# UNITED STATES
# SECURITIES AND EXCHANGE COMMISSION
**Washington, D.C. 20549**

# FORM 10-Q

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

**For the quarterly period ended March 31, 2017**

**OR**

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

**For the transition period from to**

**Commission file number 001-35312**

# SUNSHINE HEART, INC.
(Exact Name of Registrant as Specified in its Charter)

| | |
|---|---|
| **Delaware**<br>(State or Other Jurisdiction of Incorporation or Organization) | **No. 68-0533453**<br>(I.R.S. Employer Identification No.) |

**12988 Valley View Road, Eden Prairie, MN 55344**
(Address of Principal Executive Offices) (Zip Code)

**(952) 345-4200**
(Registrant's Telephone Number, Including Area Code)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes x No o

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

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

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. o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes o No x

The number of outstanding shares of the registrant's common stock, $0.0001 par value, as of May 10, 2017 was 8,885,378

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## PART I—FINANCIAL INFORMATION
## ITEM 1. FINANCIAL STATEMENTS
## SUNSHINE HEART, INC. AND SUBSIDIARIES
***Condensed Consolidated Balance Sheets***

(In thousands, except share and per share amounts)

| | March 31, 2017 (unaudited) | December 31, 2016 |
|---|---|---|
| **ASSETS** | | |
| **Current assets** | | |
| Cash and cash equivalents | $ 1,661 | $ 1,323 |
| Accounts receivable | 406 | 282 |
| Inventory | 830 | 677 |
| Other current assets | 88 | 137 |
| **Total current assets** | 2,985 | 2,419 |
| Property, plant and equipment, net | 483 | 540 |
| Intangible assets, net | 4,144 | 4,302 |
| Goodwill | 189 | 189 |
| Other assets | 21 | 21 |
| **TOTAL ASSETS** | $ 7,822 | $ 7,471 |
| | | |
| **LIABILITIES AND STOCKHOLDERS’ EQUITY** | | |
| **Current liabilities** | | |
| Accounts payable and accrued expenses | $ 2,930 | $ 2,351 |
| Accrued compensation | 868 | 909 |
| **Total current liabilities** | 3,798 | 3,260 |
| Common stock warrant liability | 46 | 1,843 |
| Other liabilities | 126 | 126 |
| **Total liabilities** | 3,970 | 5,229 |
| Commitments and contingencies | — | — |
| | | |
| **Temporary Stockholders’ Equity** | | |
| Series D convertible preferred stock as of March 31, 2017 and December 31, 2016, par value $0.0001 per share; authorized 0 and 900 shares, respectively, issued and outstanding 0 and 700, respectively | — | 485 |
| | | |
| **Stockholders’ equity** | | |
| Series A junior participating preferred stock as of March 31, 2017 and December 31, 2016, par value $0.0001 per share; authorized 30,000 shares, none outstanding | — | — |
| Series B-1 convertible preferred stock as of March 31, 2017 and December 31, 2016, par value $0.0001 per share; authorized 0 and 1,824.4 shares, issued and outstanding 0 and 1,824.4, respectively | — | — |
| Series C convertible preferred stock as of March 31, 2017 and December 31, 2016, par value $0.0001 per share; authorized 0 and 2,900 shares, respectively, issued and outstanding 0 and 2,900, respectively | | |
| Preferred stock as of March 31, 2017 and December 31, 2016, par value $0.0001 per share; authorized 39,970,000 and 39,964,375.6 shares, none outstanding | — | — |
| Common stock as of March 31, 2017 and December 31, 2016, par value $0.0001 per share; authorized 100,000,000 shares, issued and outstanding 3,118,492 and 777,238, respectively | — | — |

| | | |
|---|---|---|
| Additional paid-in capital | 172,532 | 169,496 |
| Accumulated other comprehensive income: | | |
| Foreign currency translation adjustment | 1,234 | 1,235 |
| Accumulated deficit | (169,914) | (168,974) |
| **Total stockholders' equity** | 3,852 | 1,757 |
| **TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY** | $ 7,822 | $ 7,471 |

See notes to the condensed consolidated financial statements.



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**SUNSHINE HEART, INC. AND SUBSIDIARIES**

***Condensed Consolidated Statements of Operations and Comprehensive Loss***

**(Unaudited)**

(In thousands, except per share amounts)

| | Three months ended March 31, | |
|---|---|---|
| | 2017 | 2016 |
| **Net sales** | $ 901 | $ — |
| **Costs and Expenses:** | | |
| Cost of goods sold | 514 | — |
| Selling, general and administrative | 2,387 | 1,349 |
| Research and development | 308 | 3,206 |
| Total costs and expenses | 3,209 | 4,555 |
| Loss from operations | (2,308) | (4,555) |
| Other income (expense): | | |
| Interest expense | — | (229) |
| Other income, net | 6 | 1 |
| Warrant valuation expense | (67) | — |
| Change in fair value of warrant liability | 1,429 | — |
| Total other income (expense) | 1,368 | (228) |
| Loss before income taxes | (940) | (4,783) |
| Income tax expense | — | (3) |
| **Net loss** | $ (940) | $ (4,786) |
| | | |
| **Basic and diluted loss per share** | $ (1.75) | $ (7.82) |
| | | |
| Weighted average shares outstanding — basic and diluted | 1,579 | 612 |
| | | |
| **Other comprehensive income:** | | |
| Foreign currency translation adjustments | $ (1) | $ (4) |
| **Total comprehensive loss** | $ (941) | $ (4,790) |

See notes to the condensed consolidated financial statements.



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**SUNSHINE HEART, INC. AND SUBSIDIARIES**

***Condensed Consolidated Statements of Cash Flows***

**(Unaudited)**

(in thousands)

| | Three months ended March 31, | |
|---|---|---|
| | 2017 | 2016 |
| **Operating Activities:** | | |
| Net loss | $ (940) | $ (4,786) |
| Adjustments to reconcile net loss to cash flows from operating activities: | | |
| Depreciation and amortization expense | 215 | 81 |
| Stock-based compensation expense, net | 166 | 231 |
| Amortization of debt discount and financing fees | — | 84 |
| Change in fair value of warrant liability | (1,429) | — |
| Warrant valuation expense | 67 | — |
| Changes in operating assets and liabilities: | | |
| Accounts receivable | (124) | — |
| Inventory | (153) | — |
| Other current assets | 49 | (67) |
| Other assets and liabilities | — | 2 |
| Accounts payable and accrued expenses | 535 | (1,241) |

| | | |
|---|---|---|
| **Net cash used in operations** | **(1,614)** | **(5,696)** |
| | | |
| **Investing Activities:** | | |
| Purchases of property and equipment | — | (8) |
| **Net cash used in investing activities** | **—** | **(8)** |
| | | |
| **Financing Activities:** | | |
| Net proceeds from the sale of preferred stock and warrants | 184 | — |
| Net proceeds from exercise of warrants | 1,768 | — |
| Repayments on borrowings on long-term debt | — | (940) |
| **Net cash provided by (used in) financing activities** | **1,952** | **(940)** |
| | | |
| Effect of exchange rate changes on cash | — | 1 |
| Net increase (decrease) in cash and cash equivalents | 338 | (6,643) |
| Cash and cash equivalents - beginning of period | 1,323 | 23,113 |
| **Cash and cash equivalents - end of period** | **$ 1,661** | **$ 16,470** |
| | | |
| **Supplement schedule of non-cash activities** | | |
| Warrants issued as inducement to warrant exercise | $ 509 | $ — |
| | | |
| **Supplemental cash flow information** | | |
| Cash paid for interest | $ — | $ 136 |

See notes to the condensed consolidated financial statements.



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**SUNSHINE HEART, INC. AND SUBSIDIARIES**
**Notes to Condensed Consolidated Financial Statements**
(Unaudited)

**Note 1 — Nature of Business and Basis of Presentation**

*Nature of Business:* Sunshine Heart, Inc. (the "Company") is an early-stage medical device company focused on commercializing the Aquadex FlexFlow® System. The Company's commercial product, the Aquadex FlexFlow System (Aquadex) is indicated for temporary (up to eight hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy, and extended (longer than 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and require hospitalization. Sunshine Heart is a Delaware corporation headquartered in Minneapolis with wholly owned subsidiaries in Australia, Ireland and Delaware. The Company has been listed on the NASDAQ Capital Market since February 2012.

Prior to July 2016, the Company was focused on developing the C-Pulse® Heart Assist System for treatment of Class III and ambulatory Class IV heart failure. The C-Pulse System utilized the known concept of counterpulsation applied to the aorta. In March 2016, the Company announced that it was no longer enrolling patients into its two clinical studies for the C-Pulse System and that it planned to pursue a new strategic direction. In July 2016, the Company announced that it was moving forward with a therapeutic strategy utilizing neuromodulation rather than counterpulsation. In August 2016, the Company acquired the Aquadex business from a subsidiary of Baxter International, Inc. ("Baxter"), a global leader in the hospital products and dialysis markets. On September 29, 2016, the Company announced a strategic refocus of its near-term strategy that included halting clinical evaluations of its neuromodulation technology to fully focus its resources on its recently acquired Aquadex business, taking actions to reduce its cash burn, and reviewing potential strategic alliances and financing alternatives.

The Company's board of directors and stockholders approved a 1-for-30 reverse split of the Company's outstanding common stock that became effective after trading on January 12, 2017. The reverse stock split did not change the par value of the Company's stock or the number of common or preferred shares authorized by the Company's Fourth Amended and Restated Certificate of Incorporation, as amended. All share and per share amounts have been retroactively adjusted to reflect the split for all periods presented.

*Principles of Consolidation:* The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S.) (U.S. GAAP) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information necessary for a fair presentation of results of operations, comprehensive income, financial condition, and cash flows in conformity with U.S. GAAP. In the opinion of management, the condensed consolidated financial statements reflect all adjustments (consisting of normal recurring adjustments) considered necessary for a fair presentation of the results of the Company for the periods presented. Operating results for interim periods are not necessarily indicative of results that may be expected for the year as a whole. The preparation of the financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and the related disclosures at the date of the financial statements and during the reporting period. Actual results could materially differ from these estimates.

For further information, refer to the consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2016.

*Going Concern:* The Company's financial statements have been prepared and presented on a basis assuming it continues as a going concern. During the years ended December 31, 2016 and 2015 and through March 31, 2017, the Company incurred losses from operations and net cash outflows from operating activities as disclosed in the consolidated statements of operations and cash flows, respectively. At March 31, 2017, the Company had an accumulated deficit of $169.9 million and it expects to incur losses for the immediate future. To date, the Company has been funded by debt and equity financings, and although the Company believes that it will be able to successfully fund its operations, there can be no assurance that it will be able to do so or that it will ever operate profitably.

The Company became a revenue generating company after acquiring the Aquadex Business in August 2016. The Company expects to incur additional losses in the near-term as it grows the Aquadex Business, including investments in expanding its sales and marketing capabilities, purchasing inventory, manufacturing components, and complying with the requirements related to being a U.S. public company. To become and remain profitable, the Company must succeed in expanding the adoption and market acceptance of the Aquadex FlexFlow. This will require the Company to succeed in training personnel at hospitals and effectively and efficiently manufacturing, marketing and distributing the Aquadex FlexFlow and related components. There can be no assurance that the Company will succeed in these activities, and it may never generate revenues sufficient to achieve profitability.





The Company may require additional funding in the future, which may not be available on terms favorable to the Company, or at all. The Company's ability to continue as a going concern may be dependent on the Company's ability to raise additional capital based on the achievement of commercial milestones. Should future capital raising be unsuccessful, the Company may not be able to continue as a going concern. On April 24, 2017, the Company closed on an underwritten public equity offering for net proceeds of approximately $8.1 million after deducting the underwriting discounts and commissions and other costs associated with the offering (see Note 9-Subsequent Events). No adjustments have been made relating to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company not continue as a going concern.

*Revenue Recognition:* The Company recognizes revenues from product sales when earned. Specifically, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the price is fixed or determinable, and collectability is reasonably assured. Revenue is not recognized until title and risk of loss have transferred to the customer. The shipping terms for the Company's revenue arrangements are FOB shipping point.

*Accounts Receivable*: Accounts receivable are unsecured, are recorded at net realizable value, and do not bear interest. The Company makes judgments as to its ability to collect outstanding receivables based upon significant patterns of uncollectability, historical experience, and managements' evaluation of specific accounts and will provide an allowance for credit losses when collection becomes doubtful. The Company performs credit evaluations of its customers' financial condition on an as-needed basis. Payment is generally due 30 days from the invoice date and accounts past 30 days are individually analyzed for collectability. When all collection efforts have been exhausted, the account is written off against the related allowance. The Company's accounts receivable have terms that require payment in 30 days. To date the Company has not experienced any write-offs or significant deterioration of the aging of its accounts receivable, and therefore, no allowance for doubtful accounts was considered necessary as of March 31, 2017 or December 31, 2016.

*Inventories*: Inventories represent finished goods purchased from the Company's supplier and are recorded as the lower of cost or market using the first-in-first out method.

*Intangible assets*: The Company's intangible assets consist of customer relationships, developed technology, and trademarks and tradenames. All intangible assets recognized by the Company result from the acquisition of the Aquadex business. All intangible assets are estimated to have a useful life of 5-7 years. The Company reviews its definite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount of the assets may not be recoverable through the estimated undiscounted future cash flows derived from such assets. In cases where the carrying value exceeds the undiscounted cash flows, the carrying value is written down to its fair value, using a discounted cash flow analysis. No impairments have been identified or recorded in the periods presented.

*Goodwill:* Goodwill is the cost of an acquisition in excess of the fair value of acquired assets and liabilities and is recorded as an asset on the balance sheet. Goodwill is not subject to amortization but must be tested for impairment at least annually. This test requires the Company to determine if the implied fair value of the goodwill is less than its carrying amount.

The Company evaluates goodwill for impairment annually on November 1st of each calendar year, or to the extent events or conditions indicate a risk of possible impairment during the interim periods prior to its annual impairment test. Generally, the evaluation of goodwill for impairment involves a two-step test, although under certain circumstance an initial qualitative evaluation may be sufficient to conclude that goodwill is not impaired without conducting the quantitative test.

Step 1 involves comparing the estimated fair value of each respective reporting unit to its carrying value, including goodwill. If the estimated fair value exceeds the carrying value, the reporting unit's goodwill is not considered impaired. If the carrying value exceeds the estimated fair value, step 2 must be performed to determine whether goodwill is impaired and, if so, the amount of the impairment. Step 2 involves calculating an implied fair value of goodwill by performing a hypothetical allocation of the estimated fair value of the reporting unit determined in step 1 to the respective tangible and intangible net assets of the reporting unit. The remaining implied goodwill is then compared to the actual carrying amount of the goodwill for the reporting unit. To the extent the carrying amount of goodwill exceeds the implied goodwill, the difference is the amount of the goodwill impairment. No impairments have been identified or recorded in the periods presented.

*Contingent consideration*: In connection with the Company's purchase of Aquadex, the Company has an obligation to pay additional consideration that is contingent upon the occurrence of certain future events. Contingent consideration was recognized at the acquisition date at the estimated fair value of the contingent milestone payments. The fair value of the contingent consideration is remeasured to its estimated fair value at the end of each reporting period, with changes recorded to earnings.

*Common stock warrant liability*: The Company records its common stock warrant liability at fair value at the date of issuance using primarily a Monte Carlo valuation model. The fair value is remeasured to its estimated fair value at the end of each reporting period with changes recorded to earnings.





*Earnings per share:* Basic earnings per share is computed based on the net loss allocable to common stockholders for each period divided by the weighted average number of common shares outstanding. The net loss allocable to common stockholders for the three months ended March 31, 2017, reflects a $1.8 million increase for the net deemed dividend to preferred shareholders provided in connection with the shareholder approval of the Series C and D Convertible Preferred Stock offering in January of 2017 (see Note 4), representing the intrinsic value of the shares at the time of issuance. Diluted earnings per share is computed based on the net loss allocable to common stockholders for each period divided by the weighted average number of common shares outstanding, increased by the number of additional shares that would have been outstanding had the potentially dilutive common shares been issued, and reduced by the number of shares the Company could have repurchased from the proceeds from issuance of the potentially dilutive shares. Potentially dilutive shares of common stock include warrants, stock options and other stock-based awards granted under stock-based compensation plans. These potentially dilutive shares were excluded from the computation of loss per share as their effect was antidilutive due to the Company's net loss in each of those periods.

The following table sets forth the potential shares of common stock that are not included in the calculation of diluted net loss per share because to do so would be anti-dilutive as of the end of each period presented:

| | March 31, | |
|---|---|---|
| | 2017 | 2016 |
| Stock options | 57,102 | 96,127 |
| Restricted stock units | 10,890 | 17,984 |
| Warrants to purchase common stock | 926,723 | 7,359 |
| Total | 994,715 | 121,470 |

*New Accounting Pronouncements:* In May 2014, August 2015, March 2016, April 2016 and May 2016, the FASB issued amended revenue recognition guidance to clarify the principles for recognizing revenue from contracts with customers. The guidance requires an entity to recognize revenue to depict the transfer of goods or services to customers in an amount that reflects the consideration to which an entity expects to be entitled in exchange for those goods or services. The guidance also requires expanded disclosures relating to the nature, amount, timing, and uncertainty of revenue and cash flows arising from contracts with customers. Additionally, qualitative and quantitative disclosures are required about customer contracts, significant judgments and changes in judgments, and assets recognized from the costs to obtain or fulfill a contract. The standard allows the Company to transition to the new model using either a full or modified retrospective approach. This guidance will be effective for the Company's interim and annual periods beginning January 1, 2018. The Company is currently evaluating the impact that this standard will have on its business practices, financial condition, results of operations and disclosures.

In November 2015, the FASB issued amended guidance concerning the classification of deferred taxes on the balance sheet to require that deferred tax assets and deferred tax liabilities be presented as noncurrent in a classified balance sheet. The amendment is effective for our annual and interim reporting periods beginning January 1, 2017, with early adoption permitted. We adopted this standard in the first quarter of 2017 with no impact on the Company's consolidated financial statements as all deferred tax assets are fully reserved.

In February 2016, the FASB issued updated guidance to improve financial reporting about leasing transactions. This guidance will require organizations that lease assets to recognize on the balance sheet the assets and liabilities for the rights and obligations created by those leases. This guidance is effective for the Company's annual and quarterly reporting periods beginning January 1, 2019. The Company is evaluating the impact that the adoption of this standard will have, if any, on its financial statements and disclosures.

**Note 2 — Aquadex Acquisition**

On August 5, 2016, the Company completed the acquisition of certain assets used in the production and sale of the Aquadex product line from Baxter. The acquisition of these assets meets the criteria for the purchase of a business, and has been accounted for in accordance with Accounting Standards Codification (ASC) 805, *Business Combinations*, with identifiable assets acquired and liabilities assumed recorded at their estimated fair values on the acquisition date. A valuation of the assets and liabilities from the business acquisition was performed utilizing cost, income and market approaches resulting in $5.1 million allocated to identifiable net assets.

In connection with the acquisition of the Aquadex Business, the Company entered into a manufacturing and supply agreement with Baxter whereby Baxter will manufacture and supply all of the Company's finished goods for a period of up to 18 months from the close of the transaction. The Company completed the acquisition in order to strengthen its presence in the heart failure market.

*Purchase Consideration:* Total purchase consideration for the Aquadex business was as follows:



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| (in thousands) | | |
|---|---|---|
| Cash consideration | $ | 4,000 |
| Common stock consideration | | 950 |
| Fair value of contingent consideration | | 126 |
| Total purchase consideration | $ | 5,076 |

- *Common Stock Consideration:* The common stock consideration consisted of 33,334 shares of the Company's common stock, worth $0.95 million based on the closing market value of $28.5 per share on August 5, 2016.

- *Contingent Consideration:* In connection with the acquisition of the Aquadex product line, the Company agreed to pay Baxter 40% of any proceeds in excess of $4.0 million related to the sale or disposal of the Aquadex assets within three years of the close of the transaction. The fair value of this contingent consideration was calculated based on the estimated likelihood of occurrence of this event in the timeframe provided by the agreement.

Purchase price consideration does not include expenses of $0.9 million for accounting, audit, legal, and valuation services that were incurred as part of the transaction and were expensed as incurred.

The acquisition was recorded by recognizing the assets acquired at their estimated fair value at the acquisition date. The excess of the cost of the acquisition over the fair value of the assets acquired was recorded as goodwill. The fair values were based on management's analysis, including work performed by third-party valuation specialists. The following presents the amounts recognized for the assets acquired on August 5, 2016 (in thousands):

| | | |
|---|---|---|
| Capital lease asset | $ | 307 |
| Intangible assets | | 4,580 |
| Total identifiable assets acquired | | 4,887 |

| | | |
|---|---|---|
| Goodwill | | 189 |
| Total purchase consideration | $ | 5,076 |

The goodwill is primarily attributable to new and/or future customer relationships that were not acquired in the transaction. The fair value of the capital lease asset utilized a combination of the cost and market approaches, depending on the characteristics of the asset classification. Of the $4.6 million of acquired intangible assets, $3.1 million was assigned to customer relationships, $1.1 million was assigned to developed technology, and $0.4 million was assigned to trademarks and tradename. All intangible assets are estimated to have a useful life of 5-7 years.

*Pro Forma Condensed Combined Financial Information (Unaudited)*

The following unaudited pro forma combined financial information summarizes the results of operations for three months ended March 31, 2016 as if the acquisition of Aquadex had been completed on of January 1, 2016. Pro forma information reflects adjustments that are expected to have a continuing impact on our results of operations and are directly attributable to the acquisition. The unaudited pro forma results include adjustments to reflect, among other things, direct transaction costs relating to the acquisition, the difference in intangible asset amortization to be incurred based on the preliminary values of each identifiable intangible asset, and the difference in depreciation expense to be incurred based on preliminary value of the capital lease asset. The pro forma amounts do not purport to be indicative of the results that would have actually been obtained if the acquisition had occurred as of January 1, 2016 or that may be obtained in the future, and do not reflect future synergies, integration costs, or other such costs or savings.

| | Three Months Ended March 31, | |
|---|---|---|
| | 2017 | 2016 |
| Pro forma net sales | $ 901 | $ 891 |
| Pro forma net loss from operations | (2,308) | (4,555) |
| Pro forma basic and diluted net loss per share | $ (0.87) | $ (7.85) |

**Note 3 - Debt**

*Prior Loan Agreement*: On February 18, 2015, the Company entered into a loan and security agreement with Silicon Valley Bank (the Bank) for proceeds of up to $10.0 million at an annual interest rate of 7.0%. Under this agreement, a $6.0 million term loan was funded at closing and an additional term loan in the amount of $2.0 million was funded on June 26, 2015. The proceeds from





the term loans were used for general corporate and working capital purposes. Commencing on January 1, 2016, the Company began repaying the advances made in twenty-four consecutive equal monthly installments. On August 4, 2016, the Company repaid all remaining amounts outstanding under the agreement and wrote-off all unamortized warrants and debt issuance costs. There were no borrowings outstanding under this facility as of March 31, 2017 or December 31, 2016.

*Warrants:* In connection with the funding of these term loans, the Company issued 2,300 warrants at an exercise price of $156.6 per share and 1,087 warrants at an exercise price of $115.8 per share to the Bank and one of its affiliates. The Company valued these warrants at $115.8 per share and $81.3 per share, respectively, utilizing the Black Scholes valuation model and the following assumptions: an expected dividend yield of 0%, an expected stock price volatility of 88.07% and 87.04%, a risk-free interest rate of 1.86% and 2.20%, and an expected life of 6.25 years. The warrants have a life of ten years and were fully vested at the date of grant.

*New Loan Agreement:* On August 5, 2016, the Company entered into a new loan and security agreement with the Bank (the “New Loan Agreement”). Under the New Loan Agreement, the Bank agreed to provide the Company with up to $5.0 million in debt financing, consisting of a term loan in an aggregate original principal amount not to exceed $4.0 million (the “Term Loan”) and a revolving line of credit in an aggregate principal amount not to exceed $1.0 million outstanding at any time (the “Revolving Line”). Proceeds from the loans were to be used for general corporate and working capital purposes. Advances under the Term Loan were available to the Company until November 30, 2016 and were subject to the Company’s compliance with liquidity covenants. The Term Loan expired unused on November 30, 2016 and the Term Loan is no longer available to be drawn. Advances under the Revolving Line are available to the Company until March 31, 2020 and accrue interest at a floating annual rate equal to 1.75% or 1.0% above the prime rate, depending on liquidity factors. Outstanding borrowings, if any, are collateralized by all of the Company’s assets, excluding intellectual property which is subject to a negative pledge. There were no borrowings outstanding under this facility as of March 31, 2017 or December 31, 2016.

**Note 4 - Equity**

*Series B/B-1 Convertible Preferred Stock*: On July 20, 2016, the Company entered into a securities purchase agreement with an institutional investor for an offering of shares of convertible preferred stock and warrants with gross proceeds of approximately $3.5 million in a registered direct offering. The transaction closed on July 26, 2016, and the Company issued 3,468 shares of Series B Convertible Preferred Stock. The Series B Convertible Preferred Stock is non-voting and was convertible into a total of 122,979 shares of common stock at the holder’s election at any time at a conversion price of $28.2 per share. Approximately $1.6 million of the proceeds were allocated to the preferred stock, representing the residual proceeds after the warrants (described below) were recorded at fair value.

On October 30, 2016, the Company entered into an exchange agreement with the holders of its Series B Convertible Preferred Stock and agreed to issue such holders 2,227.2 shares of the Company’s Series B-1 Convertible Preferred Stock in exchange for the cancellation of all shares of Series B Convertible Preferred Stock held by such holders. The Series B-1 Convertible Preferred Stock had similar terms as the Series B Convertible Preferred Stock, except that the initial conversion price of the Series B-1 Convertible Preferred Stock was $5.10 per share. As of December 31, 2016, 402.8 shares of the Series B-1 Convertible Preferred Stock had been converted into 78,973 shares of common stock, and 1,824.4 shares of Series B-1 Convertible Preferred Stock remained outstanding. As of March 31, 2017, all remaining Series B Convertible Preferred Stock had been converted into an additional 357,732 shares of common stock and none remained outstanding.

*Series C and D Convertible Preferred Stock*: Also, on October 30, 2016, the Company entered into a securities purchase agreement with an institutional investor for shares of convertible preferred stock and warrants with an aggregate purchase price of $3.8 million in a registered direct offering and simultaneous private placement. The first closing of the transaction occurred on November 3, 2016, whereby the Company received $3.6 million in gross proceeds and issued and sold 2,900 shares of Series C Convertible Preferred Stock, and 700 shares of Series D Convertible Preferred Stock, both with conversion prices of $5.10 per share. At the second closing, on January 10, 2017, the Company issued and sold 200 shares of Series D Convertible Preferred Stock with a conversion price of $5.10 per share for gross proceeds of $0.2 million. The Series C and D Convertible Preferred Stock included a contingent beneficial conversion amount of $1.3 million and $0.5 million, respectively, representing the intrinsic value of the shares at the time of issuance. This amount is reflected as an increase to the loss per share allocable to common shareholders in the first quarter of 2017 when the contingency for the conversion was resolved with the shareholder approval allowing for the conversion of the preferred stock into common stock. As of December 31, 2016, 2,900 shares of Series C Convertible Preferred Stock and 700 shares of Series D Convertible Preferred Stock were outstanding and none had been converted. As of March 31, 2017, all shares of the Series C and D Convertible Preferred Stock had been converted into an aggregate of 1,114,250 shares of common stock and none remained outstanding.

The Series D Convertible Preferred Stock with a carrying value of $0.5 million was classified as temporary equity in the consolidated balance sheet as of December 31, 2016 because the Company could not control the settlement of its redemption in common stock. The temporary equity was not remeasured to fair value each period through earnings because the events that



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could trigger its redemption were not probable of occurrence. There were no shares of the Series D Convertible Preferred Stock outstanding as of March 31, 2017.

In connection with these transactions, the Company paid the placement agent an aggregate cash placement fee equal to 6% of the aggregate gross proceeds raised in the offering and issued warrants as described below.

*Investor Warrants*: In connection with the issuance of the Series B Convertible Preferred Stock in July 2016, the Company issued the investor at no additional cost warrants to purchase 122,979 shares of common stock at an exercise price of $28.2 per share. The warrants were exercisable for 36 months commencing six months from the closing date and were subject to a reduction of the exercise price if the Company subsequently issued common stock or equivalents at an effective price less than the current exercise price of such warrants. Concurrently with the closing of the Series C and D Convertible Preferred Stock and warrant financing on November 3, 2016, the exercise price for these warrants was adjusted to $5.10 per share.

In connection with the issuance of the Series C and D Convertible Preferred Stock in November 2016, the Company issued the investor at no additional cost warrants to purchase 705,884 shares of common stock at an exercise price of $5.40 per share. In connection with the issuance of the Series D Convertible Preferred Stock at the second closing in January 2017, the Company issued the investor at no additional cost warrants to purchase 39,216 shares of common stock at an exercise price of $5.40 per share. The warrants were exercisable for 60 months commencing on the earlier of the day of the receipt of approval of the Company's stockholders of a proposal to approve the issuance of the shares of common stock underlying the warrants, or the six-month anniversary of the date of issuance. These warrants were subject to a reduction of the exercise price if the Company subsequently issued common stock or equivalents at an effective price less than the current exercise price of such warrants.

*Warrant Exercise Agreement:* On February 15, 2017, the Company entered into a letter agreement with the institutional investors that held the majority of its outstanding warrants (the ''Original Warrants''), to incent the cash exercise of these warrants on or before March 31, 2017. In exchange for any such exercise, the Company agreed to provide the investors a replacement warrant (the ''Replacement Warrants'') to purchase the same number of shares of common stock as were issued upon exercise of the Original Warrants, with an exercise price equal to the consolidated closing bid price of its common stock on the date of issuance. The Replacement Warrants were issued in the same form as the Original Warrants except the exercise prices are not subject to reduction for subsequent equity issuances and the Replacement Warrants do not allow the investor to demand that the Company purchase the Replacement Warrants in the event of a fundamental transaction involving the Company. In connection with this agreement, between February and March 2017, the investors exercised all of the Original Warrants for gross cash proceeds to the Company of $2.0 million, and the Company issued 867,917 Replacement Warrants with exercise prices ranging from $1.73 per share to $4.99 per share.

The Company entered into the letter agreement with the investors to incent the exercise of the Original Warrants in order to receive the cash proceeds from the exercise of the Original Warrants and because the exercise of the Original Warrants would allow the Company to remove the warrant liability from its balance sheet and avoid future fair value adjustments and associated volatility in its financial statements, as the Replacement Warrants are not accounted for as liabilities based on their terms. As of March 31, 2017, there were no Original Warrants outstanding and all Replacement Warrants under the letter agreement had been issued.

*Placement Agent Warrant:* In connection with the issuance of the Series B, C and D Convertible Preferred Stock, the Company issued warrants to the placement agent to purchase an aggregate of 52,085 shares of common at exercise prices ranging from $6.38 per share to $40.50 per share. These warrants were issued at no additional cost, were exercisable immediately and expire five years from the closing of the offerings. These warrants do not contain repricing provisions.

*Warrant Valuation*: Both the investor and placement agent warrants are accounted for as liabilities and were recorded at fair value on the date of issuance. These warrants must be measured and recorded at fair value for each subsequent reporting period that the warrants remain outstanding, and any changes in fair value must be recognized in the statement of operations. In connection with the warrant exchange agreement described above, the Company remeasured each Original Warrant as of the date of exercise and recorded $1.4 million in connection with the change in fair value of these warrants, as an unrealized gain in the accompanying statement of operations for the period ended March 31, 2017.

The Replacement Warrants were valued at $0.5 million using the Black Scholes valuation model with the following assumptions: an expected dividend yield of 0%, expected stock price volatility of 49.65%-50.38%, risk-free interest rates of 1.95%-1.97% and an expected life of 5 years. The warrants have a five-year life and were fully vested at the date of grant. The terms of these warrants do not require them to be accounted for as liabilities and are therefore recorded in equity. As in incentive to early exercise the Original Warrants, the fair value provided to investors through the Replacement Warrants exceeded the fair value of the Original Warrants that was relinquished by the warrant holders by approximately $0.1 million, which has been reflected as an expense in the statement of operations for the period ending March 31, 2017.

*Transaction Costs:* The Company incurred approximately $0.9 million of cash and non-cash transaction costs which were allocated to the preferred stock and investor warrants on a relative fair value basis. The $0.6 million allocated to the preferred stock was recorded as a reduction of additional paid-in-capital, while the $0.3 million allocated to the investor warrants was expensed as incurred.

**Note 5 - Stock-Based Compensation**

Under the fair value recognition provisions of U.S. GAAP for accounting for stock-based compensation, the Company measures stock-based compensation expense at the grant date based on the fair value of the award and recognizes the compensation expense over the requisite service period, which is generally the vesting period.

The following table presents the classification of stock-based compensation expense recognized for the periods below:

| | Three months ended March 31, | |
|---|---|---|
| **(in thousands)** | **2017** | **2016** |
| Selling, general and administrative expense | $ 141 | $ 135 |
| Research and development expense | 27 | 112 |
| **Total stock-based compensation expense** | **$ 168** | **$ 247** |

**Note 6 - Fair Value of Financial Instruments**

The Company's financial instruments consist of cash and cash equivalents, accounts receivable, accounts payable, accrued liabilities, warrants, contingent consideration and debt.

Pursuant to the requirements of ASC Topic 820 *"Fair Value Measurement,"* the Company's financial assets and liabilities measured at fair value on a recurring basis are classified and disclosed in one of the following three categories:

- *Level 1* - Financial instruments with unadjusted quoted prices listed on active market exchanges.

- *Level 2* - Financial instruments lacking unadjusted, quoted prices from active market exchanges, including over the counter traded financial instruments. The prices for the financial instruments are determined using prices for recently traded financial instruments with similar underlying terms as well as directly or indirectly observable inputs, such as interest rates and yield curves that are observable at commonly quoted intervals.

- *Level 3* - Financial instruments that are not actively traded on a market exchange. This category includes situations where there is little, if any, market activity for the financial instrument. The prices are determined using significant unobservable inputs or valuation techniques.

The fair value of the Company's common stock warrant liability related to the investor warrants is calculated using a Monte Carlo valuation model and was classified as Level 3 in the fair value hierarchy. The common stock warrants issued July 26, 2016 had a fair value of $226,000 on December 31, 2016 and $46,000 as of their dates of exercise. The common stock warrants issued November 3, 2016 had a fair value of $1.5 million on December 31, 2016 and $0.4 million as of their exercise dates. The common stock warrants issued January 12, 2017 had a fair value $72,000 on the date of issuance and $18,000 as of the date of exercise. All investor warrants classified as warrant liability were exercised during the three months ended March 31, 2017.

The fair value of the Company's common stock warrant liability related to the placement agent warrants is calculated using a Black Scholes valuation model and is classified as Level 3 in the fair value hierarchy.

Fair values were calculated using the following assumptions:





| | **As of Dec. 31, 2016** | **As of Date of Exercise** |
|---|---|---|
| Risk-free interest rates, adjusted for continuous compounding | 1.47/1.96% | 1.45-1.99% |
| Term (years) | 3.1/5.3 | 2.84-5.50 |
| Expected volatility | 55.3/49.8% | 49.9-58.5% |
| Dates and probability of future equity raises | various | various |

The fair value of the Company's contingent consideration, as described in Note 2, was initially measured based on the consideration expected to be transferred (probability-weighted), discounted back to present value, and it is considered a Level 3 instrument. The discount rate used was determined at the time of measurement in accordance with accepted valuation methods. The Company measures the liability on a recurring basis using Level 3 inputs including probabilities of payment and projected payment dates. Changes to any of the inputs may result in significantly higher or lower fair value measurements. There were no changes in the fair value of the contingent consideration subsequent to the initial measurement.

All cash equivalents are considered Level 1 measurements for all periods presented. The Company does not have any financial instruments classified as Level 2 or any other classified as Level 3 and there were no movements between these categories during the periods ended March 31, 2017 and December 31, 2016. The Company believes that the carrying amounts of all remaining financial instruments approximate their fair value due to their relatively short maturities.

**Note 7 — Income Taxes**

The Company provides for a valuation allowance when it is more likely than not that it will not realize a portion of the deferred tax assets. The Company has established a full valuation allowance for U.S. and foreign deferred tax assets due to the uncertainty that enough taxable income will be generated in those taxing jurisdictions to utilize the assets. Therefore, the Company has not reflected any benefit of such deferred tax assets in the accompanying financial statements.

As of March 31, 2017, there were no material changes to what the Company disclosed regarding tax uncertainties or penalties in its Annual Report on Form 10-K for the year ended December 31, 2016.

**Note 8—Commitments and Contingencies**

*Leases:* The Company leases office space under a non-cancelable operating lease that expires in March 2019. The lease contains provisions for future annual inflationary adjustments. Rent expense is recognized using the straight-line method over the term of the lease.

*Employee Retirement Plan:* The Company has a 401(k) profit sharing plan that provides retirement benefit to substantially all full-time U.S. employees. Eligible employees may contribute a percentage of their annual compensation, subject to IRS limitations, with the Company matching a portion of the employee's contributions at the discretion of the Company.

*Inventory Purchase Commitments*: In connection with the acquisition of the Aquadex product line, the Company entered into a manufacturing and supply agreement with Baxter that will expire within a period not to exceed 18 months from the close of the transaction. Upon termination of this agreement, the Company has an obligation to purchase the remaining Aquadex inventory. We estimate that this amount will not exceed $2.5 million.

*Contingent Consideration:* As described on Note 2, the Company agreed that if it disposes of any of the Aquadex assets for a price that exceeds $4.0 million within three years of the closing, it will pay Baxter 40% of the amount of such excess. In addition, it also agreed that if shares of its common stock cease to be publicly traded on the Nasdaq Capital Market, Baxter has the option to require the Company to repurchase, in cash, all or any part of the common shares held by Baxter at a price equal to their fair market value, as determined by a third-party appraiser.

**Note 9 — Subsequent Events**

On April 24, 2017, the Company closed on an underwritten public offering of common stock, Series E Convertible Preferred Stock and warrants to purchase shares of common stock for gross proceeds of $9.2 million, which includes the full exercise of the underwriter's over-allotment option to purchase additional shares and warrants. Net proceeds totaled approximately $8.1 million after deducting the underwriting discounts and commissions and other costs associated with the offering.

The offering comprised of Class A Units, priced at a public offering price of $1.00 per unit, with each unit consisting of one share of common stock and one five-year warrant to purchase one share of common stock with an exercise price of $1.10 per share, and





Class B Units, priced at a public offering price of $1,000 per unit, with each unit comprised of one share of preferred stock, which is convertible into 1,000 shares of common stock, and warrants to purchase 1,000 shares of common stock, also with an exercise price of $1.10 per share. The conversion price of the Series E Convertible Preferred Stock as well as the exercise price of the warrants are fixed and do not contain any variable pricing features nor any price based anti-dilutive features apart from customary adjustments for splits and reverse splits of common stock. The Series E Convertible Preferred Stock included a beneficial ownership limitation of 4.99%, but had no dividend preference (except to extent dividends are also paid on the common stock), liquidation preference or other preferences over common stock. The securities comprising the units were immediately separable and were issued separately.

A total of 2.8 million shares of common stock, 6,400 shares of Series E Convertible Preferred Stock convertible into 6.4 million shares of common stock, and warrants to purchase 9.2 million shares of common stock were issued in the offering including the full exercise of the underwriter's over-allotment option to purchase additional shares and warrants.

Through May 10, 2017, 2,965 shares of Series E Convertible Preferred Stock issued in the offering were converted by their holders into 2,965,000 shares of common stock.

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

*The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our interim condensed consolidated financial statements and related notes included in Part I, Item 1 of this Quarterly Report and the audited consolidated financial statements and related notes and Management's Discussion and Analysis of Financial Condition and Results of Operations contained in our Annual Report on Form 10-K for the year ended December 31, 2016. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a variety of factors, including those discussed in Part I, Item 1A "Risk Factors," in our Annual Report on Form 10-K for the year ended December 31, 2016 and in our subsequent filings with the Securities and Exchange Commission (SEC).*

Unless otherwise specified or indicated by the context, Sunshine Heart, Company, we, us and our, refer to Sunshine Heart, Inc. and its subsidiaries.

### OVERVIEW

**About Sunshine Heart**

We are an early-stage medical device company focused on commercializing the Aquadex FlexFlow® System. Our commercial product, the Aquadex FlexFlow® System is indicated for temporary (up to eight hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy, and extended (longer than 8 hours) ultrafiltration treatment of patients with fluid overload who have failed diuretic therapy and require hospitalization.

Prior to July 2016, we were focused on developing the C-Pulse® Heart Assist System for treatment of Class III and ambulatory Class IV heart failure. The C-Pulse System utilized the known concept of counterpulsation applied to the aorta. In March 2016, we announced that we were no longer enrolling patients into our two clinical studies for the C-Pulse System and that we planned to pursue a new strategic direction. In July 2016, we announced that we were moving forward with a therapeutic strategy utilizing neuromodulation rather than counterpulsation.

In August 2016, we acquired the Aquadex Business from a subsidiary of Baxter International, Inc. ("Baxter"), a global leader in the hospital products and dialysis markets.

On September 29, 2016, we announced a strategic refocus of our near-term strategy that includes halting clinical evaluations of our neuromodulation technology to fully focus our resources on our recently acquired Aquadex Business, taking actions to reduce our cash burn in connection with such strategic refocus, and reviewing potential strategic alliances and financing alternatives.

**Reverse Stock Split**

At a special meeting of our stockholders on January 9, 2017, our stockholders approved, among other things, a reverse stock split, and following such special meeting, our Board of Directors approved a 1-for-30 reverse split of our issued and outstanding shares of common stock. The reverse stock split was effective as of 5:00 p.m. Eastern Time on January 12, 2017, and our common stock began trading on a split-adjusted basis on The Nasdaq Capital Market on January 13, 2017. The reverse stock split did not change





the par value of our stock or the authorized number of common or preferred shares. All share and per share amounts in this Quarterly Report on Form 10-Q for the three months ended March 31, 2017 and 2016, including the financial statements and notes thereto, have been retroactively adjusted to reflect the reverse stock split for all periods presented.

**Warrant Exercise Agreement**

On February 15, 2017, we entered into a letter agreement with the institutional investors that held the majority of our outstanding warrants, to incent the cash exercise of these warrants on or before March 31, 2017. In exchange for any such exercise, we agreed to provide the Investors a replacement warrant (the "Replacement Warrants") to purchase the same number of shares of common stock as were issued upon exercise of the exercised warrants, with an exercise price equal to the consolidated closing bid price of our common stock on the date of issuance. The Replacement Warrants are in the same form as the exercised warrants except the exercise prices are not subject to reduction for subsequent equity issuances and the Replacement Warrants do not allow the investor to demand that we purchase the Replacement Warrants in the event of a fundamental transaction involving the Company. In connection with this agreement, the investors exercised all of the Original Warrants for gross cash proceeds to us of $2.0 million, and we issued 867,917 Replacement Warrants with exercise prices ranging from $1.73 per share to $4.99 per share.

We entered into the letter agreement with the investors to incent the exercise of the Original Warrants in order to receive the cash proceeds from the exercise of the Original Warrants and because the exercise of the Original Warrants would allow us to remove the warrant liability from our balance sheet and avoid future fair value adjustments and associated volatility in our financial statements. As of March 31, 2017, we had no Original Warrants outstanding and we had issued all Replacement Warrants under the letter agreement.

**Recent Developments**

*Public Offering*

On April 24, 2017, we closed on an underwritten public offering of 2.8 million shares of common stock, 6,400 shares of Series E Convertible Preferred Stock and warrants to purchase 9.2 million shares of common stock, which includes the full exercise of the underwriter's over-allotment option to purchase additional shares and warrants, for gross proceeds of $9.2 million. Net proceeds totaled approximately $8.1 million after deducting the underwriting discounts and commissions and other costs associated with the offering.

See Note 9 to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

*Nasdaq Compliance*

On September 21, 2016, we received notice from the Listing Qualifications Staff (the "Staff") of The Nasdaq Stock Market LLC ("Nasdaq") indicating that the Staff had determined to delist our securities from The Nasdaq Capital Market due to our then continued non-compliance with the minimum bid price requirement. We timely requested a hearing before the Nasdaq Hearings Panel (the "Panel"), which occurred on November 10, 2016. On November 11, 2016, we received notice from the Staff that we no longer satisfied Nasdaq Listing Rule 5550(b) insofar as we did not expect to report stockholders' equity of at least $2.5 million upon the filing of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2017 and that the deficiency could serve as an additional basis for the delisting of the Company's common stock from The Nasdaq Capital Market. On November 21, 2016, Nasdaq informed us that the Panel had granted us continued listing on The Nasdaq Capital Market while we implement our plan to regain compliance with the minimum bid price and minimum stockholders' equity requirements. The Panel granted us until January 30, 2017 to evidence a closing bid price of $1.00 or more for a minimum of ten prior consecutive trading days. After implementing the reverse stock split described below, we received confirmation from Nasdaq on February 9, 2017 that we regained compliance with the minimum bid price rule. The Panel had granted us until March 20, 2017 to evidence compliance with the $2.5 million stockholder's equity requirement. On March 28, 2017, we announced that the Panel had granted us an extension through May 10, 2017 to evidence compliance with the minimum shareholder's equity requirement. On May 4, 2017, we were formally notified by The NASDAQ Stock Market LLC ("Nasdaq") that we have regained compliance with the minimum stockholders' equity requirement and are compliance with all other applicable requirements for listing on The Nasdaq Capital Market. As a result of the foregoing, the Nasdaq listing matter has been closed.

**CRITICAL ACCOUNTING POLICIES AND ESTIMATES**

We have adopted various accounting policies to prepare the condensed consolidated financial statements in accordance with accounting principles generally accepted in the United States. (U.S. GAAP). Our most significant accounting policies are disclosed in Note 1 to the consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2016.

The preparation of the condensed consolidated financial statements, in conformity with U.S. GAAP, requires us to make estimates and assumptions that affect the amounts reported in the condensed consolidated financial statements and accompanying notes.

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Our estimates and assumptions, including those related to stock-based compensation, valuation of equity and debt securities, and income tax reserves are updated as appropriate, which in most cases is quarterly. We base our estimates on historical experience, valuations, or various assumptions that are believed to be reasonable under the circumstances. Other than new estimates made in connection with the valuation of our warrant liability, contingent consideration, and valuation of intangible assets related to the Aquadex acquisition, there have been no material changes to our critical accounting policies and estimates from the information provided in Part II, Item 7, *Management's Discussion and Analysis of Financial Condition and Results of Operations* included in our Annual Report on Form 10-K for the year ended December 31, 2016.

*Revenue Recognition:* We recognize revenue from product sales when earned. Specifically, revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the price is fixed or determinable, and collectability is reasonably assured. Revenue is not recognized until title and risk of loss have transferred to the customer. The shipping terms for our revenue arrangements are FOB shipping point.

*Accounts Receivable*: Our accounts receivable have terms that require payment in 30 days. We did not establish an allowance for doubtful accounts at March 31, 2017 as we have not experienced any write offs or a deterioration in the aging of our receivables to date and do not expect to experience in the future.

*Inventories*: Inventories represent finished goods purchased from our supplier and are recorded as the lower of cost or market using the first-in-first out method.

*Intangible assets*: Our intangible assets consist of $3.1 million for customer relationships, $1.1 million for developed technology, and $0.4 million for trademarks and tradenames. All intangible assets are estimated to have a useful life of 5-7 years. We review our definite-lived intangible assets for impairment when impairment indicators exist. When impairment indicators exist, we determine if the carrying value of the intangible assets exceeds the related undiscounted cash flows. In cases where the carrying value exceeds the undiscounted cash flows, the carrying value is written down to its fair value, generally using a discounted cash flow analysis. No impairments have been identified or recorded in the periods presented.

*Goodwill:* Goodwill is the cost of an acquisition in excess of the fair value of acquired assets and liabilities and is recorded as an asset on our balance sheet. Goodwill is not subject to amortization but must be tested for impairment at least annually. This test requires us to assign goodwill to an appropriate reporting unit and to determine if the implied fair value of the reporting unit's goodwill is less than its carrying amount.

We evaluate goodwill for impairment annually on November 1st of each calendar year, or to the extent events or conditions indicate a risk of possible impairment during the interim periods prior to our annual impairment test. Generally, the evaluation of goodwill for impairment involves a two-step test, although under certain circumstance an initial qualitative evaluation may be sufficient to conclude that goodwill is not impaired without conducting the quantitative test.

Step 1 involves comparing the estimated fair value of each respective reporting unit to its carrying value, including goodwill. If the estimated fair value exceeds the carrying value, the reporting unit's goodwill is not considered impaired. If the carrying value exceeds the estimated fair value, step 2 must be performed to determine whether goodwill is impaired and, if so, the amount of the impairment. Step 2 involves calculating an implied fair value of goodwill by performing a hypothetical allocation of the estimated fair value of the reporting unit determined in step 1 to the respective tangible and intangible net assets of the reporting unit. The remaining implied goodwill is then compared to the actual carrying amount of the goodwill for the reporting unit. To the extent the carrying amount of goodwill exceeds the implied goodwill, the difference is the amount of the goodwill impairment. No impairments have been identified or recorded in the periods presented.

*Contingent consideration*: In connection with the purchase of Aquadex, we have an obligation to pay additional consideration that is contingent upon the occurrence of certain future events. Contingent consideration was recognized at the acquisition date at the estimated fair value of the contingent milestone payments. The fair value of the contingent consideration is remeasured to its estimated fair value at the end of each reporting period, with changes recorded to earnings.

*Common stock warrant liability*: We record the common stock warrant liability at fair value at the date of issuance using primarily a Monte Carlo valuation model. The fair value is remeasured to its estimated fair value at the end of each reporting period with changes recorded to earnings.

*Stock-Based Compensation:* We recognize all share-based payments to employees and directors, including grants of stock options, restricted stock units (RSUs), warrants and common stock awards in the income statement as an operating expense based on their fair values over the requisite service period.

We compute the estimated fair values of stock options and warrants using the Black-Scholes option pricing model. Market price at the date of grant is used to calculate the fair value of restricted stock units and common stock awards.



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Stock-based compensation expense is based on awards ultimately expected to vest and is reduced for estimated forfeitures. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Equity instruments issued to non-employees include RSUs, warrants or options to purchase shares of our common stock. These RSUs, warrants or options are either fully-vested and exercisable at the date of grant or vest over a certain period during which services are provided. We expense the fair market value of fully vested awards at the time of grant, and of unvested awards over the period in which the related services are received. Unvested awards are remeasured to fair value until they vest.

*Earnings per share:* We compute basic earnings per share based on the net loss allocable to common stockholders for each period divided by the weighted average number of common shares outstanding. The net loss allocable to common stockholders reflects an increase for net deemed dividends of $1.8 million to preferred shareholders provided in connection with the shareholder approval of the Series C and D Convertible Preferred Stock transactions in January of

2017, representing the intrinsic value of the shares at the time of issuance. Diluted earnings per share is computed based on the net loss allocable to common stockholders for each period divided by the weighted average number of common shares outstanding, increased by the number of additional shares that would have been outstanding had the potentially dilutive common shares been issued, and reduced by the number of shares the Company could have repurchased from the proceeds from issuance of the potentially dilutive shares. Potentially dilutive shares of common stock include warrants, stock options and other stock-based awards granted under stock-based compensation plans. These potentially dilutive shares were excluded from the computation of loss per share as their effect was antidilutive due to our net loss in each of those periods.

*Going Concern:* Our financial statements have been prepared and presented on a basis assuming we continue as a going concern. During the years ended December 31, 2016 and 2015, and through March 31, 2017, we incurred losses from operations and net cash outflows from operating activities as disclosed in the consolidated statements of operations and cash flows, respectively.

We became a revenue generating company only after acquiring the Aquadex Business in August 2016. We expect to incur additional losses in the near-term as we grow the Aquadex Business, including investments in expanding our sales and marketing capabilities, purchasing inventory, manufacturing components, and complying with the requirements related to being a U.S. public company. To become and remain profitable, we must succeed in expanding the adoption and market acceptance of the Aquadex FlexFlow. This will require us to succeed in training personnel at hospitals and effectively and efficiently manufacturing, marketing and distributing the Aquadex FlexFlow and related components. There can be no assurance that we will succeed in these activities, and we may never generate revenues sufficient to achieve profitability.

We may be required to seek additional funding to grow our Aquadex Business, which may not be available on terms favorable to us, or at all. In addition, the risk that we may not be able to continue as a going concern may make it more difficult to obtain necessary additional funding on terms favorable to us, or at all. Our directors, after due consideration, believe that we will be able to raise new capital as required to fund our business plan. Should future capital raising be unsuccessful, we may not be able to continue as a going concern. Furthermore, our ability to continue as a going concern is subject to our ability to develop and successfully commercialize the product being developed. If we are unable to obtain such funding of an amount and timing necessary to meet our future operational plans, or to successfully commercialize our intellectual property, we may be unable to continue as a going concern. On April 24, 2017, we closed on a an underwritten public equity offering for net proceeds of approximately $8.1 million after deducting the underwriting discounts and commissions and other costs associated with the offering (See Note 9 to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q). We have made no adjustments relating to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should we not continue as a going concern.

**NEW ACCOUNTING PRONOUNCEMENTS**

Information regarding new accounting pronouncements is included in Note 1 to the condensed consolidated financial statements included in this Quarterly Report Form 10-Q.

**FINANCIAL OVERVIEW**

Until August 2016, our activities had consisted principally of raising capital, performing research and development and conducting pre-clinical and clinical studies. In August 2016, we acquired our commercial product line, the Aquadex FlexFlow, and transitioned our activities to commercializing the Aquadex FlexFlow. At March 31, 2017, we had an accumulated deficit of $169.9 million and we expect to incur losses for the near future while we continue to ramp up sales of the Aquadex System. To date, we have been funded primarily by various equity and debt financings. Although we believe that we will be able to successfully fund our operations, there can be no assurance that we will be able to do so or that we will ever operate profitably.



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**Results of Operations**

**Comparison of Three Months Ended March 31, 2017 to Three Months Ended March 31, 2016**

***Net Sales***
*(dollars in thousands)*

| Three Months Ended March 31, 2017 | Three Months Ended March 31, 2016 | Increase (Decrease) | % Change |
|---|---|---|---|
| $ 901 | $ — | $ 901 | N/A |

We generated revenues of $0.9 million for the three months ended March 31, 2017. Revenue is generated mainly from the sale of disposable blood filters and catheters used in conjunction with our Aquadex consoles. We estimate that there are over 500 installed Aquadex consoles around the United States. We had no commercial sales prior to the acquisition of the Aquadex Business, which we acquired from Baxter in August 2016.

On March 3, 2016, we announced that we were no longer enrolling patients in our two clinical studies for our now discontinued C-Pulse System. Prior to this announcement, all of our revenue was generated by sales of the C-Pulse System to hospitals and clinics in conjunction with our U.S. clinical study. The C-Pulse System was not approved for commercial sale, however, the FDA had assigned the C-Pulse System to a Category B designation, making it eligible for reimbursement at certain U.S. sites when implanted in connection with our clinical studies. During the three months ended March 31, 2016, we performed no implants that qualified for reimbursement and recognized no revenue during the period. Since we terminated enrollment in these clinical studies, we do not expect to generate revenue from our clinical studies in the foreseeable future.

On September 29, 2016, we announced a strategic refocus of our near-term strategy to fully focus the Company’s resources on our recently acquired Aquadex Business. As such, we expect our Aquadex revenue to grow in the upcoming quarters as we drive increased utilization of disposable sales within our installed base.

**Costs and Expenses**

Our costs and expenses were as follows:

*(dollars in thousands)*

| | Three Months Ended March 31, 2017 | Three Months Ended March 31, 2016 | Increase (Decrease) | % Change |
|---|---|---|---|---|
| Cost of goods sold | $ 514 | $ — | $ 514 | N/A |
| Selling, general and administrative | $ 2,387 | $ 1,349 | $ 1,038 | 76.9% |
| Research and development | $ 308 | $ 3,206 | $ (2,898) | (90.4)% |

***Cost of Goods Sold***

In connection with the acquisition of the Aquadex product line, we entered into a manufacturing and supply agreement with Baxter. Cost of sales reflects the agreed-upon price paid to Baxter for the manufacturing of the disposables and consoles. The acquisition closed on August 5, 2016. Prior to that date, we did not have commercial sales or related product costs.

***Selling, General and Administrative***

The changes in selling, general and administrative expense reflect primarily the impact of our transition from a research and development stage company to a commercially focused organization. As a result, we incurred $1.0 million of incremental expenses related to the commercialization of the Aquadex FlexFlow, which we acquired from Baxter in August of 2016. These increases were offset by efficiencies achieved as a result of ongoing consolidation and streamlining activities in our administrative functions, and by lower stock-based compensation costs.

As we continue to ramp up our sales organization we expect that our selling expenses will continue to increase in future quarters, and that general and administrative expenses will continue to decrease.

***Research and Development***

The decrease in research and development expense resulted primarily from our decision to stop enrollment in our two clinical studies for our now discontinued C-Pulse System, which was announced on March 3, 2016. In July 2016, we announced that we were moving forward with a therapeutic strategy utilizing neuromodulation rather than counterpulsation. Further, on September 29, 2016, we announced a strategic refocus of our near-term strategy that includes halting clinical evaluations of the neuromodulation technology to fully focus the Company's resources on our recently acquired Aquadex system. We expect to make modest future investments in research and development related to our Aquadex system, and as a result, we expect that our research and development expenditures will level off or increase slightly in future quarters.



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**Other Income (Expense)**

The following is a summary of other income (expense)
*(dollars in thousands)*

| | Three Months Ended March 31, 2017 | Three Months Ended March 31, 2016 | Increase (Decrease) | % Change |
|---|---|---|---|---|
| Interest expense | $ — | $ (229) | $ (229) | (100)% |
| Change in fair value of warrant liability | $ 1,429 | — | 1,429 | N/A |
| Warrant valuation expense | $ (67) | — | (67) | N/A |

***Interest Expense***

The decrease in interest expense is related to the repayment of borrowings outstanding under our prior term loan with Silicon Valley Bank. Beginning January 1, 2016, we began repaying the principal due on this loan, and on August 4, 2016, we repaid all amounts outstanding under this loan facility, totaling $5.5 million.

***Change in Fair Value of Warrant Liability***

The gain recognized for the change in fair value of warrant liability relates to the decrease in value of the warrants issued in connection with financings completed on July 26, 2016, November 3, 2016 and January 10, 2017. These warrants were classified as liabilities on our balance sheet as of December 31, 2016 and required to be marked to market at each reporting period, with the changes in fair value recorded on our statement of operations. All of these warrants were exercised during the quarter ended March 31, 2017 pursuant to the warrant exercise agreement described above. Accordingly, we remeasured each of these warrants as of the date of exercise, and recorded $1.4 million as an unrealized gain on our statement of operations. Although we issued Replacement Warrants during the three months ended March 31, 2017 under the warrant exercise agreement, the Replacement Warrants are not accounted for as liabilities based on their terms.

**Liquidity and Capital Resources**

***Sources of Liquidity***

We have funded our operations primarily through cash on hand and a series of equity and debt issuances.

On July 26, 2016, pursuant to a Securities Purchase Agreement dated July 20, 2016, we completed an equity financing with an institutional investor of shares of Series B Convertible Preferred Stock and warrants for gross cash proceeds of approximately $3.5 million in a registered direct offering and simultaneous private placement. Also, on October 30, 2016, we entered into securities purchase agreement with an institutional investor pursuant to which we agreed to issue shares of Series C Convertible Preferred Stock, Series D Convertible Preferred Stock and warrants with an aggregate purchase price of $3.8 million in a registered direct offering and simultaneous private placement. The first closing occurred on November 3, 2016, whereby we received $3.6 million in gross proceeds and issued and sold shares of Series C Convertible Preferred Stock, shares of Series D Convertible Preferred Stock and warrants. At the second closing in January 2017, which was subject to receipt of shareholder approval of the transactions, we received $0.2 million in gross proceeds and issued and sold shares of Series D Convertible Preferred Stock and warrants.

In February 2017, we entered into an agreement with the holder of the majority of our outstanding warrants to incent their exercise of warrants for cash on or before March 31, 2017. In exchange for any such exercise, we agreed to provide the investors a replacement warrant to purchase the same number of shares of common stock as were issued upon exercise of each exercised warrants, with an exercise price equal to the consolidated closing bid price of our common stock on the date of issuance. In connection with this agreement, the investors exercised all of the original warrants for gross cash proceeds to us of $2.0 million, and we issued 867,917 replacement warrants with exercise prices ranging from $1.73 per share to $4.99 per share.

During 2015, we entered into a loan agreement with Silicon Valley Bank for proceeds of up to $10.0 million. On August 4, 2016, we repaid all amounts outstanding under this loan facility, totaling $5.5 million.

On August 5, 2016, we entered into a new loan agreement with Silicon Valley Bank for proceeds of up to $5.0 million, including a $1.0 million revolving line of credit and a $4.0 million term loan. The term loan expired unused on November 30, 2016 and the term loan is no longer available to be drawn. Under the revolving line, we may borrow the lesser of $1 million or 80% of our eligible accounts (subject to customary exclusions), minus the outstanding principal balance of any advances under the revolving line. Advances under the revolving line, if any, will accrue interest at a floating per annum rate equal to 1.75% or 1.0% above the prime rate, depending on whether we have maintained net liquidity in an amount equal to or greater than six times our monthly cash burn amount for the period specified. Interest on the principal amount outstanding under the revolving line, if any, is payable monthly on the last calendar day of the month until March 31, 2020, at which time all outstanding principal and unpaid interest with respect to any advances under the revolving line are due and payable in full. Advances under the revolving line are subject to various conditions precedent, including our compliance with financial covenants relating to net liquidity relative to monthly cash burn, which we do not currently meet. The revolving line of credit expires on March 31, 2021. We had no borrowings outstanding under the Silicon Valley Bank facility as of March 31, 2017 or December 31, 2016.

The new loan agreement contains customary representations, as well as customary affirmative and negative covenants. Among other restrictions, the negative covenants, subject to exceptions, prohibit or limit our ability to declare dividends or redeem or purchase equity interests; incur additional liens; make loans and investments; incur additional indebtedness; engage in mergers, acquisitions, and asset sales; transact with affiliates; undergo a change in control; add or change business locations; and engage in businesses that are not related to its existing business. The new loan agreement also requires us to maintain at all times upon the funding date of the initial advance under the revolving line, tested on the last day of each month: (i) net liquidity in an amount equal to or greater than four times our monthly cash burn amount and (ii) unrestricted cash and cash equivalents in accounts with the Bank or its affiliates equal to or greater than 1.25 of the amount of all of our outstanding obligations to the Bank.

Our obligations under the new loan agreement are secured by a security interest in our assets, excluding intellectual property and certain other exceptions. We are subject to a negative pledge covenant with respect to our intellectual property.





In 2014, we entered into a sales agreement with Cowen and Company, LLC (***"Cowen"***), allowing Cowen to sell from time to time, shares of our common stock having an aggregate offering price of up to $40.0 million, through an "at the market" equity offering program (the ***"Sales Agreement"***). We pay Cowen a commission of up to 3.0% of the gross proceeds from the sale of any shares pursuant to the Sales Agreement. There were no issuances of common stock under this facility during the three months ended March 31, 2017 or 2016. As of March 31, 2017, we had a total of $32.6 million available for future sales under the Sales Agreement.

Subsequent to quarter end, on April 24, 2017, we closed on an underwritten public offering for net proceeds of approximately $8.1 million, after deducting the underwriting discounts and commissions and other costs associated with the offering, which includes the full exercise of the underwriter's over-allotment option to purchase additional shares and warrants. In connection with this offering, we issued a total of 2.8 million shares of common stock, 6,400 shares of Series E Convertible Preferred Stock (which are convertible into 6.4 million shares of common stock), and warrants to purchase 9.2 million shares of common stock. See Note 9 to the condensed consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q.

As of March 31, 2017, and December 31, 2016, cash and cash equivalents were $1.7 million and $1.3 million, respectively. Prior to our acquisition of the Aquadex FlexFlow in August 2016, we did not have a product approved for commercial sale and focused our resources on developing, manufacturing, and commercializing our C-Pulse System. In September 2016, we announced a strategic refocus of our near-term strategy that includes halting all clinical evaluations to fully focus our resources on our recently acquired Aquadex Business, taking actions to reduce our cash burn in connection with such strategic refocus and reviewing potential strategic alliances and financing alternatives. Our business strategy and ability to fund our operations in the future depends in part on our ability to grow our Aquadex Business by establishing a sales force, selling our products to hospitals and other healthcare facilities and controlling costs. We believe that our cash on hand and proceeds from future warrant exercises will fund our operations until we reach profitability, although we may need to seek financing in the future.

***Cash Flows from Operating Activities***

Net cash used in operating activities was $1.6 million and $5.7 million for the three months ended March 31, 2017 and 2016, respectively. The net cash used in each of these periods primarily reflects the net loss for those periods, offset in part by stock-based compensation, depreciation, amortization of debt discount and financing fees, the decrease in the fair value of the warrant liability, and the effects of changes in operating assets and liabilities.

***Cash Flows from Investing Activities***

Net cash used in investing activities was $0.1 million for the three months ended March 31, 2016, respectively. There were no expenditures for property and equipment during the three months ended March 31, 2017.

***Cash Flows from Financing Activities***

Net cash provided by/ (used in) financing activities was $2.0 million and ($0.9) million for the three months ended March 31, 2017 and 2016, respectively. Net cash provided by financing activities during the three months ended March 31, 2017 were attributable to net proceeds from the exercise of warrants and from the second closing of the Series D Convertible Preferred Stock. Net cash used in financing activities during the three months ended March 31, 2016 were attributable to repayments of principal amounts outstanding under our debt facility with Silicon Valley Bank.

***Capital Resource Requirements***

As of March 31, 2017, we did not have any material commitments for capital expenditures.

**Off-Balance Sheet Arrangements**

In April 2015, we amended our lease agreement for our office space leased in Eden Prairie, Minnesota, to extend it for an additional thirty-six months beyond its original expiration date. This amended lease agreement expires March 31, 2019.

On August 5, 2016, we entered into an asset purchase agreement for the Aquadex Business with Baxter, whereby we agreed that if we dispose of any of the acquired assets for a price that exceeds $4.0 million within three years of the closing, we will pay Baxter 40% of the amount of such excess; and if shares of our common stock cease to be publicly traded on the Nasdaq Capital Market, Baxter has the option to require us to repurchase, in cash, all or any part of the common shares held by Baxter at a price equal to their fair market value, as determined by a third-party appraiser.

In connection with the acquisition of the Aquadex Business, we entered into a manufacturing and supply agreement with Baxter that will expire within a period not to exceed 18 months from the close of the transaction. Upon termination of this agreement, we have an obligation to purchase from Baxter the remaining Aquadex inventory. We estimate that this inventory will consist mainly of raw materials priced at cost, and that this amount will not exceed $2.5 million.





Except as disclosed above, we have no off-balance sheet transactions, arrangements, obligations (including contingent obligations), or other relationships with unconsolidated entities or other persons that have, or may have, a material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources

**Forward-Looking Statements and Risk Factors**

Certain statements in this report are forward-looking statements that are based on management's beliefs, assumptions and expectations and information currently available to management.  All statements that address future operating performance, events or developments that we expect or anticipate will occur in the future are forward-looking statements, including without limitation, our ability to execute on our recently announced strategic realignment, our post-market clinical data collection activities, benefits of our products to patients, our expectations with respect to product development and commercialization efforts, our ability to increase market and physician acceptance of our products, potentially competitive product offerings, intellectual property protection, our ability to integrate acquired businesses and our expectations regarding anticipated synergies with and benefits from acquired businesses. The risk factors described in our filings with the SEC could cause actual events to adversely differ from the expectations indicated in these forward-looking statements. Management believes that these forward-looking statements are reasonable as and when made. However, you should not place undue reliance on forward-looking statements because they speak only as of the date when made. Sunshine Heart does not assume any obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise. Sunshine Heart may not actually achieve the plans, projections or expectations disclosed in forward-looking statements, and actual results, developments or events could differ materially from those disclosed in the forward-looking statements. Forward-looking statements are subject to a number of risks and uncertainties, including without limitation, the possibility that regulatory authorities do not accept our application or approve the marketing of our products, the possibility we may be unable to raise the funds necessary for the development and commercialization of our products, and those described in our filings with the SEC.  We may update our risk factors from time to time.

**ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

Not applicable.

**ITEM 4. CONTROLS AND PROCEDURES**

**Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer (together, the ***"Certifying Officers"***), as appropriate, to allow for timely decisions regarding required disclosure.

In designing and evaluating disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable, not absolute, assurance of achieving the desired objectives. Also, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. The design of any system of controls is based, in part, upon certain assumptions about the likelihood of future events and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

As of March 31, 2017, the end of the period covered by this report, we conducted an evaluation, under the supervision and with the participation of management, including the Certifying Officers, of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the ***"Exchange Act"***).  Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their stated objectives.  Based on their evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at a reasonable assurance level as of March 31, 2017.

**Changes in Internal Controls**

There were no changes in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended March 31, 2017, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. On August 5, 2016, the Company completed the acquisition of certain assets used in the production and sale of the Aquadex product line from an indirect subsidiary of Baxter International Inc. We are in the process of integrating Aquadex's operations into the Company. We are in the process of implementing our internal control structure over the acquired operations, and we expect to complete this effort during fiscal 2017.

## PART II—OTHER INFORMATION

### ITEM 1. LEGAL PROCEEDINGS

We are not currently subject to any material legal proceedings.

### ITEM 1A. RISK FACTORS

You should carefully consider the risks and uncertainties we describe in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016, and in other reports filed thereafter with the SEC, before deciding to invest in or retain shares of our common stock. We do not believe there are any material changes to the risk factors discussed in Item 1A. "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2016.

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

Not applicable.

### ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

### ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

### ITEM 5. OTHER INFORMATION

None.

### ITEM 6. EXHIBITS

The exhibits filed as part of this Quarterly Report on Form 10-Q are listed in the Exhibit Index immediately following the signature page of this report.





## SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Sunshine Heart, Inc.

Date: May 12, 2017

By: /s/ John L. Erb
John L. Erb
Chief Executive Officer and Chairman of the Board
(principal executive officer)

Date: May 12, 2017

By: /s/ Claudia Drayton
Claudia Drayton
Chief Financial Officer
(principal financial officer)





## Exhibit Index
**Sunshine Heart, Inc.**
**Form 10-Q for the Quarterly Period Ended March 31, 2017**

| | | Incorporated By Reference | | | | | |
|---|---|---|---|---|---|---|---|
| Exhibit Number | Exhibit Description | Form | File Number | Date of First Filing | Exhibit Number | Filed Herewith | Furnished Herewith |
| 3.1 | Certificate of Amendment to the Fourth Amended and | 8-K | 001.35312 | January 13, 2017 | 3.1 | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Restated Certificate of Incorporation | | | | | | |
| 3.2 | Certificate of Designation of Preferences, Rights and Limitations of Series E Convertible Preferred Stock | S-1/A | 333-216841 | April 4, 2017 | 3.9 | | |
| 4.1 | Form of common stock Purchase Warrant issued pursuant to the Letter Agreement between Sunshine Heart, Inc. and the purchasers signatory thereto, dated February 15, 2017 | 8-K | 001-35312 | February 16, 2017 | 4.1 | | |
| 4.2 | Form of Warrant to purchase shares of common stock | S-1/A | 333-216841 | April 4, 2017 | 4.8 | | |
| 10.1 | Letter Agreement dated February 15, 2017 among the Company, Sabby Volatility Warrant Master Fund, Ltd. and Sabby Healthcare Master Fund, Ltd. | 8-K | 001-35312 | February 16, 2017 | 10.1 | | |
| 10.2 | Form of Underwriting Agreement | S-1/A | 333-216841 | April 4, 2017 | 1.1 | | |
| 10.3 | Warrant Agency Agreement, by and between Sunshine Heart, Inc. and American Stock Transfer & Trust Company, LLC dated April 24, 2017 | 8-K | 001-35312 | April 25, 2017 | 10.1 | | |
| 10.4 | Offer Letter by and between Sunshine Heart, Inc. and Jim Breidenstein dated April 12, 2017 | | | | | X | |
| 31.1 | Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | | | | | X | |
| 31.2 | Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 | | | | | X | |
| 32.1 | Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | | | | | | X |
| 32.2 | Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 | | | | | | X |
| 101.INS | XBRL Instance Document | | | | | X | |
| 101.SCH | XBRL Taxonomy Extension Schema Document | | | | | X | |



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| | | Incorporated By Reference | | | | | |
|---|---|---|---|---|---|---|---|
| **Exhibit Number** | **Exhibit Description** | **Form** | **File Number** | **Date of First Filing** | **Exhibit Number** | **Filed Herewith** | **Furnished Herewith** |

| | | |
|---|---|---|
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document | X |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document | X |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document | X |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document | X |

*Filed herewith.
**Furnished herewith.

**Exhibit 10.4**

**SUNSHINE HEART, INC.**
12988 VALLEY VIEW ROAD
EDEN PRAIRIE, MN 55344

April 12, 2017

Jim Breidenstein
52 Birdsong Parkway
Orchard Park, NY 14127

**Re: Employment Terms**

Dear Jim,

We are pleased to offer you employment with SUNSHINE HEART, INC., a Delaware corporation (the ***"Company"***). The terms of your offer are as follows:

Your initial position with us will be as Chief Commercial Officer reporting to the CEO. Your annualized salary will be three hundred sixty thousand dollars ($360,000) paid in semi-monthly installments in accordance with our normal payroll procedures. In addition to the above base salary, you will be eligible to earn a bonus of up to 35% of your base salary, applied on a pro-rata basis in 2017. One condition of receiving a bonus is that you must be employed in good standing with the Company as of the bonus payment date.

For 2017 only, you will be eligible to receive a monthly payment equaling 1.6% of the Company's total monthly "net" sales revenue (as reasonably determined by the Company) during each month in which you are actively employed in 2017. These payments will be made in arrears on a monthly basis in accordance with the Company's normal payroll procedures, subject to all required withholding. For clarity, no payments will be made under this paragraph after your last date of employment, regardless of the reason for your separation.

In addition, the Company is pleased to offer you stock options as detailed in EXHIBIT A, ***"Stock Option Grant".*** One-fourth of the shares vest on the one year anniversary of the Vesting Commencement Date; the balance of the shares vest in a series of thirty-six (36) successive equal monthly installments measured from the first anniversary of the Vesting Commencement Date. The terms of this grant will be further detailed in an award agreement.

During your employment, you will be allowed to participate in the employee stock options program, benefit programs and arrangements that we make available to our employees, including contributory and non-contributory welfare and benefit plans. You will be eligible for an annual accrual of 152 hours of Personal Time Off which will be earned/accrued on a semi-monthly basis. You may also participate in the Company's 401(K) plan.

Your job duties, title, responsibility and reporting level, compensation and benefits, as well as personnel policies and procedures, are subject to change.

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Your employment is effective April 24, 2017 or other mutually agreed upon date. By signing this letter agreement, you acknowledge and agree that your employment with the Company is "at will," meaning that either you or the Company are entitled to terminate your employment at any time for any reason, with or without cause. Although your job duties, title, compensation and benefits, as well as the Company's personnel policies and procedures, may change from time to time, the "at will" nature of your employment may only be changed in an express writing signed by you and the Board of Directors of the Company.

Though your position is "at will," you will be eligible for possible severance protection. Specifically, if the Company terminates your employment without Cause (as defined below),(1) the Company will, in addition to paying any legally-required amounts: (a) continue paying your salary rate for the nine-month period following the termination date (the "Severance Period"), subject to all withholding and payable on the Company's standard payroll dates as if your employment had not ended; and (b) during the Severance Period, if you elect and remain eligible for continuation coverage under COBRA, reimburse you for the monthly COBRA premium paid by you, subject to your delivery of satisfactory evidence of such payment, continued copayment of premiums at the same level and cost as if you were an employee of the Company and such subsidized payment being in compliance with the Patient Protection and Affordable Care Act. The Company's obligation to make the payments contemplated in (a) and (b) are conditioned on (x) your strict and continuing compliance with your post-employment obligations and (y) your executing and delivering, no later than 30 days after the termination date, a comprehensive general release in a form similar to that included as EXHIBIT B. If such release is executed and has become irrevocable, the payments will commence on the first payroll date following the 30-day anniversary of the termination date, with the first payment being retroactive to the termination date.

You also acknowledge that this job offer is contingent upon the successful completion of a background investigation which results in no findings which would preclude you from employment with Sunshine Heart Inc. Once the background check is completed with satisfactory results we will confirm the effective date of employment.

You are required, as a condition to your employment with the Company, to sign the Company's standard Employee Proprietary Information, Inventions Assignment and Non-Competition Agreement in the form attached hereto as EXHIBIT C. You are also required to read and acknowledge the attached Sunshine Heart Code of Business Conduct and Ethics.

This letter agreement and its attachments contain all of the terms of your employment with the Company and supersede any prior understandings or agreements, whether oral or written, between you and the Company.

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(1) "Cause" means the Company's good faith determination that any one of the following has occurred: (i) a material breach by you of your obligations stated in this offer letter or any other agreement between you and the Company or its affiliates; (ii) your conviction of, guilty or nolo contendere plea to, or confession of guilt of, a felony; (iii) your fraudulent or illegal conduct in the performance of services or other conduct in violation of a material Company policy; (iv) your embezzlement, misappropriation of funds or fraud, whether or not related to your employment; (v) your insubordination,

negligence, willful misconduct or failure to comply with directions of the CEO or his designee; (vi) your failure to pass the background check to the Company's satisfaction; or (vii) there is a credible threat of litigation against you by a former employer.

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This letter agreement may not be amended or modified except by an express written agreement signed by you and a duly authorized member of the Company's Board of Directors. The terms of this Agreement shall be governed by and construed in accordance with the internal laws of the State of Minnesota, without regard to its principles of conflicts of laws. By signing this Agreement, you irrevocably submit to the exclusive jurisdiction of the courts of the State of Minnesota for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. By signing this Agreement, you also waive any right to request a trial by jury in any litigation with respect to this letter agreement and represent that counsel has been consulted specifically as to this waiver.

We hope that you find the foregoing terms acceptable. You may indicate your agreement with these terms and accept this offer by signing and dating duplicate original copies of this letter agreement and the enclosed Employee Proprietary Information, Inventions Assignment and Non-Competition Agreement and returning them to me. As required by law, your employment with the Company is also contingent upon you providing legal proof of your identity and authorization to work in the United States.

Sincerely,

John Erb
Chairman of the Board and CEO

I have read and accept the employment offer as set forth in this Agreement. By signing this Agreement, I represent and warrant to the Company that I am under no contractual commitments inconsistent with my obligations to the Company. I hereby acknowledge that I have received and read the Company's Code of Business Conduct and Ethics, and that I understand the Code and its application to my performance of services to the Company.

| | |
|---|---|
| /s/ Jim Breidenstein | April 12, 2017 |
| Jim Breidenstein | Date |

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EXHIBIT A

**Stock Option Grant**

*Stock Option grant representing 1.5% of fully diluted shares to be granted under the Company's equity incentive plan post-financing in 2017, subject to approval by the Board of Directors.*

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EXHIBIT B
[FORM OF RELEASE AGREEMENT]

**SEPARATION AND RELEASE AGREEMENT**

THIS SEPARATION AND RELEASE AGREEMENT (this ***"Agreement"***) is made by and between **SUNSHINE HEART, INC.**, a Delaware corporation, whose address is 12988 Valley View Road, Eden Prairie, Minnesota 55344 (the ***"Company"***) and James Breidenstein, whose address is [Insert Current Address] (***"Employee"***). The Parties agree as follows:

**ARTICLE 1**
**EMPLOYMENT TERMINATION, PAYMENTS AND RESIGNATION**

**1.1 TERMINATION OF EMPLOYMENT.** Employee's employment with the Company shall terminate as of [Insert Date] (the ***"Termination Date"***). Until the Termination Date, the Company shall continue to pay Employee his salary and other amounts required by law in accordance with its standard payroll procedures, less deductions required or authorized by law.

**1.2 SEPARATION CONSIDERATION.** As consideration for Employee's agreements and releases set forth herein, following the execution of this Agreement and expiration of the Revocation Period (as defined below), and recognizing that without execution of this Agreement, Employee would not be entitled to any additional compensation beyond wages due, the Company agrees to provide Employee with the severance amounts and benefits specified in, and subject to the conditions stated in, the employment letter agreement between Employee and the Company dated [Insert Date] (the "***Employment Terms Letter***"). The salary continuation payments will be paid in accordance with the Company's standard payroll procedures and less all required deductions.

**1.3 EXPENSE REIMBURSEMENT.** Employee will submit his final documented employee expense reimbursement statement reflecting all business expenses incurred by Employee through the Termination Date, if any, to the Company within thirty (30) days of the Termination Date. The Company will reimburse Employee for these expenses pursuant to its regular business practice.

**1.4 CONFLICT WITH OTHER AGREEMENTS.** In the event of any conflict of the provisions between this Agreement and the Employment Terms Letter, the provisions set forth in this Agreement shall control. In the event of any conflict between this Agreement and the provisions of that certain Employee Proprietary Information, Inventions Assignment and Non-Competition Agreement between the Company and Employee (the ***"Invention Assignment Agreement"***), the terms and conditions of the Invention Assignment Agreement shall control over the terms of this Agreement.

**1.5 ACKNOWLEDGEMENT.** Except as provided in this Article 1, the Parties acknowledge and agree that Employee is not, and shall not after the Termination Date, be eligible for any additional payment by the Company of any bonus, salary, vacation pay, retirement pension, severance pay, back pay, or other remuneration or compensation of any kind in respect of employment by the Company, provided that nothing in this Agreement alters Employee's rights



with respect to any existing stock options, which will continue to be governed by the applicable plan and any agreements specifically related thereto. Employee hereby confirms to the Company that Exhibit 1 to the Invention Assignment Agreement contains a complete list of all Inventions (as defined in the Invention Assignment Agreement) or improvements to which Employee claims ownership and desires to remove from the operation of the Inventions Assignment Agreement. Employee further agrees that the Invention Assignment Agreement remains in full force and effect and Employee hereby reaffirms his obligations arising under the terms of the Invention Assignment Agreement. Employee agrees to return to the Company all Company Documents and Materials (as defined in the Invention Assignment Agreement and without retaining copies thereof), apparatus, equipment and other physical property in Employee's possession within two (2) days of the Termination Date and in the manner directed by the Company.

**1.6 COOPERATION AND ASSISTANCE.** Following the Termination Date, Employee agrees to furnish such information and assistance to the Company as may be reasonably required by the Company in connection with any issues or matters of which Employee had knowledge during his employment with the Company. In addition, Employee shall make himself reasonably available to assist the Company in matters relating to the transition of his prior duties to other employees of the Company, as may be reasonably requested by the Company.

**1.7 CLAIMS AGAINST THE COMPANY.** Employee agrees to cooperate with the Company in any internal investigation, any administrative, regulatory or judicial proceeding or any dispute with a third party. Further, to the fullest extent permitted by law, Employee will not cooperate with or assist any person or entity asserting or investigating a claim against the Company unless required to do so by a lawfully issued subpoena, by court order or as expressly provided by regulation or statute. If Employee is served with a subpoena or is required by court order or otherwise to testify or produce documents in any type of proceeding involving the Company, he shall immediately advise the Company of same and cooperate with the Company in objecting to such request and/or seeking confidentiality protections.

## ARTICLE 2
## RELEASE AND NON-DISPARAGEMENT

**2.1 EMPLOYEE RELEASE OF CLAIMS.** In consideration for the separation consideration set forth in this Agreement, Employee, on behalf of himself, his heirs, executors, legal representatives, spouse and assigns (***"Employee Releasing Parties"***), hereby fully and forever releases the Company and its respective past and present officers, directors, employees, investors, stockholders, administrators, subsidiaries, affiliates, predecessor and successor corporations and assigns, attorneys and insurers (the ***"Company's Released Parties"***) of and from any claim, duty, obligation or cause of action relating to any matters of any kind, whether presently known or unknown, suspected or unsuspected, that any of them may possess arising from any omissions, acts or facts that have occurred up until and including the date he signs this Agreement, including, without limitation, any and all claims:

**A.** which arise out of, result from, or occurred in connection with Employee's employment by the Company or any of its affiliated entities, the termination of that employment, any events occurring in the course of that employment, or any events occurring prior to the execution of this Agreement;



**B.** for breach of contract, both express and implied; breach of a covenant of good faith and fair dealing, both express and implied; negligent or intentional infliction of emotional distress; negligent or intentional misrepresentation; negligent or intentional interference with contract or prospective economic advantage; termination in violation of public policy; defamation; misrepresentation; invasion of privacy; negligence; and any other tort;

**C.** relating to the violation of any federal, state or municipal statute pertaining to discrimination, harassment, retaliation, wrongful discharge and/or employment terms and conditions, including, without limitation, Title VII of the Civil Rights Act of 1964, the Civil Rights Act of 1866, the Employee Retirement and Income Security Act of 1974, the Age Discrimination in Employment Act of 1967 (the ***"ADEA"***), the Older Workers' Benefit Protection Act (***"OWBPA"***), the Family Medical Leave Act, the Worker Adjustment and Retraining Notification Act, the Americans with Disabilities Act of 1990, the Minnesota Human Rights Act (the "***MHRA***"), the Minnesota Equal Pay for Equal Work Law, the Minnesota healthcare worker whistleblower protection laws, the Minnesota family leave law, and the Minnesota personnel record access statutes; and

**D.** for back pay or other unpaid compensation and/or for attorneys' fees and costs.

Employee represents that he has not filed any lawsuit, arbitration, or other claim against any of the Company's Released Parties. Employee states that he knows of no violation of state, federal, or municipal law or regulation by any of the Company's Released Parties and knows of no ongoing or pending investigation, charge, or complaint by any agency charged with enforcement of state, federal, or municipal law or regulation. Nothing in this Agreement limits state or federal agencies from investigating and enforcing laws within their jurisdiction, but (except as to possible whistleblower awards from the Securities and Exchange Commission) Employee agrees he will not receive any individual monetary damages, recovery and/or relief of any type related to any Released Claim(s), whether pursued by Employee or any governmental agency, other person or group.

**2.2 ACKNOWLEDGMENT OF WAIVER OF CLAIMS UNDER ADEA AND MHRA.** Employee acknowledges that he is waiving and releasing any rights he may have under the OWBPA, the ADEA, and the MHRA, and that this waiver and release is knowing and voluntary. Employee acknowledges that the consideration given for this waiver and release is in addition to anything of value to which Employee was already entitled. Employee further acknowledges that he has been advised by this writing that: (a) he should consult with an attorney of his choice concerning the terms of this Agreement prior to executing this Agreement; (b) he has at least twenty-one (21) days within which to consider this Agreement and that if he signs this Agreement before expiration of that review period, he does so knowingly and voluntarily and with the intent of waiving his right to utilize the full review period; (c) he has the right to revoke his release of claims, insofar as it extends to potential claims arising under the ADEA, by informing the Company of such revocation within seven (7) calendar days following his execution of this Agreement; and (d) he has the right to rescind his release of claims, insofar as it extends to potential claims arising under the MHRA, by informing the Company of such rescission within fifteen (15) calendar days following Employee's execution of this Agreement. Employee further understands that these revocation and rescission periods shall run concurrently, and that this Agreement is not



effective until the fifteen (15) day rescission period (the ***"Revocation Period"***) has expired without any revocation being communicated. Communication of any such revocation by Employee to the Company shall be provided in writing and mailed by certified or registered mail with return receipt requested and addressed to the Company at its principal corporate offices to the attention of its Director of Human Resources.

**2.3 NO ADMISSION OF LIABILITY**. Neither this Agreement nor any statement contained herein shall be deemed to constitute an admission of liability on the part of the parties herein released. This Agreement's execution and implementation may not be used as evidence, and shall not be admissible in a subsequent proceeding of any kind, except one alleging a breach of this Agreement or the Invention Assignment Agreement.

**2.4 NON-DISPARAGEMENT.** Employee covenants and agrees that he shall not make or cause to be made any statements, observations, or opinions, or communicate any information (whether in written or oral form), that defame, slander or are likely in any way to harm the reputation of the Company's Released Parties or tortiously interfere with any of the Company's respective business relationships. Employee acknowledges and agrees that any violation of the covenant contained in this Section will result in irreparable damage to the Company and that the Company shall be entitled to injunctive and other equitable relief. Employee understands and agrees that the Company's Released Parties could not be reasonably or adequately compensated in damages in an action at law for breach of Employee's obligations under this Section. Accordingly, Employee specifically agrees that the Company's Released Parties shall be entitled to temporary and permanent injunctive relief, specific performance, and other equitable relief to enforce the provisions of this Section. This provision with respect to injunctive relief shall not, however, diminish the right of the Company's Released Parties to claim and recover damages or other remedies in addition to equitable relief.

**ARTICLE 3**
**REPRESENTATIONS AND WARRANTIES**

**3.1 REPRESENTATIONS AND WARRANTIES OF EMPLOYEE.** Employee warrants and represents to the Company that he:

**A.** has been advised to consult with legal counsel in entering into this Agreement;

**B.** has entirely read this Agreement;

**C.** has voluntarily executed this Agreement without any duress or undue influence and with the full intent of releasing all claims;

**D.** has received no promise, inducement or agreement not herein expressed with respect to this Agreement or the terms of this Agreement;

**E.** understands and agrees that in the event any injury, loss, or damage has been sustained by him which is not now known or suspected, or in the event that the losses or damage now known or suspected have present or future consequences not now known or suspected, this Agreement shall nevertheless constitute a full and final release as to the parties herein released,



and that this Agreement shall apply to all such unknown or unsuspected injuries, losses, damages or consequences; and

**F.** expressly acknowledges that his entry into this Agreement is in exchange for consideration in addition to anything of value to which he is already entitled.

**3.2 AUTHORITY.** Employee represents and warrants that he has the capacity to act on his own behalf and on behalf of all who might claim through him to bind them to the terms and conditions of this Agreement. Each Party warrants and represents that he/it has not assigned any claim released under this Agreement, and there are no liens or claims of lien or assignments in law or equity or otherwise of or against any of the claims or causes of action released herein.

**ARTICLE 4**
**MISCELLANEOUS**

**4.1 CONFIDENTIALITY.** Employee agrees to maintain in confidence the existence of this Agreement, the contents and terms of this Agreement and the consideration for this Agreement (collectively, the ***"Separation Information"***), provided that Employee may share the Separation Information with his spouse, his accountant or financial advisor to the limited extent needed for that person to prepare his tax returns, and his attorney. In addition, Employee may reveal to potential employers only those Sections of this Agreement that would restrict his activities or ability to disclose information with respect to any such future employer.

**4.2 REMEDIES**. In addition to any other legal, contractual and/or equitable remedies, the Company's obligation to provide the payments identified in Article 1 shall immediately cease if the Company, in good faith, believes Employee has breached one or more of this Agreement, the Invention Assignment Agreement, and/or any other contractual or legal obligation Employee owes to the Company. Further, in the event of a breach of one or more of the foregoing, in addition to any other available remedies, Employee shall be required to repay to the Company any amounts paid under Article 1, provided that Employee may retain, and is not required to repay, up to $1,000.00. The discontinuance and/or repayment of the severance benefits shall not affect the validity of the release and other obligations of Employee as set forth in this Agreement or otherwise.

**4.3 SEVERABILITY.** Should any provision of this Agreement be declared or be determined by any arbitrator or court of competent jurisdiction to be illegal or invalid, the validity of the remaining parts, terms or provisions shall not be affected thereby and said illegal or invalid part, term, or provision shall be deemed not to be a part of this Agreement.

**4.4 ENTIRE AGREEMENT.** This Agreement represents the entire agreement and understanding between the Company and Employee concerning Employee's separation from the Company, and supersedes and replaces any and all prior agreements and understandings concerning Employee's relationship with the Company and his compensation by the Company; provided, however, that this Agreement does not supersede or modify the Invention Assignment Agreement, which shall remain in full force and effect. This Agreement may only be amended by a writing signed by Employee and the Company.

**4.5 ASSIGNMENT.** This Agreement may not be assigned by Employee without the prior



written consent of the Company. The Company may assign this Agreement without Employee's consent in connection with a merger or sale of its assets and/or to a corporation controlling, controlled by or under common control with the Company. This Agreement shall inure to the benefit of, and be binding upon, each Party's respective heirs, legal representatives, successors and assigns.

**4.6 GOVERNING LAW; CONSENT TO JURISDICTION, WAIVER OF JURY TRIAL.** This Agreement shall be governed by and construed in accordance with the laws of the State of Minnesota, without regard to its principles of conflicts of laws. Each of the Parties hereto irrevocably submits to the exclusive jurisdiction of the state and federal courts of the State of Minnesota for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement, and consents to the laying of venue in such courts. EACH OF THE PARTIES KNOWINGLY AND VOLUNTARILY WAIVES ANY RIGHT TO REQUEST A TRIAL BY JURY IN ANY LITIGATION WITH RESPECT TO THIS AGREEMENT AND REPRESENTS THAT COUNSEL HAS BEEN CONSULTED SPECIFICALLY AS TO THIS WAIVER. In addition, should the Company prevail (in whole or in part) in enforcing any of the terms of this Agreement, Employee shall reimburse the Company for its reasonable fees and expenses (legal costs, attorney's fees and otherwise) related thereto.

**4.7 COUNTERPARTS/ FACSIMILE SIGNATURE.** This Agreement may be executed in one or more counterparts and by facsimile, each of which shall constitute an original and all of which together shall constitute one and the same instrument. Signatures of the parties transmitted by facsimile or via .pdf format shall be deemed to be their original signatures for all purposes.

The Parties have executed this Separation and Release Agreement as of the date set forth below.

**SUNSHINE HEART, INC.**

| | |
|---|---|
| By: /s/ John L. Erb | /s/ James Breidenstein |
| Name: John Erb | **JAMES BREIDENSTEIN** |
| Title: Chairman and CEO | Date: APRIL 12, 2017 |



EXHIBIT C

**EMPLOYEE PROPRIETARY INFORMATION, INVENTIONS ASSIGNMENT AND NON-COMPETITION AGREEMENT**

THIS EMPLOYEE PROPRIETARY INFORMATION, INVENTIONS ASSIGNMENT AND NON-COMPETITION AGREEMENT (this ***"Agreement"***) is made as of the date set forth below between SUNSHINE HEART, INC., a Delaware corporation (the ***"Company"***), and the undersigned employee of the Company (***"Employee"***).

This Agreement confirms certain terms of Employee's employment with the Company, which Employee acknowledges are a material part of the consideration for Employee's employment by the Company, and the compensation received by Employee from the Company from time to time.

**1. DEFINITIONS.** The following capitalized terms used in this Agreement shall have the following meanings:

***"Company Documents and Materials"*** means documents or other media, whether in tangible or intangible form, that contain or embody Proprietary Information or any other information concerning the business, operations or plans of the Company, whether such documents or media have been prepared by Employee or by others. Company Documents and Materials include, without limitation, blueprints, drawings, photographs, charts, graphs, notebooks, tests, test results, experiments, customer lists, computer disks, tapes or printouts, sound recordings and other printed, electronic, typewritten or handwritten documents or information, sample products, prototypes and models.

***"Inventions"*** means, without limitation, all software programs or subroutines, source or object code, algorithms, improvements, inventions, works of authorship, trade secrets, technology, designs, formulas, ideas, processes, techniques, know-how and data, whether or not patentable or copyrightable, made or discovered or conceived or reduced to practice or developed by Employee, either alone or jointly with others.

***"Proprietary Information"*** means information that was or will be developed, created, or discovered by or on behalf of the Company, or which became or will become known to, or was or is conveyed to the Company, which has commercial value in the Company's business, whether or not patentable or copyrightable, including, without limitation, information about software programs and subroutines, source and object code, algorithms, trade secrets, designs, technology, know-how, processes, data, ideas, techniques, inventions, works of authorship, formulas, business and product development plans, customer lists, terms of compensation and performance levels of the Company's employees and consultants, the Company's customers and other information concerning the Company's actual or anticipated business, research or development, or which is received in confidence by or for the Company from any other person or entity.

2. **CONFIDENTIALITY OF PROPRIETARY INFORMATION.**

(a) **Nature of Information.** Employee understands that the Company possesses and will possess Proprietary Information which is important to its business. Employee understands that Employee's engagement creates a relationship of confidence and trust between the Company and Employee with respect to Proprietary Information.

(b) **Property of the Company.** Employee acknowledges and agrees that all Company Documents and Materials, Proprietary Information and all patents, patent rights, copyrights, trade secret rights, trademark rights and other rights (including, without limitation, intellectual property rights) anywhere in the world in connection therewith is and shall be the sole property of the Company. Employee hereby assigns to the Company any and all rights, title and interest Employee may have or acquire in the Proprietary Information or any Company Documents and Materials.

(c) **Confidentiality.** At all times, both during the term of Employee's engagement by the Company and after Employee's termination, Employee shall keep in confidence and trust and shall not use or disclose any Proprietary Information or anything relating to it without the prior written consent of the Chief Executive Officer of the Company or other duly designated officer of the Company, except as may be necessary in the ordinary course of performing Employee's duties for the Company; provided, however, that Employee shall have no such obligation with respect to Proprietary Information that (i) was already known to Employee at the time of its disclosure to Employee by or on behalf of the Company, as evidenced by written records (ii) at the time of disclosure to Employee was generally available to the public or otherwise in the public domain, or (iii) subsequent to such disclosure becomes generally available to the public without fault on Employee's part.

(d) **Compelled Disclosure.** In the event that Employee is requested in any proceeding to disclose any Proprietary Information, Employee shall give the Company prompt notice of such request so that the Company may seek an appropriate protective order. If, in the absence of a protective order, Employee is nonetheless compelled by any court or tribunal of competent jurisdiction to disclose Proprietary Information, Employee may disclose such information without liability hereunder; provided, however, that Employee gives the Company notice of the Proprietary Information to be disclosed as far in advance of its disclosure as is practicable and uses Employee's best efforts to obtain assurances that confidential treatment will be accorded to such Proprietary Information.

(e) **Records.** Employee agrees to make and maintain adequate and current written records, in a form specified by the Company, of all Inventions, trade secrets and works of authorship assigned or to be assigned to the Company pursuant to this Agreement.

(f) **Handling of the Company Documents and Materials.** Employee agrees that during Employee's employment by the Company, Employee shall not remove any Company Documents and Materials from the business premises of the Company or deliver any Company Documents and Materials to any person or entity outside the Company, except as Employee may be required to do in connection with performing the duties of Employee's employment. Employee



further agrees that, immediately upon the termination of Employee's employment by Employee or by the Company for any reason, or during Employee's employment if so requested by the Company, Employee shall return all Company Documents and Materials, apparatus, equipment and other physical property, or any reproduction of such property, excepting only (i) Employee's personal copies of personnel records and records relating to Employee's compensation and benefits; and (ii) Employee's copy of all agreements between Employee and the Company including this Agreement.

3. **INVENTIONS.**

(a) **Disclosure.** Employee shall promptly disclose in writing to Employee's immediate supervisor or to such other person designated by the Company all Inventions made during the term of Employee's employment. Employee shall also disclose to Employee's immediate supervisor or such designee all Inventions made, discovered, conceived, reduced to practice or developed by Employee either alone or jointly with others, within six (6) months after the termination of Employee's employment with the Company which resulted, in whole or in part, from Employee's prior employment by the Company. Such disclosures shall be received by the Company in confidence, to the extent such Inventions are not assigned to the Company pursuant to subsection (b) below, and do not extend the assignments made in such subsection.

(b) **Assignment of Inventions to the Company.** Except as provided in Sections 3(c) and 3(d), Employee agrees that all Inventions which Employee makes, discovers, conceives, reduces to practice or develops (in whole or in part, either alone or jointly with others) during Employee's employment, including, but not limited to, conceptions or ideas derived prior to employment and developed for the first time (in whole or in part, either alone or jointly with others) during employment, shall be the sole property of the Company to the maximum extent permitted by law and Employee agrees to assign and hereby does assign to the Company any right, title and interest Employee has to the Inventions.

(c) **Works Made for Hire.** Employee agrees that the Company shall be the sole owner of all patents, patent rights, copyrights, trade secret rights, trademark rights and all other intellectual property or other rights in connection with Inventions. Employee further acknowledges and agrees that such Inventions, including, without limitation, any computer programs, programming documentation and other works of authorship, are "works made for hire" for purposes of the Company's rights under copyright laws. Employee hereby assigns to the Company any and all rights, title and interest Employee may have or acquire in such Inventions. If in the course of Employee's employment with the Company, Employee incorporates into a Company product, process or a machine a prior Invention or improvement owned by Employee or in which Employee has an interest, and listed in Exhibit 1, the Company is hereby granted and shall have a non-exclusive, royalty-free, irrevocable, perpetual, sublicensable, worldwide license to make, have made, modify, use, market, sell and distribute such prior Invention as part of or in connection with such product process or machine. Pursuant to Section 3(d), if in the course of Employee's employment with the Company, Employee incorporates into a Company product, process or a machine a prior Invention or improvement owned by Employee or in which Employee has an interest, but not listed in Exhibit 1, Employee agrees to assign and hereby does assign all Employee's rights and interest in the Invention to the Company.

**(d) List of Inventions.** Employee has attached hereto as EXHIBIT D a complete list of all Inventions or improvements to which Employee claims ownership or in which Employee has an interest and that Employee desires to remove from the operation of this Agreement. Employee acknowledges and agrees that such list is complete. If no such list is attached to this Agreement or such Exhibit has not been completed and signed by Employee, Employee represents to the Company and agrees that Employee has no such Inventions or improvements at the time of signing this Agreement.

**(e) Cooperation.** Employee agrees to perform, during and after Employee's employment, all acts deemed necessary or desirable by the Company to permit and assist it, at the Company's expense, in further evidencing and perfecting the assignments made to the Company under this Agreement and in obtaining, maintaining, defending and enforcing patents, patent rights, copyrights, trademark rights, trade secret rights or any other rights in connection with such Inventions and improvements in any and all countries. Such acts may include, without limitation, execution of documents and reasonable assistance or cooperation in legal proceedings. Employee hereby irrevocably designates and appoints the Company and its duly authorized officers and agents, as Employee's agents and attorney-in-fact, coupled with an interest, to act for and on Employee's behalf and in Employee's place and stead, to execute and file any documents, applications or related findings and to do all other lawfully permitted acts to further the purposes set forth above in this Section, including, without limitation, the perfection of assignment and the prosecution and issuance of patents, patent applications, filing with the FDA, copyright applications and registrations, trademark applications and registrations or other rights in connection with such Inventions and improvements with the same legal force and effect as if executed by Employee.

**(f) Assignment or Waiver of Moral Rights.** Any assignment of copyright hereunder (and any ownership of a copyright as a work made for hire) includes all rights of paternity, integrity, disclosure and withdrawal and any other rights that may be known as or referred to as "Moral Rights" (collectively, ***"Moral Rights"***). To the extent such Moral Rights cannot be assigned under applicable law and to the extent the following is allowed by the law in the various countries where Moral Rights exist, Employee hereby waives such Moral Rights and consents to any action of the Company that would violate such Moral Rights in the absence of such consent.

**(g) Holdover Assignment.**

**(i)** Employee agrees to, after the termination of Employee's employment with the Company for any reason, (1) disclose immediately to the Company all Inventions, patentable or not; (2) assist, at the Company's expenses such applications for United States patents and foreign patents covering such Inventions as the Company may request; (3) assign to the Company without further compensation to Employee the entire title and rights to all such Inventions and applications that Employee may have, and (4) execute, acknowledge, deliver, or act as otherwise necessary at the request of the Company all such papers, including but not



limited to patent applications, assignments, power of attorney, as necessary to secure the Company the full rights to such Inventions and applications.

**(ii)** The Inventions which shall come under this Section 3(g) shall include all Inventions that (1) Employee conceives, reduces to practice, or otherwise makes or develops, either solely or jointly with others, within one year after the termination of Employee's employment with the Company; and (2) are in any way based on any trade secret or confidential or proprietary information that Employee learned during employment at the Company; or result from any work performed by Employee for the Company.

**4. NON-SOLICITATION OR HIRE OF COMPANY EMPLOYEES.** During the term of Employee's employment and for one (1) year thereafter, Employee shall not encourage or solicit any employee of the Company to leave the Company for any reason or to accept employment with any other person or entity. As part of this restriction, Employee shall not (a) interview or provide any input to any third party regarding any such person during such time period, or (b) retain or hire in any capacity, either individually or for any company by which Employee may be employed or with which Employee may be affiliated, any person who is or was employed by the Company at any time during the time of Employee's employment with Company and six (6) months after the termination of Employee's employment with the Company. Notwithstanding the foregoing, the restrictions of this Section shall not apply with respect to the *bona fide* hiring and firing of the Company personnel to the extent such acts are part of Employee's duties for the Company.

**5. NON-SOLICITATION OF NON-EMPLOYEES.** During the term of this Agreement and for one (1) year thereafter, Employee shall not interfere with or attempt to impair the relationship between the Company and any of its non-employee consultants and advisors or customers, nor shall Employee attempt, directly or indirectly, to solicit, entice, hire or otherwise induce any non-employee consultant or advisor or customer of the Company to terminate association with Company

**6. NON-COMPETITION.** During the term of Employee's employment and for one (1) year thereafter, Employee shall not, with or without consideration, render services in any capacity to any person, or the division or subsidiary of any business, firm or company engaged in any business which has a product competitive with a product of the Company which Employee was involved with at the time of Employee's employment by the Company, or the termination of Employee's employment. Employee shall not become interested in any portion of a business which has competitive product with a product of the Company which Employee was involved with while employed by the Company, either directly or indirectly, as partner, stockholder, principal, member, employee, agent, trustee, consultant, or any other relationship or capacity; provided, however, that such restriction shall not apply with respect to a less than or equal to a one percent (1%) of an entity which is publicly traded and listed on a recognized securities exchange. Nothing herein shall prevent Employee after termination of his Employment from being employed by a division or subsidiary of a company that does not have any products which compete with products developed or in the process of being developed by the Company at the time of the Employee's employment by the Company, even though such new employer has other divisions or subsidiaries which have products competitive with the Company's products.



**7. REASONABLENESS OF TERMS.** The Company and Employee agree that the terms contained in Sections 2-6 of this Agreement are reasonable in all respects and that the restrictions contained therein are designed to ensure that Employee does not engage in unfair competition with the Company. In the event a court determines that any of the terms or provisions of this Agreement are unreasonable, the court may limit the application of any provision or term, or modify any provision or term, and proceed to enforce this Agreement as so limited or modified.

**8. REMEDIES.** Employee acknowledges that a violation of the terms of this Agreement may give rise to irreparable injury to the Company inadequately compensable in damages, and accordingly, agrees that the Company may seek injunctive relief against such breach or threatened breach, in addition to any other legal remedies which may be available, including recovery of monetary damages. In any action successfully brought by the Company to enforce the rights of the Company against Employee under this Agreement, the Company shall also be entitled to recover reasonable attorneys' fees and costs of the action, and the period of the restrictions above shall be deemed to commence upon the entry of the court's order for relief.

**9. GENERAL.**

**(a) Severability.** Employee agrees that if one or more provisions of this Agreement are held to be unenforceable under applicable law, such provisions shall be excluded from this Agreement and the balance of the Agreement shall be interpreted as if such provision were so excluded and shall be enforceable in accordance with its terms.

**(b) Authorization to Notify New Employer.** Employee hereby authorizes the Company to notify Employee's new employer about Employee's rights and obligations under this Agreement following the termination of Employee's employment with the Company.

**(c) Entire Agreement.** This Agreement sets forth the entire agreement and understanding between the Company and Employee relating to the subject matter herein and supersedes all prior discussions between them, including but not limited to any and all statements made by any officer, employee or representative of the Company regarding the Company's financial condition or future prospects. Employee understands and acknowledges that, except as set forth in this Agreement and in the offer letter from the Company to Employee, (i) no other representation or inducement has been made to Employee, (ii) Employee has relied on Employee's own judgment and investigation in accepting Employee's employment with the Company, and (iii) Employee has not relied on any representation or inducement made by any officer, employee or representative of the Company.

**(d) Amendment.** No modification of or amendment to this Agreement nor any waiver of any rights under this Agreement shall be effective unless in a writing signed by the Company and Employee. Employee understands and agrees that any subsequent change or changes in Employee's duties, salary or compensation shall not affect the validity or scope of this Agreement.

**(e) Effective Date and Binding Effect.** This Agreement shall be effective as of the first day of Employee's employment with the Company and shall be binding upon



Employee, Employee's heirs, executor, assigns and administrators and shall inure to the benefit of the Company, its subsidiaries, successors and assigns.

**(f) Governing Law; Consent to Jurisdiction, Waiver of Jury Trial.** This Agreement shall be governed by and construed in accordance with the internal laws of the State of Minnesota, without regard to its principles of conflicts of laws. Each of the parties hereto irrevocably submits to the exclusive jurisdiction of the courts of the State of Minnesota and the United States District Court for the District of Minnesota for the purpose of any suit, action, proceeding or judgment relating to or arising out of this Agreement and the transactions contemplated hereby. Service of process in connection with any such suit, action or proceeding may be served on each party hereto anywhere in the world by the same methods as are specified for the giving of notices under this Agreement. Each of the parties hereto irrevocably consents to the jurisdiction of any such court in any such suit, action or proceeding and to the laying of venue in such court. Each party hereto irrevocably waives any objection to the laying of venue of any such suit, action or proceeding brought in such courts and irrevocably waives any claim that any such suit, action or proceeding brought in any such court has been brought in an inconvenient forum.

EMPLOYEE HAS READ THIS AGREEMENT CAREFULLY AND UNDERSTANDS AND ACCEPTS THE OBLIGATIONS WHICH IT IMPOSES UPON EMPLOYEE WITHOUT RESERVATION. NO PROMISES OR REPRESENTATIONS HAVE BEEN MADE TO EMPLOYEE TO INDUCE EMPLOYEE TO SIGN THIS AGREEMENT. EMPLOYEE SIGNS THIS AGREEMENT VOLUNTARILY AND FREELY.

| | |
|---|---|
| **THE COMPANY:**<br>**SUNSHINE HEART, INC.** | **EMPLOYEE:** |
| /s/ John L. Erb | /s/Jim Breidenstein |
| John Erb<br>Chairman of the Board and CEO | Jim Breidenstein |
| April 12, 2017 | April 12, 2017 |
| Date | Date |



**<u>EXHIBIT D</u>**

The following is a complete list of all Inventions or improvements relevant to the subject matter of Employee's employment by the Company that have been made or discovered or conceived or first reduced to practice by Employee either alone or jointly with others prior to Employee's employment by the Company that Employee desires to remove from the operation of the Company's Employee Proprietary Information, Inventions Assignment and Non-Competition Agreement:

o No Inventions or improvements.

o See below: Any and all Inventions regarding:

o Additional sheets attached.

Employee proposes to bring to Employee’s employment the following materials and documents of a former employer:

o No materials or documents

o See below:

**EMPLOYEE:**

/s/Jim Breidenstein
Jim Breidenstein

April 12, 2017
Date

**CHIEF EXECUTIVE OFFICER'S 302 CERTIFICATION**

I, John L. Erb, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Sunshine Heart, Inc. for the quarterly period ended March 31, 2017;

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(s) 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(s) 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.

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|---|---|
| Date: May 12, 2017 | /s/ John L. Erb |
| | John L. Erb |
| | Chief Executive Officer |

**CHIEF FINANCIAL OFFICER'S 302 CERTIFICATION**

I, Claudia Drayton, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Sunshine Heart, Inc. for the quarterly period ended March 31, 2017.

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(s) 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(s) 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.

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|---|---|
| Date: May 12, 2017 | /s/ Claudia Drayton |
| | Claudia Drayton |
| | Chief 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 of Sunshine Heart, Inc. (the ***"Company"***) on Form 10-Q for the quarterly period ended March 31, 2017, as filed with the Securities and Exchange Commission on the date hereof (the ***"Report"***), I, John L. Erb, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 12, 2017

/s/ John L. Erb
John L. Erb
Chief Executive Officer

**Exhibit 32.2**

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

In connection with the Quarterly Report of Sunshine Heart, Inc. (the ***"Company"***) on Form 10-Q for the quarterly period ended March 31, 2017, as filed with the Securities and Exchange Commission on the date hereof (the ***"Report"***), I, Claudia Drayton, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: May 12, 2017

/s/ Claudia Drayton
Claudia Drayton
Chief Financial Officer