with our current cash resources, which totaled $24.1 million as of September 30, 2017 and which management currently believes will be sufficient to fund our operating and capital needs into 2019. Also, in mid-2018, we may pursue listing of our common stock on NASDAQ, or another exchange approved by our noteholders, and may consider raising additional funds concurrent with that listing in order to conduct a U.S. clinical trial.

Even though we completed a financing during the second quarter of 2017 and have begun to generate cash inflows from operations as we commercialize Fantom, we may still need to secure additional capital prior to the time

we are able to maintain our operations from our cash inflows. This needed additional capital may not be available on reasonable terms, if at all. Additionally, we may be limited under the terms of our convertible notes as to the type, quantity, timing, or other aspects of a financing, unless the noteholders agree. Any financing, even one to which the noteholders agree, may result in additional dilution to our current securityholders, could have rights senior to those of our common stock, and/or could contain provisions that would restrict our operations. If w e are unable to raise additional capital as and when needed, we may be compelled to sell certain assets, including intellectual property assets. Even if we are able to raise additional capital and commercialize our products, we may never become profitable, or if we do attain profitable operations, we may not be able to sustain profitability and cash flows on a recurring basis.

Our ongoing capital requirements will also depend on the extent to which we acquire or invest in businesses, products, and technologies; we currently have no commitments or agreements relating to any of these types of transactions. We believe our current San Diego facility has the capacity to produce the quantities of Fantom that will be needed for our initial commercial sales and, therefore, do not have any plans for facility expansion at this time.

Contractual Obligations, Commitments, and Contingencies

The following table summarizes our outstanding contractual obligations, other than our convertible notes payable and accrued interest payable thereon, as of September 30, 2017 (in thousands). We have not included our convertible notes in the table as we believe they will be converted into common stock rather than repaid. Our operating lease obligations represent the contractual rental payments due under our facility lease, which we amended in October 2017 and matures in May 2025.

	Payments Due by Period				
	< 1 Year	1 - 3 Years	3 - 5 Years	More than 5 Years	Total
Operating lease obligations	$ 700	$ 1,492	$ 1,657	$ 2,470	$ 6,319
Deferred technology license fees	—	500	—	—	500
Purchase obligations	99	24	—	—	123
	$ 799	$ 2,016	$ 1,657	$ 2,470	$ 6,942

Off-Balance Sheet Arrangements

Not applicable.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Sensitivity

As of September 30, 2017, we had cash and cash equivalents and investment securities totaling $24.1 million which are comprised of cash in checking and savings accounts, money market funds and FDIC insured certificates of deposit. The primary objective of our investment activities is to preserve principal and liquidity while maximizing income without significantly increasing risk. We do not enter into investments for trading or speculative purposes. Our convertible notes payable bear interest at a fixed rate and are not subject to interest rate fluctuations. We do not believe that an immediate 10% increase in interest rates would have a material effect on our operating results or cash flows.

Foreign Currency Exchange Rate Risk

To date, our purchases from foreign suppliers and revenues from Europe have been minimal. While the amounts we incur to the hospitals and doctors that conduct our clinical trials, which are denominated primarily in the currencies of Australia and the European Union, have resulted in relatively immaterial foreign currency exchange impacts through September 30, 2017, we initiated commercial sales during the third quarter of 2017 in Europe. We denominate these sales in European currencies and we are subject to foreign currency exchange risks on our revenues until payment is received. We do not enter into foreign currency hedging transactions. At our current levels of spend and revenue, we believe we currently have minimal exposure to foreign currency rate fluctuations.

Inflation

Inflation generally affects us by increasing our cost of labor and clinical trial costs. We do not believe that inflation has had a material effect on our business, financial condition or results of operations during the periods presented.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, including our Chief Executive Officer and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of September 30, 2017, the end of the period covered by this Quarterly Report on Form 10-Q. Based on this evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective as of September 30, 2017.

Changes in Internal Control Over Financial Reporting

During the quarter ended September 30, 2017, we initiated commercial sales and purchased certificates of deposit, which required us to develop and implement policies and procedures for revenue, accounts receivable and investment securities. Other than as it relates to revenue, accounts receivable and investment securities, there was no change in our internal control over financial reporting identified in connection with the evaluation required by Rules 13a-15(d) and 15d-15(d) under the Exchange Act that occurred during the quarterly period covered by this report that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

We may from time to time become subject to various claims and legal actions during the ordinary course of our business. We are not party to any legal proceedings at the date of filing of this Quarterly Report on Form 10-Q.

Item 1A. Risk Factors

Our business is subject to various risks, including those described in Item 1A “Risk Factors” of our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, and Part II Item 1A “Risk Factors” of our Quarterly Report on Form 10-Q for the period ended June 30, 2017, wh ich we strongly encourage you to review.

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

Unregistered Sales of Equity Securities

None.

Use of Proceeds from Registered Securities

Not applicable.

Item 3. Defaults upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

The exhibits listed in the accompanying Index to Exhibits are filed or incorporated by reference as part of this Quarterly Report on Form 10-Q.

INDEX TO EXHIBITS

Exhibit Number	Description of Exhibits	Filed with this Form 10-Q	Incorporated by Reference		
			Form	File No.	Date Filed
3.1	Amended and Restated Certificate of Incorporation		S-1/A	333-168852	10/22/2010
3.2	Amended and Restated Bylaws		S-1/A	333-168852	10/22/2010
3.3	Amendment No. 1 to the Amended and Restated Bylaws		8-K	000-54192	9/12/2014
4.1	Form of Stock Certificate		S-1/A	333-168852	11/12/2010
4.2	Form of Amended and Restated Investors' Rights Agreement, by and among REVA Medical, Inc. and the holders of our common stock and convertible notes set forth therein		DEF14A	000-54192	10/14/2014
4.3	First Amendment to Amended and Restated Investors' Rights Agreement dated September 24, 2014		DEF14A	000-654192	5/15/17
4.4	Convertible Note Deed dated September 25, 2014, by and between REVA Medical, Inc., Goldman Sachs International, and Senrigan Master Fund		DEF14A	000-54192	10/14/2014
4.5	First Amendment to Convertible Note Deed, dated February 11, 2016, by and among REVA Medical, Inc., Goldman Sachs International, and Senrigan Master Fund		DEF14A	000-54192	3/9/2016
4.6	Second Amendment to Convertible Note Deed and Subordination, dated April 22, 2017, by and among REVA Medical, Inc., Goldman Sachs International, and Senrigan Master Fund		8-K	000-54192	4/26/2017
4.7	Convertible Note Deed dated April 22, 2017, by and among REVA Medical, Inc. and Each Person set out in Schedule 1 and Schedule 2		8-K	000-54192	4/26/2017
10.1	Executive Employment Agreement, dated August 28, 2017 by and between REVA Medical, Inc. and Brandi L. Roberts	X			
10.2	Sixth Amendment to Telecom Business Center NNN Lease between Gildred Building Company and REVA Medical, Inc.	X			
31.1	Certification of Principal Executive Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended	X			
31.2	Certification of Principal Financial Officer Required Under Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended	X			
32.1 *	Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. §1350	X			
99.1	Section 13 of the ASX Settlement Rules		S-1/A	333-168852	10/22/2010
101.INS	XBRL Instance Document	X			
101.SCH	XBRL Taxonomy Extension Schema Document	X			
101.CAL	XBRL Taxonomy Calculation Linkbase Document	X			
101.DEF	XBRL Taxonomy Definition Linkbase Document	X			
101.LAB	XBRL Taxonomy Label Linkbase Document	X			
101.PRE	XBRL Taxonomy Presentation Linkbase Document	X			

* These certifications are being furnished solely to accompany this quarterly report pursuant to 18 U.S.C. Section 1350, and are not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and are not to be incorporated by reference into any filing of REVA Medical, Inc., whether made before or after the date hereof, regardless of any general incorporation language in such filing.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Quarterly Report on Form 10-Q to be signed on its behalf by the undersigned, thereunto duly authorized.

REVA Medical, Inc.

Date: November 7, 2017

/s/ Regina E. Groves

Regina E. Groves
Chief Executive Officer
(Principal Executive Officer)

Date: November 7, 2017

/s/ Brandi L. Roberts

Brandi L. Roberts
Chief Financial Officer and Secretary
(Principal Financial Officer and Principal Accounting Officer)

Exhibit 10.1

EXECUTIVE EMPLOYMENT AGREEMENT

This Executive Employment Agreement (this " ***Agreement*** ") is made effective as of August 28, 2017 (the " ***Effective Date*** "), by and between REVA Medical, Inc. (the " ***Company*** ") and Brandi Roberts (the " ***Executive*** ").

The parties agree as follows:

1. Employment . The Company hereby employs Executive, and Executive hereby accepts such employment, upon the terms and conditions set forth herein.

2. Duties .

2.1 Position . Executive is employed as the Company's Chief Financial Officer, Corporate Secretary and Senior Vice President of Finance and shall have the duties and responsibilities assigned by the Company's Chief Executive Officer (" ***CEO*** ") both upon initial hire and as may be reasonably assigned from time to time. Executive shall perform faithfully and diligently all duties assigned to Executive. The Company reserves the right to modify Executive's position and duties at any time in its sole and absolute discretion, subject to Section 7.3 below.

2.2 Best Efforts/Full-time . Executive will expend Executive's best efforts on behalf of the Company, and will abide by all policies and decisions made by the Company, as well as all applicable federal, state and local laws, regulations or ordinances. Executive will act in the best interest of the Company at all times. Executive shall devote Executive's full business time and efforts to the performance of Executive's assigned duties for the Company, unless Executive notifies the Company's Board of Directors (" ***Board of Directors*** ") in advance of Executive's intent to engage in other paid work and receives the Board of Directors' express written consent to do so. Notwithstanding the foregoing, Executive will be permitted to serve as an outside director on the board of directors for nonprofit or charitable entities, provided such entities are not competitive with the Company and subject to the provisions of Section 8 below.

2.3 Work Location . Executive's principal place of work shall be located in San Diego, California, with such reasonable travel to other locations on Company business consistent with her position as the Company may direct from time to time.

2.4 Covenant not to Compete . Except with the prior written consent of the Board, Executive will not, during the term of employment under this Agreement, engage in competition with the Company and/or any of its Affiliates, either directly or indirectly, in any manner or capacity, as adviser, principal, agent, affiliate, promoter, partner, officer, director, employee, stockholder, owner, co-owner, consultant, or member of any association or otherwise, in any phase of the business of developing, manufacturing and marketing of products or services which are in the same field of use or which otherwise compete with the products or services or proposed products or services of the Company and/or any of its Affiliates, provided that it shall not be a violation of this paragraph for Executive to serve on any non-competing corporate, civic or charitable boards or committees, as approved by the Board of Directors. For purposes of this

Agreement, “Affiliate” means, with respect to any specific entity, any other entity that, directly or indirectly, through one or more intermediaries, controls, is controlled by or is under common control with such specified entity. Notwithstanding the foregoing provisions of this Section 2.4, Executive may own, as a passive investor, securities of any entity that competes with the business of the Company or any of its Affiliates and has outstanding publicly traded securities, so long as the Executive's direct holdings in any such entity shall not in the aggregate constitute more than 1 % of the voting power of such entity.

3. At-Will Employment . Executive’s employment with the Company is at-will and not for any specified period and may be terminated at any time, with or without cause (as defined below) or advance notice, by either Executive or the Company subject to the provisions regarding termination set forth below in Section 7. No representative of the Company, other than the Board of Directors, has the authority to alter the at-will employment relationship. Any change to the at-will employment relationship must be by specific, written agreement signed by Executive and the Company’s CEO. Nothing in this Agreement is intended to or should be construed to contradict, modify or alter this at-will relationship.

4. Compensation .

4.1 Base Salary . As compensation for Executive’s performance of Executive’s duties hereunder, the Company shall pay to Executive an initial base salary of $330,000 per year, payable in accordance with the normal payroll practices of the Company, less required deductions for state and federal withholding tax, social security and all other employment taxes and payroll deductions (the “ ***Base Salary*** ”). In the event Executive’s employment under this Agreement is terminated by either party, for any reason, Executive will earn the Base Salary prorated to the date of termination.

4.2 Incentive Compensation . In addition to the Base Salary, Executive shall be eligible to earn an annual performance cash bonus of up to 40% of Base Salary, less applicable employment taxes and payroll deductions. This bonus is contingent upon the Executive’s achievement of performance goals for the applicable annual bonus period and will be pro-rated for 2017 based on the portion of the year during which Executive provided services to the Company as either an employee or consultant. Executive’s annual performance goals shall be established by the Board of Directors (or if authority is delegated by the Board, the Compensation Committee of the Board of Directors) within ninety (90) days of the beginning of each such year. The achievement of any performance goals shall be determined by the Board of Directors (or if authority is delegated by the Board, the Compensation Committee of the Board of Directors). Subject to the provisions of Section 7 of this Agreement regarding payments in connection with termination of employment, in order to be eligible to receive the annual bonus pursuant to this Section 4.2, Executive must be employed on the last day of the given year for which the bonus amount is earned. Payment of each annual bonus shall be made in a lump sum payment not later than March 15 of the year following the year for which the bonus is earned.

4.3 Equity Compensation . As an inducement to Executive's acceptance of employment, at the first meeting of the Board of Directors following the date on which Executive’s employment commences, Executive shall be granted a non-qualified stock option to purchase 190,000 shares of Company’s Common Stock (the “Common Stock”), at a per share

exercise price equal to the fair market value of a share of Common Stock on the date of the grant (the "Option") which Option shall vest as follows provided that Executive remains in service to the Company: 25% of the shares subject to the Option shall vest on the one-year anniversary on the date of grant and 1/48th of the total number of shares subject to the Option shall vest upon the completion of each month of service to the Company thereafter. If Executive's employment with the Company is terminated pursuant to Section 7.7(a) of this Agreement, then 100% of the shares subject to the Option shall vest and become exercisable.

4.4 Performance and Salary Review. The Board of Directors (or the Compensation Committee thereof) will periodically review Executive's performance on no less than an annual basis. Adjustments to increase salary or other compensation, if any, will be made by the Board of Directors (or Compensation Committee) in its sole and absolute discretion.

4.5 Attorney's Fees. The Company shall reimburse Executive up to $2,000 for her attorney's fees incurred in reaching this Agreement, including review of the consulting and stock option agreements, payable within fourteen (14) days after the Company receives a receipt of payment for such services from Executive.

5. Customary Fringe Benefits. Executive will be eligible for all customary and usual fringe benefits generally available to Executives of the Company subject to the terms and conditions of the Company's benefit plan documents. The Company reserves the right to change or eliminate the fringe benefits on a prospective basis, at any time, effective upon notice to Executive. Notwithstanding the foregoing, Executive shall be entitled to not less than one hundred twenty hours of personal time off during each 12-month period. Executive will be permitted to fly business class on any international flight (if business class is not available on a certain route, first class travel will be permitted).

6. Business Expenses. Executive will be reimbursed for all reasonable, out-of-pocket business expenses incurred in the performance of Executive's duties on behalf of the Company. To obtain reimbursement, expenses must be submitted promptly with appropriate supporting documentation and will be reimbursed in accordance with the Company's policies. Any reimbursement Executive is entitled to receive shall (a) be paid no later than the last day of Executive's tax year following the tax year in which the expense was incurred; provided, however, that it is the Company's normal business practice to provide reimbursement at the next regular payroll date after the expense has been submitted and approved for reimbursement, (b) not be affected by any other expenses that are eligible for reimbursement in any tax year and (c) not be subject to liquidation or exchange for another benefit.

7. Termination of Executive's Employment.

7.1 Termination for Cause by the Company. Although the Company anticipates a mutually rewarding employment relationship with Executive, the Company may terminate Executive's employment immediately at any time for Cause. For purposes of this Agreement, "Cause" is defined as: (a) acts or omissions constituting gross negligence, recklessness or willful misconduct on the part of Executive with respect to Executive's obligations or otherwise relating to the business of the Company; (b) any acts or conduct by Executive that are materially adverse to the Company's interests; (c) Executive's material breach

of this Agreement; (d) Executive's breach of the Company's Confidential Information and Invention Assignment Agreement; (e) Executive's conviction or entry of a plea of *nolo contendere* for fraud, misappropriation or embezzlement, or any felony or crime of moral turpitude or that otherwise negatively impacts Executive's ability to effectively perform Executive's duties hereunder; (f) Executive's willful and continued failure to substantially perform Executive's duties for the Company (other than as a result of incapacity due to physical or mental disability) ; (g) Executive's inability to perform the essential functions of Executive's position, with reasonable accommodation, due to a mental or physical disability; or (h) Executive's death. In the event of termination based on (b), (c) , (d), or (f), Executive will have fifteen (15) days from receipt of written notice from the Company to cure the issue, if curable, with such written notice to be provided to Executive detailing in specific terms the acts, conduct, or alleged breach. In the event that Executive's employment is terminated in accordance with this Section 7.1, Executive shall be entitled to receive only Executive's Base Salary then in effect, prorated to the date of termination and all benefits earned and accrued through the date of termination (" ***Accrued Benefits*** "). In addition, Executive shall be entitled to any amounts owing to the Executive for reimbursement of expenses properly incurred by Executive prior to the date of termination which are reimbursable in accordance with Section 6 of this Agreement. All other Company obligations to Executive pursuant to this Agreement will become automatically terminated and completely extinguished. In the event of Executive's termination of employment by the Company for Cause, Executive will not be entitled to receive the Severance Package described in Section 7.2 below.

7.2 Termination Without Cause by the Company/Severance . Company may terminate Executive's employment under this Agreement without Cause at any time upon providing written notice to Executive. In the event of such termination, Executive will receive Executive's Base Salary then in effect, prorated to the date of termination, and Accrued Benefits. Further, Executive shall be entitled to any amounts owing to the Executive for reimbursement of expenses properly incurred by Executive prior to the date of termination which are reimbursable in accordance with Section 6 of this Agreement. In addition, Executive will receive a "Severance Package" that shall include (a) a "Severance Payment" equivalent to six (6) months of Executive's Base Salary then in effect on the date of termination (which amount shall be increased to nine (9) months of Executive's Base Salary beginning on the one-year anniversary of the commencement of Executive's employment), payable in accordance with Company's regular payroll cycle beginning on the second regular payday occurring following the date the release (as contemplated below) becomes effective and non-revocable in accordance with its terms, and (b) the amount equal to the premiums necessary to continue Executive's health insurance coverage in effect for Executive and Executive's covered dependents under the Consolidated Omnibus Reconciliation Act of 1985, for a period of six (6) months (which amount shall be increased to nine (9) months on the one-year anniversary of the commencement of Executive's employment), provided, however, that if any portion of the Severance Payment constitutes deferred compensation subject to Section 409A (as defined below), and the sixty (60) day period for executing the Release described below, would span two (2) calendar years, then, subject further to Section 7.6(a), such portion of the Severance Payment shall commence on the first regularly scheduled payroll date occurring on or after sixty (60) days following the termination date.

Executive will only receive the Severance Package if Executive: (i) complies with all surviving provisions of this Agreement as specified in Section 13.8 below; (ii) executes a full general release in the form substantially similar to that attached as Exhibit A , releasing all claims, known or unknown, that Executive may have against Company arising out of or any way related to Executive's employment or termination of employment with Company, and such release has become effective in accordance with its terms prior to the sixtieth (60 th) day following the termination date; (iii) resigns from all positions with the Company as an officer and director of the Company and any of its subsidiaries and affiliates; and (iv) agrees as part of the release agreement to not make any voluntary statements, written or oral, or cause or encourage others to make any such statements that defame, disparage or in any way criticize the personal and/or business reputations, practices or conduct of Company ((i) – (iv) shall be collectively referred to as " ***Severance Obligations*** ").

7.3 Voluntary Resignation by Executive for Good Reason/Severance . Executive may voluntarily resign Executive's position with the Company for Good Reason, at any time on thirty (30) days' advance written notice. Executive shall provide notice to the Company of the condition giving rise to "Good Reason," whenever possible, within ninety (90) days of the initial existence of such condition and the Company shall have thirty (30) days following such notice to remedy such condition. Executive's right to terminate Executive's employment for Good Reason shall not be affected by the Executive's incapacity due to physical or mental illness. In the event of Executive's resignation for Good Reason, Executive will be entitled to receive Executive's Base Salary then in effect, prorated to the date of termination, Accrued Benefits, and the Severance Package described in Section 7.2 above, provided Executive complies with all of the Severance Obligations. Further, Executive shall be entitled to any amounts owing to the Executive for reimbursement of expenses properly incurred by Executive prior to the date of termination which are reimbursable in accordance with Section 6 of this Agreement. All other Company obligations to Executive pursuant to this Agreement will become automatically terminated and completely extinguished. For purposes of this Agreement, "Good Reason" means the occurrence of any of the following events or conditions, without the Executive's express written consent (which consent may be denied, withheld or delayed for any reason): (a) a material reduction in Executive's title, duties, authority or responsibilities; (b) a material non-voluntary reduction by the Company in the Executive's annual Base Salary as in effect as of the date hereof; (c) a material change in Executive's business location of more than thirty (30) miles; (d) the material breach by the Company of this Agreement; or (e) the failure of any successor-in-interest to assume all of the obligations of the Company under this Agreement.

7.4 Voluntary Resignation by Executive Without Good Reason . Executive may voluntarily resign Executive's position with the Company without Good Reason, at any time. In the event of Executive's resignation without Good Reason, Executive will be entitled to receive only Executive's Base Salary and Accrued Benefits as determined through the end of the thirty-day notice period and no other amount; provided, however that Executive shall be entitled to any amounts owing to the Executive for reimbursement of expenses properly incurred by Executive prior to the date of termination which are reimbursable in accordance with Section 6 of this Agreement. Executive shall have the ability to exercise any vested options, in accordance with the stock option agreement, upon Executive's resignation without Good Reason, however no additional shares subject to the Option shall vest after the Effective Date of Executive's resignation without Good Reason. All other Company obligations to Executive pursuant to this

Agreement will become automatically terminated and completely extinguished. In addition, Executive will not be entitled to receive the Severance Package under Section 7.2 of this Agreement.

7.5 Resignation of Board or Other Positions . Should Executive's employment terminate for any reason, Executive agrees to immediately resign all other positions (including any board membership) Executive may hold on behalf of the Company.

7.6 Application of Section 409A .

(a) To the extent required to avoid the imposition of additional taxes and penalties under Section 409A of the Code, amounts payable under this Agreement on account of any termination of employment shall only be paid if Executive experiences a "separation from service" as defined in Section 409A of the Code and the regulatory and other guidance issued thereunder (" ***Section 409A*** "). Furthermore, to the extent that Executive is a "specified employee" within the meaning of the Section 409A as of the date of Executive's separation from service, no amount that constitutes a deferral of compensation under Section 409A which is payable on account of Executive's separation from service shall be paid to Executive before the date (the " ***Delayed Payment Date*** ") which is first day of the seventh month after the date of Executive's separation from service or, if earlier, the date of Executive's death following such separation from service. All such amounts that would, but for this Section, become payable prior to the Delayed Payment Date will be accumulated and paid on the Delayed Payment Date. In addition, to the extent that any payments made pursuant to this Section 7 constitute deferred compensation under Section 409A, each payment will be considered one of a series of separate payments.

(b) The Company intends that income provided to Executive pursuant to this Agreement will not be subject to taxation under Section 409A of the Code. The provisions of this Agreement shall be interpreted and construed in favor of satisfying any applicable requirements of Section 409A of the Code. However, the Company does not guarantee any particular tax effect for income provided to Executive pursuant to this Agreement. In any event, except for the Company's responsibility to withhold applicable income and employment taxes from compensation paid or provided to Executive, the Company shall not be responsible for the payment of any applicable taxes on compensation paid or provided to Executive pursuant to this Agreement.

(c) Notwithstanding anything herein to the contrary, the reimbursement of expenses or in-kind benefits provided pursuant to this Agreement shall be subject to the following conditions: (1) the expenses eligible for reimbursement or in-kind benefits in one taxable year shall not affect the expenses eligible for reimbursement or in-kind benefits in any other taxable year; (2) the reimbursement of eligible expenses or in-kind benefits shall be made promptly, subject to the Company's applicable policies, but in no event later than the end of the year after the year in which such expense was incurred; and (3) the right to reimbursement or in-kind benefits shall not be subject to liquidation or exchange for another benefit .

7.7 Termination Upon a Change of Control .

(a) Severance Payment . If Executive's employment is terminated by the Company without Cause (as defined in Section 7.1 above) or if Executive voluntarily resigns Executive's position with the Company for Good Reason (as defined in Section 7.3 above) within thirty (30) days prior to or twelve (12) months after a Change of Control (as that term is defined below), Executive shall be entitled to receive the Severance Payment described in Section 7.2 above, provided Executive complies with the Severance Obligations except that the "Severance Payment" amount shall be paid in a single lump-sum payment, without interest, on or before the second regularly scheduled payroll date following the effectiveness of the binding release as set forth in Section 7.2 above; provided, however, that if any portion of the Severance Payment constitutes deferred compensation subject to Section 409A, and the sixty (60) day period for executing the Release described in Section 7.2 would span two (2) calendar years, then, subject further to Section 7.6(a), such portion of the Severance Payment shall be paid on the first regularly scheduled payroll date occurring on or after sixty (60) days following the calendar year in which the termination date occurs.

(b) 280G . Notwithstanding anything to the contrary in this Agreement, if Executive is a "disqualified individual" (as defined in Section 280G(c) of the Code), and any Severance Payment and other benefits provided for in this Agreement, together with any other payments and benefits which Executive has the right to receive from the Company and other person or entity (the "Aggregate Severance"), would be subject to the excise tax imposed by Section 4999 of the Code, including any interest and penalties imposed with respect to such excise tax (the "Excise Tax"), then the Aggregate Severance provided thereunder shall be either (1) reduced (but not below zero) so that the present value of the Aggregate Severance equals the Safe Harbor Amount (as defined below) and so that no portion of the Aggregate Severance shall be subject to the Excise Tax, or (2) paid in full, whichever produces the better net after-tax position to Executive (taking into account the Excise Tax and any other applicable taxes). The determination as to whether any such reduction in the Aggregate Severance is necessary shall be made initially by the Company in good faith. If applicable, the reduction of the amounts payable hereunder in accordance with clause (1) of this Section 7.7(b) shall be made in the following order and in such a manner as to maximize the value of the Aggregate Severance paid to Executive (i) cash severance pay that is treated as deferred compensation subject to Section 409A; (ii) any payments intended to pay for continued medical benefits under COBRA; (iii) any other cash severance pay that is exempt from Section 409A; (iv) any other non-cash benefit payable that is a severance benefit; (v)reduction of any other cash payment or bonus treated as being payable on account of the change of control for purposes of Section 280G of the Code; (vi) reduction of any equity compensation treated as being granted in anticipation of a change of control for purposes of Section 280G of the Code (with restricted stock, restricted stock units and other similar equity awards being reduced first, then stock options and stock appreciation rights); (vii) reduction in vesting acceleration of restricted stock units, restricted stock and other similar equity awards not described in (vi), above; and (viii) reduction in vesting acceleration of stock options and stock appreciation rights. In the event that equity compensation acceleration or grants are to be reduced or cancelled, such reduction or cancellation shall occur in the reverse order of the date of grant to Executive. If the Aggregate Severance is reduced in accordance with the preceding sentence and through error or otherwise the Aggregate Severance exceeds the Safe Harbor Amount, Executive shall immediately repay

such excess to the Company upon notification that an overpayment has been made. For purposes of this Section 7.7(b), "Safe Harbor Amount" means an amount equal to one dollar ($1.00) less than three (3) times Executive's "base amount" for the "base period," as those terms are defined under Section 280G of the Code.

(c) Change of Control. A Change of Control is defined as any one of the following occurrences:

(i) Any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934 (the " ***Exchange Act*** ")), other than a trustee or other fiduciary holding securities of the Company under an employee benefit plan of the Company, becomes the "beneficial owner" (as defined in Rule 13d 3 promulgated under the Exchange Act), directly or indirectly, of the securities of the Company representing more than 50% of (A) the outstanding shares of common stock of the Company or (B) the combined voting power of the Company's then-outstanding securities; or

(ii) the sale or disposition of all or substantially all of the Company's assets (or any transaction having similar effect is consummated); or

(iii) the Company is party to a merger or consolidation that results in the holders of voting securities of the Company outstanding immediately prior thereto failing to continue to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) more than 50% of the combined voting power of the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation; or

(iv) the dissolution or liquidation of the Company.

Notwithstanding the forgoing, with respect to any payment or benefit treated as deferred compensation subject to Section 409A, the vesting rules set forth in Section 7.7(a) shall continue to apply. However, unless the Change of Control also constitutes a change in ownership or effective control of the Company or a change in the ownership of a substantial portion of the assets of the Company (in accordance with Section 409A and Treasury Regulation Section 1.409A-3(i)(5)), then although vested and nonforfeitable, the payment or benefit shall, to the extent necessary to avoid the imposition of additional taxes and/or penalties under Section 409A(a)(1), be paid based on the normal form of timing rules applicable to the payment of such severance payment or benefit in accordance with Section 7.2.

8. No Conflict of Interest. During the term of Executive's employment with the Company, Executive must not engage in any work, paid or unpaid, or other activities that create a conflict of interest. Such work and/or activities shall include, but is not limited to, directly or indirectly competing with the Company in any way, or acting as an officer, director, employee, consultant, stockholder, volunteer, lender, or agent of any business enterprise of the same nature as, or which is in direct competition with, the business in which the Company is now engaged or in which the Company becomes engaged during the term of Executive's employment with the Company, as may be determined by the Board of Directors in its sole discretion. If the Board of Directors believes such a conflict exists during the term of this Agreement, the Board of

Directors may ask Executive to choose to discontinue the other work and/or activities or resign employment with the Company. Notwithstanding the foregoing provisions of this Section 8, Executive may own, as a passive investor, securities of any entity that competes with the business of the Company or any of its Affiliates and has outstanding publicly traded securities, so long as the Executive's direct holdings in any such entity shall not in the aggregate constitute more than 1 % of the voting power of such entity.

9. Confidentiality and Proprietary Rights . As a condition of continuing employment, Executive agrees to read and abide by the Company's Confidential Information and Invention Assignment Agreement, which is provided with this Agreement and incorporated herein by reference.

10. Nonsolicitation of the Company's Employees . Executive agrees that during the term of this Agreement and for a period of one (1) year after the termination of this Agreement, Executive will not, either directly or indirectly, separately or in association with others, interfere with, impair, disrupt or damage the Company's business by soliciting, encouraging or recruiting any of the Company's employees or causing others to solicit or encourage any of the Company's employees to discontinue their employment with the Company.

11. Injunctive Relief . Executive acknowledges that Executive's breach of the covenants contained in sections 8-10 (collectively " ***Covenants*** ") would cause irreparable injury to the Company and agrees that in the event of any such breach, the Company shall be entitled to seek temporary, preliminary and permanent injunctive relief pursuant to the California Arbitration Act, without the necessity of proving actual damages or posting any bond or other security.

12. Arbitration . In the event of any dispute or claim relating to or arising out of the employment relationship between Executive and the Company or the termination of that relationship (including, but not limited to, any claims of breach of contract, wrongful termination or age, sex, race, disability or other discrimination), Executive and the Company agree that all such disputes shall be resolved by confidential binding arbitration conducted before a single neutral arbitrator in San Diego, California, pursuant to the rules for arbitration of employment disputes by the American Arbitration Association (available at www.adr.org) and the rules set forth in the California Arbitration Act, Code of Civil Procedure Section 1280, *et seq* . (available at www.leginfo.ca.gov/calaw.html). The arbitrator shall permit adequate discovery, including discovery pursuant to Section 1283.05 of the California Code of Civil Procedure. In addition, the arbitrator is empowered to award all remedies otherwise available in a court of competent jurisdiction; however Executive and the Company each retain the right under Section 1281.8 of the California Code of Civil Procedure to seek provisional remedies. Any judgment rendered by the arbitrator may be entered by any court of competent jurisdiction. The arbitrator shall issue an award in writing and state the essential findings and conclusions on which the award is based. By executing this Agreement, Executive and the Company are both waiving the right to a jury trial with respect to any such disputes. The Company shall bear the costs of the arbitrator, forum and filing fees. Each party shall bear its own respective attorneys' fees and all other costs, unless otherwise provided by law and awarded by the arbitrator. This arbitration agreement does not include claims that, by law, may not be subject to mandatory arbitration.

13. General Provisions .

13.1 Successors and Assigns . The rights and obligations of the Company under this Agreement shall inure to the benefit of and shall be binding upon the successors and assigns of the Company. Executive shall not be entitled to assign any of Executive's rights or obligations under this Agreement.

13.2 Waiver . Either party's failure to enforce any provision of this Agreement shall not in any way be construed as a waiver of any such provision, or prevent that party thereafter from enforcing each and every other provision of this Agreement.

13.3 Attorneys' Fees . Each side will bear its own attorneys' fees in any dispute unless a statutory section at issue, if any, authorizes the award of attorneys' fees to the prevailing party.

13.4 Severability . In the event any provision of this Agreement is found to be unenforceable by an arbitrator or court of competent jurisdiction, such provision shall be deemed modified to the extent necessary to allow enforceability of the provision as so limited, it being intended that the parties shall receive the benefit contemplated herein to the fullest extent permitted by law. If a deemed modification is not satisfactory in the judgment of such arbitrator or court, the unenforceable provision shall be deemed deleted, and the validity and enforceability of the remaining provisions shall not be affected thereby.

13.5 Interpretation; Construction . The headings set forth in this Agreement are for convenience only and shall not be used in interpreting this Agreement. This Agreement has been drafted by legal counsel representing the Company, but Executive has participated in the negotiation of its terms. Furthermore, Executive acknowledges that Executive has had an opportunity to review and revise the Agreement and have it reviewed by legal counsel, if desired, and, therefore, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party shall not be employed in the interpretation of this Agreement.

13.6 Governing Law . This Agreement will be governed by and construed in accordance with the laws of the United States and the State of California. Each party consents to the jurisdiction and venue of the state or federal courts in San Diego, California, if applicable, in any action, suit, or proceeding arising out of or relating to this Agreement.

13.7 Notices . Any notice required or permitted by this Agreement shall be in writing and shall be delivered as follows with notice deemed given as indicated: (a) by personal delivery when delivered personally; (b) by overnight courier upon written verification of receipt; (c) by telecopy or facsimile transmission upon acknowledgment of receipt of electronic transmission; or (d) by certified or registered mail, return receipt requested, upon verification of receipt. Notice shall be sent to the addresses set forth below, or such other address as either party may specify in writing.

13.8 Survival . Sections 8 (" ***No Conflict of Interest*** "), 9 (" ***Confidentiality and Proprietary Rights*** "), 10 (" ***Nonsolicitation*** "), 11 (" ***Injunctive Relief*** "), 12 (" ***Agreement to Arbitrate*** "), 13 (" ***General Provisions*** ") and 14 (" ***Entire Agreement*** ") of this Agreement shall survive Executive's employment by the Company.

14. Entire Agreement . This Agreement, including the Confidential Information and Invention Assignment Agreement incorporated herein by reference and the applicable Company equity incentive plans and related option documents described in Section 4.3 of this Agreement, constitutes the entire agreement between the parties relating to this subject matter and supersedes all prior or simultaneous representations, discussions, negotiations, and agreements, whether written or oral. This agreement may be amended or modified only with the written consent of Executive and the Board of Directors of the Company. No oral waiver, amendment or modification will be effective under any circumstances whatsoever.

[Remainder of Page Intentionally Left Blank]

THE PARTIES TO THIS AGREEMENT HAVE READ THE FOREGOING AGREEMENT AND FULLY UNDERSTAND EACH AND EVERY PROVISION CONTAINED HEREIN. WHEREFORE, THE PARTIES HAVE EXECUTED THIS AGREEMENT ON THE DATES SHOWN BELOW.

Brandi Roberts

Dated: 07/05/2017

By: /s/ Brandi Roberts

Brandi Roberts

Address:

REVA MEDICAL, INC.

Dated: 07/13/2017

By: /s/ Regina Groves

Regina Groves, Chief Executive Officer

Address: REVA Medical, Inc.
5751 Copley Drive, Suite B
San Diego, CA 92111

Exhibit A

GENERAL RELEASE

1. General Release by Executive . Executive unconditionally, irrevocably and absolutely releases and discharges the Company, and any parent and subsidiary corporations, divisions and affiliated corporations, partnerships or other affiliated entities of the Company, past and present, as well as the Company's employees, officers, directors, agents, successors and assigns (collectively, " ***Released Parties*** "), from all claims related in any way to the transactions or occurrences between them to date, to the fullest extent permitted by law, including, but not limited to, Executive's employment with the Company, the termination of Executive's employment, and all other losses, liabilities, claims, charges, demands and causes of action, known or unknown, suspected or unsuspected, arising directly or indirectly out of or in any way connected with Executive's employment with the Company. This release is intended to have the broadest possible application and includes, but is not limited to, any tort, contract, common law, constitutional or other statutory claims arising under local state or federal law, including, but not limited to alleged violations of the California Labor Code, the California Fair Employment and Housing Act, Title VII of the Civil Rights Act of 1964, the Americans with Disabilities Act, and the Age Discrimination in Employment Act of 1967, as amended, and all claims for attorneys' fees, costs and expenses. Executive expressly waives Executive's right to recovery of any type, including damages or reinstatement, in any administrative or court action, whether state or federal, and whether brought by Executive or on Executive's behalf, related in any way to the matters released herein. However, this general release is not intended to bar any claims that, by statute, may not be waived, such as claims for workers' compensation benefits, unemployment insurance benefits, statutory indemnity, any challenge to the validity of Executive's release of claims under the Age Discrimination in Employment Act of 1967, as amended, as set forth in this General Release Agreement; any claims for payment or benefits under the Executive Employment Agreement made effective as of August 28, 2017 by and between the Company and the Executive; any claim or cause of action for indemnification pursuant to any applicable indemnification agreement, any D&O insurance policy applicable to Executive and/or the Company's certificates of incorporation, charter and by-laws or any claim for contribution or any rights Executive may have to vested benefits under any health and welfare plans or other employee benefit plans or programs sponsored by the Company.

Executive acknowledges that Executive may discover facts or law different from, or in addition to, the facts or law that Executive knows or believes to be true with respect to the claims released in this General Release and agrees, nonetheless, that this General Release shall be and remain effective in all respects notwithstanding such different or additional facts or the discovery of them.

Executive declares and represents that Executive intends this General Release to be complete and not subject to any claim of mistake, and that the release herein expresses a full and complete release and Executive intends the release herein to be final and complete. Executive executes this release with the full knowledge that this release covers all possible claims against the Released Parties, to the fullest extent permitted by law and the terms of this General Release.

2. California Civil Code Section 1542 Waiver . Executive expressly acknowledges and agrees that all rights under Section 1542 of the California Civil Code are expressly waived. That section provides:

> A GENERAL RELEASE DOES NOT EXTEND TO CLAIMS WHICH THE CREDITOR DOES NOT KNOW OR SUSPECT TO EXIST IN HIS OR HER FAVOR AT THE TIME OF EXECUTING THE RELEASE, WHICH IF KNOWN BY HIM OR HER MUST HAVE MATERIALLY AFFECTED HIS OR HER SETTLEMENT WITH THE DEBTOR.

3. Representation Concerning Filing of Legal Actions . Executive represents that, as of the date of this General Release, Executive has not filed any lawsuits, charges, complaints, petitions, claims or other accusatory pleadings against the Company or any of the other Released Parties in any court or with any governmental agency.

4. Nondisparagement . Executive agrees that Executive will not make any voluntary statements, written or oral, or cause or encourage others to make any such statements that defame, disparage or in any way criticize the personal and/or business reputations, practices or conduct of the Company or any of the other Released Parties. The Company agrees that the Company, will direct its officers and directors not to make any voluntary statements, written or oral, or cause or encourage others to make any such statements that defame, disparage or in any way criticize the personal and/or business reputation, practices or conduct of Executive.

5. Confidentiality and Return of the Company Property . Executive understands and agrees that as a condition of receiving the Severance Package, all Company property must be returned to the Company on or before the separation date or within a reasonable time thereafter. By signing this General Release, Executive represents and warrants that Executive has returned to the Company on or before the Executive's execution of this General Release, all Company property, data and information belonging to the Company and agrees that Executive will not use or disclose to others any confidential or proprietary information of the Company or the Released Parties. In addition, Executive agrees to keep the terms of the Severance Package confidential between Executive and the Company, except that Executive may tell Executive’s immediate family and attorney or accountant, if any, as needed, but in no event should Executive discuss the Severance Package or its terms with any current or prospective employee of the Company.

6. Continuing Obligations . Executive further agrees to comply with the continuing obligations regarding confidentiality set forth in the surviving provisions of the Company’s Proprietary Information and Inventions Agreement previously signed by Executive.

7. No Admissions . By entering into this General Release Agreement, the Released Parties make no admission that they have engaged, or are now engaging, in any unlawful

conduct. The parties understand and acknowledge that this General Release Agreement is not an admission of liability and shall not be used or construed as such in any legal or administrative proceeding.

8. Older Workers' Benefit Protection Act . This General Release is intended to satisfy the requirements of the Older Workers' Benefit Protection Act, 29 U.S.C. sec. 626(f). Executive is advised to consult with an attorney before executing this General Release.

8.1 Acknowledgments/Time to Consider . Executive acknowledges and agrees that (a) Executive has read and understands the terms of this General Release Agreement; (b) Executive has been advised in writing to consult with an attorney before executing this General Release Agreement; (c) Executive has obtained and considered such legal counsel as Executive deems necessary; (d) Executive has been given twenty-one (21) days to consider whether or not to enter into this General Release Agreement (although Executive may elect not to use the full 21-day period at Executive's option); and (e) by signing this General Release Agreement, Executive acknowledges that Executive does so freely, knowingly, and voluntarily.

8.2 Revocation/Effective Date . This General Release Agreement shall not become effective or enforceable until the eighth day after Executive signs this General Release Agreement. In other words, Executive may revoke Executive's acceptance of this General Release Agreement within seven (7) days after the date Executive signs it. Executive's revocation must be in writing and received by the Company on or before the seventh day in order to be effective. If Executive does not revoke acceptance within the seven (7) day period, Executive's acceptance of this General Release Agreement shall become binding and enforceable on the eighth day (" ***Effective Date*** "). The Severance Package will become due and payable after the Effective Date, provided Executive does not revoke.

8.3 Preserved Rights of Executive . This General Release Agreement does not waive or release any rights or claims that Executive may have under the Age Discrimination in Employment Act that arise after the execution of this General Release Agreement. In addition, this Agreement does not prohibit Executive from challenging the validity of this General Release Agreement's waiver and release of claims under the Age Discrimination in Employment Act of 1967, as amended.

9. Severability . In the event any provision of this General Release Agreement shall be found unenforceable, the unenforceable provision shall be deemed deleted and the validity and enforceability of the remaining provisions shall not be affected thereby.

10. Full Defense . This General Release Agreement may be pled as a full and complete defense to, and may be used as a basis for an injunction against, any action, suit or other proceeding that may be prosecuted, instituted or attempted by Executive in breach hereof.

11. Applicable Law . The validity, interpretation and performance of this General Release Agreement shall be construed and interpreted according to the laws of the United States of America and the State of California. Executive consents to the jurisdiction and venue of the state or federal courts in San Diego, California in any action, suit, or proceeding arising out of or relating to this Agreement.

12. Entire Agreement; Modification . This General Release Agreement, including the surviving provisions of the Company's Proprietary Information and Invention Agreement previously executed by Executive, and the Executive Employment Agreement made effect ive as of August 28 , 2017 by and between the Company and the Executive are intended to be the entire agreement between the parties and supersedes and cancels any and all other and prior agreements, written or oral, between the parties regarding this subject matter. This General Release Agreement may be amended only by a written instrument executed by all parties hereto.

SIXTH AMENDMENT TO TELECOM BUSINESS CENTER NNN LEASE

THIS SIXTH AMENDMENT TO TELECOM BUSINESS CENTER NNN LEASE ("Amendment"), dated for reference purposes only as of October 5, 2017, is entered into by and between GILDRED BUILDING COMPANY, a California corporation, doing business as Campus at Copley (“Landlord”), as successor in interest to HB COPLEY BUSINESS CENTER, LLC, a Delaware limited liability company (“Prior Landlord”) as successor in interest to ARI - Copley Business Center, LLC, ARI - CBC 1, LLC, ARI - CBC 2, LLC, ARI - CBC 3, LLC, ARI - CBC 4, LLC, ARI - CBC 5, LLC, ARI - CBC 6, LLC, ARI - CBC 7, LLC, ARI - CBC 8, LLC, ARI - CBC 9, LLC, ARI - CBC 10, LLC, ARI - CBC 11, LLC, ARI - CBC 12, LLC, ARI - CBC 13, LLC, ARI - CBC 14, LLC, ARI - CBC 15, LLC, ARI - CBC 16, LLC, ARI - CBC 17, LLC, ARI - CBC 18, LLC, ARI - CBC 19, LLC, ARI - CBC 20, LLC, ARI - CBC 21, LLC, ARI - CBC 22, LLC, ARI - CBC 23, LLC, ARI - CBC 24, LLC, ARI - CBC 25, LLC, ARI -CBC 26 , LLC, ARI - CBC 27, LLC, ARI - CBC 28, LLC, ARI - CBC 29, LLC, ARI - CBC 30, LLC, ARI - CBC 31, LLC, ARI - CBC 32, LLC, ARI - CBC 33, LLC, ARI - CBC 34, LLC, and ARI - CBC 35, LLC, each a Delaware limited liability company (collectively, "ARI-CBC Prior Landlord"), and REVA MEDICAL, INC . , a Delaware corporation ("Tenant") .

RECITALS :

A. Landlord, as successor in interest to Prior Landlord, and Tenant are parties to that certain Telecom Business Center NNN Lease dated December 18, 2001 (the "Original Lease"), by and between FSP Telecom Business Center Limited Partnership, a Massachusetts limited partnership ("FSP"), as landlord, and Tenant (then known as "MD3 Incorporated"), as tenant, as amended by: (i) that certain First Amendment to Lease dated January 3, 2005 (the "First Amendment"), by and between FSP, as landlord, and Tenant, as tenant ; (ii) that certain Second Amendment to Lease dated February 18, 2006 (the "Second Amendment"), by and between ARI Commercial Properties, Inc., a California corporation, agent for the tenant in common owners (“ARI Commercial”), successor-in-interest to FSP, as landlord, and Tenant, as tenant; (iii) that certain Third Amendment to Lease dated December 14 , 2006 (the "Third Amendment"), by and between ARI Commercial, as landlord, and Tenant, as tenant; (iv) that certain Fourth Amendment to Lease dated May 7, 2008 (the "Fourth Amendment"), by and between ARI Commercial, as landlord, and Tenant, as tenant; and that certain Fifth Amendment to Telecom Business Center NNN Lease dated August 28, 2011 (“Fifth Amendment”) by and between ARI-CBC Prior Landlord, as successor in interest to ARI Commercial, as landlord, and Tenant, as tenant (the Original Lease, as amended by the First Amendment, Second Amendment, Third Amendment, Fourth Amendment and Fifth Amendment, is hereafter, the "Lease"). Pursuant to the Lease, Tenant currently leases from Landlord approximately 37,470 leasable square feet of space (the “Premises”) commonly known as Suites 51-A, 51-B and 51-E within that certain building located at 5751 Copley Drive, San Diego, California (the "Building"), as more particularly described in the Lease . Capitalized terms used in this Amendment without definition have the meanings given them in the Lease. The Lease, as amended by this Amendment, is sometimes hereinafter referred to as the “Amended Lease”.

B. The Lease, by its terms, will expire on January 31, 2018 (“Prior Expiration Date”), and the parties desire to extend the term of Lease (“Term” or “Term of the Lease”) and amend the Lease on the following terms and conditions.

AGREEMENT :

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

1. Extension . The Term of the Lease is hereby extended for a period of eighty eight (88) months and shall expire on May 31, 2025 (“Extended Expiration Date”) unless sooner terminated in accordance with the terms of the Amended Lease. That portion of the Term commencing the day immediately following the Prior Expiration Date (the “Extended Term Commencement Date”) and

ending on the Extended Expiration Date shall be referred to herein as the “Extended Term”. Neither this Amendment nor this extension operates to release Tenant fro m liability for any amounts owing or to come due under the Lease (e.g., without limitation, rents for periods prior to the Extended Term Commencement Date) o r any defaults under the Lease.

2. Monthly Base Rent . Tenant shall pay Monthly Base Rent for the Premises for each month of the Extended Term as follows:

EXTENDED TERM	MONTHLY BASE RENT
02/01/2018 – 01/31/2019	$65,573.00
02/01/2019 – 01/31/2020	$67,540.00
02/01/2020 – 01/31/2021	$69,566.00
02/01/2021 – 01/31/2022	$71,653.00
02/01/2022 – 01/31/2023	$73,803.00
02/01/2023 – 01/31/2024	$76,017.00
02/01/2024 – 01/31/2025	$78,298.00
02/01/2025 – 05/31/2025	$80,647.00

The Amended Lease is a triple net lease, and Tenant is obligated to pay Monthly Base Rent in full, as and when due pursuant to the Amended Lease, in addition to, and not in lieu of, Tenant’s obligations under the Amended Lease to pay Operating Expenses, Real Property Taxes, utilities, janitorial services, additional rents, costs and other amounts pursuant to the Amended Lease, all in accordance with the terms of the Amended Lease. Without limiting the foregoing, Tenant shall continue to be responsible for all utilities and janitorial services with respect to the Premises.

Provided the Amended Lease is not terminated due to Tenant being in material default under the Amended Lease beyond applicable cure periods, Landlord agrees to abate Tenant’s obligation to pay the Monthly Base Rent due for the months of March 2018, February 2019, February 2020, and February 2021 (the “Abatement Month(s)”) (the total amount of abated Monthly Base Rent being hereinafter collectively referred to as the “Abated Amount”). Tenant will still be responsible for the payment of all other monetary obligations due under the Amended Lease during such Abatement Months including, without limitation, Tenant’s Percentage Share of Operating Expenses and Real Property Taxes. Tenant acknowledges that any material default by Tenant under the Amended Lease will cause Landlord to incur costs not contemplated hereunder, the exact amount of such costs being extremely difficult and impracticable to ascertain. Therefore, should Landlord at any time during the Extended Term terminate the Amended Lease as a result of a material default by Tenant, then, in addition to all of Landlord’s other rights and remedies (including, without limitation, the right to recover damages), to the extent permissible under applicable law the total unamortized sum of such Abated Amount (amortized on a straight line basis over the Extended Term) so conditionally excused shall become immediately due and payable by Tenant to Landlord. Nothing herein is intended to limit any other rights or remedies available to Landlord under the Amended Lease or at law or in equity (including, without limitation, the remedies under California Civil Code Section 1951.2 and/or 1951.4 and any successor statutes or similar laws) in the event Tenant materially defaults under the Amended Lease.

3. Operating Expenses and Real Property Taxes . Prior to the Extended Term Commencement Date and continuing through the Extended Term, Tenant shall continue to pay Tenant’s Percentage Share of Operating Expenses and Tenant’s Percentage Share of Real Property Taxes in accordance with the Amended Lease including, without limitation, Sections 6 and 9 of the Original Lease. Tenant acknowledges that Landlord has the right to determine Tenant’s Percentage Share from time to time as provided under the Amended Lease, including, without limitation, Section 6.4 of the Original Lease, and that the Premises contain 100% of the leasable space of the Building. Landlord agrees that in calculating Tenant’s Percentage Share of Operating Expenses for calendar year 2019 and subsequent calendar years or portions thereof to the extent within the Extended Term, that portion of Operating Expenses which are controllable by Landlord (specifically excluding, without limitation, insurance premiums, taxes, assessments, Real Property Taxes, costs of utilities, payments

pursuant to S ection 6.1.9 of the Original Lease , costs of capital improvements, costs not within L andlord's reasonable control, costs for compliance with laws, and cost s arising from force majeure) will not increase more than five percent (5%) per year over the amount of the controllable Operating Expenses for calendar year 2018 ("Controllable Operating Expense Base Year") on a cumulative basis . By way of example only, if the controllable Operating Expenses in calendar year 2018 are $100,000.00, then calendar year 2019's cap is $105,000.00, calendar year 2020's cap is $110,000.00, calendar year 2021's cap is $115,000.00, etc. If the Extended Term is extended pursuant to Section 10 below , then the foregoing limitation on increases of controllable Operating Expenses will continue, however, commencing with calendar year 2026 and for each subsequent calendar year or portion thereo f within the first Option Term , the Controllable Operating Expense Base Year shall be calendar year 2025, and likewise, i f the Extended Term is further extended by the second Option Term, then commencing with calendar year 2031 and for each subsequent calendar year or portion thereof within the second Option Term, the Controllable Operating Expense Base Year shall be calendar year 2030 . Without limiting the scope of costs or expenses that are not controllable Operating Expenses, the Parti es agree that all costs and expenses of a capital nature (e.g., without limitation, capital improvements , equipment, tools, repairs , replacements or assets) are not subject to the foregoing limitations and caps . In addition to the other Operating Expenses , and without application of the foregoing limitations or cap s or any Operating Expense exclusions or limitations , Tenant shall pay to Landlord as an Operating Expense throughout the Extended Term an annual prope rty management fee (inclusive of all fees and costs typically encompassed as part of the property management fees for a commercial building in the Kearny Mesa submarket) equal to th ree percent (3%) of the annual base r ent (i.e., 12 times the Monthly Base Rent applicable to the year for which such fee is being assessed) under the Amended Lease .

4. Security Deposit . As of the date of this Amendment, Landlord holds Sixty Thousand Four Hundred Dollars ($60,400.00) as a Tenant security deposit. Landlord continues to have the right to hold, use or apply such security deposit pursuant the provisions of the Amended Lease, including, without limitation, Section 7 of the Original Lease.

5. Tenant Improvements . The work letter attached hereto as Exhibit "A" ("Work Letter") is incorporated herein by this reference. Tenant agrees that the Tenant Improvements, as defined in the Work Letter, shall be installed in accordance with the Work Letter. Subject to the terms and conditions of the Work Letter, Landlord will provide the Tenant Allowance, as defined in the Work Letter. Tenant is currently in possession of the Premises, accepts the Premises in its AS-IS condition, and agrees that Landlord has no existing or future obligation to make any refurbishments, alterations or improvements to the Premises, or to pay for, reimburse or provide an allowance for the cost of any refurbishments, alterations or improvements to the Premises, except only for the one-time Tenant Allowance as expressly provided under, limited to, and subject to the terms and conditions of, this Amendment and the Work Letter.

6. HVAC Units . Attached hereto as Exhibit "B" and incorporated herein by this reference is a general depiction of the HVAC units on the Building roof as of the date of this Amendment ("HVAC Unit Depiction"). The "Phase I Units" mean the nine (9) HVAC units identified as the Phase 1 Units on the HVAC Unit Depiction. The "Phase 2 Units" mean the ten (10) HVAC units identified as the Phase 2 Units on the HVAC Unit Depiction, excluding ducting. The "Remaining Units" mean the five (5) HVAC units, excluding ducting, identified on the HVAC Unit Depiction as units HP3, HP4, HP5, HP6 and HP7. The Phase I Units have been replaced by Landlord and the unit identified as HP25 on the HVAC Unit Depiction has been removed (collectively, the "Phase 1 Work"). Landlord has borne the cost of the Phase 1 Work, which cost will not be passed through to Tenant as part of Operating Expenses. Landlord will cause the replacement of the Phase 2 Units. Landlord will use commercially reasonable efforts to cause the replacement of the Phase 2 Units within six (6) months following the Extended Term Commencement Date. The cost of the replacement of the Phase 2 Units will be amortized over their useful life (not less than 18 years) in a commercially reasonable manner Landlord elects (which may include reasonable charges for interest on the unamortized amount, not exceeding 7% per annum) and billed to Tenant outside of Operating Expenses. Tenant shall pay to Landlord such amortized amounts as so billed from time to time concurrently with Tenant's payments of Tenant's Percentage

Share of Operating Expenses as and when due (and if Landlord elects to estimate Tenant's Percentage Share of Operating Expenses pursua nt to Section 6.3 of the Original Lease, then Tenant's payments of such amortiz ed amounts shall be paid in monthly installments along with Tenant's monthly payment of such estimates unless directed otherwise by Landlord) . Tenant is obligated to pay one hundred percent (100%) of such amortized amounts falling within the Extended Term as opposed to some lesser T enant Percentage Share, and such amortized amounts are not subject to any cap, maximum threshold , condition or limitation applicable to capit al improvements, Operating Expenses (controllable or otherwise) or otherwise , notwithstanding any provision of the Amended Lease to the contrary. The Remaining Units wil l be replaced by Landlord if the cost to repair them to working condition is equal to or more than twenty five percent (25%) of the cost to replace the Remaining Units, all a s determined by Landlord in a commercially reasonable manner. If Landlord replaces the Remaining Units, Landlord shall defer such replacement to some time during calendar year 2019, and the cost of replacement will be passed through to Tenant as part of the Operating Expenses attri butable solely to the Building without any cap, maximum threshold, condition or limitation applicable to capit al improvements, Operating Expenses (controllable or otherwise) or otherwise, notwithstanding any provision of the Amended Lease to the contrary. Landlord' s obligations under this S ection 6 are subject to Tenant's prompt cooperation in providing Landlord's contractors with access to the Building roof (and other areas of the Building as rea sonably needed or convenient). Landlord' s obligations under this S ection 6 are also subject to delays due to any force majeure events (including, without limitation, inclement weather or inability to timely obtain labor, equipment or materials) and are conditioned on Tenant not becoming in material default (beyond applicable cure periods) under the Amended Lease . Further, the ob ligations of Landlord under this Section 6 shall be tolled f or any delays caused by Tenant.

7. Roof Membrane . Landlord will cause the exterior roof membrane of the Building roof to be overlaid, at Landlord's sole cost, after completion of the replacement of the Phase 2 Units. Landlord's obligations under this Section 7 are subject to Tenant's prompt cooperation in providing Landlord's contractors with access to the Building roof (and other areas of the Building as reasonably needed or convenient). Landlord's obligations under this Section 7 are also subject to delays due to any force majeure events (including, without limitation, inclement weather or inability to timely obtain labor, equipment or materials). Further, the obligations of Landlord under this Section 7 shall be tolled for any delays caused by Tenant.

8. Parking . Provided Tenant continues to lease one hundred percent (100%) of the leasable space in the Building, Tenant's parking rights during the Extended Term are as follows: Tenant may use on a first-come first-serve basis, and in common with other tenants and permittees of the Project, up to a maximum total of one hundred twenty (120) unreserved parking spaces (inclusive of parking spaces designated for disabled persons, subject to applicable law); provided, however, if, at any time, the tenants of the buildings on Parcel 1 and Parcel 3 (as defined below) are no longer authorized by Landlord to park in the parking spaces on Parcel 2 (as defined below), then, from and after notice thereof to Tenant from Landlord, Tenant shall not be entitled to use, and shall not use, parking spaces on Parcel 3 and Tenant shall not be entitled to use, and Tenant shall not use, more than thirteen (13) unreserved parking spaces on Parcel 1 or any parking spaces designated for visitors on Parcel 1. In all events, Tenant's parking space allocations hereunder are reduced pursuant to Section 15. j. of the Fifth Amendment. The above maximum parking is inclusive of, and not in addition to, any parking space rights under any shared parking agreements. Tenant does not have the right to use any reserved parking spaces at the Project. Tenant's rights and uses regarding parking spaces are subject to the restrictions and the Landlord rights and reservations under the Amended Lease (including, without limitation, Landlord's right under Section 23 of the Original Lease to re-designate the areas of the Common Areas where Tenant may park), the Rules, applicable laws, and all declarations, covenants, conditions, restrictions, parking agreements, easements and easement agreements encumbering the Project (or any portion of the Project) now or hereafter in effect or recorded including, without limitations, any amendments, restatements or modifications thereto. "Parcel 1" is the area described and depicted as Parcel 1 on Exhibit C attached hereto, which exhibit is incorporated herein by reference. Likewise, "Parcel 2" is the area described and depicted as Parcel 2 on Exhibit C and "Parcel 3" is the area described and depicted as Parcel 3 on Exhibit C.

9. Roof Access . During the Extended Term while Tenant leases and occupies one hundred percent (100%) of the leasable square feet of the Building, Landlord will use commercially rea sonable efforts (a) not to authorize access to the Building roof by other tenants of the Project who do not lease space in the Building and do not have a then existing right of acce ss to the Building roof and (b) to coordinate timing of any Building roof access by Landlord or its agents or contractors before accessing such roof; provided, however, that such efforts are not required in connection with any emergency or exigent circumstance or during any period that Tenant is in material default under Amended Lease or in connection with work or inspections relating to compliance with applicable law or requirements under governance documents of record affecting the Building or Project.

10. Extension Options . Tenant acknowledges and agrees that Tenant has no options and/or rights to lease additional space at the Project and, except as otherwise expressly provided herein below, Tenant has no options and/or rights to extend the Extended Term . Subject to the terms and conditions of this Section 10, Landlord hereby grants to Tenant up to two (2) options to extend the Extended Term (each an “Extension Option”), each for a consecutive period of five (5) years (each an "Option Term"), on the same terms, covenants and conditions as provided for in the Amended Lease during the Extended Term except as otherwise provided below in this Section 10. Monthly Base Rent shall initially be equal to the "fair market rental rate" for the Premises for each Option Term as defined and determined in accordance with the provisions of Section 10 . a. below, subject to annua l rent increases during each Option Term. The first Extension Option must be exercised, if at all , by written notice ("Extension Notice") delivered by Tenant to Landlord no sooner than that date which is fifteen (15) months and no later than that date which is ten (10) months prior to the expiration of the Extended Term. The second Extension Option must be exercised, if at all , by Extension Notice delivered by Tenant to Landlord no sooner than that date which is fifteen (15) months and no later than that date which is ten (10) months prior to the expiration of the first Option Term; provided, however, that the first and second Extension Option shall automatically become void and of no effect if Tenant fails to validly exercise the first Extension Option. Provided Tenant has properly and validly exercised an Extension Option, the Extended Term shall be extended by the five (5) year Option Term for that Extension Option, and all terms, covenants and conditions of the Amended Lease shall remain in full force and effect except that (a) Monthly Base Rent shall initially be equal to the "fair market rental rate" for the Premises for that Option Term as defined and determined in accordance with the provisions of Section 10 . a. below, subject to annua l rent increases during that Option Term, (b) the other economic terms will be established by Landlord, which may be taken into consideration when determining the fair market rental rate for that Option Term, (c) if Tenant fails to timely and validly exercise the second Extension Option, the second Extension Option shall be void and of no effect and tenant shall have no further options remaining, (d) after the exercise of the second Extension Option, Tenant shall have no further options remaining, and (e) Landlord shall have no obligation whatsoever in connection with any such extension to remodel, alter or improve the Premises or Building for use by Tenant, to provide any improvement or construction allowance to Tenant, or to pay or reimburse Tenant for any remodeling, alterations or improvements to the Premises or Building. The extension rights under this Section are “one-time, if at all” rights only, and are not renewing or reoccurring rights whether in connection with any further extension of the Term or otherwise.

a. Fair Market Rent

i) The term "fair market rental rate" as used in this Section 10 means the monthly amount, projected for each year of the Option Term (including annual increases), that a willing, non-equity, private sector tenant (excluding sublease and assignment transactions) would pay, and a willing landlord of a comparable quality building located in the Kearny Mesa submarket would accept, in an arm's length transaction (what Landlord is accepting in then current transactions for the Project may be considered for purposes of projecting rent for the Option Term), for space of comparable size, quality and floor height as the Premises, taking into account the age, quality and layout of the then existing improvements in the Premises , and taking into account all other relevant factors or items that professional real estate brokers or professional real estate appraisers customarily consider, including, but not limited to, lease term, rental rates, space availability, Premises size, tenant improvement allowances, parking

charges and any lease concessions (e.g., free rent or abated rent), if any, then being charged or granted by Landlord or the le ssors of such similar buildings in such submarket . All economic terms other than the Monthly Base Rent, such as , without limitation, tenant improvement allowance amounts, if any, operating expense allowances, if any, parking charges, etc . , will be establ i shed by Land l o rd and may be considered when determining the fair market rental rate for the Option Term.

ii) In the event Tenant timely delivers a valid Extension Notice, Landlord shall use commercially reasonable efforts to give to Tenant written notice of Landlord's determination of the fair market rental rate for the corresponding Option Term not later than sixty (60) days after the date of Landlord's receipt of the Extension Notice . Tenant shall have thirty (30) days ("Tenant's Review Period") after receipt of Landlord's notice of the fair market rental rate within which to accept such fair market rental rate or to reasonably object thereto in writing in a notice delivered to Landlord, which notice will set forth the reasonable basis for the objection . If Tenant fails to deliver such notice prior to the expiration of Tenant's Review Period, Tenant shall be deemed to have agreed with Landlord that the fair market rental rate is the fair market rental rate determined by Landlord, and the Term will be extended by the applicable Option Term as provided hereinabove in this Section 10. If, however, within Tenant's Review Period Tenant timely notifies Landlord as provided above of Tenant's reasonable objection to Landlord's determination of the fair market rental rate, Landlord and Tenant will meet to present and discuss their individual determinations of the fair market rental rate for the Premises under the parameters set forth in Section 10 . a.i) above and shall attempt to negotiate a rental rate on the basis of such individual determinations. Such meeting shall occur no later than ten (10) days after the expiration of Tenant's Review Period. The parties shall each provide the other with such supporting information and documentation as they deem appropriate . At such meeting, if Landlord and Tenant are unable to agree upon the fair market rental rate, they shall each submit to the other their respective best and final offer as to the fair market rental rate . If Landlord and Tenant fail to reach agreement on such fair market rental rate within five (5) business days following such a meeting (which fifth business day may be referred to as the "Outside Agreement Date"), Tenant's delivery of the Extension Notice shall be rescinded and all Extension Options will be deemed null and void unless either Landlord or Tenant gives written notice to the other, within five (5) business days after the Outside Agreement Date, of its decision to submit the matter to appraisal, whereupon the Extension Notice shall automatically be and become irrevocable and the parties shall proceed to determine the fair market rental rate for the Premises in accordance with the appraisal provisions set out below .

iii) (a) Landlord and Tenant shall each appoint one (1) independent appraiser who shall by profession be an M.A.I. certified real estate appraiser who shall have been active over at least the five (5) year period ending on the date of such appointment in the leasing of commercial properties in the Kearny Mesa submarket. The determination of the appraisers shall be limited solely to the issue of whether Landlord's or Tenant's last proposed (as of the Outside Agreement Date) best and final fair market rental rate for the Premises is the closest to the actual fair market rental rate for the Premises as determined by the appraisers, taking into account the requirements specified in Section 10.a.i). above. Each such appraiser shall be appointed within ten (10) business days after the Outside Agreement Date.

(b) The two (2) appraisers so appointed shall within ten (10) business days of the date of the appointment of the last appointed appraiser agree upon and appoint a third appraiser who shall be qualified under the same criteria set forth hereinabove for qualification of the initial two (2) appraisers.

(c) The three appraisers shall within ten (10) business days of the appointment of the third appraiser reach a decision as to whether the parties shall use Landlord's or Tenant's submitted best and final fair market rental rate, and shall notify Landlord and Tenant thereof. During such ten (10) business day period, Landlord and Tenant may submit to the appraisers such information and documentation to support their respective positions as they shall deem reasonably relevant and Landlord and Tenant may each appear before the appraisers jointly to question and respond to questions from the appraisers.

(d) The decision of the majority of the three (3) appraisers shall be binding upon Landlord and Tenant and neither party shall have the right to reject the decision (absent material manifest error by an appraiser) or to undo the exercise of the Extension Option. If either Landlord or Tenant fails to appoint an appraiser within the ti me period sp ecific in Section 10 .a.iii)(a) hereinabove, the appraiser appointed by one of them shall within ten (10) business days following the date on which the party failing to appoint an appraiser could have last appointed such appraiser reach a decision based upon the same procedures as set forth above (i.e., by selecting either Landlord's or Tenant's submitted best and final fair market rental rate), and shall notify Landlord and Tenant thereof, and such appraiser's decision shall be binding upon Landlord and Tenant and neither party shall have the right to reject the decision (abse nt material manifest error by the appraiser) or to undo the exercise of the Extension Options.

(e) If the two (2) appraisers fail to agree upon and appoint a third appraiser, either party, upon ten (10) days written notice to the other party, can apply to the Presiding Judge of the Superior Court of San Diego County to appoint a third appraiser meeting with qualifications set forth herein. The third appraiser, however, selected shall be a person who has not previously acted in any capacity for either party.

(f) The cost of each party's appraiser shall be the responsibility of the party selecting such appraiser, and the cost of the third appraiser (or arbitration, if necessary), shall be shared equally by Landlord and Tenant.

(g) If the process described hereinabove has not resulted in a selection of either Landlord's or Tenant's submitted best and final fair market rental rate by the commencement of the applicable extension term, then the fair market rental rate estimated by Landlord will be used until the appraiser(s) reach a decision, with an appropriate rental credit and other adjustments for any overpayments of monthly installments of Base Rent if the appraisers select Tenant's submitted best and final estimate of the fair market rental rate. The parties shall enter into an amendment to the Amended Lease confirming the terms of the decision.

b. Extension Options in General . An Extension Option may be exercised only by the original Tenant executing this Amendment or an Assignee Permitted Transferee (as defined below), while subleasing not more than 50% of the Premises and without the intent of thereafter assigning the Amended Lease or subletting the Premises, and may not be exercised or be assigned, voluntarily or involuntarily, by any person or entity other than the original Tenant executing this Amendment or an Assignee Permitted Transferee. The Extension Options under this Amendment are neither assignable separate and apart from the Amended Lease nor separable from the Amended Lease in any manner, either by attempted reservation or otherwise. Tenant will have no right to exercise an Extension Option, notwithstanding any provision of the grant of options to the contrary, and Tenant's exercise of any Extension Option may be nullified by Landlord, in Landlord's sole and absolute discretion, and deemed of no further force or effect, if (i) Tenant is in material default under the terms of the Amended Lease beyond applicable cure periods as of Tenant's exercise of the Extension Option in question or at any time after the exercise of the Extension Option and prior to the commencement of the Option Term, or (ii) Tenant has sublet more than 50% of the Premises. The Extension Options are economic terms which Landlord, in its sole and absolute discretion, may or may not offer in conjunction with any future extensions of the Extended Term. The term "Assignee Permitted Transferee" means a Permitted Transferee as defined in Section 16.1 of the Original Lease (as that Section was modified by Section 16 of the Fifth Amendment) who is then the successor in interest to the Amended Lease by assignment from the original Tenant executing this Amendment in compliance with such Section 16.1. Tenant acknowledges and agrees that Tenant has no option, right of first refusal or right of first offer to purchase the Building, the Project or any portion thereof or to lease any expansion space within the Project.

11. Early Termination Right . Tenant acknowledges and agrees that except as otherwise expressly provided below in this Section 11, Tenant has no early termination option and/or right under the Amended Lease. Tenant may terminate the Amended Lease as of January 31, 2023 ("Early

Termination Date") on the terms and subject to the conditions of the Amended Lease, including, without limitation, this Section 11 . To exercise such early termination right, Tenant must (a) on or before April 29 , 2022 , deliver written notice to Landlord that Tenant elects to terminate the Amended Lease as of the Ea rly Termination Date ("Early Termination Notice") and (b) pay to Landlord Six Hundred Fifty Thousand Dollars ($650,000.00) in immediately available U.S. funds ("Early Termination Fee") concurren tly with delivery of the Early Termination Notice . Tenant's failure to make such delive ry and concurrent payment by April 29, 2022 shall be deemed Te nant's irrevocable waiver of the early terminati on right hereunder, time being of the ess ence , and such right being a one-time right. The Early Termination Fee is consideration for Landlord permitting Tenant to terminate the Amended Leas e as of the Early Termination Date and does not limit Tenant's continuing obligation to pay rent or other amounts as and when due for , within, or accruing in or for , any periods on or prior to the Early Termination Date.

12. Notices . Landlord's address for notices is hereby amended to provide as follows:

Gildred Building Company
dba Campus at Copley
550 West C. Street, Suite 1820
San Diego, CA 92101
Attn: Gregg Haggart, CEO
Telephone: (619) 232-6361
Facsimile: (619) 696-0991

13. CASp Inspection: The Premises have not undergone an inspection by a Certified Access Specialist (CASp), and a disability access inspection certificate, as described in subdivision (e) of Section 55.53 of the California Civil Code, has not been issued for the Premises. In accordance with Section 1938 of the California Civil Code, Tenant is advised of the following: "A Certified Access Specialist (CASp) can inspect the subject premises and determine whether the subject premises comply with all of the applicable construction-related accessibility standards under state law. Although state law does not require a CASp inspection of the subject premises, the commercial property owner or lessor may not prohibit the lessee or tenant from obtaining a CASp inspection of the subject premises for the occupancy or potential occupancy of the lessee or tenant, if requested by the lessee or tenant. The parties shall mutually agree on the arrangements for the time and manner of the CASp inspection, the payment of the fee for the CASp inspection, and the cost of making any repairs necessary to correct violations of construction-related accessibility standards within the premises." Accordingly, the parties hereby agree that Tenant shall have the right, but not the obligation, to have a CASp inspect the Premises and determine whether the Premises complies with all of the applicable construction-related accessibility standards under state law; provided, however, that such CASp inspection shall not be conducted unless and until: (i) Tenant has first delivered at least ten (10) days' prior written notice to Landlord and the parties have thereafter entered into a written agreement confirming the timing, manner and confidentiality of such CASp inspection and any report thereon; and (ii) Tenant has agreed in writing that Tenant shall be solely liable for (and shall indemnify and defend Landlord harmless from and against any claims or liabilities relating to) any fees, costs or liabilities respecting such CASp inspection and any report thereon. If it is determined that the Premises do not meet all applicable construction-related accessibility standards, then Tenant shall promptly make, but subject to the Amended Lease provisions otherwise requiring Landlord's prior consent to repairs or other alterations to the Premises, any repairs necessary to correct violations of construction-related accessibility standards identified by such inspection, at Tenant's sole cost and expense (subject to Tenant's right to seek reimbursement from the Tenant Allowance for such purpose in accordance with the terms and conditions of the Work Letter).

14. Minor Alterations . Subject to the other provisions of the Amended Lease, Tenant may make a Minor Alteration (as defined below) to the interior of the Premises without necessity of obtaining Landlord's prior written consent if and only if: (a) at least thirty (30) days prior to commencement of construction, Tenant gives Landlord written notice of Tenant's intent to perform the Minor Alteration

along with a reasonably detailed written description of the intended Minor Alteration (which description must be reasonably sufficient in detail and cost breakdown to substantiate that t he proposed Alteration is in fact a Minor Alteration , the reasonably estimated total cost of the Minor Alteration, and that Landlord's consent is not required) , the estimated date of commencement of the construction of the Minor Alternation and specifying all contractors that Tenant intends to use; (b) the proposed Minor Alteration will not result in Landlord having to do any work or incur any costs or expenses (whether in connection with the Premises, Building, Common Areas or otherwise) ; (c) the proposed Minor Alter ation does not involve any Hazardous Materials other than as ma y be contained in minor quantities in typical construction materials , such as paint and carpet glue; (d) t he total cost of the proposed Minor Al ter ation shall not cause Tenant to exceed the Annual Minor Alteration Threshold (as hereinafter defined) ; and (e) the design, installation and use of the Minor Alteration shall be performed in compliance with all applicable laws and in compliance with the provisions of the Amended Lease . A "Minor Alteration" me ans an A lteration to the interior of the Premises that does not affect the Common Areas, the exterior or structure or roof of th e Building , any Building access doors or other Building entries, that is not visible from outside of the Premises, does not affect any portion of the Building systems (i.e., electrical, gas, plumbing, HVAC) outside of the Premises interior , does not involve the installation of any vaults or other uniquely heavy equipment , does not require a permit, and which would not result in the increase in premiums or cancellation of any applicable insurance coverage pursuant to the Amended Lease . Tenant agrees to comply with the provisions of the Amended Lease (including, without limitation, Sections 4.1, 13.3, and 13.5 of the Original Lease) in connection with each Minor Alteration including, without limitation, the design, installation, use, repair, replacement or re moval of each Minor Alteration. Tenant shall not make more than fifty thousand dollars ($50,000.00) in Mi nor Alter ations per calendar year ("Annual Minor Alteration Threshold").

15. Brokers . In connection with this Amendment, Tenant is represented by Jones, Lang, LaSalle and Hughes Marino (collectively, "Tenant's Broker") and Landlord is represented by CBRE ("Landlord's Broker"). In connection with this Amendment, Landlord is responsible for a leasing commission to Landlord's Broker pursuant to the terms and subject to the conditions of a separate written agreement between Landlord and Landlord's Broker. In connection with this Amendment, Landlord's Broker is responsible for payment of a leasing commission to Tenant's Broker pursuant to the terms and subject to the conditions of a separate written agreement between Landlord's Broker and Tenant's Broker. Tenant and Landlord each agree that no other person, firm, broker or finder is entitled to any commission or finder's fee in connection herewith. If any other person or entity brings a claim for a commission or finder's fee based on dealings or communications with Landlord or Tenant, then the party through whom such claimant makes its claim shall defend, indemnify and hold harmless the other party from and against such claim and the costs and expenses (including, without limitation, reasonable attorneys' fees) reasonably incurred by such indemnified party in connection with such claim.

16. Interpretation . Landlord and Tenant have cooperated and participated in the drafting of this Amendment and, therefore, the provisions of this Amendment shall be interpreted in accordance with their usual and customary meaning, and any rule of construction to the effect that ambiguities are to be resolved against the drafting party shall not apply in the interpretation of this Amendment. Headings in this Amendment are for convenience only and do not aid in the interpretation of the provisions of this Amendment. This Amendment is governed by and shall be construed in accordance with the laws of the State of California applicable to contracts executed and wholly to be performed in the State of California.

17. Effect . Landlord and Tenant agree that except as specifically modified by this Amendment, the Lease has not been modified, and the Lease is in full force and effect as modified by this Amendment. To the extent of any inconsistency between the terms and conditions of the Lease and the terms and conditions of this Amendment, the terms and conditions of this Amendment shall govern.

18. Tenant and Landlord Authority . Each of Landlord and Tenant represents that the person or persons signing this Amendment on their behalf has the requisite authority to execute and

deliver this Amendment on their behalf and to bind the party on whose behalf her or she has executed and delivered this Amendment, and each party shall, upon written request of the other party, provide satisfactory evidence thereof to the requesting party.

19. No Substitution of Premises . The parties acknowledge that Section 32 of the Lease was deleted in its entirety pursuant to Section 8 of the Addendum to the Original Lease attached to the Original Lease as Exhibit F.

20. Counterparts . This Amendment may be executed in two (2) or more counterparts, each of which shall be deemed and original, and all of which, taken together, shall constitute one and the same Amendment. Signatures to this Amendment sent by email (including ".pdf") shall be valid and effective to bind the party so signing. Each party agrees to promptly deliver an execution original of this Amendment with its actual signature to the other party upon request, but failure to do so shall not affect the enforceability of this Amendment.

IN WITNESS WHEREOF, Landlord and Tenant have caused this Amendment to be executed by them or their duly authorized representatives as of the date first above written.

LANDLORD:

GILDRED BUILDING COMPANY , a California corporation, doing business as Campus at Copley

By: /s/ Gregg Haggart
Name: Gregg Haggart
Title: Chief Executive Officer

TENANT :

REVA MEDICAL, INC . , a Delaware corporation

By: /s/ Regina E. Groves
Name: Regina E. Groves
Title: Chief Executive Officer

EXHIBIT A

WORK LETTER

[TENANT BUILD W/TENANT ALLOWANCE]

This Work Letter is attached to and incorporated by reference into that certain Sixth Amendment to Telecom Business Center NNN Lease ("Amendment") dated for reference purposes October __, 2017 between Gildred Building Company, a California corporation, doing business as Campus at Copley ("Landlord"), and REVA Medical, Inc., a Delaware corporation ("Tenant"). Capitalized terms used herein without definition have the meanings ascribed to them in the Amended Lease as the "Amended Lease" is defined in the Amendment.

1. TENANT IMPROVEMENTS . The term "Tenant Improvements" means those items of tenant premises improvement construction shown on the Final Plans (described in Section 4 below) approved by Landlord.

2. SCHEDULE . Prior to March 31, 2018, Tenant shall deliver to Landlord, for Landlord's review and approval or disapproval, a schedule showing a proposed timetable for the planning, permitting, Work Cost Estimate, construction and Completion of the Tenant Improvements ("Proposed Design and Construction Schedule"). Landlord has the right to approve or disapprove the Proposed Design and Construction Schedule, with approval not to be unreasonably withheld. Tenant shall revise the Proposed Design and Construction Schedule to incorporate changes reasonably requested by Landlord. The Proposed Design and Construction Schedule (as may be revised, as applicable) ultimately approved in writing by Landlord is the "Design and Construction Schedule". Subsequent to Landlord's approval of such schedule, Tenant may from time to time request reasonable changes to the schedule, and Landlord shall have the right to approve or disapprove the proposed changes (which approval shall not be unreasonably withheld). If Landlord approves the proposed changes in writing, such schedule as changed will be the Design and Construction Schedule. Notwithstanding the foregoing or anything contained in any schedule, the Allowance Outside Date shall not be extended.

3. CONSTRUCTION REPRESENTATIVES . Landlord hereby appoints the following person as Landlord's representative ("Landlord's Representative") to act for Landlord in all matters covered by this Work Letter: Dana Sterle, The Gildred Companies, 5431 Avenida Encinas, Suite E, Carlsbad, California 92008, (760) 438-9200, Ext. 103, dana@gildredco.com. Landlord may change its representative under this Work Letter at any time by providing not less than five (5) days prior written notice to Tenant. Tenant hereby appoints the following person as Tenant's representative ("Tenant's Representative") to act for Tenant in all matters covered by this Work Letter: Richard Kimes, SVP Operations, REVA Medical, Inc. (858)966-3016, rkimes@revamedical.com. Tenant may change its representative under this Work Letter at any time by providing not less than five (5) days prior written notice to Landlord. All notices and communications with respect to the matters covered by this Work Letter are to be made to Landlord's Representative or Tenant's Representative, as the case may be, in writing to the intended recipient's address set forth above delivered in compliance with the notice provisions of the Amended Lease or via email, with emailed notice being considered given and received on the same day upon successful transmission and receipt unless the email is sent after 5:00 p.m. in the receiving location, in which event the emailed notice will be considered received on the immediately following business day.

4. TENANT IMPROVEMENT PLANS

(a) Preparation of Space Plans . Landlord has the right to approve or disapprove the architect for the design of the Tenant Improvements, and Tenant shall retain only an architect approved in writing by Landlord. Landlord hereby pre-approves of Tenant's engagement of Ocio Design Group ("Ocio") as Tenant's architect for the Tenant Improvements, should Tenant select Ocio after Tenant conducts a bid process to determine its proposed architect (subject to Tenant's right to replace Ocio as Tenant's architect with a replacement architect that is approved in writing by Landlord). The architect selected by Tenant and pre-approved or approved in writing by Landlord is sometimes hereinafter referred to as "Tenant's Architect". Tenant and Landlord will meet with Tenant's Architect for the purpose of promptly

reviewing preliminary space plans for the layout of the Premises prepa red by Tenant 's A rchitect ("Space Plans"). The Space Plans must be sufficient to convey the reasonably detailed archi tectural design of the Premises and layout of the Tenant Improvements therein and are to be submitted to Landlord for Landlord's approval or disapproval (whether in Landlord's sole and absolute discretion or in Landlord's reasonable discretion, as applicable hereunder) . If Landlord disapproves any aspect of the Space Plans, Landlord will advise Tenant in writing of such disapproval and the reasons therefor . Tenant will then submit to Landlord for Landlord's approval or disapproval , a redesign of the Space Plans incorporating the revisions reasonably required by Landlord and those revisions requested by Landlord in Landlord's sole and absolute discretion as to matters or approvals subject to Landlord 's sole and absolute discretion . Landlord will resp ond to each of Tenant 's submittal of redesigned Space Plans (i.e., Landlord may approv e or disapprove) and this process shall continue until Landlord approves a set of redesigned Space Plans. The Space Plans to be used for generation of the Final Pl ans must be the Space Plans approved in writing by Landlord.

(b) Preparation of Final Plans . Based on the Landlord approved Space Plans, Tenant's Architect will prepare complete architectural plans, drawings and specifications and complete engineered mechanical, structural and electrical working drawings for all of the Tenant Improvements (collectively, the "Final Plans"). The Final Plans must show (a) the subdivision (including partitions and walls), layout, lighting, finish and decoration work (including, without limitation, carpeting and other floor coverings) for the Premises; (b) all internal and external communications and utility facilities which will require conduits, ducting or other improvements from the base Building shell work and/or within common areas; and (c) all other specifications for the Tenant Improvements in reasonable detail. The Final Plans will be submitted to Landlord for approval or disapproval (whether in Landlord's sole and absolute discretion or in Landlord's reasonable discretion, as applicable hereunder). If Landlord disapproves any aspect of the Final Plans, e.g., without limitation, based on any material inconsistency with the Space Plans, Landlord will advise Tenant in writing of such disapproval and the reasons therefor. Tenant will then cause Tenant's Architect to redesign the Final Plans incorporating the revisions reasonably requested by Landlord and those changes requested by Landlord in Landlord's sole and absolute discretion as to matters or approvals subject to Landlord's sole and absolute discretion. Landlord will respond to any Tenant submittal and this process will continue until Landlord approves of the Final Plans.

(c) Additional Requirements of Final Plans . In addition to the requirements described above, the Final Plans will include locations and complete dimensions, and the Tenant Improvements, as shown on the Final Plans, will: (i) be compatible with the Building shell, Building roof, Building structure and with the design, construction, systems and equipment of the Building; (ii) comply with all applicable laws, ordinances, rules, building codes and regulations of all governmental authorities having jurisdiction, and all applicable insurance regulations; (iii) not require Building service beyond the level normally provided to other tenants in the Project and will not overload the Building floors; and (iv) be of a class and quality consistent with improvements of similar spaces in similar buildings in the Kearny Mesa market area of San Diego. In each instance under this Work Letter that Tenant initially submits a set of plans to Landlord for review and approval or disapproval, Landlord will use commercially reasonable efforts to respond to Tenant within ten (10) days following such submittal. In each instance under this Work Letter that Tenant submits to Landlord, for review and approval or disapproval, revisions to plans previously reviewed by Landlord, Landlord will use commercially reasonable efforts to respond to Tenant within five (5) days following such submittal. In each instance that Landlord responds to plans or revised plans submittal by Tenant, Tenant shall use commercially reasonable efforts to respond to Landlord (with revised plans, as applicable) within five (5) days following Landlord's response.

(d) Submittal of Final Plans . Once approved by Landlord, Tenant's Architect will promptly submit the Final Plans to the appropriate governmental agencies for plan checking and the issuance of a building permit. Tenant's Architect, subject to Landlord's prior approval (which approval may be given or withheld in Landlord's sole and absolute discretion or in Landlord's reasonable discretion, as applicable hereunder), will make any changes to the Final Plans which are reasonably requested by the applicable governmental authorities and are approved by Landlord (which approval may be given or withheld in Landlord's sole and absolute discretion or in Landlord's reasonable discretion, as applicable hereunder) to obtain the building permit. After Landlord's approval of the Final Plans after reviewing all requested

changes of governmental authorities , no further changes may be made without the prior written approval of Landlord (which approval may be given or withheld in Landlord's sole and absolute discretion or in Landlord's reasonable discretion, as applicable hereunder) a nd Tenant, and then only afte r agreement by Tenant to pay any and all excess costs (i.e., costs exceeding the Tenant Allowance or work outside of the scope of the items to which the Tenant Allowance may be applied) resulting from the design and/or construction of such changes.

(e) No Changes to Shell of Building or Common Areas . Notwithstanding anything to the contrary contained in this Work Letter, Tenant shall not make (and shall not include in any Space Plans or Final Plans) any Alterations to the Common Areas (including, without limitation, any parking areas, parking spaces, isles, driveways or access ways, paths of travel, or utility facilities in the Common Areas), Building shell, Building exterior, Building roof, Building structure, Building exterior doors or accesses, or to any of Landlord's HVAC, plumbing, mechanical, electrical, communication or other of Landlord's systems in the Building (collectively, "Building/Common Area Alterations"), without first obtaining Landlord's prior written approval thereof, which approval may be given or withheld in Landlord's sole and absolute discretion, it being understood that the Tenant Improvements are limited to Landlord approved Alterations within the space leased by Tenant within the Building. However, notwithstanding anything to the contrary contained in the foregoing, Tenant may include proposed Common Area ADA Changes (as defined in Section 5(c) below) in its plans submitted to Landlord for Landlord's giving or withholding approval of such proposed Common Area ADA Changes in accordance with Section 5(c) below. If Landlord approves any Building/Common Area Alterations, Tenant shall be solely responsible for the total costs and liability for all such work and materials, and no portion of such costs shall be payable or reimbursable from the Tenant Allowance. Additionally, Landlord has the right to elect to cause its own contractors to perform such work and obtain such materials, and Tenant shall nonetheless, remain solely responsible for the cost thereof as and when billed to Tenant by Landlord. However, notwithstanding anything to the contrary contained in the foregoing, construction and payment responsibility for any Common Area ADA Changes that are approved in writing by Landlord, if any, are provided in Section 5 (c) below. Notwithstanding anything to the contrary contained in this Work Letter, in no event shall Landlord be required to approve or allow any changes to the Common Areas to alter any parking space ratios or numbers for the Project or for any building, tenant or parcel of the Project.

(f) Work Cost Estimate and Statement . Prior to the commencement of construction and in accordance with the Design and Construction Schedule, Tenant will submit to Landlord a written good faith reasonable estimate of the total cost to Complete the Tenant Improvements ("Work Cost Estimate"), which will (i) be based on the Final Plans taking into account any modifications which may be required to reflect changes in the Final Plans required by the City of San Diego if and to the extent approved by Landlord (whether in Landlord's sole and absolute discretion or in Landlord's reasonable discretion, as applicable, depending on the modifications), (ii) include estimates on a line item basis and (iii) include reasonably detailed substantiation of the estimate. Landlord will either approve the Work Cost Estimate or disapprove specific items and submit to Tenant revisions to the Final Plans to reflect deletions of and/or substitutions for such disapproved items. Submission and approval of the Work Cost Estimate will proceed until Landlord approves the Work Cost Estimate. The Work Cost Estimate ultimately approved by Landlord is hereinafter known as the "Work Cost Statement". Tenant shall be solely responsible for, and shall pay, one hundred percent (100%) of all costs and expenses that are not expressly within the scope of the items in Section 5(a) below for which the Tenant Allowance may be applied. Also, Tenant shall pay one hundred percent (100%) of the excess of the costs and expenses of the items within the scope of the Tenant Allowance exceeding the Tenant Allowance.

5. PAYMENT FOR THE TENANT IMPROVEMENTS

(a) Tenant Allowance . Subject to the terms and conditions of the Amendment and this Work Letter, Landlord will contribute a one-time improvement allowance against reimbursement of Tenant's payment of those certain costs of the Tenant Improvements expressly provided below in this Section 5(a), in an amount up to, but in no event exceeding in total aggregate Twenty One Dollars ($21.00) per leasable square foot of the Premises which is Seven Hundred Eighty Six Thousand Eight Hundred Seventy Dollars ($786,870.00), such amount being the "Tenant Allowance". No portion of the Tenant Allowance shall be

used for any other purposes and Tenant shall have no right at any time to any credit, deduction, payment or use of any portion of the Tenant Allowance except as expressly provided in this Work Letter. In no event shall the total amount payable by Landlord under this Wo rk Letter exceed the Tenant Allowance except for the amounts that may become payable by Landlord , if any, in accordance with Section 5(c) below . Below are the costs which may be reimbursed from the Tenant Allowance subject , however, to the terms and conditions of the Amendment and this Work Letter (including, without limitation, those provisions that exclude or disallow the use or application of the Tenant Allowance) :

(i) The reasonable cost of preparing the Space Plans and the Final Plans, as approved by Landlord. However, the Tenant Allowance will not be used for payments to any designers or architects other than Tenant's Architect, and if Landlord elects, Landlord's architect;

(ii) Governmental plan check, permit and license fees necessary for construction of the Tenant improvements.

(iii) The reasonable costs of the following to the extent they comprise the Tenant Improvements included in the Final Plans as approved by Landlord:

(aa) Installation within the Premises of all partitioning, doors, floor coverings, ceilings, wall coverings and painting, and millwork;

(bb) All electrical wiring, lighting fixtures, outlets an d switches of the Tenant Improvements within the Premises;

(cc) The furnishing and installation of all duct work, terminal boxes, diffusers and accessories within the Premises necessary for the heating, ventilation and air conditioning systems within the Premises, including the cost of meter and key control of after-hour air conditioning;

(dd) All fire and life safety control systems within the Premises such as fire walls, sprinklers, halon, fire alarms, including piping, wiring and accessories, necessary for the Premises;

(ee) All plumbing, fixtures and pipes necessary for and within the Premises;

(ff) One supplemental HVAC unit within the Premises for the Premises server room ("Supplemental HVAC Unit");

(gg) The cost of reasonably necessary testing and inspection of equipment within the Premises;

(hh) The reasonable costs of standard or generic office suite interior improvements within the Premises that are included in the Final Plans as approved by Landlord; and

(ii) The re asonable costs of alterations within the Premises mandated by the City of San Diego for compliance with the Americans With Disabilities Act of 1990, as amended, and California Title 24.

(iv) A fee ("Tenant's Construction Management Fee") not to exceed one percent (1%) of the lesser of the actual cost of the Tenant Improvements or that portion of the Tenant Allowance applicable toward reimbursement of the items set forth above in Sections 5.(a)(i) through (iii)(ii) paid for by Tenant, for the services of Tenant's construction management services consultant, if one is hired by Tenant. Tenant may use Jones Lang LaSalle, Hughes Marino or another construction management consultant approved by Landlord in writing; and

(v) A fee ("Landlord's Construction Management Fee") payable to Landlord in the amount of one percent (1%) of that portion of the Tenant Allowance applicable toward reimbursement of the items set forth above in Sections 5.(a)(i) through (iii)(ii). Landlord has the right to pay Landlord's Construction Management Fee to Landlord from the Tenant Allowance.

(b) Excess Costs . Tenant shall be solely respon sible for payment of any and all costs in excess of the Tenant Allowance and any and all costs outside the scope of items towards which the Tenant Allowance may be applied. Tenant shall pay all such costs promptly as and when due . In no event will the Tenant Allowance be used to pay for Tenant's furniture, artifacts, equipment , telephone systems , telecommunication systems, computers, IT equipment, or any item of personal property which is not permanently affixed to the Premises.

(c) Common Area ADA Changes . If the final set of the Final Plans (after governmental authority review) ultimately approved by Landlord in writing expressly include and depict Common Area ADA Changes (as defined below) that are ultimately approved in writing by Landlord, then Landlord shall be responsible for constructing such Common Area ADA Changes and responsible for the costs of constructing them not to exceed the Threshold (as defined below). "Common Area ADA Changes" mean Mandated ADA Alterations (as defined below) to the outdoor Common Areas wholly within Parcel(s) 1, 2 and/or 3 of the Project (as defined in the Amendment and described in Exhibit C to the Amendment) that do not exceed in aggregate total expense and cost (including, without limitation, all hard costs, soft costs, materials, labor, fees and expenses) Three Hundred Thousand Dollars ($300,000.00) ("Threshold") as reasonably estimated by Landlord. "Mandated ADA Alterations" means alterations to outdoor parking spaces, sidewalks or drive isles and/or other elements of the outdoor Common Areas for the accommodation or accessibility of disabled persons in compliance with the Americans With Disabilities Act of 1990, as amended, and California Code of Regulations Title 24, required by the City of San Diego as a condition to those Tenant Improvements within the Premises interior that are ultimately approved by Landlord. No Common Area ADA Changes are deemed approved or required, it being understood that Landlord has the right to approve or disapprove proposed Common Area ADA Changes in Landlord's reasonable discretion; provided, however, if the aggregate total expense and cost of all Common Area ADA Changes are less than or equal to One Hundred Thousand Dollars ($100,000.00) as reasonably estimated by Landlord, then Landlord shall use commercially reasonable efforts to cause the construction of them. As part of such commercially reasonable efforts, Landlord shall use commercially reasonable efforts to seek and obtain consents from any Project occupant, easement holder, lender or owners' association that has approval rights over such work. If Landlord disapproves proposed Common Area ADA Changes, and if Tenant, in good faith, disputes whether such disapproval was reasonable under the terms of this Work Letter, then the June 30, 2019 date set forth in Section 5(e) below shall be extended day-for-day for each day of such good faith dispute, up to, but not exceeding one hundred eighty (180) days of total extension. Common Area ADA Changes do not include, and Landlord has no obligation to make or pay for, any improvements, additions or other alterations to the Premises, Building, Common Areas or Project (including, without limitation, Mandated ADA Alterations) arising from or in connection with any Building/Common Area Alterations. The immediately preceding sentence is not meant to waive Tenant's right to include proposed Common Area ADA Changes in proposed plans as provided under this Work Letter, rather it is meant to provide that if Tenant seeks to make any Building/Common Area Alterations (e.g., without limitation, a structural change or a change a Building access door), and if Landlord approves them in Landlord's sole and absolute discretion, Landlord is not responsible for any additions, improvements or other alterations in connection therewith whether or not mandated by the City or other governmental agency.

(d) Governmental Cost Increases . Cost of Tenant Improvements due to requirements of any governmental agency shall be the sole responsible of Tenant, excepting only as expressly provided otherwise in Section 5.(a)(iii)(ii) above. Tenant will be solely responsible, at its sole cost and expense, for satisfying all requirements of any governmental agency necessitating alterations to the Premises, Building, Common Areas, Project or off-site, including, without limitation, in order to remove, add or alter barriers to accessibility or paths of travel, or to add or alter one or more paths of travel or parking spaces for the disabled, excepting only as expressly provided otherwise in Section 5. (a)(iii)(ii) above and Section 5.(c) above.

(e) Unused Tenant Allowance Amounts . From and after the date that is the earlier of (i) the Completion of all of the Tenant Improvements and, subject to the terms and conditions of this Work Letter, the disbursement of the applicable portion of the Tenant Allowance for such Completion, or (ii) June 30, 2019 (the earlier being the "Allowance Outside Date"), the entire unused portion, if any, of the

Tenant Allowance shall be retained by Landlord as its sole property and shall not be paid to Tenant and shall not be made available to Tenant in any manner (payment, credit, deduction or otherwise) whether for completion of any Tenant Improvements started , for any future improvements , or for anything else .

(f) Disbursement of the Tenant Allowance . Provided Tenant does not become in material default under the Amended Lease (including, without limitation, this Work Letter) beyond applicable notice and cure periods, Landlord shall disburse a portion of the Tenant Allowance to Tenant toward reimbursement to Tenant for the actual construction costs within the scope of those items to which the Tenant Allowance applies which Tenant reasonably incurred and paid for the construction of the Tenant Improvements in accordance with the following clauses (i) through (vi) of the Section 5.(f); provided, however, that any payment obligation of Landlord shall cease upon the earlier exhaustion of the Tenant Allowance. The amounts of the Tenant Allowance which may become payable to Tenant as provided below will, in each instance, be reduced by Landlord in the amount equal to that portion of the Landlord's Construction Management Fee payable to Landlord, as Landlord determines, and such fee amounts will be retained by Landlord from the Tenant Allowance as its sole property, and the Tenant Allowance will be reduced thereby in each instance.

(i) Twenty-five percent (25%) of the Tenant Allowance shall be disbursed to Tenant after Landlord has received "Evidence of Completion and Payment" as to fifty percent (50%) of Tenant Improvements having been completed and paid for in full by Tenant as described herein below;

(ii) An additional fifty percent (50%) of the Tenant Allowance shall be disbursed to Tenant after Landlord has received "Evidence of Completion and Payment" as to seventy-five percent (75%) of Tenant Improvements having been completed and paid for in full by Tenant as described herein below;

(iii) An additional fifteen percent (15%) of the Tenant Allowance shall be disbursed to Tenant after Landlord has received "Evidence of Completion and Payment" as to ninety percent (90%) of Tenant Improvements having been completed and paid for in full by Tenant as described herein below;

(iv) The final ten percent (10%) of the Tenant Allowance shall be disbursed to Tenant when Landlord has received "Evidence of Completion and Payment" as to one hundred percent (100%) of the Tenant Improvements having been Completed and paid for in full by Tenant as described herein below and satisfaction of the conditions described in subparagraph (vi) below of this Section 5.(f);

(v) As to each phase of completion of the Tenant Improvements described in subparagraphs (i) through (iii) above in this Section 5.(f), the appropriate portion of the Tenant Allowance shall be disbursed to Tenant only if Tenant is not in material default under the Amended Lease (including, without limitation, this Work Letter) and only after Landlord has received the following "Evidence of Completion and Payment":

(A) Tenant has delivered to Landlord a written draw request ("Draw Request") in form and content satisfactory to Landlord and Landlord's lender specifying that the requisite portion of the Tenant Improvements has been completed, together with written evidence of such completion and invoices, receipts and bills evidencing the costs and expenses set forth in such Draw Request and evidence of payment in full by Tenant of all costs and expenses which are payable in connection with such portion of the Tenant Improvements including, without limitation, those covered by the Draw Request. The Draw Request shall constitute a representation by Tenant to Landlord that the Tenant Improvements identified therein have been completed in a good and workmanlike manner and in accordance with the Final Plans and applicable law, and have been paid for in full;

(B) Tenant's Architect has certified to Landlord in a writing duly signed by Tenant's Architect that the Tenant Improvements have been completed to the level indicated in the Draw Request in accordance with the Final Plans;

(C) Tenant has delivered to Landlord valid, properly completed, dated and duly executed unconditional waivers and releases on progress payment, pursuant to, and in the form required by, California Civil Code Section 8134 (showing no exceptions for retentions, extras or otherwise), from

each and all of Tenant's contractors including, w ithout limitation, the Direct Contractor, Tenant's architect, design professionals, agents, suppliers , equipment lessors and all s ubcontractors (collectively, "Contractors") with respect to the then-requested pa yment amounts, and such other evidence of Tenant's payment of all Contractors for the portions of Tenant Improvements covered by the Draw Request and the a bsence of any liens filed or generated in connection with such portions of the Tenant Improvements, all as may be reasonably required by Landlord; and

(D) Landlord, Landlord's architect or construction representative has inspected the Tenant Improvements and determined that the portion of the Tenant Improvements covered by the Draw Request has been completed in a good and workmanlike manner.

(vi) The final disbursement of the Tenant Allowance pursuant to subparagraph (iv) above of this Section 5.(f) shall be disbursed to Tenant only if Tenant is not in material default under the Amended Lease (including, without limitation, this Work Letter) and only after Landlord has received Evidence of Completion and Payment as to all of the Tenant Improvements ***and*** the following conditions have been satisfied:

(A) Tenant shall have timely and validly recorded and served (including the deliveries pursuant to California Civil Code Section 8190) a valid and effective notice of completion (pursuant to California Civil Code Sections 8182 et seq.) for the Completion of the entirety of the Tenant Improvements ("NOC") and delivered to Landlord a date stamped conformed copy of the recorded NOC, written evidence of the deliveries required for the NOC to be effective, and copies of all preliminary notices given by any claimants or Contractors. Sixty (60) days shall have elapsed, with no liens filed, following the recordation and service of the NOC; provided, however, if Landlord reasonably determines that the NOC is not valid and effective (e.g., without limitation, it was not properly drafted, served or recorded), then one hundred twenty (120) days shall have elapsed, with no liens filed, following Completion of the Tenant Improvements;

(B) A certificate of occupancy (or its jurisdictional equivalent, i.e., original stamped building permit inspection card with all final sign-offs) for the Tenant Improvements and the Premises has been issued by the City of San Diego;

(C) Tenant has delivered to Landlord: (i) valid, properly completed, dated and duly executed unconditional waivers and releases upon final payment (showing no exceptions for disputed claims, extras or otherwise), pursuant to, and in the form required by, California Civil Code Section 8138, from each and all of the Contractors for the entirety of the Completed the Tenant Improvements; (ii) an application and certificate for payment (AIA form G702-1992 or equivalent) signed by Tenant's architect; (iii) original stamped building permit plans; (iv) a complete set of the "as-built" drawings of the Tenant Improvements, if Tenant obtains "as-built drawings, and in any event, a complete set of the construction drawings for the Tenant Improvements (which may be on a CD ROM disc); (v) one year written warranties from all Contractors; (vi) manufacturer's warranties and operating instructions; (vii) final punchlist completed and signed off by Tenant's architect; and (viii) such other evidence of Completion of the Tenant Improvements, Tenant's payment of all Contractors in full for the entirety of the Completed Tenant Improvements, and the absence of any liens in connection with the Tenant Improvements, as Landlord may reasonably require.

(D) Landlord has determined that no work exists which adversely affects the mechanical, electrical, plumbing, heating, ventilating and air conditioning, life-safety or other systems of the Building, the curtain wall of the Building, the structure, roof or exterior appearance of the Building, or the Common Areas;

(E) The satisfaction of any other requirements or conditions which may be required or imposed by Landlord's lender with respect to the construction of the Tenant Improvements and payment of amounts from the Tenant Allowance; and

(F) Tenant has delivered to Landlord reasonably detailed written evidence satisfactory to Landlord that all costs of the Tenant Improvements, including, without limitation, those in excess of the Tenant Allowance, have been paid for in full by Tenant.

(g) Books and Records . At its option, Landlord, at any time and from time to time, prior to the date that is three (3) years after the final disbursement of the Tenant Allowance to Tenant, and upon at least ten (10) days prior written notice to Tenant in each case, may cause an audit to be made of Tenant's books and records relating to Tenant's expenditures in connection with the construction of the Tenant Improvements. Tenant shall maintain complete and accurate books and records in accordance with generally accepted accounting principles of these expenditures for at least three (3) years. Tenant shall make available to Landlord's auditor at the Premises within fifteen (15) days following Landlord's notice requiring the audit, all books and records maintained by Tenant pertaining to the construction and completion of the Tenant Improvements. In addition to all other remedies which Landlord may have pursuant to the Amended Lease, Landlord may recover from Tenant the cost of its audit if the audit discloses that Tenant falsely reported to Landlord expenditures which were not in fact made or falsely reported a material amount of any expenditure or the aggregate expenditures.

6. CONSTRUCTION OF TENANT IMPROVEMENTS . Following (a) Landlord's approval of the Final Plans, Tenant's Architect, the Work Cost Statement, the Contractors, the insurance required under Section 8(e) below, and (b) the issuance of the building permit for the Tenant Improvements, Tenant shall cause its Direct Contractor (selected as provided in Section 8(n)) to mobilize for the job, to commence with the construction of the Tenant Improvements and thereafter diligently proceed to Completion, all in accordance with applicable law and the Amended Lease (including, without limitation, Section 13 of the Original Lease), and all in a good and workmanlike manner. Tenant shall use diligent efforts to cause its Direct Contractor to Complete the Tenant Improvements in a diligent, good and workmanlike manner in accordance with the Final Plans and the Design and Construction Schedule. Tenant will cause the Tenant Improvements to be constructed and performed (i) during times and in a manner reasonably determined by Landlord to minimize interference with any other tenants' use and enjoyment of the Project and (ii) in full compliance with all of Landlord's rules and regulation applicable to third party contractors, subcontractors and suppliers performing work at the Project. Landlord shall have the right to enter upon the Premises from time to time to inspect the construction activities and status of construction following reasonable advance notice to Tenant or without notice if the event Landlord in good faith believes there to be an urgent or emergency circumstance or in the exercise of Landlord's rights under the Amended Lease. However, Landlord is under no obligations to inspect or supervise construction of any Tenant Improvements, and no inspection by Landlord shall be construed as a representation that the Tenant Improvements are in compliance with the Final Plans, free of defect or fault, or are in conformance with applicable law. Tenant shall provide to Landlord not less than thirty (30) days prior written notice of the Tenant's good faith estimate of the date of commencement of construction of the Tenant Improvements. Immediately upon the first day of commencement of construction, Tenant shall notify Landlord in writing of such commencement. Landlord shall have the right to record and post a notice of non-responsibility to obtain the protections afforded pursuant to California Civil Code Section 8444.

7. SUBSTANTIAL COMPLETION AND COMPLETION . As used in this Work Letter "Substantially Complete" or "Substantial Completion" means completion of construction of the Tenant Improvements in accordance with the Landlord approved Final Plans with the exception of minor details of decoration, mechanical adjustments or other such punch list items which do not materially interfere with Tenant's use or occupancy of the Premises, all as certified by the Direct Contractor and Tenant's Architect, in writing to, Landlord and Tenant, and Tenant has obtained a certificate of occupancy or other required equivalent approval from the local governmental authority permitting occupancy of the Premises. Within ten (10) days after receipt of such certificate, Tenant and Landlord will conduct a walk-through inspection of the Premises and Landlord shall thereafter provide to Tenant a written punchlist specifying those decoration and other punchlist items which require completion, which items Tenant will thereafter promptly and diligently cause to be completed. As used in this Work Letter, "Complete" or "Completion" means completion of construction of the Tenant Improvements in accordance with the Landlord approved Final Plans with all punchlist items having been identified and completed all as certified by the Direct Contractor and Tenant's Architect, in writing, to Landlord and Tenant, and Tenant has obtained a final

certificate of occupancy (or jurisdictional equivalent) for the Premises from the local governmental authority permitting occupancy of the Premises.

8. MISCELLANEOUS CONSTRUCTION COVENANTS

(a) No Liens . Tenant shall not allow the Tenant Improvements or the Building or the Project or any portion thereof or any interest of Landlord therein to be subjected to any mechanics', designers' materialmen's or other liens or encumbrances arising out of or in connection with the Tenant Improvements. If any such liens or encumbrances are filed, Tenant shall, within fifteen (15) days after such filing, cause such liens or encumbrances to be removed of record by satisfying such liens or encumbrances or recording a surety bond therefor and providing Landlord with a bond or other surety satisfactory to Landlord protecting Landlord and the Project against such liens or encumbrances. Landlord may, without waiving its rights and remedies based on such default by Tenant and without releasing Tenant from any obligations under the Amended Lease (including, without limitation, this Work Letter) cause such liens to be released by any means Landlord deems proper including, without limitation, paying the claim or posting security to cause the discharge of the lien or encumbrance. In such event, Tenant shall reimburse Landlord, as additional rent, for all amounts Landlord pays including, without limitation, reasonable attorneys' fees and costs.

(b) Diligent Construction . Tenant will promptly, diligently and continuously cause the Direct Contractor to pursue construction of the Tenant Improvements to successful Completion in conformance with the Final Plans, the Design and Construction Schedule and this Work Letter. At times when both Tenant and Landlord are causing work to be performed at the Project (e.g., without limitation, when Landlord is causing work to be performed pursuant to this Work Letter or Sections 6 or 7 of the Amendment) Tenant and Landlord shall reasonably cooperate with one another so as not to unreasonably interfere with the other's work to the extent practicable under the circumstances in an effort to allow all work to be timely performed. Such reasonable cooperation includes, without limitation, cooperation as to the use of the Temporary Staging Area.

(c) Compliance with Laws . Tenant will cause the Tenant Improvements to be constructed in a safe and lawful manner. Tenant shall, at its sole cost and expense, require compliance with all applicable laws and all regulations and requirements of, and all licenses and permits issued by, all municipal or other governmental bodies with jurisdiction which pertain to the installation of the Tenant Improvements. Copies of all filed documents and all permits and licenses shall be promptly provided to Landlord when obtained. Any portion of the Tenant Improvements which is not acceptable to any applicable governmental body, agency or department, or not reasonably satisfactory to Landlord, shall be promptly repaired or replaced by Tenant at Tenant's expense. Notwithstanding any failure by Landlord to object to any such Tenant Improvements, Landlord shall have no responsibility therefor.

(d) Indemnification . Without limiting any other defense or indemnity obligations of Tenant under the Amended Lease, and subject to the provisions of Section 10.4 of the Original Lease, Tenant shall indemnify, defend and hold harmless Landlord, the Premises, the Building and Project from and against any and all suits, claims, actions, damages, fines, penalties, fees, losses, costs or expenses of any nature whatsoever, together with attorneys' fees for counsel of Landlord's choice, arising out of or in connection with the Tenant Improvements or the design, the staging or construction thereof or any work or materials in connection therewith (including, but not limited to, claims for breach of warranty, workers compensation, personal injury or property damage, and any materialmen's, design professionals' or mechanics' liens).

(e) Insurance . Tenant shall not cause the commencement of construction of the Tenant Improvements unless and until Tenant first has in place, at Tenant's sole cost and expense, all insurance required of Tenant under the Amended Lease, including, without limitation, workers compensation insurance, commercial general liability insurance, property damage insurance, and meeting the requirements of Sections 10.1 and 13.1 of the Original Lease, as well as, through the Direct Contractor, a policy of "All Risks" builders' risk insurance, with minimum coverage equal to $2,000,000.00 maintained by the Direct Contractor, and not less than $1,000,000.00 maintained by each of the subcontractors, and issued by an insurance company satisfactory to Landlord and Landlord's lender and generally rated at

least “A/VIII” by A. M. Best Insurance Service. Further, Tenant sha ll cause the Direct Contractor and each subcontractor to obtain and maintain at all times workers compensation insurance, commercial general liability insurance and completed operations insurance in the form s and in amounts reasonably satisfactory to Landlord and Land lord’s lender and generally rated at least “A/VIII” by A. M. Best Insurance Service . All such policies (including, without limitation, the All Risks builders’ risk insurance) shall provide that not less than thirty (30) days prior notice must be given to Landlord before modificatio n, termination or cancellation, and shall name Landlord and any lender with an interest in the Premises , a nd anyone else with an insurable interest in the Project or Building that Landlord reasonably requests, as additional insureds , and must also comply with all of the applicable terms and provisions of the Amended Lease relating to insurance. All s uch policies shall be primary coverage with respect to the “All Risks” builders’ risk insurance and completed operations insurance . Not less than twelve (12) business days prior to the commencement of construction of the Tenant Improvements, Tenant shall furnish to Landlord certificates of all such insurance or, if requested by Landlord, the original policies thereof, for Landlord’s approval or disapproval , which approval shall not be unreasonably withheld . Tenant shall not allow the commencement of the Tenant Improvements until Landlord has approved all such insurance in writing. Landlord’s approval of such insurance shall not be deemed a limitation on the liability of Tenant or any contractor to the coverage amounts so approved .

(f) Construction Defects . Landlord shall have no responsibility for the Tenant Improvements and Tenant will remedy, at Tenant’s own expense, and be responsible for any and all defects in the Tenant Improvements that may appear during or after the completion thereof whether the same shall affect the Tenant Improvements in particular or any parts of the Premises or Building in general. Tenant shall defend, indemnify, hold harmless and reimburse Landlord for any and all actions, claims, suits, proceedings, damages, losses, fines, penalties, costs or expenses threatened against or incurred by Landlord (including, without limitation, attorneys’ fees and costs) by reason of any defect in any portion of the Tenant Improvements constructed by or for Tenant or any Contractors, or by reason of inadequate cleanup following completion of the Tenant Improvements.

(g) Additional Services . If the construction of the Tenant Improvements require additional services or facilities (including, but not limited to, cleanup or other cleaning services, or trash removal) that can reasonably be provided by Landlord, Landlord shall have the right, but not the obligation, to provide any such services or facilities; provided Landlord commits to doing so at rates that are commercially reasonable and in a time frame that satisfies the Design and Construction Schedule. If Landlord elects to provide any such services or facilities, then Tenant shall promptly pay Landlord for the full costs and expense thereof, plus an overhead fee equal to three percent (3%) of the costs and expense of the same.

(h) Coordination of Labor . All Contractors, employees, servants and agents must work in harmony with and shall not interfere with any labor employed by Landlord, or Landlord’s contractors or by any other tenant or its contractors with respect to any portion of the Project. Nothing in this Work Letter shall, however, require Tenant to use union labor.

(i) Work in Adjacent Areas . No work or storage or staging of any equipment, contractor vehicles, bins, construction trailers, or materials, shall be done or performed in any of the Common Areas except only in those portions of Parcel 2 identified as “Temporary Staging Area” on Exhibit A-1 attached to this Work Letter and incorporated herein by this reference, and only in accordance with the provisions hereof and all reasonable rules and conditions Landlord imposes. Tenant shall ensure that the Temporary Staging Area is screened from view in a manner reasonably acceptable to Landlord and in compliance with all applicable laws, and that the Temporary Staging Area is used in compliance with all applicable laws (including, without limitation, all applicable fire safety and fire vehicle access codes, and all laws pertaining screening, storm water pollution and fugitive dust) and all declarations, easements, governance documents and owners’ association documents of record title to the Project. Tenant shall ensure that neither the Temporary Staging Area nor the use thereof results in the alteration, blockage or impairment of any Project driveways or access ways or any interference with the access, parking, use, enjoyment or occupancy of the Project by other tenants of the Project or Landlord or any of their respective invitees or permittees. Use of the Temporary Staging Area is limited to temporary use only and only in connection with the construction of the Tenant Improvements through Substantial Completion

thereof . Tenant shall cause the Temporary Staging Area to be lawfully clear ed of all equipment, contractor vehicles, materials, trash, debris, and broom-swept clean, promptly upon Substantial Comple tion of the Tenant Improvements. Landlord reserves the right to relocate of the Temporary Staging Area in Landlord's commercially reasonable discretion or as may be required by law or Project governance/owners' association documents.

(j) HVAC Systems . Tenant agrees to be entirely responsible for the maintenance and the balancing of any heating, ventilating or air conditioning system installed by Tenant and/or maintenance of the electrical or plumbing work installed by Tenant and/or for maintenance of lighting fixtures, partitions, doors, hardware or any other installations made by Tenant. The Supplemental HVAC Unit shall be affixed to the Building and remain as part of the Building and shall not be removed by Tenant, including, without limitation, upon the expiration or earlier termination of the Amended Lease.

(k) Amended Lease . Nothing herein contained shall be construed as (i) constituting Tenant as Landlord's agent for any purpose whatsoever, or (ii) a waiver by Landlord or Tenant of any of the terms or provisions of the Amended Lease. This Work Letter is part of the Amended Lease and any default by Tenant following the giving of notice and the passage of any applicable cure period with respect to any portion of this Work Letter shall be deemed a breach of the Amended Lease for which Landlord shall have all of the rights and remedies as in the case of a breach of the Amended Lease by Tenant.

(l) Approval of Plans . Landlord is not obligated to check any Space Plans or Final Plans (or any other plans, drawings or specifications) for building code compliance or other compliance with applicable law. Approval of any of the same by Landlord is not a representation or warranty that the same are in compliance with the requirements of governing authorities, and it shall be Tenant's sole responsibility to ensure the Tenant Improvements meet and comply with all federal, state, and local code requirements. Approval of any plans, drawings or specifications by Landlord is not a representation or warranty by Landlord regarding the adequacy, accuracy, sufficiency, efficiency, performance, or desirability of the Tenant Improvements and does not constitute any assumption of responsibility by Landlord or its architect therefor, and Tenant shall be solely responsible for such matters. Tenant shall be responsible for the function and operation of all Tenant Improvements whether or not approved by Landlord or installed by Landlord at Tenant's request.

(m) Tenant's Deliveries . Tenant shall deliver to Landlord, at least ten (10) business days prior to the commencement of construction of the Tenant Improvements, the following information:

(i) The names, addresses, telephone numbers, and primary contacts for the Direct Contractor and the mechanical and electrical contractors and all subcontractors engaged or to be engaged in the performance of design or construction of the Tenant Improvements or the provision of materials therefor; and

(ii) The projected date on which the construction of the Tenant Improvements will commence, together with the estimated dates of completion of the Tenant Improvements.

(n) Qualification of Contractors . Once the Final Plans have been approved by Landlord, Tenant shall competitively bid the Tenant Improvements to at least two (2) direct contractors qualified under this Work Letter. Landlord shall have the right to approve or disapprove any proposed direct contractors (which approval shall not be unreasonably withheld). Further, Tenant shall provide Landlord with a list of all proposed subcontractors, and Landlord shall have the right to reasonably approve or disapprove the subcontractors. The direct contractor approved by Landlord and Tenant ("Direct Contractor") shall be retained by Tenant for the construction of the Tenant Improvements in accordance with the Final Plans and the Design and Construction Schedule, and Tenant shall assure that the Direct Contractor only contracts with the subcontractors and suppliers approved in writing by both Landlord and Tenant. All Contractors must be bondable and bonded, California licensed contractors, possessing good labor relations, capable of performing high quality workmanship and working in harmony with Landlord's general contractor and other contractors on the job, if any, all as determined by Landlord. All work shall be coordinated with general construction work at the Project, if any, and any work Landlord is causing to be performed pursuant to the Amended Lease. Prior to the commencement of construction of the Tenant

Improvements, Tenants shall provide Landlord with a list o f all s ubcontractors and their respective contact information. Tenant shall timely pay the Direct Contractor as and when due and shall use commercially reasonable efforts to assure the Direct Contractor's timely payment of all s ubc ontractors and agents . If Landlord requests at any time (before, during or after construction) to review any of the contract s between Tenant and the Direct Contractor , or any contracts with any s ubcontractors, then Tenant shall promptly provide complete copies thereof to Landlord. Landlord is not required to sign, and Landlord shall have no liability under or in connecti on with, any contract s with any Contractors notwithstan ding that Landlord may review any such contract.

(o) Warranties . Tenant shall cause all Contractors to fully warrant to Landlord, in writing, the Tenant Improvements (including, without limitation, against defective materials and workmanship) for a period of not less than one (1) year after Substantial Completion of the Tenant Improvements.

(p) Landlord's Performance of Work . Without limiting any other rights and remedies of Landlord for Tenant's breach or default under the Amended Lease (including, without limitation, this Work Letter), within ten (10) business days after receipt of Landlord's notice of Tenant's failure to perform its obligations under this Work Letter, if Tenant shall fail to commence to cure such failure, Landlord shall have the right, but not the obligation, to perform, on behalf of and for the account of Tenant, subject to reimbursement of the total cost thereof by Tenant, any and all Tenant Improvement work which Landlord determines should be performed on an emergency basis for the best interest of the Premises, Building or Project including, without limitation, work which pertains to structural components, mechanical, sprinkler and general utility systems, roofing and removal of unduly accumulated construction material and debris; provided, however, Landlord shall use reasonable efforts to give Tenant at least ten (10) days prior notice to the performance of any Tenant Improvements work by Landlord, unless such notice is impracticable due to exigent circumstances.

(q) As-Built Drawings . If Tenant obtains "as-built" drawings (excluding furniture, art and non-affixed personal property of Tenant) of the Tenant Improvements, then Tenant shall cause a complete set of such drawings to be delivered to Landlord and/or Landlord's Representative promptly upon Completion of the Tenant Improvements. Whether or not Tenant obtains "As-Built Drawings" of the Tenant Improvements, Tenant shall deliver to Landlord and/or Landlord's Representative a complete set of the construction drawings for the Tenant Improvements (which may be on a CD ROM disc) promptly upon Completion of the Tenant Improvement.

(r) Applicability . This Work Letter is not, and shall not be deemed applicable to: (a) any additional space which may be added to the Premises, whether by exercise of any options or otherwise, (b) the Premises or any portion thereof in the event of a renewal or extension of the Term of the Amended Lease, whether by exercise of any options or otherwise, or (c) the construction of any additions, improvements or other alterations not contemplated by this Work Letter. The construction of any additions, improvements or other alternations not contemplated by this Work Letter shall only be performed subject and pursuant to the conditions and provisions of the Amended Lease governing Alterations generally (including, without limitation, Section 13 of the Original Lease) unless Landlord elects, in its sole and absolute discretion, to prepare a separate work letter agreement specifically addressing such construction.

(s) Landlord's Approval . Landlord's approval or disapproval, or consent or withholding of consent, of any matters under this Work Letter (including, without limitation, any Space Plans, drawings, or Final Plans, or any changes thereto) will be given or withheld in Landlord's reasonable discretion except in such instances wherein the terms provide that Landlord may give or withhold the approval or consent in Landlord's sole and absolute discretion, in which event Landlord may give or withhold any such approval or consent in Landlord's sole and absolute discretion. Landlord and Tenant agree that, without limiting any other reasonable basis for Landlord to disapprove or withhold consent, it is deemed reasonable for Landlord to disapprove or withhold consent if the Space Plans, drawings, Final Plans, proposed alteration or other matter: (i) exceeds or affects the structural integrity, structure or roof of the Building or any part of the roof or the HVAC, plumbing, mechanical, electrical, communication or other systems of the Building, (ii) is not approved by the holder of any mortgage or deed of trust encumbering the Building, (iii) violates any agreement which affects the Building or the Project or binds Landlord, (iv) Landlord reasonably

believes will reduce the value of the Bui lding, Premises or Project, (v) does not conform to applicable building codes or is not approved by any governmental au thority with jurisdiction, (vi) affects the exterior of the Building , (vii) affects any Common Area s , except that with regard to Common Area ADA Changes , Landlord's reasonable discretion standard still applies, but Landlord shall not withhold consent merely because the Common Area ADA Changes affect the Common Areas , (vii i) Landlord believes w ill result in the governmental condition or imposition of any Building or Project alterations by Landlord, (ix) requires any consent or approval (e.g., without limitation, declarant, board, owner or architectural committee) under any easements, declarations, governance documents , covenants, conditions, restrictions or other agreements or instruments of record, or (x) is reasonably disapproved by Landlord for any other reason not set forth herein. In any event that Landlord fails to notify Tenant of Landlord's approval or disapproval, or consent or withholding of consent, within a time frame as may be provided therefor, Landlord shall be deemed to have disapproved or to have w ithheld consent, as applicable. For an approval or consent by Landlord to be valid it must be in writing.

(t) No Rental Abatement . No rent obligations or other monetary or performance obligations of Tenant under the Amended Lease shall be abated or tolled in connection with any construction pursuant to the Amendment or this Work Letter whether or not Premises occupancy or use is affected. Tenant desires for such construction to be performed and acknowledges that Premises occupancy and use may be affected from time to time in the course of work.

(u) Costs and Expenses . In each instance under this Work Letter that a cost and/or expense is to be paid by Tenant, or for which Tenant is said to be responsible, shall be the sole responsibility of Tenant and no amount of the Tenant Allowance shall be used therefor.

(v) Removal of Tenant Improvements . If specifically and conspicuously requested in writing by Tenant at the time Tenant requests Landlord's approval of the Space Plans or the Final Plans, then Landlord will state in writing at the time it approves such plans (if approved) whether Tenant will be required to remove any of the Tenant Improvements set forth in such plans upon the expiration or earlier termination of the Amended Lease. If there are any changes or additions to the Tenant Improvements set forth in any revised Space Plans or in any revised Final Plans, then Tenant may again, in each instance, make such request as to the modified or additional Tenant Improvements, and if so, Landlord will state in writing at the time it approves such revised plans (if approved) whether Tenant will be required to remove any of the changed or additional Tenant Improvements upon the expiration or earlier termination of the Amended Lease. In connection with such removal, Tenant shall comply with the applicable terms of the Amended Lease regarding removal of Alterations including, without limitation, Sections 13.5 and 13.6 of the Original Lease.

EXHIBIT A-1

DEPICTION OF TEMPORARY STAGING AREA

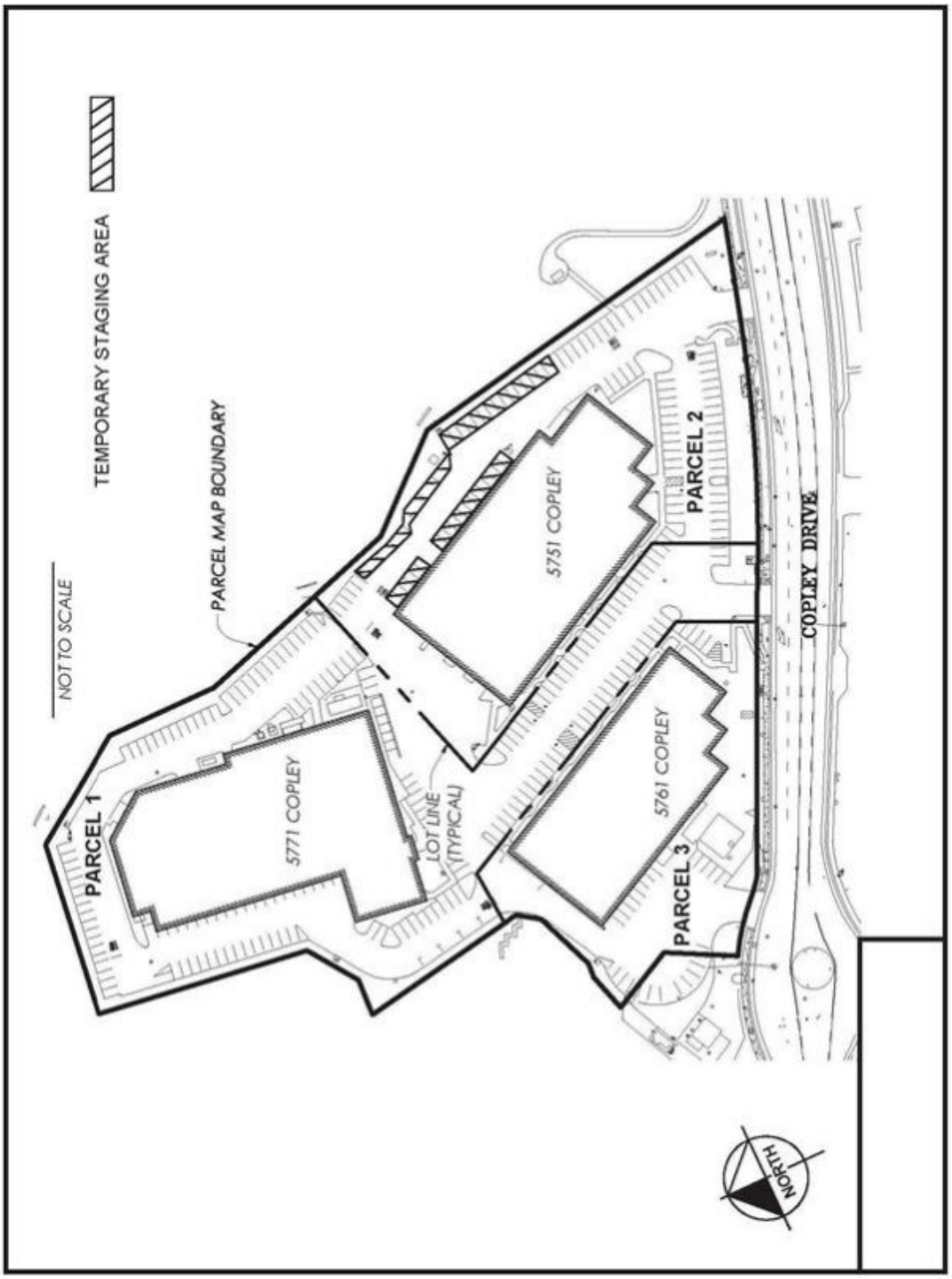

EXHIBIT B

HVAC Unit Depiction

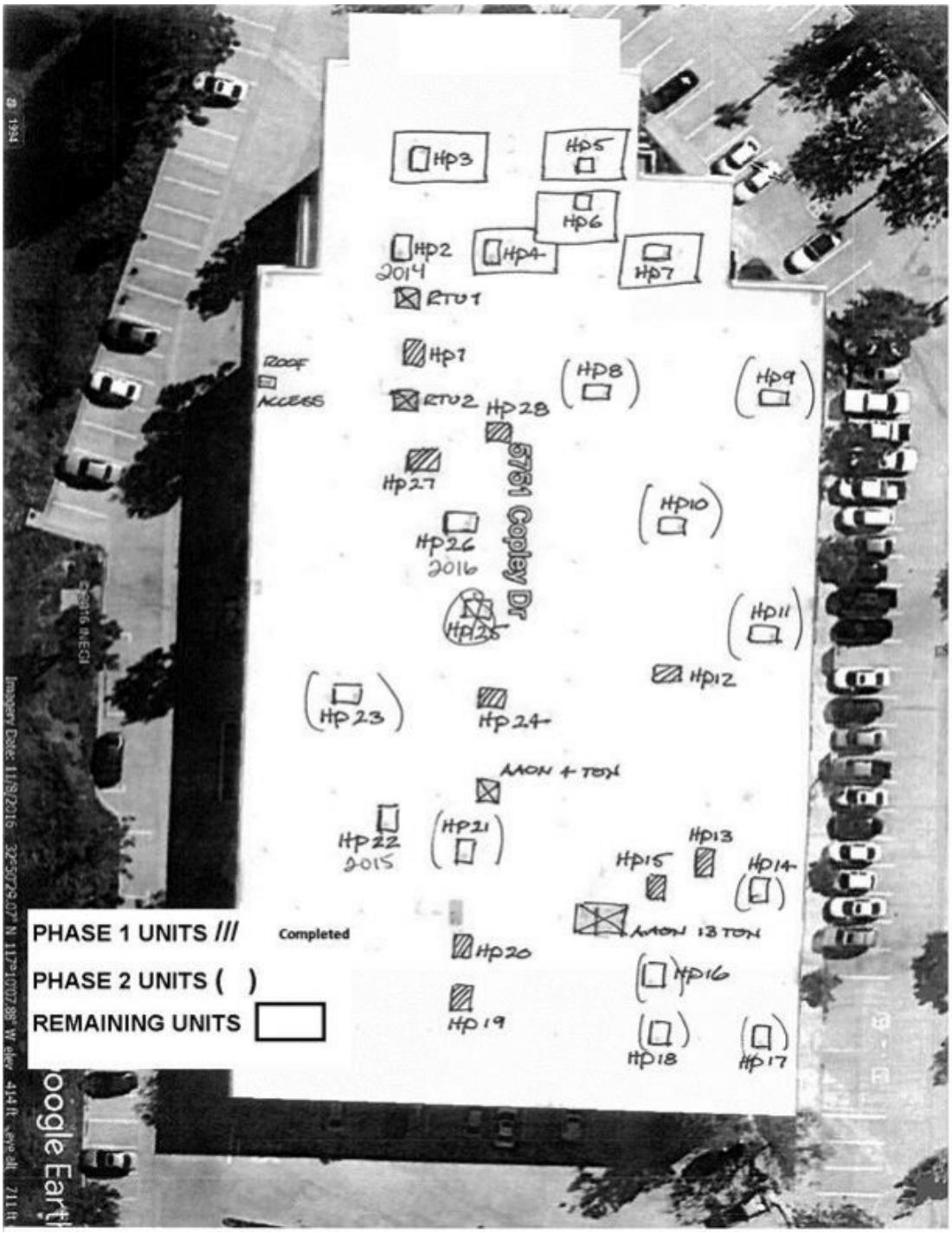

EXHIBIT C

PARCEL 1, PARCEL 2 AND PARCEL 3 OF THE PROJECT

LEGAL DESCRIPTION OF PARCEL 1 OF THE PROJECT

Parcel 1 of Parcel Map No. 21388, in the City of San Diego, County of San Diego, State of California, filed in the Office of the County Recorder of San Diego County on September 14, 2016, as Instrument No. 2016-7000389 of Official Records.

LEGAL DESCRIPTION OF PARCEL 2 OF THE PROJECT

Parcel 2 of Parcel Map No. 21388, in the City of San Diego, County of San Diego, State of California, filed in the Office of the County Recorder of San Diego County on September 14, 2016, as Instrument No. 2016-7000389 of Official Records.

LEGAL DESCRIPTION OF PARCEL 3 OF THE PROJECT

Parcel 3 of Parcel Map No. 21388, in the City of San Diego, County of San Diego, State of California, filed in the Office of the County Recorder of San Diego County on September 14, 2016, as Instrument No. 2016-7000389 of Official Records.

GENERAL DEPICTION OF PROJECT PARCELS

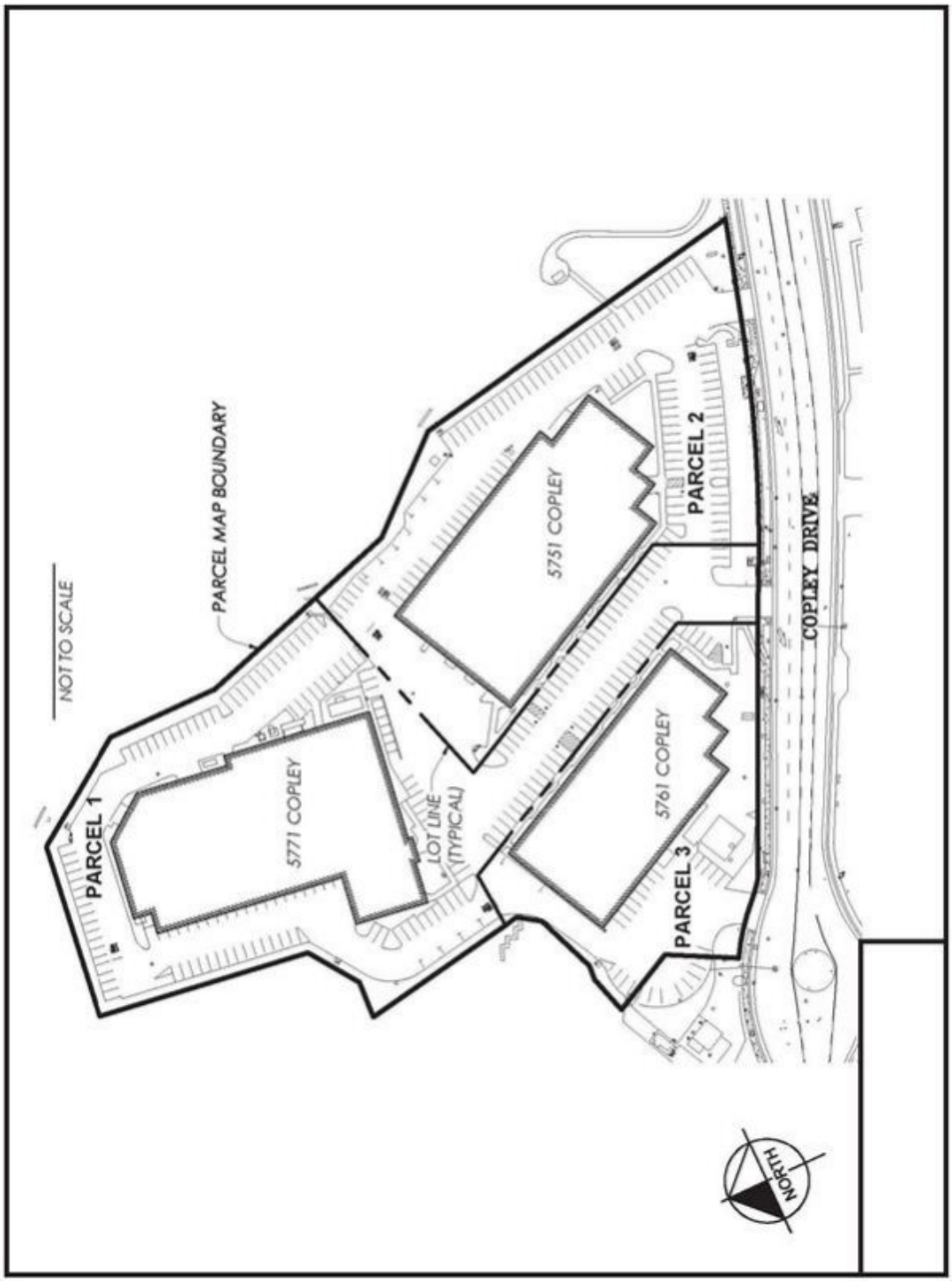

Exhibit 31.1

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

I, Regina E. Groves, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of REVA Medical, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2017

/s/ Regina E. Groves
Regina E. Groves
Chief Executive Officer
(principal executive officer)

Exhibit 31.2

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

I, Brandi L. Roberts, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of REVA Medical, 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: November 7, 2017

/s/ Brandi L. Roberts
Brandi L. Roberts
Chief Financial Officer
(principal financial officer)

Exhibit 32.1

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

In connection with the Quarterly Report on Form 10-Q of REVA Medical, Inc. (the "Company") for the quarterly period ended September 30, 2017, as filed with the Securities and Exchange Commission (the "Report"), Regina E. Groves, Chief Executive Officer of the Company, and Brandi L. Roberts, Chief Financial Officer of the Company, do hereby certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

Date: November 7, 2017

/s/ Regina E. Groves
Regina E. Groves
Chief Executive Officer
(principal executive officer)

/s/ Brandi L. Roberts
Brandi L. Roberts
Chief Financial Officer
(principal financial officer)