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LATHAM & WATKINS LLP

September 11, 2017

VIA EDGAR AND HAND DELIVERY

United States Securities and Exchange Commission Division of Corporation Finance 100 F Street, N.E. Washington, D.C. 20549-6010

Attention: Russell Mancuso, Branch Chief

> Heather Percival, Reviewing Attorney Lynn Dicker, Senior Accountant David Burton, Reviewing Accountant

Re: **Restoration Robotics, Inc. Stock-Based Compensation**

CIK No. 0001409269

140 Scott Drive

Menlo Park, California 94025

Tel: +1.650.328.4600 Fax: +1.650.463.2600

www.lw.com

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Ladies and Gentleman:

On behalf of Restoration Robotics, Inc. (the "Company"), we submit this letter (this "Letter") to the staff (the "Staff") of the Securities and Exchange Commission (the "Commission"). The Company originally filed the above-referenced Registration Statement on Form S-1 (the "Registration Statement") with the Commission on September 1, 2017. The purpose of this Letter is to provide supplemental information to the Staff with respect to the accounting treatment for stock-based compensation for its consideration during the review cycle so that the Company may be in a position to print a preliminary prospectus as promptly as practicable after filing an Amendment to the Registration Statement (the "Amendment"). We are respectfully requesting confidential treatment for certain portions of this Letter pursuant to Rule 83 promulgated by the Commission, 17 C.F.R. §200.83. This Letter is accompanied by such request for confidential treatment because of the commercially sensitive nature of the information discussed in this Letter. A redacted letter will be filed on EDGAR, omitting the confidential information contained in the Letter.

The Company's discussion of stock-based compensation is primarily contained within the sections of the Registration Statement entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Stock-Based Compensation" and "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies and Estimates—Common Stock Valuations" (together, the "Section") and appears on pages 62 through 63 of the Registration Statement, as well as Note 10 to the Notes to the Consolidated Financial Statements.

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The Company supplementally advises the Staff that while not reflected in the Registration Statement, based on discussions with the Company's Board of Directors and reflecting the input from the lead underwriter for its initial public offering ("IPO"), the Company currently anticipates an approximate price range of \$[***] to \$[***] per share for the Company's common stock (the "Preliminary IPO Price Range"), with a midpoint of the anticipated range of approximately \$[***] per share (the "Preliminary Assumed IPO Price"). The Preliminary IPO Price Range and Preliminary Assumed IPO Price do not reflect any reverse stock split that the Company might affect prior to the granting of effectiveness by the SEC of the Registration Statement. The Company is currently anticipating approximately a [***] to 1 reverse stock split, which would result in a post-split Preliminary IPO Price Range of \$[***] per share, with a midpoint of \$[***] per share. The Company's final post-split Preliminary IPO Price Range remains under discussion between the Company and the representative of the underwriters, and a bona fide price range will be included in an Amendment prior to any distribution of the preliminary prospectus in connection with the Company's road show.

HISTORICAL FAIR VALUE DETERMINATION AND METHODOLOGY

As previously disclosed, the Company has historically determined the fair value of its common stock using methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation* (the "*AICPA Practice Guide*"). In addition, the Company's Board of Directors also considered numerous objective and subjective factors, along with input from management and third-party valuations, to determine the fair value of the Company's common stock as disclosed in the Registration Statement.

As described in more detail in the Registration Statement, the Company historically estimated the enterprise value of the Company using both a market approach and an income approach. Under the market approach, a group of publicly traded companies with similar financial and operating characteristics as the Company were selected and valuation multiples were calculated based on these guideline public companies' financial information and market data. Based on the observed valuation multiples, an appropriate multiple was selected to apply to the Company's historical and forecasted revenue results. Under the income approach, forecasted cash flows were discounted to the present value at a risk adjusted discount rate. The Company determined discrete free cash flows over several years based on forecast financial information provided by the Company's management and a terminal value for the residual period beyond the discrete forecast, which are discounted at the Company's estimated weighted average cost of capital to estimate our enterprise value. The estimated enterprise value was then allocated to the common stock using the Option Pricing Method ("**OPM**"). For both methods, we applied a discount for lack of marketability to account for a lack of access to an active public market.

DISCUSSION OF MOST RECENT FAIR VALUE DETERMINATION

As of June 30, 2017, the most recent fair value determination date, the Company determined the fair value of its common stock to be \$[***] per share (the "Estimated Fair Value Per Share"). This determination was based in part on a third-party valuation conducted as of June 30, 2017 utilizing the probability-weighted expected return method ("PWERM"). Under the PWERM, the per share value of the common stock is estimated based upon the probability-weighted present value of expected future equity values for the common stock, under various possible future scenarios, and then discounted for a lack of marketability.

The Estimated Fair Value Per Share was derived based on two potential operating scenarios under the PWERM:

- (i) an initial public offering in the fourth quarter of 2017 (the "IPO"); or
- (ii) remaining a private company ("Remain Private").

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For each of these potential scenarios, the Company determined an equity value, a discount for a lack of marketability for each liquidity event and, ultimately, an equity value per share after taking into account the discount for a lack of marketability. A probability weighting of the applicable scenario was then applied and resulted in the Estimated Equity Value Per Share. The following table sets forth the results of the PWERM analysis as of June 30, 2017 that was utilized by the Company to determine the Estimated Fair Value Per Share (in millions, except per share data and percentages):

<u>PWERM</u>	IPO	Remain Private	
Equity Value	* [***]	\$	[***]
Equity Value per share of Common			
Stock based on minority interest (prior to			
DLOM)	\$ [***]	\$	[***]
Discount for Lack of Marketability	[***]%		[***]%
Equity Value Per Share	\$ [***]	\$	[***]
Probability weighting	[***]%		[***]%
Estimated Fair Value Per Share	9	[***]	

The Company believes that the operating scenarios used in its PWERM analysis and the probability weighting of each scenario was reasonable at the time, in light of the status of its commercialization of the ARTAS System, the Company's expected near-term and long-term funding requirements, and an assessment of the current financing environment for medical device companies, external market conditions affecting the medical device industry, especially with respect to initial public offerings, and the relative likelihood of achieving an initial public offering or sale of the Company in light of prevailing market conditions. The timing of these future liquidity events was determined primarily from input from the Company's Board of Directors and its management.

To determine the equity value for the IPO scenario, a range of business enterprise values ("*BEV*") was derived from an analysis of the pre-IPO valuations of the most recent IPOs of medical device companies at the time of their respective IPO, including: [***]. These companies were selected by the third-party conducting the valuation based on a total of 22 IPOs of companies in the medical device industry. The analysis of these pre-IPO companies indicated (i) a pre-IPO BEV range of \$[***] million to \$[***] million, with a median pre-IPO BEV of \$[***] million, (ii) annual revenue range of \$[***] million to \$[***] million, with a median annual revenue of \$[***] million and (iii) a BEV to revenue multiple range of [***]x to [***]x, with a median BEV to revenue multiple of [***]x. Based on this analysis and more comparability to the companies at the median and lower end of the BEV spectrum, the Company selected a pre-IPO valuation based on the median BEV to revenue multiple of [***]x. Based on the Company's budgeted revenue for the year ended December 31, 2017, the Company's BEV was approximated at \$[***] million. From the estimated BEV, the Company's equity value of \$[***] million was derived.

To determine the equity value for the Remain Private scenario, the enterprise value of the Company was calculated using a discounted cash flow ("*DCF*") method and a guideline public company

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("*GPC*") method. Based on the DCF method, the third-party valuation firm determined that the Company's equity value in the Remain Private scenario would be \$[***] million. The GPC method determined the Company's equity value by utilizing ratios developed from the market price of traded shares from publicly available companies considered reasonably similar to the Company. Based on the third-party valuation firm's research, they concluded the following companies should be used for the GPC analysis: [***]. Based on the GPC analysis, the third-party valuation firm determined the Company's equity value was \$[***] million. Based on input from the Company's management and a review of the Company's historical financial performance, the third-party valuation firm weighted the DCF method at 75% and the GPC method at 25%, to arrive at an equity value of \$[***] million for the Remain Private scenario.

PRELIMINARY ASSUMED IPO PRICE

As noted above, the Preliminary IPO Price Range is approximately \$[***] to \$[***] per share, with a Preliminary Assumed IPO Price of approximately \$[***] per share. The foregoing prices per share do not reflect any reverse stock split that the Company might affect prior to the Company's initial public offering.

The following table summarizes the Company's anticipated pre-offering equity values (based on the low-end, mid-point and high-end of the Preliminary IPO Price Range) (in millions, except per share data).

	Low-	Mid-	High-
	End	Point	End
Pre-Offering Equity Value	\$[***]	\$[***]	\$[***]
Pre-Offering Equity Value Per Share (pre-reverse share split)	\$[***]	\$[***]	\$[***]

COMPARISON OF IPO PRICE RANGE AND ESTIMATED FAIR VALUE PER SHARE

The primary factor that accounts for the higher Preliminary IPO Price Range when compared to the Estimated Fair Value Per Share as of June 30, 2017 is the inherent discounting and probability weighting in the PWERM methodology. In addition, in September 2017 the Company completed a convertible note financing from its existing institutional venture capital investors adding \$5.0 million in new capital and increasing the likelihood of a successful IPO.

Inherent Discounting of PWERM Analysis

The primary factor that accounts for the higher Preliminary IPO Price Range when compared to the Estimated Fair Value Per Share is that the Preliminary IPO Price Range necessarily assumes only a single successful liquidity event, the IPO. The PWERM, on the other hand, utilizes a probability-weighted approach (as outlined above), and the resulting Estimated Fair Value Per Share reflects the potential for alternative scenarios, in particular a remaining private scenario, which inherently decreases the Estimated Fair Value Per Share due to the lower equity value and increased discount for lack of marketability. The application of a discount for lack of marketability, which for the IPO scenario is 20% and for the Remain Private scenario is 30%, reflects the reality that the enterprise doesn't have a marketplace for sales and/or transfers, while the Preliminary IPO Price Range does not, as an active trading market for the common stock will exist following the IPO. As a result, the Preliminary IPO Price

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Range was neither reduced by the lower equity value from the stay private scenario nor discounted for a lack of marketability. Notably, however, the assumed equity value of the Company in the IPO scenario is consistent with the estimated pre-offering equity value at the mid-point of the Preliminary IPO Price Range (\$[***] million as compared to \$[***] million).

Closing of \$5 million in Convertible Note Financing

An additional factor that contributes to the higher Preliminary IPO Price Range when compared to the Estimated Fair Value Per Share is the Company's recent convertible note financing. In September 2017, the Company raised \$5.0 million in gross consideration from the sale of convertible notes (the "Convertible Notes") to its venture capital investors which include entities affiliated with Sutter Hill Ventures, Clarus Lifesciences II, L.P., InterWest Partners IX, LP, Alloy Ventures 2005, L.P. and Alloy Ventures 2002, L.P. Pursuant to the terms thereof, the Convertible Notes are convertible into the Company's common stock upon the consummation of the IPO. The Company views the Convertible Notes financing as an important validation of its business prospects and further evidence of its significant investors' commitment. The Convertible Note financing, occurring after the June 30, 2017, further increases the probability of a successful IPO, as a result of the additional capital and signaling of the existing investors' commitment to the Company and its overall business prospects.

CONCLUSION

The Company has historically determined the estimated fair value per share of its common stock consistent with the guidance set forth in the AICPA Practice Guide, including the OPM and later, the PWERM, which are both accepted valuation methods under the AICPA Practice Guide. The Company believes that the probability weighting of each operating scenario used in its PWERM analysis as of June 30, 2017, and relied upon in part in determining the Estimated Fair Value Per Share as of June 30, 2017, was reasonable at those times, in light of the Company's ongoing implementation of the commercialization of the ARTAS System, the Company's financial position and need for additional capital, external market conditions affecting the medical device industry, especially with respect to initial public offerings, and the relative likelihood of achieving an initial public offering in light of prevailing market conditions. Notably, the assumed equity value of the Company in the IPO scenario is consistent with the estimated pre-offering equity value at the mid-point of the Preliminary IPO Price Range, and the likelihood of a successful IPO significantly increased following the June 30, 2017 valuation. As a result, the Company believes that the deemed per share fair values used as the basis for determining stock-based compensation in connection with its stock option grants have been reasonable and appropriate.

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Please do not hesitate to contact me by telephone at (650) 463-3014 or by fax at (650) 463-2600 with any questions or comments regarding this correspondence.

Very truly yours,

/s/ Brian J. Cuneo

Brian J. Cuneo of LATHAM & WATKINS LLP

cc: Ryan Rhodes, Restoration Robotics, Inc.
Charlotte Holland, Restoration Robotics, Inc.
Dave Cordeiro, Restoration Robotics, Inc.
Shayne Kennedy, Latham & Watkins LLP
Phillip S. Stoup, Latham & Watkins LLP
John D. Hogoboom, Lowenstein Sandler LLP