## UNITED STATES

## SECURITIES AND EXCHANGE COMMISSION <br> Washington, D.C. 20549

FORM 10-Q

## (Mark One)

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

For the quarterly period ended September 30, 2017
OR

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

For the transition period from $\qquad$ to $\qquad$
Commission File Number 001-33351
$\qquad$
NEUROMETRIX, INC.
(Exact name of registrant as specified in its charter)

## Delaware

## 1000 Winter Street, Waltham, Massachusetts

(Address of principal executive offices)

04-3308180
(I.R.S. Employer Identification No.)

## (State or other jurisdiction of incorporation or organization)

02451
(Zip Code)

## (781) 890-9989

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

Yes $\mathrm{x} \quad$ No
Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act (check one):

Large accelerated filer $\square$
Accelerated filer $\square$
Non-accelerated filer $\square$Smaller reporting company x
(Do not check if a smaller reporting company)

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

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Yes }\square\quad\mathrm{ No x
```

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

## Yes $\square \quad$ No 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.

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date: 2,345,519 shares of common stock, par value \$0.0001 per share, were outstanding as of October 13, 2017.

In addition, there were 454,781 warrants to purchase shares of the issuer's common stock listed under NUROW on the NASDAQ stock exchange outstanding as of October 13, 2017.

## Quarterly Period Ended September 30, 2017

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## PART I - FINANCIAL INFORMATION

## Item 1. Financial Statements

## NeuroMetrix, Inc. <br> Balance Sheets

|  | September 30, 2017 |  | December 31, 2016 |  |
| :---: | :---: | :---: | :---: | :---: |
|  | (Unaudited) |  |  |  |
| Assets |  |  |  |  |
| Current assets: |  |  |  |  |
| Cash and cash equivalents | \$ | 3,969,218 | \$ | 3,949,135 |
| Accounts receivable, net |  | 423,444 |  | 738,729 |
| Inventories |  | 1,786,074 |  | 1,252,238 |
| Prepaid expenses and other current assets |  | 2,041,935 |  | 1,646,821 |
| Total current assets |  | 8,220,671 |  | 7,586,923 |
| Fixed assets, net |  | 417,290 |  | 532,706 |
| Other long-term assets |  | 134,695 |  | 164,262 |
| Total assets | \$ | 8,772,656 | \$ | 8,283,891 |

## Liabilities and Stockholders' Equity

Current liabilities:

| Accounts payable | \$ | 725,224 | \$ | 734,048 |
| :---: | :---: | :---: | :---: | :---: |
| Accrued compensation |  | 692,937 |  | 307,471 |
| Accrued expenses |  | 1,911,062 |  | 1,648,731 |
| Deferred revenue |  | 925,794 |  | 628,236 |
| Total current liabilities |  | 4,255,017 |  | 3,318,486 |
| Common stock warrants |  | - |  | 4,641 |
| Total liabilities |  | 4,255,017 |  | 3,323,127 |
| Commitments and contingencies (Note 8) |  |  |  |  |
|  |  |  |  |  |
| Stockholders' equity: |  |  |  |  |
| Preferred stock |  | - |  | - |
| Convertible preferred stock |  | 27 |  | 18 |
| Common stock, $\$ 0.0001$ par value; 100,000,000 shares authorized at September 30, 2017 and December 31, 2016; 2,145,519 and 836,862 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively |  | 215 |  | 84 |
| Additional paid-in capital |  | 192,975,377 |  | 183,439,463 |
| Accumulated deficit |  | (188,457,980) |  | $(178,478,801)$ |
| Total stockholders' equity |  | 4,517,639 |  | 4,960,764 |
| Total liabilities and stockholders' equity | \$ | 8,772,656 | \$ | 8,283,891 |

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

## NeuroMetrix, Inc.

## Statements of Operations

(Unaudited)

|  | Quarters Ended September 30, |  |  |  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  | 2017 |  | 2016 |  |
| Revenues | \$ | 3,546,680 | \$ | 3,389,427 | \$ | 12,162,861 | \$ | 8,312,096 |
| Cost of revenues |  | 2,040,997 |  | 2,031,823 |  | 7,378,001 |  | 5,086,706 |
| Gross profit |  | 1,505,683 |  | 1,357,604 |  | 4,784,860 |  | 3,225,390 |
| Operating expenses: |  |  |  |  |  |  |  |  |
| Research and development |  | 840,577 |  | 1,202,651 |  | 2,621,445 |  | 3,487,291 |
| Sales and marketing |  | 2,919,504 |  | 2,959,311 |  | 8,436,497 |  | 8,199,469 |
| General and administrative |  | 1,258,466 |  | 1,165,815 |  | 3,925,595 |  | 3,882,461 |
|  |  |  |  |  |  |  |  |  |
| Total operating expenses |  | 5,018,547 |  | 5,327,777 |  | 14,983,537 |  | 15,569,221 |
|  |  |  |  |  |  |  |  |  |
| Loss from operations |  | $(3,512,864)$ |  | $(3,970,173)$ |  | $(10,198,677)$ |  | $(12,343,831)$ |
|  |  |  |  |  |  |  |  |  |
| Interest income |  | 3,554 |  | 5,772 |  | 11,018 |  | 17,030 |
| Change in fair value of warrant liability |  | 327 |  | 56,248 |  | 208,480 |  | 227,873 |
|  |  |  |  |  |  |  |  |  |
| Net loss |  | $(3,508,983)$ |  | $(3,908,153)$ |  | $(9,979,179)$ |  | $(12,098,928)$ |

Net loss applicable to common stockholders:

| Deemed dividends attributable to preferred shareholders (Note 9) |  | $(2,833,098)$ |  | - |  | (6,874,780) |  | $(19,846,377)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Net loss applicable to common stockholders | \$ | (6,342,081) | \$ | $(3,908,153)$ | \$ | $(16,853,959)$ | \$ | $(31,945,305)$ |
| Net loss per common share applicable to common stockholders, basic and diluted | \$ | (3.11) | \$ | (6.11) | \$ | (11.62) | \$ | (56.09) |
| Weighted average number of common shares outstanding, basic and diluted |  | 2,036,117 |  | 639,512 |  | 1,450,237 |  | 569,555 |

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

## NeuroMetrix, Inc.

## Statements of Cash Flows

(Unaudited)

|  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
| Cash flows from operating activities: |  |  |  |  |
| Net loss | \$ | $(9,979,179)$ | \$ | $(12,098,928)$ |
| Adjustments to reconcile net loss to net cash used in operating activities: |  |  |  |  |
| Depreciation |  | 198,892 |  | 189,224 |
| Stock-based compensation |  | 170,093 |  | 176,684 |
| Change in fair value of warrant liability |  | $(208,480)$ |  | $(227,873)$ |
| Changes in operating assets and liabilities: |  |  |  |  |
| Accounts receivable |  | 315,285 |  | 236,447 |
| Inventories |  | $(533,836)$ |  | $(73,072)$ |
| Prepaid expenses and other current and long-term assets |  | $(365,547)$ |  | $(408,532)$ |
| Accounts payable |  | $(22,074)$ |  | $(287,427)$ |
| Accrued expenses and compensation |  | 647,797 |  | 634,181 |
| Deferred revenue |  | 297,558 |  | 402,178 |
| Net cash used in operating activities |  | $(9,479,491)$ |  | $(11,457,118)$ |
|  |  |  |  |  |
| Cash flows from investing activities: |  |  |  |  |
| Purchases of fixed assets |  | $(70,226)$ |  | $(87,884)$ |
| Net cash used in investing activities |  | $(70,226)$ |  | $(87,884)$ |
|  |  |  |  |  |
| Cash flows from financing activities: |  |  |  |  |
| Net proceeds from issuance of stock and warrants |  | 9,569,800 |  | 6,650,316 |
| Net cash provided by financing activities |  | 9,569,800 |  | 6,650,316 |
|  |  |  |  |  |
| Net increase/(decrease) in cash and cash equivalents |  | 20,083 |  | $(4,894,686)$ |
| Cash and cash equivalents, beginning of period |  | 3,949,135 |  | 12,462,872 |
| Cash and cash equivalents, end of period | \$ | 3,969,218 | \$ | 7,568,186 |
| Supplemental disclosure of cash flow information: |  |  |  |  |
| Change in fair value of warrant liability from repricing | \$ | 244,611 | \$ | - |
| Exchange of warrant liability for Series F Preferred Stock | \$ | 40,772 | \$ | - |
| Common stock issued to settle employee incentive compensation obligation | \$ | - | \$ | 318,761 |

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

# NeuroMetrix, Inc. Notes to Unaudited Financial Statements <br> September 30, 2017 

## 1. Business and Basis of Presentation

## Our Business-An Overview

NeuroMetrix, Inc. or the Company, is a commercial stage, innovation driven healthcare company combining bioelectrical and digital medicine to address chronic health conditions including chronic pain, sleep disorders, and diabetes. The Company's lead product is Quell, an over-the-counter wearable therapeutic device for chronic pain. Quell is integrated into a digital health platform that helps patients optimize their therapy and decrease the impact of chronic pain on their quality of life. The Company also markets DPNCheck ${ }^{\circledR}$, a rapid point-of-care test for diabetic neuropathy, which is the most common long-term complication of Type 2 diabetes. The Company maintains an active research effort and has several pipeline programs. The Company is located in Waltham, Massachusetts and was founded as a spinoff from the Harvard-MIT Division of Health Sciences and Technology in 1996.

During the first nine months of 2017, the Company completed two equity offerings, detailed in Note 9 to the financial statements, with anticipated gross proceeds of $\$ 14.0$ million and anticipated net proceeds of approximately $\$ 12.9$ million after deducting fees and expenses. Gross proceeds of $\$ 3.5$ million from the second tranche of the Q3 2017 Offering are expected to be received by the Company in October of 2017.

The accompanying financial statements have been prepared on a basis which assumes that the Company will continue as a going concern and which contemplates the realization of assets and satisfaction of liabilities and commitments in the normal course of business. The Company has suffered recurring losses from operations and negative cash flows from operating activities. At September 30, 2017, the Company had an accumulated deficit of $\$ 188.5$ million. The Company held cash and cash equivalents of $\$ 4.0$ million as of September 30, 2017. The Company believes that these resources, cash proceeds from the second 2017 equity offering, and the cash to be generated from expected product sales will be sufficient to meet its projected operating requirements into the second quarter of 2018. The Company continues to face significant challenges and uncertainties and, as a result, the Company's available capital resources may be consumed more rapidly than currently expected due to (a) decreases in sales of the Company's products and the uncertainty of future revenues; (b) changes the Company may make to the business that affect ongoing operating expenses; (c) changes the Company may make in its business strategy; (d) regulatory developments or inquiries affecting the Company's existing products and products under development; (e) changes the Company may make in its research and development spending plans; and (f) other items affecting the Company's forecasted level of expenditures and use of cash resources. Accordingly, the Company will need to raise additional funds to support its operating and capital needs in the second quarter of 2018 and beyond. These factors raise substantial doubt about the Company's ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. The Company intends to obtain additional funding through public or private financing, collaborative arrangements with strategic partners, or through additional credit lines or other debt financing sources to increase the funds available to fund operations. However, the Company may not be able to secure such financing in a timely manner or on favorable terms, if at all. Furthermore, if the Company issues equity or debt securities to raise additional funds, its existing stockholders may experience dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of the Company's existing stockholders. If the Company raises additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to its products or proprietary technologies, or grant licenses on terms that are not favorable to the Company. Without additional funds, the Company may be forced to delay, scale back or eliminate some of its sales and marketing efforts, research and development activities, or other operations and potentially delay product development in an effort to provide sufficient funds to continue its operations. If any of these events occurs, the Company's ability to achieve its development and commercialization goals would be adversely affected.

Certain prior period amounts have been adjusted to reflect the Company's 1-for-8 reverse stock split effected May 11, 2017.

## Unaudited Interim Financial Statements

The accompanying unaudited balance sheet as of September 30, 2017, unaudited statements of operations for the quarters and nine months ended September 30, 2017 and 2016 and the unaudited statements of cash flows for the nine months ended September 30, 2017 and 2016 have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and with the instructions to Form 10-Q and Article 8 of Regulation S-X. The accompanying balance sheet as of December 31, 2016 has been derived from audited financial statements prepared at that date, but does not include all disclosures required by accounting principles generally accepted in the United States of America. In the opinion of management, the financial statements include all normal and recurring adjustments considered necessary for a fair statement of the Company's financial position and operating results. Operating results for the quarters and nine months ended September 30, 2017 are not necessarily indicative of the results that may be expected for the year ending December 31, 2017 or any other period. These financial statements and notes should be read in conjunction with the financial statements for the year ended December 31, 2016 included in the Company’s Annual Report on Form 10-K, as filed with the Securities and Exchange Commission, or the SEC, on February 9, 2017 (File No. 001-33351), or the Company's 2016 Form 10-K.

## Revenues

The Company recognizes revenue when the following criteria have been met: persuasive evidence of an arrangement exists, delivery has occurred and risk of loss has passed, the seller's price to the buyer is fixed or determinable, and collection is reasonably assured. Revenues associated with the Company's medical devices and consumables are generally recognized upon shipment, assuming all other revenue recognition criteria have been met. Revenue associated with shipments made to distributors who have the right to return any unsold product is recognized once the product is sold by the distributor to the end customer (i.e. under a sell-through model), assuming all other revenue recognition criteria have been met. Cash received prior to all the conditions for revenue recognition being met is recorded as deferred revenue. Deferred revenue recorded prior to cash receipt is recorded as an offset to accounts receivable.

As of September 30, 2017 the total value of shipments made to sell-through distributors but not yet sold through to end customers totaled $\$ 2,272,736$. Of this total, $\$ 1,346,942$ was recorded as a reduction to accounts receivable and $\$ 925,794$ was recorded in deferred revenue, as cash had been received. As of December 31, 2016, the total value of shipments that had been made to sell-through distributors but had not yet been sold through to end customers totaled $\$ 1,247,545$. Of this total, $\$ 619,309$ was recorded as a reduction to accounts receivable and $\$ 628,236$ was recorded in deferred revenue, as cash had been received. Related costs of goods sold of $\$ 1,466,230$ and $\$ 910,595$ have been deferred and recorded in prepaid expenses and other current assets as of September 30, 2017 and December 31, 2016, respectively.

Revenue recognition involves judgments, including assessments of expected returns from customers who have the right to return product for any reason under 30 days or 60 days rights of return. Where the Company can reasonably estimate future returns, it recognizes revenues and records as a reduction of revenue a provision for estimated returns. The Company analyzes various factors, including its historical product returns in arriving at this judgment. Changes in judgments or estimates could materially impact the timing and amount of revenues and costs recognized. The provision for expected returns recorded in accrued expense was $\$ 454,730$ and $\$ 488,200$ as of September 30, 2017 and December 31, 2016, respectively.

Accounts receivable are recorded net of the allowance for doubtful accounts which represents the Company's best estimate of probable credit losses. Allowance for doubtful accounts was \$25,000 as of September 30, 2017 and December 31, 2016.

One customer accounted for $21 \%$ and $18 \%$ of total revenue for the quarter and nine months ended September 30, 2017, respectively. A different customer accounted for approximately $11 \%$ of total revenue for nine-months ended September 30, 2016. Customers individually accounting for greater than $10 \%$ of accounts receivables totaled $28 \%$ and $41 \%$ of accounts receivables as of September 30, 2017 and December 31, 2016, respectively.

## Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during reporting periods. Actual results could differ from those estimates.

## Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update No. 2016-2, Leases (Topic 842) ("ASU 2016-2"). ASU 2016-2 requires that lessees will need to recognize virtually all of their leases on the balance sheet, by recording a right-of-use asset and lease liability. The provisions of this guidance are effective for annual periods beginning after December 31, 2018, and for interim periods therein. The Company is in the process of evaluating the new standard and assessing the impact, if any, ASU 2016-2 will have on the Company's financial statements and which adoption method will be used.

In May 2014, the FASB and the International Accounting Standards Board ("IASB") jointly issued Accounting Standards Update ("ASU") No. 2014-9, Revenue from Contracts with Customers ("ASU 2014-9"), a comprehensive revenue recognition standard that will supersede nearly all existing revenue recognition guidance. The objective of ASU 2014-9 is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers, which delayed the effective date of the new standard from January 1, 2017 to January 1, 2018. An entity can elect to adopt ASU 2014-9 using one of two methods, either full retrospective adoption to each prior reporting period, or recognizing the cumulative effect of adoption at the date of initial application. In March 2016, the FASB issued ASU No. 2016-8, Principal Versus Agent Considerations (Reporting Revenue Gross Versus Net), which clarifies the implementation guidance on principal versus agent considerations. The Company is in the process of evaluating the new standard and assessing the impact, if any, ASU 2014-9 will have on the Company's financial statements.

## 2. Comprehensive Loss

For the quarters and nine months ended September 30, 2017 and 2016, the Company had no components of other comprehensive income or loss other than net loss itself.

## 3. Net Loss Per Common Share

Basic net loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period. Diluted net loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the period plus the dilutive effect of the weighted average number of outstanding instruments such as options, warrants, and restricted stock. Because the Company has reported a net loss for all periods presented, diluted loss per common share is the same as basic loss per common share, as the effect of utilizing the fully diluted share count would have reduced the net loss per common share. Therefore, in calculating net loss per share amounts, shares underlying the following potentially dilutive weighted average number of common stock equivalents were excluded from the calculation of diluted net loss per common share because their effect was anti-dilutive for each of the periods presented:

|  | Quarters Ended September 30, |  | Nine Months Ended September 30, |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 | 2016 | 2017 | 2016 |
| Options | 100,237 | 58,663 | 98,642 | 37,709 |
| Warrants | 1,206,504 | 3,525,872 | 3,469,612 | 2,621,450 |
| Convertible preferred stock | 6,422,034 | 1,386,888 | 4,328,089 | 984,127 |
| Total | 7,728,775 | 4,971,423 | 7,896,343 | 3,643,286 |

## 4. Inventories

Inventories consist of the following:

|  | $\begin{gathered} \text { September 30, } \\ 2017 \end{gathered}$ |  | $\begin{gathered} \text { December 31, } \\ 2016 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Purchased components | \$ | 914,150 | \$ | 466,906 |
| Work in progress |  | 91,335 |  | 154,971 |
| Finished goods |  | 780,589 |  | 630,361 |
|  | \$ | 1,786,074 | \$ | 1,252,238 |

## 5. Accrued Expenses

Accrued expenses consist of the following:

|  | September 30,$2017$ |  | $\begin{gathered} \text { December 31, } \\ 2016 \end{gathered}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Sales return allowance | \$ | 454,730 | \$ | 488,200 |
| Technology fees |  | 450,000 |  | 450,000 |
| Professional services |  | 343,000 |  | 390,800 |
| Advertising and promotion |  | 335,600 |  | 28,100 |
| Warranty reserve |  | 112,008 |  | 45,879 |
| Other |  | 215,724 |  | 245,752 |
|  | \$ | 1,911,062 | \$ | 1,648,731 |

## 6. Commitments and Contingencies

## Operating Lease

In August 2014, the Company entered into a 5 -year operating lease agreement with one 5 -year extension option for manufacturing and order fulfillment facilities in Woburn, Massachusetts (the "Woburn Lease"). The Woburn Lease commenced December 15, 2014 and has a monthly base rent of $\$ 7,598$. In September 2014, the Company entered into a 7 -year operating lease agreement with one 5 -year extension option for its corporate office and product development activities in Waltham, Massachusetts (the "Waltham Lease"). The term of the Waltham Lease commenced on February 20, 2015 and includes fixed payment obligations that escalate over the initial lease term. Average monthly base rent under the 7 -year lease is approximately $\$ 37,792$. These payment obligations were accrued and recognized over the term of occupancy. Under the Waltham Lease, the landlord was responsible for making certain improvements to the leased space at an agreed upon cost to the landlord. Total costs for the landlord improvements exceeded the agreed upon cost by $\$ 275,961$. The landlord billed that excess cost to the Company as additional rent which has been included in other long term assets at September 30, 2017. This additional rent has been included in the net calculation of lease payments, so that rent expense is recognized on a straight-line basis over the term of occupancy.

## 7. Fair Value Measurements

The Fair Value Measurements and Disclosures Topic of the Codification defines fair value, establishes a framework for measuring fair value in applying generally accepted accounting principles, and expands disclosures about fair value measurements. This Codification topic identifies two kinds of inputs that are used to determine the fair value of assets and liabilities: observable and unobservable. Observable inputs are based on market data or independent sources while unobservable inputs are based on the Company's own market assumptions. Once inputs have been characterized, this Codification topic requires companies to prioritize the inputs used to measure fair value into one of three broad levels. Fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values identified by Level 2 inputs utilize observable inputs other than Level 1 prices, such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the related assets or liabilities. Fair values identified by Level 3 inputs are unobservable data points and are used to measure fair value to the extent that observable inputs are not available. Unobservable inputs reflect the Company's own assumptions about the assumptions that market participants would use at pricing the asset or liability.

The following tables present information about the Company's assets and liabilities that are measured at fair value on a recurring basis for the periods presented and indicates the fair value hierarchy of the valuation techniques it utilized to determine such fair value. In general, fair values determined by Level 1 inputs utilize quoted prices (unadjusted) in active markets for identical assets or liabilities. Fair values determined by Level 2 inputs utilize data points that are observable such as quoted prices, interest rates, and yield curves. Fair values determined by Level 3 inputs are unobservable data points for the asset or liability, and include situations where there is little, if any, market activity for the asset or liability.

Fair Value Measurements at September 30, 2017 Using

|  | September 30, 2017 |  | Quoted Prices in <br> Active Markets for Identical <br> Assets (Level 1) |  | Significant Other Observable Inputs (Level 2) |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | SignificantUnobservableInputs(Level 3) |  |  |
| Assets: |  |  |  |  |  |  |  |  |
| Cash equivalents | \$ | 197,370 |  |  | \$ | 197,370 | \$ | - | \$ | - |
| Total | \$ | 197,370 | \$ | 197,370 | \$ | - | \$ | - |

The following table provides a summary of changes in the fair value of the Company's Level 3 financial liabilities, which relate to warrants issued by the Company in offerings in 2013 and 2014, between December 31, 2016 and September 30, 2017.

|  | 2014 Offering |  | 2013 Offering |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Balance at December 31, 2016 | \$ | 4,112 | \$ | 529 | \$ | 4,641 |
| Change in fair value of warrant liability from repricing (see Note 9) |  | 177,999 |  | 66,612 |  | 244,611 |
| Change in fair value of warrant liability |  | $(147,278)$ |  | $(61,202)$ |  | $(208,480)$ |
| Repurchase and retirement of warrants (see Note 9) |  | $(34,833)$ |  | $(5,939)$ |  | $(40,772)$ |
| Balance at September 30, 2017 | \$ | - | \$ | - | \$ | - |

Fair Value Measurements at December 31, 2016 Using

|  | December 31, 2016 |  | Fair Value Measurements at December 31, 2016 Using |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Quoted Prices in Active Markets for Identical Assets (Level 1) |  | Significant Other Observable Inputs (Level 2) |  | Significant Unobservable Inputs (Level 3) |  |
| Assets: |  |  |  |  |  |  |  |  |
| Cash equivalents | \$ | 833,831 | \$ | 833,831 | \$ | - | \$ | - |
| Total | \$ | 833,831 | \$ | 833,831 | \$ | - | \$ | - |
|  |  |  |  |  |  |  |  |  |
| Liabilities: |  |  |  |  |  |  |  |  |
| Common stock warrants | \$ | 4,641 | \$ | - | \$ | - | \$ | 4,641 |
| Total | \$ | 4,641 | \$ | - | \$ | - | \$ | 4,641 |

Due to the lack of market quotes relating to our common stock warrants then outstanding, the fair value of the common stock warrants was determined at December 31, 2016 using the Black-Scholes model, which is based on Level 3 inputs. As of December 31, 2016, inputs used in the Black-Scholes model are presented below. The assumptions used may change as the underlying sources of these assumptions and market conditions change. Based on the BlackScholes model, the Company recorded a common stock warrants liability of \$4,641 at December 31, 2016.

Black-Scholes Inputs to Warrant Liability Valuation at December 31, 2016

| Warrants: | Black-Scholes Inputs to Warrant Liability Valuation at December 31, 2016 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Stock Price |  | Exercise Price |  | Expected Volatility | Risk-Free Interest | Expected Term | Dividends |
| 2014 Offering | \$ | 5.92 | \$ | 65.28 | 64.19\% | 1.33\% | 2 years, 6 months | none |
| 2013 Offering | \$ | 5.92 | \$ | 64.00 | 71.61\% | 0.99\% | 1 year, 5 months | none |

## 8. Credit Facility

The Company is party to a Loan and Security Agreement, as amended (the "Credit Facility"), with a bank. As of September 30, 2017, the Credit Facility permitted the Company to borrow up to $\$ 2.5$ million on a revolving basis. The Credit Facility was amended most recently on December 29, 2016, and expires on January 15, 2018. Amounts borrowed under the Credit Facility will bear interest equal to the prime rate plus $0.5 \%$. Any borrowings under the Credit Facility will be collateralized by the Company's cash, accounts receivable, inventory, and equipment. The Credit Facility includes traditional lending and reporting covenants. These include certain financial covenants applicable to liquidity that are to be maintained by the Company. As of September 30, 2017, the Company was in compliance with these covenants and had not borrowed any funds under the Credit Facility. However, $\$ 226,731$ of the amount under the Credit Facility is restricted to support letters of credit issued in favor of the Company's facilities landlords. Consequently, the amount available for borrowing under the Credit Facility as of September 30, 2017 was approximately $\$ 2.3$ million.

## 9. Stockholders' Equity

Preferred stock and convertible preferred stock consist of the following:

|  | $\begin{gathered} \text { September 30, } \\ 2017 \end{gathered}$ |  | December 31, 2016 |  |
| :---: | :---: | :---: | :---: | :---: |
| Preferred stock, $\$ 0.001$ par value; 5,000,000 shares authorized at September 30, 2017 and December 31, 2016; no shares issued and outstanding at September 30, 2017 and December 31, 2016 | \$ | - | \$ |  |
| Series B convertible preferred stock, \$0.001 par value, 147,000 shares designated at September 30, 2017 and December 31, 2016, and 500 shares issued and outstanding at September 30, 2017 and December 31, 2016 | \$ | 1 | \$ | 1 |
| Series D convertible preferred stock, $\$ 0.001$ par value, 21,300 shares designated at September 30, 2017 and December 31, 2016, 14,052.93 and 17,202.65 shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively | \$ | 14 | \$ | 17 |
| Series E convertible preferred stock, $\$ 0.001$ par value, 7,000 and zero shares designated at September 30, 2017 and December 31, 2016, respectively, and 7,000 and zero shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively | \$ | 7 | \$ | - |
| Series F convertible preferred stock, $\$ 0.001$ par value, 10,621 and zero shares designated at September 30, 2017 and December 31, 2016, respectively, and 5,819.15 and zero shares issued and outstanding at September 30, 2017 and December 31, 2016, respectively | \$ | 5 | \$ | - |

## Private Offerings of Common Stock and Warrants

## 2017 activity

In the third quarter of 2017, the Company entered into agreements with respect to a private equity offering (the "Q3 2017 Offering") with an institutional investor and its affiliates (collectively the "Investor"). The Q3 2017 Offering is structured in two tranches. The first tranche, which closed in July 2017, issued (i) 3,500 shares of Series F convertible preferred stock (the "Series F Preferred Stock") at a price of $\$ 1,000$ per share and (ii) 3,621 shares of Series F Preferred Stock in exchange for the repurchase and retirement of $4,184,483$ warrants to purchase common stock valued by an independent party at $\$ 3,622,219$. The second tranche, which is expected to close in October 2017, will issue (i) 3,500 shares of Series F Preferred Stock at a price of $\$ 1,000$ per share. The Q3 2017 Offering also reset the conversion price of $14,052.93$ shares of Series D convertible preferred stock and 7,000 shares of Series E convertible preferred stock that were held by the Investor to $\$ 2.63$ per share. The first tranche of the Q3 2017 Offering resulted in gross proceeds of $\$ 3.5$ million, and after deducting fees and expenses, net proceeds were $\$ 3.3$ million.

In the first quarter of 2017, the Company completed a private equity offering (the "Q1 2017 Offering") with the Investor and issued (i) 7,000 shares of Series E convertible preferred stock (the "Series E Preferred Stock") at a price of $\$ 1,000$ per share, and (ii) warrants to purchase up to $1,250,000$ shares of common stock, par value $\$ 0.0001$ per share (the "Common Stock"), at an exercise price of $\$ 5.60$ per share. As a part of this offering, the Company reset (i) the conversion price of $19,458.90$ shares of Series D convertible preferred stock that were held by the Investor to $\$ 5.60$ per share, and (ii) the exercise price of warrants to purchase up to $2,934,484$ shares of Common Stock that were held by the Investor to $\$ 5.60$ per share. The Q1 2017 Offering resulted in gross proceeds of $\$ 7.0$ million, and after deducting fees and expenses, net proceeds were $\$ 6.3$ million.

Each share of Series D Preferred Stock, Series E Preferred Stock, and Series F Preferred Stock (collectively the "Preferred Stock") have a stated value of $\$ 1,000$ and is convertible at the option of the holder into the number of shares of Common Stock determined by dividing the stated value by the conversion price of $\$ 2.63$, which is subject to adjustment as provided in the Certificate of Designation for the Preferred Stock. The Preferred Stock has no dividend rights, liquidation preference or other preferences over Common Stock and has no voting rights except as provided in the Certificate of Designation for the Preferred Stock and as required by law.

The Q3 2017 Offering and the Q1 2017 Offering were accounted for as extinguishments of the Investor's equity holdings in recognition of the revisions of certain preexisting equity instruments and the significant transfer of value in excess of the funding received by the Company. Under the extinguishment model, a deemed dividend was recognized within additional paid in capital which represented the fair value of issued Preferred Stock plus the incremental fair value of repricing the Preferred Stock held by the Investor, less the fair value of the consideration transferred, less the carrying value of the outstanding

Preferred Stock, and warrants to purchase Common Stock. The amount of the deemed dividend totaled \$2.8 million and \$4.0 million for the Q3 2017 Offering and the Q1 2017 Offering, respectively.

The Company determined that equity classification was appropriate for the warrants issued in the Q1 2017 Offering, following guidance in the Derivatives and Hedging topic of the Codification. In making this equity classification determination, the Company noted the warrants may only be settled in shares of common stock and had no requirements to be settled in registered shares when exercised. The fair value of the five year warrants was estimated to be $\$ 3.49$ million on the offering date using a Black-Scholes model with the following assumptions: stock price of $\$ 4.96$, exercise price of $\$ 5.60$, expected volatility of $70.2 \%$, risk free interest rate of $2.04 \%$, expected term of five years, and no dividends.

## 2016 activity

In June 2016, the Company completed a private equity offering with one institutional investor (the "Investor") and issued (i) 21,300 shares of Series D convertible preferred stock (the "Series D Preferred Stock") at a price of $\$ 1,000$ per share, and (ii) warrants to purchase up to $1,475,069$ shares of common stock, par value $\$ 0.0001$ per share (the "Common Stock"), at an exercise price of $\$ 13.52$ per share (the "June 2016 Offering"). As a part of this offering, the Company redeemed 13,800 shares of Series C convertible preferred stock (the "Series C Preferred Stock") issued in December 2015 that were held by the Investor. Accordingly, the June 2016 Offering resulted in proceeds of $\$ 7.5$ million. After underwriting discounts, commission and expenses, net proceeds of the June 2016 Offering were $\$ 6.7$ million.

The June 2016 Offering was accounted for as a modification of the Investor's Series C Preferred Stock. Under the modification model, a deemed dividend was recognized within additional paid in capital which represented the fair value of consideration transferred plus the fair value of repurchased Series C Preferred Stock, less the fair value of the newly issued Series D Preferred Stock and warrants. The amount of the deemed dividend totaled $\$ 19.8$ million.

## Other equity activity

During the nine months ended September 30, 2017, 3,149.72 shares of the Series D Preferred Stock were converted into a total of 809,103 shares of Common Stock. As of September 30, 2017, 14,052.93 shares of Series D Preferred Stock remained outstanding.

During the nine months ended September 30, 2017, 1,301.85 shares of the Series F Preferred Stock were converted into a total of 495,000 shares of Common Stock. As of September 30, 2017, 5,819.15 shares of Series F Preferred Stock remained outstanding.

Total compensation cost related to nonvested awards not yet recognized at September 30, 2017 was $\$ 418,881$. The total compensation costs are expected to be recognized over a weighted-average period of 2.6 years.

## 10. Reverse Stock Split

On May 11, 2017, the Company effected a 1-for-8 reverse stock split of its Common Stock, or the Reverse Stock Split. The par value and other terms of the common stock were not affected by the Reverse Stock Split. The Company's shares outstanding immediately prior to the split totaled 10,147,721, which were subsequently adjusted to $1,268,440$ shares outstanding. Share, per share, and stock option amounts for all periods presented within the financial statements contained in the Quarterly Report on Form 10-Q, including the December 31, 2016 Balance Sheet amounts for Common Stock and additional paid-in capital, have been retroactively adjusted to reflect the Reverse Stock Split.

## Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

You should read the following discussion of our financial condition and results of operations in conjunction with our financial statements and the accompanying notes to those financial statements included elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward-looking statements that involve risks and uncertainties. For a description of factors that may cause our actual results to differ materially from those anticipated in these forward-looking statements, please refer to the below section of this Quarterly Report on Form 10-Q titled "Cautionary Note Regarding ForwardLooking Statements." Unless the context otherwise requires, all references to "we", "us", the "Company", or "NeuroMetrix" in this Quarterly Report on Form 10-Q refer to NeuroMetrix, Inc.

## Overview

NeuroMetrix is a commercial stage, innovation driven healthcare company combining bioelectrical and digital medicine to address chronic health conditions including chronic pain, sleep disorders, and diabetes. Our business is fully integrated with in-house capabilities spanning product development, manufacturing, regulatory affairs and compliance, sales and marketing, and customer support. We derive revenues from the sale of medical devices and aftermarket consumable products and accessories. Our products are sold in the United States and selected overseas markets, and are cleared by the U.S. Food and Drug Administration, or FDA, and regulators in foreign jurisdictions where appropriate. We have two principal product lines:

- Wearable neuro-stimulation therapeutic devices
- Point-of-care neuropathy diagnostic tests

Our core expertise in biomedical engineering has been refined over nearly two decades of designing, building and marketing medical devices that stimulate nerves and analyze nerve response for diagnostic and therapeutic purposes. We created the market for point-of-care nerve testing and were first to market with sophisticated, wearable technology for management of chronic pain. We also have an experienced management team and Board of Directors.

Chronic pain is a significant public health problem. It is defined by the National Institutes of Health as any pain lasting more than 12 weeks in contrast to acute pain, which is a normal bodily response to injury or trauma. Chronic pain conditions include painful diabetic neuropathy, or PDN, arthritis, fibromyalgia, sciatica, musculoskeletal pain, cancer pain and many others. Chronic pain may be triggered by an injury or there may be an ongoing cause such as disease or illness. There may also be no clear cause. Pain signals continue to be transmitted in the nervous system over extended periods of time often leading to other health problems. These can include fatigue, sleep disturbance, decreased appetite, and mood changes which cause difficulty in carrying out important activities and contributing to disability and despair. In general, chronic pain cannot be cured. Treatment of chronic pain is focused on reducing pain and improving function. The goal is effective pain management.

Chronic pain is widespread. It affects over 100 million adults in the United States and more than 1.5 billion people worldwide. The global market for pain management drugs and devices alone was valued at $\$ 35$ billion in 2012. The estimated incremental impact of chronic pain on health care costs in the United States is over $\$ 250$ billion per year and lost productivity is estimated to exceed $\$ 300$ billion per year. Estimated out-of-pocket spending in the United States on chronic pain is $\$ 20$ billion per year.

The most common approach to chronic pain is pain medication. This includes over-the-counter drugs (such as Advil and Motrin), and prescription drugs including anti-convulsants (such as Lyrica and Neurontin) and anti-depressants (such as Cymbalta and Elavil). Topical creams may also be used (such as Zostrix and Bengay). With severe pain, narcotic pain medications may be prescribed (such as codeine, fentanyl, morphine, and oxycodone). The approach to treatment is individualized, drug combinations may be employed, and the results are often hit or miss. Side effects and the potential for addiction are real and the risks are substantial.

Reflecting the difficulty in treating chronic pain, we believe that inadequate relief leads $25 \%$ to $50 \%$ of pain sufferers to turn to the over-the-counter market for supplements or alternatives to prescription pain medications. These include non-prescription medications, topical creams, lotions, electrical stimulators, dietary products, braces, sleeves, pads and other items. In total they account for over $\$ 4$ billion in annual spending in the United States on pain relief products.

High frequency nerve stimulation is an established treatment for chronic pain supported by numerous clinical studies demonstrating efficacy. In simplified outline, the mechanism of action involves intensive nerve stimulation to activate the body's central pain inhibition system resulting in widespread analgesia, or pain relief. The nerve stimulation activates brainstem
pain centers leading to the release of endogenous opioids that act primarily through the delta opioid receptor to reduce pain signal transmission through the central nervous system. This therapeutic approach is available through deep brain stimulation and through implantable spinal cord stimulation, both of which require surgery and have attendant risks. Non-invasive approaches to neuro-stimulation (transcutaneous electrical nerve stimulation, or TENS) have achieved limited efficacy in practice due to device limitations, ineffective dosing and low patient compliance.

Quell, our OTC wearable device for pain relief, was unveiled at the January 2015 Consumer Electronics Show (CES) and made commercially available in the United States during the second quarter of 2015. Quell revenues for fiscal years 2016 and 2015 were approximately $\$ 7.4$ million and $\$ 2.1$ million, respectively. Quell revenues for the nine months ended September 30, 2017 were approximately $\$ 8.7$ million. Following commercial launch through September 30, 2017, approximately 113,968 Quell devices plus electrodes and accessories were shipped to consumers with a total invoiced value of $\$ 25.8$ million, prior to the impact of product returns. Quell utilizes our patented $100 \%$ drug-free neuro-stimulation technology to provide relief from chronic intractable pain, such as nerve pain due to diabetes, fibromyalgia, arthritic pain, and lower back and leg pain. This advanced wearable device is lightweight and can be worn during the day while active, and at night while sleeping. It has been cleared by the U.S. Food and Drug Administration (the "FDA") for treatment of chronic intractable pain without a doctor's prescription. Users of the device have the option of using their smartphones to control pain therapy and to track sleep, activity, gait and therapy parameters. Quell is distributed in North America via e-commerce, including the Company's website (www.quellrelief.com) and Amazon, via direct response television including QVC, via retail merchandisers including Target, CVS, Walgreens, Best Buy, Bed Bath and Beyond and via health care professionals such as pain management physician practices and podiatry practices. Distribution is supported by television promotion to expand product awareness. We believe there are significant opportunities to market Quell outside of the United States, particularly in Western Europe, Japan and China. We received regulatory approval to market Quell in the European Union and Australia and we anticipate initiating marketing in the future.

DPNCheck, our diagnostic test for peripheral neuropathies, was made commercially available in the fourth quarter of 2011. DPNCheck revenues for fiscal years 2016 and 2015 were approximately $\$ 2.5$ million, and $\$ 2.3$ million, respectively. DPNCheck revenues for the nine months ended September 30, 2017 were approximately $\$ 2.3$ million. Our U.S. sales efforts focus on Medicare Advantage providers who assume financial responsibility and the associated risks for the health care costs of their patients. We believe that DPNCheck presents an attractive clinical case with early detection of neuropathy allowing for earlier clinical intervention to help mitigate the effects of neuropathy on both patient quality of life and cost of care. Also, the diagnosis and documentation of neuropathy provided by DPNCheck helps clarify the patient health profile which, in turn, may have a direct, positive effect on the Medicare Advantage premium received by the provider. We believe that attractive opportunities exist outside the United States, including Japan where we launched DPNCheck with our distribution partner Omron Healthcare in the third quarter of 2014; in China where we received regulatory approval and launched DPNCheck with our distribution partner Omron Healthcare in the fourth quarter of 2016; and in Mexico where our distributor Scienta Farma received regulatory approval and initiated sales in the fourth quarter of 2015.

Our products consist of a medical device used in conjunction with a consumable electrode or biosensor. Other accessories and consumables are also available to customers. Our goal for these products is to build an installed base of active customer accounts and distributors that regularly order aftermarket products to meet their needs. We successfully implemented this model when we started our business with the NC-stat system and applied it to subsequent product generations including ADVANCE. Our recent products, Quell and DPNCheck, conform to this model. Other products in our development pipeline are based on the device plus consumables business model.

## Results of Operations

## Comparison of Quarters Ended September 30, 2017 and 2016

## Revenues

The following table summarizes our revenues:


Revenues include sales from Quell, DPNCheck and our legacy neurodiagnostic products. During the third quarter of 2017 total revenues increased by approximately $\$ 0.2$ million, or $4.6 \%$, from the third quarter of 2016.

Quell revenues were approximately $\$ 2.6$ million and $\$ 2.1$ million in the quarters ended September 30, 2017 and 2016, respectively. This increase of approximately $\$ 0.5$ million was the largest contributor to overall revenue growth.

During the third quarter of 2017, 15,627 Quell devices and 28,702 electrode reorder packages with a total invoiced value of approximately $\$ 3.6$ million were shipped to Quell customers. In the comparative third quarter of 2016, we shipped 12,086 Quell devices and 14,391 electrode reorder packages with a total invoiced value of approximately $\$ 2.9$ million. Quell revenues are recorded at the point of shipment or, where distributors have a contractual right to return unsold merchandise, when Quell is sold through to the ultimate customer. In both cases, revenues are recorded net of a provision for product returns under our right-of-return policy.

In the third quarter of 2017 DPNCheck revenue of approximately $\$ 0.6$ million reflected sales of 73 DPNCheck devices plus 39,950 biosensors. This compared with approximately $\$ 0.8$ million in revenue in the third quarter of 2016 reflecting sales of 266 DPNCheck devices and 57,400 biosensors.

ADVANCE neurodiagnostic products contributed approximately $\$ 0.3$ million in revenue for the third quarter of 2017, as compared to approximately $\$ 0.5$ million in the third quarter of 2016.

## Cost of Revenues and Gross Profit

The following table summarizes our cost of revenues and gross profit:

|  | Quarters Ended September 30, |  |  |  |  |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  | Change |  |  |
|  | (in thousands) |  |  |  |  |  |  |
| Cost of revenues | \$ | 2,041.0 | \$ | 2,031.8 | \$ | 9.2 | 0.5\% |
|  |  |  |  |  |  |  |  |
| Gross profit | \$ | 1,505.7 | \$ | 1,357.6 | \$ | 148.1 | 10.9\% |

Our cost of revenues remained flat at approximately $\$ 2.0$ million in the third quarters of 2017 and 2016. Gross profit increased to $42.5 \%$ in the third quarter of 2017 from $40.1 \%$ in the third quarter of 2016. The expansion in gross profit reflects growing Quell sales, particularly higher margin electrodes, offset by increased sales weighting toward retail channels which carry tighter gross margins. As we build our installed base of Quell users, we expect accelerating growth in electrode sales at higher margins. Also, we expect continued growth in Quell sales to improve manufacturing cost absorption, contributing to future margin gains.

## Operating Expenses

The following table summarizes our operating expenses:

|  | Quarters Ended September 30, |  |  |  | Change |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |  |  |  |
|  | (in thousands) |  |  |  |  |  |  |
| Operating expenses: |  |  |  |  |  |  |  |
| Research and development | \$ | 840.6 | \$ | 1,202.7 | \$ | (362.1) | (30.1)\% |
| Sales and marketing |  | 2,919.5 |  | 2,959.3 |  | (39.8) | (1.3)\% |
| General and administrative |  | 1,258.5 |  | 1,165.8 |  | 92.7 | 8.0 \% |
| Total operating expenses | \$ | 5,018.6 | \$ | 5,327.8 | \$ | (309.2) | (5.8)\% |

## Research and Development

Research and development expenses for the quarters ended September 30, 2017 and 2016 were approximately $\$ 0.8$ million and $\$ 1.2$ million, respectively. The decrease of approximately $\$ 0.4$ million relates primarily to a $\$ 0.4$ million decrease in Quell development spending, a $\$ 0.1$ million decrease in clinical study spending, partially offset by a $\$ 0.1$ million increase in personnel spending.

## Sales and Marketing

Sales and marketing expenses were approximately $\$ 2.9$ million and $\$ 3.0$ million for the quarters ended September 30, 2017 and September 30, 2016, respectively. The spending reflected an additional $\$ 0.1$ million in television advertising, on-line advertising and paid search offset by a $\$ 0.1$ million decrease in personnel spending.

## General and Administrative

General and administrative expenses were approximately $\$ 1.3$ million and $\$ 1.2$ million for the quarters ended September 30, 2017 and September 30 , 2016, respectively. The increase of approximately $\$ 0.1$ million primarily reflected an additional $\$ 0.1$ million in professional services expense.

## Change in fair value of warrant liability

The change in fair value of warrant liability was approximately $\$ 327$ and $\$ 56,248$ for the quarters ended September 30, 2017 and September 30 , 2016 , respectively. The expense relates to the revaluation of the warrants' fair value utilizing a Black-Scholes model. The warrants were repurchased and retired in the Q3 2017 Offering, and as of September 30, 2017, no liability classified warrants remain outstanding.

Net loss per common share applicable to common stockholders, basic and diluted
The net loss per common share applicable to common stockholders, basic and diluted, was $\$ 3.11$ and $\$ 6.11$ for the quarters ended September 30 , 2017 and 2016, respectively.

Net loss per common share applicable to common stockholders for the quarter ended September 30, 2017 of $\$ 3.11$ reflected a deemed dividend attributable to preferred stockholders of $\$ 2.8$ million, or $\$ 1.39$ per share, related to our Q3 2017 Offering; and our net loss reported in our Statement of Operations for the quarter ended September 30, 2017 of $\$ 3.5$ million, or $\$ 1.72$ per share. The per share amount was calculated using $2,036,117$ weighted average shares outstanding as of September 30, 2017.

Net loss per common share applicable to common stockholders for the quarter ended September 30, 2016 of $\$ 6.11$ consisted of our net loss reported in our Statement of Operations for the quarter ended September 30, 2016 of $\$ 3.9$ million, or $\$ 6.11$. The per share amount was calculated using 639,512 weighted average shares outstanding as of September 30, 2016.

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

## Revenues

The following table summarizes our revenues:

Nine Months Ended September 30,
$\qquad$ Change
\% Change
(in thousands)


Revenues include sales from Quell, DPNCheck and our legacy neurodiagnostic products. During the nine months ended September 30, 2017 total revenues increased by approximately $\$ 3.9$ million, or 46.3\%, from the nine months ended September 30, 2016.

Quell revenues were approximately $\$ 8.7$ million and $\$ 4.9$ million in the nine months ended September 30, 2017 and 2016, respectively. This increase of approximately $\$ 3.8$ million was the largest contributor to overall revenue growth.

During the nine months ended September 30, 2017, 54,434 Quell devices and 84,846 electrode reorder packages with a total invoiced value of approximately $\$ 12.2$ million were shipped to Quell customers. In the comparative nine months of 2016, we shipped 31,437 Quell devices and 32,666 electrode reorder packages with a total invoiced value of approximately $\$ 7.1$ million. Quell revenues are recorded at the point of shipment or, where distributors have a contractual right to return unsold merchandise, when Quell is sold through to the ultimate customer. In both cases, revenues are recorded net of a provision for product returns under our right-of-return policy.

In the nine months ended September 30, 2017 DPNCheck revenue of approximately $\$ 2.3$ million reflected sales of 362 DPNCheck devices plus 138,500 biosensors. This compared with approximately $\$ 1.7$ million in revenue in the comparative nine months of 2016 reflecting sales of 447 DPNCheck devices and 125,300 biosensors.

ADVANCE neurodiagnostic products contributed approximately $\$ 1.2$ million in revenue for the nine months ended September 30, 2017, as compared to approximately $\$ 1.6$ million in the comparative nine months of 2016.

Cost of Revenues and Gross Profit
The following table summarizes our cost of revenues and gross profit:

|  | Nine Months Ended September 30, |  |  |  |  |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  | Change |  |  |
|  | (in thousands) |  |  |  |  |  |  |
| Cost of revenues | \$ | 7,378.0 | \$ | 5,086.7 | \$ | 2,291.3 | 45.0\% |
|  |  |  |  |  |  |  |  |
| Gross profit | \$ | 4,784.9 | \$ | 3,225.4 | \$ | 1,559.5 | 48.4\% |

Our cost of revenues increased to approximately $\$ 7.4$ million in the nine months ended September 30, 2017 as compared to approximately $\$ 5.1$ million in the nine months ended September 30, 2016. Gross profit increased to $39.3 \%$ in the nine months ended September 30, 2017 from $38.8 \%$ in the comparative nine months of 2016. The expansion in gross profit reflects growing Quell sales, particularly higher margin electrodes, offset by increased sales weighting toward retail channels which carry tighter gross margins. As we build our installed base of Quell users, we expect accelerating growth in electrode sales at higher margins. Also, we expect continued growth in Quell sales to improve manufacturing cost absorption, contributing to future margin gains.

## Operating Expenses

The following table summarizes our operating expenses:

|  | 2017 |  | 2016 |  | Change |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (in thousands) |  |  |  |  |  |  |
| Operating expenses: |  |  |  |  |  |  |  |
| Research and development | \$ | 2,621.4 | \$ | 3,487.3 | \$ | (865.9) | (24.8)\% |
| Sales and marketing |  | 8,436.5 |  | 8,199.5 |  | 237.0 | 2.9 \% |
| General and administrative |  | 3,925.6 |  | 3,882.5 |  | 43.1 | 1.1 \% |
| Total operating expenses | \$ | 14,983.5 | \$ | 15,569.3 | \$ | (585.8) | (3.8)\% |

## Research and Development

Research and development expenses for the nine months ended September 30, 2017 and 2016 were approximately $\$ 2.6$ million and $\$ 3.5$ million, respectively. The decrease of approximately $\$ 0.9$ million relates primarily to a $\$ 1.1$ million decrease in Quell development spending partially offset by a $\$ 0.1$ million increase in personnel spending.

## Sales and Marketing

Sales and marketing expenses increased to approximately $\$ 8.4$ million for the nine months ended September 30,2017 from $\$ 8.2$ million for the comparative nine months of 2016. The approximately $\$ 0.2$ million increase in spending reflected an additional $\$ 0.7$ million in television advertising, on-line advertising and paid search partially offset by sales and marketing headcount-related cost reductions of approximately $\$ 0.2$ million from the comparative nine months of 2016 as compared to the nine months ended September 30, 2017.

## General and Administrative

General and administrative expenses of approximately $\$ 3.9$ million for the nine months ended September 30, 2017 were flat compared to the comparative nine months of 2016.

Change in fair value of warrant liability
The change in fair value of warrant liability was approximately $\$ 208,480$ and $\$ 227,873$ for the nine months ended September 30, 2017 and 2016, respectively. The expense relates to the revaluation of the warrants' fair value utilizing a Black-Scholes model. The warrants were repurchased and retired in the Q3 2017 Offering and, as of September 30, 2017, no liability classified warrants remain outstanding.

Net loss per common share applicable to common stockholders, basic and diluted
The net loss per common share applicable to common stockholders, basic and diluted, was $\$ 11.62$ and $\$ 56.09$ for the nine months ended September 30, 2017 and 2016, respectively.

Net loss per common share applicable to common stockholders for the nine months ended September 30, 2017 of $\$ 11.62$ reflected a deemed dividend attributable to preferred stockholders of \$6.9 million, or \$4.74 per share, related to our Q1 2017 Offering and our Q3 2017 Offering; and our net loss reported in our Statement of Operations for the nine months ended September 30, 2017 of $\$ 10.0$ million, or $\$ 6.88$ per share. The per share amount was calculated using 1,450,237 weighted average shares outstanding as of September 30, 2017.

Net loss per common share applicable to common stockholders for the nine months ended September 30, 2016 of $\$ 56.09$ reflected a deemed dividend attributable to preferred stockholders of $\$ 19.8$ million, or $\$ 34.85$ per share, related to our June 2016 Offering; and our net loss reported in our Statement of Operations for the nine months ended September 30, 2016 of $\$ 12.1$ million, or $\$ 21.24$ per share. The per share amount was calculated using 569,555 weighted average shares outstanding as of September 30, 2016.

## Liquidity and Capital Resources

Our principal source of liquidity is our cash and cash equivalents, and to a lesser extent, product sales. As of September 30, 2017, cash and cash equivalents totaled $\$ 4.0$ million. Our ability to generate revenue to fund our operations largely depends on the success of our wearable therapeutic products for chronic pain and our diagnostic products for neuropathy. A low level of market interest in Quell or DPNCheck, an accelerated decline in our neurodiagnostics consumables sales, or unanticipated increases in our operating or other costs would have an adverse effect on our liquidity and cash generated from operations. The following table sets forth information relating to our cash and cash equivalents:

|  | September 30, 2017 |  | December 31, 2016 |  | Change |  | \% Change |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (\$ in thousands) |  |  |  |  |  |  |
| Cash and cash equivalents | \$ | 3,969.2 | \$ | 3,949.1 | \$ | 20.1 | 0.5\% |

In July 2017, we entered into agreements with respect to a $\$ 7.0$ million private equity offering (the "Q3 2017 Offering") providing for the issuance of (i) 7,000 shares of Series F convertible preferred stock at a price of $\$ 1,000$ per share, the repurchase and retirement of 4.2 million outstanding warrants at fair value for 3,621 Series $F$ convertible preferred shares, and the adjustment of the conversion price for 21,053 Series D and E preferred shares to current market value. The Q3 2017 Offering will be completed in two tranches of $\$ 3.5$ million each. The first tranche closed and was funded on July 12 , 2017 and the second tranche is planned to close in October 2017. After fees and expenses, net proceeds of the Q3 2017 Offering were expected to be $\$ 6.6$ million.

During the first quarter of 2017, we closed a securities purchase agreement relating to a $\$ 7$ million private offering (the "Q1 2017 Offering") providing for the issuance of (i) 7,000 shares of Series $E$ convertible preferred stock at a price of $\$ 1,000$ per share, and (ii) warrants to purchase $1,250,000$ shares of our Common Stock, at an exercise price of $\$ 5.60$ per share. After fees and expenses, net proceeds of the Q1 2017 Offering were $\$ 6.3$ million.

In order to supplement our access to capital, we are party to an amended Loan and Security Agreement, most recently amended on December 29, 2016, with a bank which provides us with a credit facility in the amount of $\$ 2.5$ million on a revolving basis. The amended credit facility expires on January 15 , 2018. Amounts borrowed under the credit facility will bear interest equal to the prime rate plus $0.5 \%$. Any borrowings under the credit facility will be collateralized by our cash, accounts receivable, inventory, and equipment. The Credit Facility includes traditional lending and reporting covenants. These include certain financial covenants applicable to liquidity that are to be maintained by us. As of September 30, 2017, we were in compliance with these covenants and had not borrowed any funds under the credit facility. However, approximately $\$ 0.2$ million of the amount under the Credit Facility is restricted to support letters of credit issued in favor of our facilities landlords. Consequently, the amount available for borrowing under the credit facility as of September 30, 2017 was approximately $\$ 2.3$ million.

During the nine months ended September 30, 2017, cash and cash equivalents remained essentially flat reflecting $\$ 9.5$ million of net cash usage for ongoing business operations partially offset by net proceeds of $\$ 3.3$ million from the first tranche of the Q3 2017 Offering and \$6.3 million from the Q1 2017 Offering.

In managing working capital, we focus on two important financial measurements as presented below:

|  | Quarters Ended September 30, |  | Year Ended December 31, |
| :---: | :---: | :---: | :---: |
|  | 2017 | 2016 | 2016 |
| Days sales outstanding (days) | 18 | 15 | 23 |
| Inventory turnover rate (times per year) | 5.0 | 7.4 | 6.1 |

Customer payment terms generally vary from payment-on-order for Quell e-commerce sales to 60 days from invoice date.

The following sets forth information relating to sources and uses of our cash:

|  | Nine Months Ended September 30, |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2017 |  | 2016 |  |
|  | (in thousands) |  |  |  |
| Net cash used in operating activities | \$ | $(9,479.5)$ | \$ | $(11,457.1)$ |
| Net cash used in investing activities |  | (70.2) |  | (87.9) |
| Net cash provided by financing activities |  | 9,569.8 |  | 6,650.3 |

Our operating activities used $\$ 9.5$ million for the nine months ended September 30 , 2017, which was primarily attributable to our net loss of $\$ 10.0$ million. This loss included non-cash credits of approximately $\$ 0.2$ million for revaluing outstanding warrants at fair value. In addition, operating activities included increases in accrued expenses and compensation of $\$ 0.6$ million and decreases in accounts receivable of $\$ 0.3$ million, partially offset by increases in inventories of $\$ 0.5$ million.

We held cash and cash equivalents of $\$ 4.0$ million as of September 30 , 2017. We believe that these resources, as well as $\$ 7.0$ million in anticipated gross proceeds from the Q3 2017 Offering, including the first tranche of $\$ 3.5$ million which closed on July 12, 2017, and a second tranche of $\$ 3.5$ million which is expected to close in October 2017, and the cash to be generated from expected product sales will be sufficient to meet our projected operating requirements into the second quarter of 2018. We continue to face significant challenges and uncertainties and, as a result, our available capital resources may be consumed more rapidly than currently expected due to (a) decreases in sales of our products; (b) changes we may make to the business that affect ongoing operating expenses; (c) changes we may make in our business strategy; (d) regulatory developments or inquiries affecting our existing products; (e) changes we may make in our research and development spending plans; and ( f ) other items affecting our forecasted level of expenditures and use of cash resources. Accordingly, we will need to raise additional funds to support our operating and capital needs in the second quarter of 2018 and beyond. These factors raise substantial doubt about our ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty. We will attempt to obtain additional funding through public or private financing, collaborative arrangements with strategic partners, or through additional credit lines or other debt financing sources. However, we may not be able to secure such financing in a timely manner or on favorable terms, if at all. We filed a shelf registration statement on Form S-3 with the U.S. Securities and Exchange Commission (the "SEC") covering shares of our common stock and other securities for sale, giving us the opportunity to raise funding when needed or otherwise considered appropriate at prices and on terms to be determined at the time of any such offerings. However, pursuant to applicable SEC rules, we only have the ability to sell shares under the shelf registration statement, during any 12 -month period, in an amount less than or equal to one-third of the aggregate market value of our common stock held by non-affiliates. If we raise additional funds by issuing equity or debt securities, either through the sale of securities pursuant to a registration statement or by other means, our existing stockholders may experience dilution, and the new equity or debt securities may have rights, preferences and privileges senior to those of our existing stockholders. If we raise additional funds through collaboration, licensing or other similar arrangements, it may be necessary to relinquish valuable rights to our potential products or proprietary technologies, or grant licenses on terms that are not favorable to us. Without additional funds, we may be forced to delay, scale back or eliminate some of our sales and marketing efforts, research and development activities, or other operations and potentially delay product development in an effort to provide sufficient funds to continue our operations. If any of these events occurs, our ability to achieve our development and commercialization goals would be adversely affected.

## Off-Balance Sheet Arrangements, Contractual Obligation and Contingent Liabilities and Commitments

As of September 30, 2017, we did not have any off-balance sheet financing arrangements.
See Note 6, Commitments and Contingencies, of our Notes to Unaudited Financial Statements for information regarding commitments and contingencies.

## Recent Accounting Pronouncements

In February 2016, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update No. 2016-2, Leases (Topic 842) ("ASU 2016-2"). ASU 2016-2 requires that lessees will need to recognize virtually all of their leases on the balance sheet, by recording a right-of-use asset and lease liability. The provisions of this guidance are effective for annual periods beginning after December 31, 2018, and for interim periods therein. The Company is in the process of
evaluating the new standard and assessing the impact, if any, ASU 2016-2 will have on the Company's financial statements and which adoption method will be used.

In May 2014, the FASB and the International Accounting Standards Board ("IASB") jointly issued Accounting Standards Update ("ASU") No. 2014-9, Revenue from Contracts with Customers ("ASU 2014-9"), a comprehensive revenue recognition standard that will supersede nearly all existing revenue recognition guidance. The objective of ASU 2014-9 is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. In August 2015, the FASB issued ASU No. 2015-14, Revenue from Contracts with Customers, which delayed the effective date of the new standard from January 1, 2017 to January $1,2018$. An entity can elect to adopt ASU 2014-9 using one of two methods, either full retrospective adoption to each prior reporting period, or recognizing the cumulative effect of adoption at the date of initial application. In March 2016, the FASB issued ASU No. 2016-8, Principal Versus Agent Considerations (Reporting Revenue Gross Versus Net), which clarifies the implementation guidance on principal versus agent considerations. The Company is in the process of evaluating the new standard and assessing the impact, if any, ASU 2014-9 will have on the Company's financial statements.

## Cautionary Note Regarding Forward-Looking Statements

The statements contained in this Quarterly Report on Form 10-Q, including under the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" and other sections of this Quarterly Report, include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, including, without limitation, statements regarding our or our management's expectations, hopes, beliefs, intentions or strategies regarding the future, such as our estimates regarding anticipated operating losses, future revenues and projected expenses; our expectations for commercialization of our Quell product outside the United States; our future liquidity and our expectations regarding our needs for and ability to raise additional capital; our ability to manage our expenses effectively and raise the funds needed to continue our business; our belief that there are unmet needs for the management of chronic pain and in the diagnosis and treatment of diabetic neuropathy; our expectations surrounding Quell and DPNCheck; our expected timing and our plans to develop and commercialize our products; our ability to meet our proposed timelines for the commercial availability of our products; our ability to obtain and maintain regulatory approval of our existing products and any future products we may develop; regulatory and legislative developments in the United States and foreign countries; the performance of our third-party manufacturers; our ability to obtain and maintain intellectual property protection for our products; the successful development of our sales and marketing capabilities; the size and growth of the potential markets for our products and our ability to serve those markets; our plan to make Quell more broadly available through retail distribution; our belief that there are significant opportunities to market Quell outside the United States; our estimate of our customer returns of our products; the rate and degree of market acceptance of any future products; our reliance on key scientific management or personnel; the payment and reimbursement methods used by private or government third party payers; and other factors discussed elsewhere in this Quarterly Report on Form 10-Q. The words "believe," "may," "will," "estimate," "continue," "anticipate," "intend," "expect," "plan" and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. The forward-looking statements contained in this quarterly report are based on our current expectations and beliefs concerning future developments and their potential effects on us. There can be no assurance that future developments affecting us will be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) or other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described in the section titled "Risk Factors" below and in our Annual Report on Form 10-K. Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary from those projected in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

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

We do not use derivative financial instruments in our investment portfolio and have no foreign exchange contracts. Our financial instruments consist of cash and cash equivalents. We consider investments that, when purchased, have a remaining maturity of 90 days or less to be cash equivalents. The primary objectives of our investment strategy are to preserve principal, maintain proper liquidity to meet operating needs, and maximize yields. To minimize our exposure to an adverse shift in interest rates, we invest mainly in cash equivalents and short-term investments with a maturity of twelve months or less and maintain an average maturity of twelve months or less. We do not believe that a notional or hypothetical $10 \%$ change in interest rate percentages would have a material impact on the fair value of our investment portfolio or our interest income.

## Item 4. Controls and Procedures

(a) Evaluation of Disclosure Controls and Procedures. Our principal executive officer and principal financial officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of September 30, 2017, have concluded that, based on such evaluation, our disclosure controls and procedures were effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms, and is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.
(b) Changes in Internal Controls. There were no changes in our internal control over financial reporting, identified in connection with the evaluation of such internal control that occurred during the quarter ended September 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II - OTHER INFORMATION

## Item 1. Legal Proceedings

While we are not currently a party to any material legal proceedings, we could become subject to legal proceedings in the ordinary course of business. We do not expect any such potential items to have a significant impact on our financial position.

## Item 1A. Risk Factors

There have been no material changes in the risk factors described in "Item 1A. Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2016.

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

None.
Item 3. Defaults Upon Senior Securities
None.

## Item 4. Mine Safety Disclosures

Not applicable.

## Item 5. Other Information

The Company has received a Civil Investigative Demand ("CID") from the United States Federal Trade Commission ("FTC"). The CID requests information in connection with an FTC review for compliance of the Company's representations about Quell with Sections 5 and 12 of the FTC Act. The Company is in the process of producing documents and information in response to the CID. To the knowledge of the Company, no complaint has been filed against the Company; however, no assurance can be given as to the timing or outcome of the investigation.

The Company intends to repurchase, from time to time, warrants to purchase its common stock that are traded on Nasdaq under the symbol NUROW. The Company may expend up to $\$ 25,000$ in making these purchases on Nasdaq from time to time.

## Item 6. Exhibits

See the Exhibit Index on the page immediately preceding the exhibits for a list of exhibits filed as part of this quarterly report, which Exhibit Index is incorporated herein by this reference.

## 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.

NEUROMETRIX, INC.

Chairman, President and Chief Executive Officer

Senior Vice President, Chief Financial Officer and Treasurer

## EXHIBIT INDEX

Certification of Principal Executive Officer Under Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, and pursuant to Section 302(a) of the Sarbanes-Oxley Act of 2002. Filed herewith.

Certification of Principal Financial Officer Required Under Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, and pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. Filed herewith.

Certification of Principal Executive Officer and Principal Financial Officer Required Under Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. Section 1350. Furnished herewith.

The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2017, formatted in XBRL (eXtensible Business Reporting Language): (i) Balance Sheets at September 30, 2017 and December 31, 2016, (ii) Statements of Operations for the quarters and nine months ended September 30, 2017 and 2016, (iii) Statements of Cash Flows for the nine months ended September 30, 2017 and 2016, and (iv) Notes to Financial Statements.

## CERTIFICATION

I, Shai N. Gozani, M.D., Ph.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of NeuroMetrix, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(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.
/s/ SHAI N. GOZANI, M.D., PH.D.
Shai N. Gozani, M.D., Ph.D.
Chairman, President and Chief Executive Officer

## CERTIFICATION

## I, Thomas T. Higgins, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of NeuroMetrix, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(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.
/s/ THOMAS T. HIGGINS

## Thomas T. Higgins

Senior Vice President, Chief Financial Officer and Treasurer

## CERTIFICATION

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of NeuroMetrix, Inc., a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report for the quarter ended September 30, 2017 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.
/s/ SHAI N. GOZANI, M.D., PH.D.
Shai N. Gozani, M.D., Ph.D.
Chairman, President and Chief Executive Officer
/s/ THOMAS T. HIGGINS
Thomas T. Higgins
Senior Vice President, Chief Financial Officer and Treasurer

October 20, 2017
This certification is being furnished and not filed, and shall not be incorporated into any document for any purpose, under the Securities Exchange Act of 1934 or the Securities Act of 1933.

