CANADIAN PACIFIC RAILWAY CO/NEW
Form F-9
June 20, 2011

As filed with the Securities and Exchange Commission on June 20, 2011

Registration No. 333–

SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM F-9
REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

CANADIAN PACIFIC RAILWAY COMPANY
(Exact name of Registrant as specified in its charter)

Canada	4011	98-0001377
(Province or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification No., if applicable)

Suite 500, Gulf Canada Square, 401 -9th Avenue S.W., Calgary, Alberta, Canada T2P 4Z4, (403) 319-7000
(Address and telephone number of Registrant's principal executive offices)

CT Corporation System, 111 – Eighth Avenue, New York, New York 10011, (212) 894-8940
(Name, address (including zip code) and telephone number (including area code) of agent for service in the United States)

Copies to:

Paul A. Guthrie Canadian Pacific Railway Company Gulf Canada Square 401 9th Avenue S.W. Calgary, Alberta, Canada T2P 4Z4 (403) 319-7000	Kevin E. Johnson Don Tse Macleod Dixon LLP 3700 Canterra Tower 400 – 3rd Avenue S.W. Calgary, Alberta, Canada T2P 4H2 (403) 267-8222	Andrew J. Foley Edwin S. Maynard Paul, Weiss, Rifkind, Wharton & Garrison LLP 1285 Avenue of the Americas New York, New York 10019-6064 (212) 373-3000

Approximate date of commencement of proposed sale to the public:
From time to time after the effective date of this Registration Statement.

Province of Alberta, Canada
(Principal jurisdiction regulating this offering)

It is proposed that this filing shall become effective (check appropriate box below):

A. ¨ upon filing with the Commission, pursuant to Rule 467(a) (if in connection with an offering being made contemporaneously in the United States and Canada).

B. þ at some future date (check appropriate box below)

1. ¨ pursuant to Rule 467(b) on ( ) at ( ) (designate a time not sooner than 7 calendar days after filing).
2. ¨ pursuant to Rule 467(b) on ( ) at ( ) (designate a time 7 calendar days or sooner after filing) because the securities regulatory authority in the review jurisdiction has issued a receipt or notification of clearance on ( ).
3. ¨ pursuant to Rule 467(b) as soon as practicable after notification of the Commission by the Registrant or the Canadian securities regulatory authority of the review jurisdiction that a receipt or notification of clearance has been issued with respect hereto.
4. þ after the filing of the next amendment to this Form (if preliminary material is being filed).

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to the home jurisdiction's shelf prospectus offering procedures, check the following box. þ

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be Registered	Proposed maximum offering price per security (1)	Proposed maximum aggregate offering price (1)	Amount of registration fee (2)
Debt Securities	US$1,500,000,000	100%	US$1,500,000,000	US$174,150

(1) Estimated solely for the purpose of determining the registration fee.

(2) The Registrant previously paid U.S.$83,700 in filing fees to the Commission in connection with a Registration Statement on Form F-9 (File No. 333-159943) initially filed on June 12, 2009, under which U.S.$350,000,000 of securities were sold. Accordingly, pursuant to Rule 457(p) of the Securities Act of 1933, as amended, U.S.$64,170 is being offset against the total registration fee due for this Registration Statement.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registration statement shall become effective as provided in Rule 467 under the Securities Act of 1933, as amended or on such date as the Commission, acting pursuant to Section 8(a) of the Act, may determine.

PART I

INFORMATION REQUIRED TO BE DELIVERED TO OFFEREES OR PURCHASERS

The information contained in this preliminary prospectus may not be complete and may be changed. The securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective.

This preliminary prospectus is not an offer to sell nor does it seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Base Shelf Prospectus

This short form prospectus constitutes a public offering of the securities only in those jurisdictions where they may be lawfully offered for sale and therein only by persons permitted to sell such securities.

No securities regulatory authority has expressed an opinion about these securities and it is an offence to claim otherwise.

Information has been incorporated by reference in this prospectus from documents filed with securities commissions or similar authorities in Canada. Copies of the documents incorporated herein by reference may be obtained on request without charge from the Corporate Secretary of Canadian Pacific Railway Company, Suite 920, 401 – 9th Avenue S.W., Calgary, Alberta, T2P 4Z4, Telephone: (403) 319-6171 and are also available electronically at www.sedar.com.

Preliminary Short Form Prospectus Dated June 20, 2011

New Issue June , 2011

CANADIAN PACIFIC RAILWAY COMPANY

US$1,500,000,000
Debt Securities

Canadian Pacific Railway Company may from time to time, during the 25-month period that this prospectus remains effective, offer for sale debt securities in an aggregate principal amount of up to US$1,500,000,000 or its equivalent in any other currency. These debt securities may consist of debentures, notes or other types of debt and may be issued in series.

We will provide the specific terms of these securities and all information omitted from this prospectus in supplements to this prospectus that will be delivered to you together with this prospectus. You should read this prospectus and the supplements carefully before you invest.

Neither the United States Securities and Exchange Commission (the "SEC") nor any state securities regulator has approved or disapproved these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offence in the United States.

We are permitted under a multijurisdictional disclosure system adopted by the United States to prepare this prospectus in accordance with Canadian disclosure requirements. Prospective investors should be aware that such requirements are different from those of the United States.

Owning the securities described herein may subject you to tax consequences both in the United States and Canada. You should read the tax discussion in any applicable prospectus supplement. This prospectus or any applicable prospectus supplement may not describe these tax consequences fully.

Your ability to enforce civil liabilities under United States federal securities laws may be affected adversely because we are incorporated under the laws of Canada, most of our officers and directors and most of the experts named in this prospectus are residents of Canada, and a substantial portion of our assets are located outside the United States.

The debt securities offered hereby have not been qualified for sale in Canada and are not being and may not be offered or sold, directly or indirectly, in Canada or to any resident of Canada in contravention of the securities laws of any province or territory of Canada.

There is no market through which these securities may be sold and purchasers may not be able to resell securities purchased under this short form prospectus. This may affect the pricing of the securities in the secondary market, the transparency and availability of trading prices, the liquidity of the securities, and the extent of issuer regulation. See "Risk Factors".

Our head and registered office is located at Suite 500, 401 – 9th Avenue S.W., Calgary, Alberta, T2P 4Z4.

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ABOUT THIS PROSPECTUS

In this prospectus, unless otherwise specified or the context otherwise requires, references to "Canadian Pacific Railway", "us", "we" or "our" mean Canadian Pacific Railway Company and its subsidiaries. Unless otherwise specified, all dollar amounts contained herein are expressed in Canadian dollars, and references to "dollars", "Cdn$" or "$" are to Canadian dollars and all references to "US$" are to United States dollars.

This prospectus is part of a registration statement on Form F-9 relating to the debt securities that we filed with the SEC. Under the registration statement, we may, from time to time, sell any combination of the debt securities described in this prospectus in one or more offerings up to an aggregate principal amount of US$1,500,000,000 or its equivalent in any other currency. This prospectus provides you with a general description of the debt securities that we may offer. Each time we sell debt securities under the registration statement, we will provide a prospectus supplement that will contain specific information about the terms of that offering of debt securities. The prospectus supplement may also add, update or change information contained in this prospectus. Before you invest, you should read both this prospectus and any applicable prospectus supplement together with additional information described under the headings "Where You Can Find More Information" and "Documents Incorporated by Reference". This prospectus does not contain all of the information set forth in the registration statement, certain parts of which are omitted in accordance with the rules and regulations of the SEC. Reference is made to the registration statement and the exhibits thereto for further information with respect to Canadian Pacific Railway and the debt securities.

Unless otherwise indicated, all financial information included and incorporated by reference into this prospectus is determined using generally accepted accounting principles in the United States, referred to as "U.S. GAAP". U.S. GAAP differs from generally accepted accounting principles in Canada before the adoption of International Financial Reporting Standards ("IFRS"), referred to as "Canadian GAAP" and IFRS applied by most Canadian reporting issuers starting in 2011. Therefore, the comparative consolidated financial statements incorporated by reference into this prospectus may not be comparable to financial statements prepared in accordance with Canadian GAAP or IFRS. A discussion of the principal differences between the financial results calculated under U.S. GAAP and under Canadian GAAP as it relates to the Company is provided in the notes to the annual comparative consolidated financial statements incorporated by reference into this prospectus.

WHERE YOU CAN FIND MORE INFORMATION

Canadian Pacific Railway Company is a wholly-owned subsidiary of Canadian Pacific Railway Limited ("CPRL"), a publicly traded corporation whose common shares are listed on the Toronto Stock Exchange and the New York Stock Exchange. Pursuant to a decision of the applicable Canadian securities regulatory authorities, we

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are not subject to most Canadian continuous disclosure requirements provided that CPRL complies with its continuous disclosure requirements. We remain responsible for filing material change reports upon the occurrence of a material change in our affairs which is not also a material change in the affairs of CPRL. The decision further permits us to incorporate by reference into this prospectus all information or documents that would be required to be incorporated by reference in a short form prospectus filed by CPRL.

We and CPRL are subject to the information requirements of the United States Securities Exchange Act of 1934, as amended (the "U.S. Exchange Act"), and in accordance therewith file reports and other information with the SEC. Under the multijurisdictional disclosure system adopted by Canada and the United States, such reports and other information may be prepared in accordance with the disclosure requirements of Canada, which requirements are different from those of the United States. You may read any document we and CPRL furnish to the SEC at the SEC's public reference room at Room 1580, 100 F Street, N.E., Washington, D.C., 20549. Copies of the same documents may also be obtained from the public reference room of the SEC at 100 F Street, N.E., Washington D.C., 20549 by paying a fee. Please call the SEC at 1-800-SEC-0330 or access its website at www.sec.gov for further information on the public reference room. Our and CPRL's filings since November 2002 are also electronically available from the SEC's Electronic Document Gathering and Retrieval System, which is commonly known by the acronym EDGAR and which may be accessed at www.sec.gov, as well as from commercial document retrieval services.

DOCUMENTS INCORPORATED BY REFERENCE

Pursuant to a decision made by the Alberta Securities Commission on behalf of the securities commission or similar regulatory authority in each of the provinces and territories of Canada (the "MRRS Decision"), the Company is not subject to certain continuous disclosure requirements provided that Canadian Pacific Railway Limited ("CPRL"), which company owns all of the outstanding shares of the Company, complies with such continuous disclosure requirements. The MRRS Decision further permits the Company to incorporate by reference in this short form prospectus all information or documents that would be required to be incorporated by reference in a short form prospectus filed by CPRL. We incorporate by reference the documents of CPRL listed below, which were filed with the securities commission or other similar authority in each of the provinces and territories of Canada and form an integral part of this prospectus:

— CPRL's annual information form (the "AIF") dated March 2, 2011;

— CPRL's audited comparative consolidated financial statements, including the notes thereto, for the year ended December 31, 2010, together with the auditor's report thereon;

— CPRL's Management's Discussion and Analysis ("MD&A") for the year ended December 31, 2010;

— CPRL's management proxy circular dated March 24, 2011;

— CPRL's unaudited comparative consolidated financial statements, including the notes thereto, for the three months ended March 31, 2011; and

— CPRL's Management's Discussion and Analysis for the three months ended March 31, 2011.

Any annual information form, audited annual consolidated financial statements (together with the auditor's report thereon), information circular, unaudited interim consolidated financial statements, management's discussion and analysis, material change reports (excluding confidential material change reports) or business acquisition reports subsequently filed by CPRL or us with securities commissions or similar authorities in the provinces and territories of Canada after the date of this prospectus and prior to the termination of the offering of debt securities under any prospectus supplement shall be deemed to be incorporated by reference into this prospectus. To the extent that any document or information incorporated by reference into this prospectus is included in a report that is filed with the SEC by CPRL or us on Forms 40-F, 20-F, 10-K, 10-Q, 8-K or 6-K (or any respective successor form), such document or information shall also be deemed to be incorporated by reference as an exhibit to the registration statement relating to the debt securities of which this prospectus forms a part.

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Upon a new annual information form, management's discussion and analysis and related annual financial statements being filed by CPRL with the applicable securities regulatory authorities during the currency of this prospectus, the previous annual information form, management's discussion and analysis, annual financial statements, all interim financial statements and management's discussion and analysis, material change reports and business acquisition reports filed prior to the commencement of the then current fiscal year of CPRL will be deemed no longer to be incorporated into this prospectus for purposes of future offers and sales of debt securities under this prospectus. Upon interim consolidated financial statements and the accompanying management's discussion and analysis being filed by CPRL with the applicable securities regulatory authorities during the currency of this prospectus, all interim consolidated financial statements and the accompanying management's discussion and analysis filed prior to the new interim consolidated financial statements shall be deemed no longer to be incorporated into this prospectus for purposes of future offers and sales of debt securities under this prospectus and upon a new management proxy circular relating to an annual meeting of shareholders of CPRL being filed by CPRL with the applicable securities regulatory authorities during the term of this prospectus, the management proxy circular for the preceding annual meeting of shareholders of CPRL shall be deemed no longer to be incorporated by reference into this prospectus for purposes of future offers and sales of debt securities under this prospectus.

Copies of each of the documents incorporated by reference into this prospectus may be obtained by accessing our and CPRL's disclosure documents available through the Internet on the Canadian System for Electronic Document Analysis and Retrieval (SEDAR) which may be accessed at www.sedar.com or by requesting a free copy of such documents by writing or calling Canadian Pacific Railway Company at the following address and telephone number: Canadian Pacific Railway Company, Suite 920, 401 - 9th Avenue S.W., Calgary, Alberta, T2P 4Z4, Attention: Corporate Secretary, Telephone (403) 319-6171.

Updated earnings coverage ratios will be filed by CPRL quarterly with the applicable securities regulatory authorities, including the SEC, either as prospectus supplements or exhibits to CPRL's unaudited interim consolidated financial statements and audited annual consolidated financial statements and will be deemed to be incorporated by reference into this prospectus for the purpose of the offering of the debt securities.

All shelf information permitted under applicable laws to be omitted from this prospectus will be contained in one or more prospectus supplements that will be delivered to purchasers together with this prospectus. Each prospectus supplement containing the specific variable terms of an offering of debt securities will be delivered to purchasers of such debt securities together with this prospectus and will be deemed to be incorporated by reference into this prospectus as of the date of the prospectus supplement only for the purposes of the offering of the debt securities to which the prospectus supplement pertains.

Any statement contained in this prospectus or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such prior statement. Any statement or document so modified or superseded shall not, except to the extent so modified or superseded, be incorporated by reference and constitute a part of this prospectus.

FORWARD-LOOKING STATEMENTS

This prospectus and the documents incorporated by reference herein include "forward-looking information" and "forward-looking statements" within the meaning of securities laws, including the "safe harbour" provisions of the Securities Act (Alberta), the United States Private Securities Litigation Reform Act of 1995, Section 21E of the U.S. Exchange Act and Section 27A of the United States Securities Act of 1933, as amended. All forward-looking information and forward-looking statements are based on our and CPRL's current beliefs as well as assumptions made by and information currently available to us and CPRL. Forward-looking information and forward-looking statements typically contain statements such as "anticipate", "believe", "expect", "plan" or similar words suggesting future outcomes. Forward-looking statements in or incorporated by reference into this prospectus include, but are not limited to, statements with respect to: our and CPRL's revenues and results of operations; our and CPRL's strategic plan; quarterly and seasonal trends; our and CPRL's capital commitments and expenditures; our and CPRL's future cash flows and the availability of other sources of liquidity; interest rates and any hedging programs we or CPRL undertake in respect thereof; fuel prices and any hedging programs we or CPRL undertake in respect

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thereof; the impact of changes in accounting policy; the outcome of contract negotiations (including in respect of government contracts); our and CPRL's pension plan funding and future contributions; the outcome of litigation; the success and cost of environmental initiatives and remediation programs; the success and impact of our and CPRL's restructuring initiatives; and our and CPRL's competitive environment.

By its nature, our and CPRL's forward-looking information involves numerous assumptions, inherent risks and uncertainties, including but not limited to the following factors:

— changes in business strategies;

— general North American and global economic and business conditions;

— the availability and price of energy commodities;

— the effects of competition and pricing pressures;

— industry capacity;

— shifts in market demands;

— changes in laws and regulations, including regulation of rates;

— changes in taxes and tax rates;

— potential increases in maintenance and operating costs;

— uncertainties of litigation;

— labour disputes;

— risks and liabilities arising from derailments;

— timing of completion of capital and maintenance projects;

— currency and interest rate fluctuations;

— effects of changes in market conditions on the financial position of pension plans and liquidity of investments;

— various events that could disrupt operations, including severe weather conditions;

— security threats and governmental response to them; and

— technological changes.

The risks and uncertainties of our and CPRL's business, including those discussed above and incorporated by reference into this prospectus and as described under "Risk Factors" and elsewhere herein, could cause our and CPRL's actual results and experience to differ materially from the anticipated results or other expectations expressed. In addition, we base forward-looking information and forward-looking statements on assumptions about future events, which may not prove to be accurate.

In light of these risks, uncertainties and assumptions, prospective investors should not place undue reliance on forward-looking information and forward-looking statements and should be aware that events described in the forward-looking information and forward-looking statements set out in this prospectus and the documents incorporated by reference into this prospectus may not occur.

We cannot assure prospective investors that our future results, levels of activity and achievements will occur as we expect, and neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking information and forward-looking statements. Except as required by law, we have no obligation or intention to update or revise any forward-looking information or forward-looking statement, whether as a result of new information, future events or otherwise.

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CANADIAN PACIFIC RAILWAY COMPANY

We are one of Canada's oldest corporations and were North America's first transcontinental railway. From our inception over 125 years ago, we have developed into a fully integrated and technologically advanced Class I railway (a railway earning a minimum of US$378.8 million in revenues annually) providing rail and intermodal freight transportation services over a 14,700 mile network serving the principal business centres of Canada, from Montreal, Quebec, to Vancouver, B.C., and the U.S. Midwest and Northeast regions. We are a wholly-owned subsidiary of CPRL. Our head office and registered office is located at Suite 500, 401 - 9th Avenue S.W., Calgary, Alberta, T2P 4Z4.

USE OF PROCEEDS

Unless otherwise indicated in an applicable prospectus supplement relating to a series of debt securities, we will use the net proceeds we receive from the sale of the debt securities for general corporate purposes, which may include financing our capital expenditure program and working capital requirements. We may also use such proceeds for the repayment of indebtedness or to provide funding to CPRL for its general corporate purposes. The amount of net proceeds to be used for any such purpose will be set forth in the applicable prospectus supplement. We may, from time to time, issue debt instruments and incur additional indebtedness other than through the issue of debt securities pursuant to this prospectus.

DESCRIPTION OF DEBT SECURITIES

In this section only, "we", "us" or "our" refer only to Canadian Pacific Railway Company without any of its subsidiaries through which it operates.

The following description sets forth certain general terms and provisions of the debt securities. The particular terms and provisions of the series of debt securities offered by any prospectus supplement, and the extent to which the general terms and provisions described below may apply thereto, will be described in the applicable prospectus supplement, which may provide information that is different from this prospectus.

The debt securities will be issued under a trust indenture (the "Indenture") dated May 8, 2007 entered into between us and The Bank of New York, as trustee (the "Trustee"). The form of the Indenture has been filed with the SEC. Debt securities may also be issued under new indentures between us and a trustee or trustees as will be discussed in a prospectus supplement for such debt securities. The following statements with respect to the Indenture and the Securities (as hereinafter defined) are brief summaries of the material provisions of the Indenture. However, it is the Indenture, and not this summary, that governs your rights as a holder of the Securities. Wherever particular sections or defined terms of the Indenture are referred to, these sections or defined terms are incorporated herein by reference as part of the statement made, and the statement is qualified in its entirety by this reference. The term "Securities", as used under this caption, refers to all securities issued under the Indenture, including the debt securities. Prospective investors should rely on information in the applicable prospectus supplement if it is different from the following information.

General

The Indenture does not limit the aggregate principal amount of Securities (which may include debentures, notes and other evidences of indebtedness) which may be issued thereunder, and Securities may be issued thereunder from time to time in one or more series and may be denominated and payable in foreign currencies. The Securities offered pursuant to this prospectus will be issued in an amount up to US$1,500,000,000 or the equivalent in other currency or units based on other foreign currencies. The Indenture also permits us to increase the principal amount of any series of Securities previously issued and to issue that increased principal amount.

The applicable prospectus supplement will set forth certain terms relating to the debt securities offered thereby (the "Offered Securities"), including the following:

— the specific designation of the Offered Securities;

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— any limit on the aggregate principal amount of the Offered Securities;

— the extent and manner, if any, to which payment on or in respect of the Offered Securities will be senior or will be subordinated to the prior payment of our other liabilities and obligations;

— the percentage or percentages of principal amount at which the Offered Securities will be issued;

— the date or dates, if any, on which the Offered Securities will mature and the portion (if less than all of the principal amount) of the Offered Securities to be payable upon declaration of acceleration of maturity;

— the rate or rates (which may be fixed or variable) at which the Offered Securities will bear interest, if any, the date or dates from which that interest will accrue and on which that interest will be payable and the regular record dates for any interest payable on the Offered Securities;

— any mandatory or optional redemption or sinking fund provisions, including the period or periods within which, the price or prices at which and the terms and conditions upon which the Offered Securities may be redeemed or purchased at our option or otherwise;

— whether the Offered Securities will be issuable in registered form or bearer form or both, and, if issuable in bearer form, the restrictions as to the offer, sale and delivery of the Offered Securities in bearer form and as to exchanges between registered and bearer form;

— whether the Offered Securities will be issuable in the form of one or more global securities and, if so, the identity of the depository for those global securities;

— the denominations in which any of the Offered Securities which are in registered form will be issuable, if other than denominations of US$1,000 and any multiple thereof, and the denominations in which any of the Offered Securities which are in bearer form will be issuable, if other than the denomination of US$1,000;

— each office or agency where the principal of and any premium and interest on the Offered Securities will be payable, and each office or agency where the Offered Securities may be presented for registration of transfer or exchange;

336,229 Consulting fees 267,613 92,000 Sales taxes 55,738 56,284 Clinical study obligations 17,700 — Personnel related obligations 5,005 15,548 Other 218,164 105,422 $1,342,150 $1,055,483

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 $7,503. 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 June 30, 2016. 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 June 30, 2016 Using		
	June 30, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents	$ 7,489,683	$ 7,489,683	$ —	$ —
Total	$ 7,489,683	$ 7,489,683	$ —	—
Liabilities:				
Common stock warrants	$ 108,678	$ —	$ —	$ 108,678
Total	$ 108,678	$ —	$ —	$ 108,678

Due to the lack of market quotes relating to our common stock warrants issued in financings in 2014 and 2013, the fair value of the common stock warrants was determined at June 30, 2016 using the Black-Scholes model, which is based on Level 3 inputs. As of June 30, 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 Black-Scholes model, the Company recorded a common stock warrants liability of $0.1 million at June 30, 2016.

	Black-Scholes Inputs to Warrant Liability Valuation at June 30, 2016					
Warrants:	Stock Price	Exercise Price	Expected Volatility	Risk-Free Interest	Expected Term	Dividends
2014 Offering	$ 1.66	$ 8.16	68.83 %	0.71 %	3yr 0mo	none
2013 Offering	$ 1.66	$ 8.00	62.03 %	0.57 %	1yr 11mo	none

The following table provides a summary of changes in the fair value of the Company's Level 3 financial liabilities between December 31, 2015 and June 30, 2016.

	2014 Offering	2013 Offering	Total
Balance at December 31, 2015	$ 227,992	$ 52,311	$ 280,303
Change in fair value of warrant liability	(129,887)	(41,738)	(171,625)
Balance at June 30, 2016	$ 98,105	$ 10,573	$ 108,678

		Fair Value Measurements at December 31, 2015 Using		
	December 31, 2015	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets:				
Cash equivalents	$ 1,865,498	$ 1,865,498	$ —	$ —
Total	$ 1,865,498	$ 1,865,498	$ —	$ —
Liabilities:				
Common stock warrants	$ 280,303	$ —	$ —	$ 280,303
Total	$ 280,303	$ —	$ —	$ 280,303

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, 2015 using the Black-Scholes model, which is based on Level 3 inputs. As of December 31, 2015, 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 Black-Scholes model, the Company recorded a common stock warrants liability of $0.3 million at December 31, 2015.

Black-Scholes Inputs to Warrant Liability Valuation at December 31, 2015

Warrants:	Stock Price	Exercise Price	Expected Volatility	Risk-Free Interest	Expected Term	Dividends
2014 Offering	$ 1.98	$ 8.16	73.39 %	1.42 %	3yr 6mo	none
2013 Offering	$ 1.98	$ 8.00	70.42 %	1.17 %	2yr 5mo	none

8. Credit Facility

The Company is party to a Loan and Security Agreement, as amended (the “Credit Facility”), with a bank. As of June 30, 2016 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 January 14, 2016 and expires on January 15, 2017. 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 June 30, 2016, the Company was in compliance with these covenants and had not borrowed any funds under the Credit Facility. However, $499,481 of the amount under the Credit Facility is restricted to support letters of credit issued in favor of our facilities landlords and a materials component supplier. Consequently, the amount available for borrowing under the Credit Facility as of June 30, 2016 was approximately $2.0 million.

9. Stockholders' Equity

Preferred stock and convertible preferred stock consist of the following:

	June 30, 2016	December 31, 2015
Preferred stock, $0.001 par value; 5,000,000 shares authorized at June 30, 2016 and December 31, 2015; no shares issued and outstanding at June 30, 2016 and December 31, 2015	$ —	$ —
Series B convertible preferred stock, $0.001 par value, 147,000 shares designated at June 30, 2016 and December 31, 2015, and 500 and 7,146 shares issued and outstanding at June 30, 2016 and December 31, 2015, respectively	1	7
Series C convertible preferred stock, $0.001 par value, 13,800 shares designated at June 30, 2016 and December 31, 2015, and zero and 13,800 shares issued and outstanding at June 30, 2016 and December 31, 2015, respectively	—	14
Series D convertible preferred stock, $0.001 par value, 21,300 and zero shares designated at June 30, 2016 and December 31, 2015, respectively, and 20,361.400 and zero shares issued and outstanding at June 30, 2016 and December 31, 2015, respectively	20	—

Private and Public Offerings of Common Stock and Warrants

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 11,800,554 shares of common stock, par value $0.0001 per share (the "Common Stock"), at an exercise price of $1.69 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 the December 2015 Offering 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.

Each share of Series D Preferred Stock had 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 $1.805, which is subject to adjustment as provided in the Certificate of Designation for the Series D Preferred Stock. The Series D 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 Series D Preferred Stock and as required by law.

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 retained earnings 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. During the second quarter of 2016, 938.6 shares of the Series D Preferred Stock were converted into a total of 520,000 shares of common stock. As of June 30, 2016, 20,361.4 shares of Series D Preferred Stock remained outstanding.

In May 2015, the Company completed an underwritten public offering (the “May 2015 Offering”) of (i) 147,000 shares of Series B Preferred Stock at a price of $100 per share, and (ii) five year warrants to purchase up to 3,638,250 shares of common stock with an exercise price of $5.00 per share. The May 2015 Offering resulted in approximately $14.7 million in gross proceeds, before deducting underwriting discounts and commission and expenses. In conjunction with the May 2015 Offering, approximately $3.2 million of the proceeds were used to repurchase the outstanding Series A-4 preferred shares from the 2014 Offering. Net proceeds from the May 2015 Offering, after deducting underwriting discount and commissions and offering expenses and repurchase of outstanding Series A-4 preferred shares, were approximately $10.1 million.

The terms and conditions of the Series B Preferred Stock were evaluated based on the guidance of the Derivatives and Hedging topic of the Codification to determine if the conversion feature was an embedded derivative requiring bifurcation. It was concluded that bifurcation was not required because the conversion feature was clearly and closely related to the Series B Preferred Stock. The conversion price at which shares of Series B Preferred Stock were convertible into shares of common stock was determined to be lower than the fair value of common stock at the date of entering into the agreement with the underwriter. This “in-the-money” beneficial conversion feature, or BCF, required separate recognition and measurement of its intrinsic value (i.e., the amount of the increase in value that holders of Series B Preferred Stock would realize upon conversion based on the value of the conversion shares on the date of the underwriting agreement). Because there was not a stated redemption date for the shares of Series B Preferred Stock, the BCF was recognized as a deemed dividend attributable to the Series B Preferred Stock and reflected as an adjustment in the calculation of earnings per share. The amount of the BCF totaled $4,140,446 for the May 2015 Offering.

The Company determined that equity classification was appropriate for the warrants in the June 2016 Offering, following guidance in the Derivatives and Hedging topic of the Codification. In making this equity classification determination, the Company noted the warrants had no requirements to be settled in registered shares when exercised. The fair value of the 5 year warrants issued in connection with the June 2016 Offering was estimated to be $14.6 million on the offering date using a Black-Scholes model with the following assumptions: stock price of $1.99, exercise price of $1.69, expected volatility of 71.5%, risk free interest rate of 1.23%, expected term of five years, and no dividends.

In March 2016, the Company issued an aggregate of 178,079 shares of fully vested common stock with a value of $318,761 in partial settlement of 2015 management incentive compensation. The shares issued reflected the $1.79 closing price of the Company’s common stock as reported on the NASDAQ Capital Market on March 9, 2016. The 2015 issuance to settle the 2014 management incentive compensation totaled 41,601 shares with a value of $281,757 reflecting the $6.72 NASDAQ Capital Market closing price on March 13, 2015.

Total compensation cost related to nonvested awards not yet recognized at June 30, 2016 was $188,917. The total compensation costs are expected to be recognized over a weighted-average period of 2.3 years.

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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 Forward-Looking 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 an innovative health-care company that develops wearable medical technology and point-of-care tests that help patients and physicians better manage chronic pain, nerve diseases, and sleep disorders. 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 after-market 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 3 months 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.

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 made commercially available in the United States during the second quarter of 2015. Following commercial launch through June 30, 2016, approximately 33,135 Quell devices plus electrodes and accessories were shipped to customers with a total invoiced value of $7.3 million, prior to the impact of product returns. Quell utilizes OptiTherapy®, our proprietary non-invasive 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 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 and automatically track their pain therapy. Quell is distributed in the United States via e-commerce, direct response TV, specialty catalogs, and beginning in the second quarter of 2016, retail mass merchandisers. We believe there are significant opportunities to market Quell outside of the United States, particularly in Western Europe, Japan and China; however, we do not intend to approach those markets until we have established a solid presence in the United States.

DPNCheck, our diagnostic test for peripheral neuropathies, was made commercially available in the fourth quarter of 2011. DPNCheck revenues for fiscal years 2015, 2014, and 2013 were approximately $2.3 million, $1.8 million, and $1.3 million, respectively. DPNCheck revenues for the six months ended June 30, 2016 were approximately $0.9 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. Commercial opportunities outside the United States are developing, including in Japan where DPNCheck is distributed by Omron Healthcare and in Mexico where DPNCheck is distributed by Scienta Farma. In the first quarter of 2016 we received regulatory approval in China where we plan to launch DPNCheck with Omron Healthcare in late 2016. 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 devices 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 the ADVANCE system. Our recent products, Quell, SENSUS 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 June 30, 2016 and 2015

Revenues

The following table summarizes our revenues:

	Quarters Ended June 30,			
	2016	2015	Change	% Change
	(in thousands)			
Revenues	$2,647.4	$1,225.0	$1,422.4	116.1 %

Revenues include sales from Quell, SENSUS, DPNCheck and our legacy ADVANCE neurodiagnostics business. Quell was made commercially available during the second quarter of 2015.

During the second quarter of 2016 revenues increased by $1.4 million, or 116.1%, from the second quarter of 2015. Quell revenues of approximately $1.7 million were the largest contributor to revenue growth. During the second quarter of 2016, 11,201 Quell devices and 9,676 electrode reorder packages with a total invoiced value of approximately $2.5 million were shipped to Quell customers. Approximately $1.0 million of these invoiced Quell shipments were made into distribution channels where unsold product may be returned to us. Accordingly, revenue of $1.0 million was deferred at the end of the second quarter of 2016. In addition, approximately $0.5 million in invoiced value of Quell shipments has been excluded from revenue in order to provide for actual and estimated product returns by customers under our right-of-return policy. This represents a Quell return rate of approximately 26% which is consistent with our expectations. In addition, approximately $0.6 million of Quell invoiced value deferred in prior periods has been recognized in revenue in the second quarter of 2016. Quell revenues were approximately $24,000 in the second quarter of 2015.

SENSUS, our prescription wearable device, posted shipments of 104 SENSUS devices and 1,183 electrode reorder packages with total revenue of approximately $27,000 in the second quarter of 2016. This is in comparison to 648 SENSUS devices and 5,849 electrode reorder packages, which amounted to approximately $149,000 in revenue in the second quarter of 2015. The decline in SENSUS revenue reflects stress in the durable medical equipment distribution channel from the Medicare competitive bidding initiative, as well as sales encroachment from Quell. We believe SENSUS will have a limited impact on future revenues.

There were 96 DPNCheck devices plus 32,875 electrodes shipped with revenue of approximately $0.5 million in the second quarter of 2016 as compared to 128 DPNCheck devices and 28,525 electrodes with approximately $0.4 million in revenue in the second quarter of 2015.

Revenues also include sales from our ADVANCE neurodiagnostic products totaling approximately $0.5 million in the second quarter of 2016, as compared to approximately $0.6 million in the second quarter of 2015. The decline in ADVANCE revenue continues the historical trend for this product line, which has limited direct operating expenses and which we manage for cash flow.

Cost of Revenues and Gross Profit

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

	Quarters Ended June 30,				
	2016	2015	Change	% Change	
	(in thousands)				
Cost of revenues	$1,572.4	$595.0	$977.4	164.3	%
Gross profit	$1,075.1	$630.0	$445.1	70.7	%

Our cost of revenues increased to $1.6 million in the second quarter of 2016 as compared to $0.6 million in the second quarter of 2015. Gross margin decreased to 40.6% in the second quarter of 2016 from 51.4% in the second quarter of 2015. The contraction in gross margin conforms to the early stages of our plan for building a business with a high level of recurring revenue from an installed product base of medical devices. It reflects two factors: growing Quell sales which are heavily weighted toward lower margin devices rather than higher margin electrodes, and operating costs of our new manufacturing facility. As we build our installed base of Quell users we expect recurring electrode sales at higher margins. Also, we expect continued growth in Quell sales to improve manufacturing cost absorption, contributing to margin gains.

Operating Expenses

The following table presents a breakdown of our operating expenses:

	Quarters Ended June 30,				
	2016	2015	Change	% Change	
	(in thousands)				
Operating expenses:					
Research and development	$1,127.8	$982.3	$145.5	14.8	%
Sales and marketing	2,832.3	1,762.3	1,070.0	60.7	%
General and administrative	1,292.3	1,224.8	67.5	5.5	%
Total operating expenses	$5,252.4	$3,969.4	$1,283.0	32.3	%

Research and Development

Research and development expenses for the quarters ended June 30, 2016 and 2015 were $1.1 million and $1.0 million, respectively. The increase of $0.1 million relates primarily to Quell which was launched in the second quarter of 2015 and reflects increased spending of approximately $0.2 million on outside engineering support for product design innovation.

Sales and Marketing

Sales and marketing expenses increased to $2.8 million for the quarter ended June 30, 2016 from $1.8 million for the quarter ended June 30, 2015. The $1.1 million increase in spending was primarily attributable to Quell which was launched in the second quarter of 2015. Spending to build product awareness was responsible for the majority of the increase with approximately $1.1 million attributable to product promotion through TV advertising, on-line advertising and paid search. These increases were partially offset by sales and marketing headcount-related cost reductions of approximately $0.2 million from the second quarter of 2015 as compared to the second quarter of 2016.

General and Administrative

General and administrative expenses increased by $0.1 million to $1.3 million for the quarter ended June 30, 2016 compared to the quarter ended June 30, 2015. This increase was attributable to an increase of approximately $62,000 in credit card processing fees.

Change in fair value of warrant liability

The change in fair value of warrant liability of approximately $0.1 million relates to the revaluation of warrants from the fair value of $0.2 million estimated at March 31, 2016 to $0.1 million at June 30, 2016. A Black-Scholes model is utilized in calculating the fair value of the warrant liability. The lower fair value at June 30, 2016 reflects our lower stock price at June 30, 2016 compared to March 31, 2016, as well as the shorter remaining term of the warrants. In comparison, the change in fair value of warrant liability of $2.1 million for the second quarter of 2015 relates to the revaluation of warrants from $4.1 million at March 31, 2015 to $1.0 million at June 30, 2015, plus the effects of the forfeiture of warrants in connection with the repurchase of Series A-4 Preferred Stock (see Note 9 to the financial statements).

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 $5.37 and $2.07 for the quarters ended June 30, 2016 and 2015, respectively.

Net loss per common share applicable to common stockholders for the quarter ended June 30, 2016 of $5.37 included a deemed dividend attributable to preferred stockholders in connection with preferred stock modifications of $19.8 million, or $4.45 per share, related to our June 2016 Offering; and our net loss reported in our Statement of Operations for the quarter ended June 30, 2016 of $4.1 million, or $0.92 per share. The above per share amounts are calculated using 4,456,712 weighted average shares outstanding as of June 30, 2016.

Net loss per common share applicable to common stockholders the quarter ended June 30, 2015 of $2.07 included a deemed dividend attributable to preferred stockholders in connection with beneficial conversion features of $4.1 million, or $1.81 per share, related to our May 2015 Offering; a return of capital to common shareholders attributable to the repurchase of preferred shares and related embedded beneficial conversion of $0.6 million, or $0.26 per share, related to our May 2015 Offering; and our net loss reported in our Statement of Operations for the quarter ended June 30, 2015 of $1.2 million, or $0.52 per share. The above per share amounts are calculated using 2,297,308 weighted average shares outstanding as of June 30, 2015.

Comparison of Six Months Ended June 30, 2016 and 2015

Revenues

The following table summarizes our revenues:

	Six Months Ended June 30,				
	2016	2015	Change	% Change	
	(in thousands)				
Revenues	$4,922.7	$2,507.9	$2,414.8	96.3	%

Revenues include sales from Quell, SENSUS, DPNCheck and our legacy ADVANCE neurodiagnostics business. Quell was made commercially available during the second quarter of 2015.

During the six months ended June 30, 2016 revenues increased by $2.4 million, or 96.3%, from the same period of 2015. Quell revenues of approximately $2.8 million were the largest contributor to revenue growth. During the six months ended June 30, 2016, 19,339 Quell devices and 17,578 electrode reorder packages with a total invoiced value of approximately $4.3 million were shipped to Quell customers. Approximately $1.0 million of these invoiced Quell shipments were made into distribution channels where unsold product may be returned to us. Accordingly, revenue of $1.0 million was deferred at June 30, 2016. In addition, approximately $0.9 million in invoiced value of Quell shipments has been excluded from revenue in order to provide for actual and estimated product returns by customers under our right-of-return policy. This represents a Quell return rate of approximately 26% which is consistent with our expectations. In addition, approximately $0.5 million of Quell invoiced value deferred in prior periods has been recognized in revenue in the six months ended June 30, 2016. Quell revenues were approximately $24,000 in the six months ended June 30, 2015.

SENSUS, our prescription wearable device, posted shipments of 290 SENSUS devices and 3,221 electrode reorder packages with total revenue of approximately $67,000 in the six months ended June 30, 2016. This is in comparison to 1,672 SENSUS devices and 11,331 electrode reorder packages, which amounted to approximately $325,000 in revenue in the same period of 2015. The decline in SENSUS revenue reflects stress in the durable medical equipment distribution channel from the Medicare competitive bidding initiative, as well as sales encroachment from Quell. We believe SENSUS will have a limited impact on future revenues.

There were 181 DPNCheck devices plus 67,900 electrodes shipped with revenue of approximately $0.9 million in the six months ended June 30, 2016 as compared to 225 DPNCheck devices and 65,200 electrodes with approximately $0.9 million in revenue in the same period of 2015.

Revenues also include sales from our ADVANCE neurodiagnostic products totaling approximately $1.1 million in the six months ended June 30, 2016, as compared to approximately $1.2 million in the same period of 2015. The decline in ADVANCE revenue continues the historical trend for this product line, which has limited direct operating expenses and which we manage for cash flow.

Cost of Revenues and Gross Profit

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

	Six Months Ended June 30,			
	2016	2015	Change	% Change
	(in thousands)			
Cost of revenues	$3,054.9	$1,232.3	$1,822.6	147.9 %
Gross profit	$1,867.8	$1,275.7	$592.1	46.4 %

Our cost of revenues increased to $3.1 million in the six months ended June 30, 2016 as compared to $1.2 million in the same period of 2015. Gross margin decreased to 37.9% in the six months ended June 30, 2016 from 50.9% in the same period of 2015. The contraction in gross margin conforms to the early stages of our plan for building a business with a high level of recurring revenue from an installed product base of medical devices. It reflects two factors: growing Quell sales which are heavily weighted toward lower margin devices rather than higher margin electrodes, and operating costs of our new manufacturing facility. As we build our installed base of Quell users we expect recurring electrode sales at higher margins. Also, we expect continued growth in Quell sales to improve manufacturing cost absorption, contributing to margin gains.

Operating Expenses

The following table presents a breakdown of our operating expenses:

	Six Months Ended June 30,			
	2016	2015	Change	% Change
	(in thousands)			
Operating expenses:				
Research and development	$2,284.6	$1,884.8	$399.8	21.2 %
Sales and marketing	5,240.2	3,218.0	2,022.2	62.8 %
General and administrative	2,716.6	2,770.9	(54.3)	(2.0)%
Total operating expenses	$10,241.4	$7,873.7	$2,367.7	30.1 %

Research and Development

Research and development expenses for the six months ended June 30, 2016 and 2015 were $2.3 million and $1.9 million, respectively. The increase of $0.4 million relates primarily to Quell which was launched in the second quarter of 2015 and reflects increased spending of approximately $0.4 million on outside engineering support for product design innovation.

Sales and Marketing

Sales and marketing expenses increased to $5.2 million for the six months ended June 30, 2016 from $3.2 million for the quarter ended June 30, 2015. The $2.0 million increase in spending was primarily attributable to Quell which was launched in the second quarter of 2015. Sales and marketing headcount-related costs contributed $0.1 million of the increase for the six months ended June 30, 2016 as compared to the same period of 2015. Spending to build product awareness was responsible for the majority of the increase with approximately $1.7 million attributable to TV advertising, on-line advertising and paid search.

General and Administrative

General and administrative expenses decreased by $0.1 million to $2.7 million for the six months ended June 30, 2016 compared to the same period of 2015. This decrease was attributable to a reduction of approximately $84,000 in scientific advisory board fees.

Change in fair value of warrant liability

The change in fair value of warrant liability of $0.2 million relates to the revaluation of warrants from the fair value of $0.3 million estimated at December 31, 2015 to $0.1 million at June 30, 2016. A Black-Scholes model is utilized in calculating the fair value of the warrant liability. The lower fair value at June 30, 2016 reflects our lower stock price at June 30, 2016 compared to December 31, 2015, as well as the shorter remaining term of the warrants. In comparison, the change in fair value of warrant liability of $3.3 million for the six months ended June 30, 2015 relates to the revaluation of warrants from $5.3 million at December 31, 2014 to $1.0 million at June 30, 2015, plus the effects of the forfeiture of warrants in connection with the repurchase of Series A-4 Preferred Stock (see Note 9 to the financial statements).

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 $6.56 and $3.13 for the six months ended June 30, 2016 and 2015, respectively.

Net loss per common share applicable to common stockholders for the six months ended June 30, 2016 of $6.56 included a deemed dividend attributable to preferred stockholders in connection with preferred stock modifications of $19.8 million, or $4.64 per share, related to our June 2016 Offering; and our net loss reported in our Statement of Operations for the six months ended June 30, 2016 of $8.2 million, or $1.92 per share. The above per share amounts are calculated using 4,273,535 weighted average shares outstanding as of June 30, 2016.

Net loss per common share applicable to common stockholders for the six months ended June 30, 2015 of $3.13 included a deemed dividend attributable to preferred stockholders in connection with beneficial conversion features of $4.1 million, or $1.90 per share, related to our May 2015 Offering; a return of capital to common shareholders attributable to the repurchase of preferred shares and related embedded beneficial conversion of $0.6 million, or $0.27 per share, related to our May 2015 Offering; and our net loss reported in our Statement of Operations for the six months ended June 30, 2015 of $3.3 million, or $1.50 per share. The above per share amounts are calculated using 2,183,546 weighted average number of shares outstanding as of June 30, 2015.

Liquidity and Capital Resources

Our principal source of liquidity is our cash and cash equivalents. As of June 30, 2016, cash and cash equivalents totaled $11.3 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 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:

	June 30, 2016	December 31, 2015	Change	% Change
	($ in thousands)			
Cash and cash equivalents	$11,330.9	$ 12,462.9	$(1,132.0)	(9.1)%

In order to supplement our access to capital, we are party to the Credit Facility with a bank which provides us with a credit facility in the amount of $2.5 million on a revolving basis. The Credit Facility expires on January 15, 2017. 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 also includes traditional lending and reporting covenants. These include certain financial covenants applicable to liquidity that are to be maintained by us. As of June 30, 2016, we were in compliance with these covenants and had not borrowed any funds under the credit facility. However, approximately $0.5 million of the amount under the Credit Facility is restricted to support letters of credit issued in favor of our facilities landlords and a materials component supplier. Consequently, the amount available for borrowing under the Credit Facility as of June 30, 2016 was approximately $2.0 million

During the six months ended June 30, 2015, our cash and cash equivalents decreased by $1.1 million reflecting the offsetting effects of $6.7 million in net proceeds from the June 2016 Offering and the ongoing net cash usage for business operations which totaled $7.9 million.

In managing our working capital, we monitor days sales outstanding and inventory turnover rate, which are presented in the table below:

	Quarters Ended June 30, 2016	2015	Year Ended December 31, 2015
Days sales outstanding (days)	14	30	27
Inventory turnover rate (times per year)	4.9	3.9	5.9

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

	Quarters Ended June 30, 2016	2015
	(in thousands)	
Net cash used in operating activities	$(7,795.5)	$(6,189.9)
Net cash used in investing activities	(55.8)	(503.0)
Net cash provided by financing activities	6,719.3	10,110.0

Our net cash used in operating activities was $7.8 million for the six months ended June 30, 2015 primarily attributable to our net loss of $8.2 million. This loss included non-cash credits of approximately $0.2 million for revaluing outstanding warrants at fair value. In addition, operating activities included decreases in accounts receivable of $0.3 million, increases in accrued expenses and compensation of $0.2 million, partially offset by decreases in accounts payable of $0.4 million.

Following the June 2016 Offering, we had 28.2 million warrants outstanding with a weighted average exercise price of $2.76 per common share. Of these, 10.8 million warrants had an exercise price of $2.30 per common share, totaling $24.9 million and 11.8 million warrants had an exercise price of $1.69 per common share, totaling $19.9 million.

We held cash and cash equivalents of $11.3 million as of June 30, 2016. We believe that these resources and the cash to be generated from expected product sales will be sufficient to meet our projected operating requirements into the first quarter of 2017. 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 and the uncertainty of future revenues from new 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 affecting our existing products and products under development; (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 first quarter of 2017 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 to increase the funds available to fund operations. However, we may not be able to secure such financing in a timely manner or on favorable terms, if at all. We have filed a shelf registration statement on Form S-3 with 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 the instructions to Form S-3, 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 June 30, 2016, 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 FASB issued Accounting Standards Update No. 2016-02, *Leases (Topic 842)*. ASU 2016-02 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 2016-02 will have on the Company's Financial Statements.

In August 2014, the FASB issued Accounting Standards Update No. 2014-15, *Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern (*ASU 2014-15). ASU 2014-15 requires management to assess an entity's ability to continue as a going concern, and to provide related footnote disclosures in certain circumstances. The standard is effective for public entities for annual and interim periods beginning after December 15, 2016, with early adoption permitted. The Company is evaluating the provisions of ASU 2014-15 and assessing the impact, if any, it may have on the Company's Financial Statements.

In May 2014, the FASB and the International Accounting Standards Board ("IASB") jointly issued Accounting Standards Update ("ASU") No. 2014-09, *Revenue from Contracts with Customers* ("ASU 2014-09"), a comprehensive new revenue recognition standard that will supersede nearly all existing revenue recognition guidance. The objective of ASU 2014-09 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 2014-09 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. 2016-08*, Revenue from Contracts with Customers: Principal versus Agent Considerations*, 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 2014-09 will have on the Company's Financial Statements or which adoption method will be used.

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,” “i “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 June 30, 2016, 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 June 30, 2016 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, 2015.

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

None.

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.

Date: July 21, 2016	/s/ SHAI N. GOZANI, M.D., PH. D. Shai N. Gozani, M.D., Ph. D. *Chairman, President and Chief Executive Officer*
Date: July 21, 2016	/s/ THOMAS T. HIGGINS Thomas T. Higgins *Senior Vice President, Chief Financial Officer and Treasurer*

EXHIBIT INDEX

Exhibit No.	Description
3.1	Certificate of Designation of Preferences, Rights and Limitations of Series D Convertible Preferred Stock, par value $0.001 per share, dated June 3, 2016.*
4.1	Form of Common Stock Purchase Warrant (June 2016).*
4.2	Amendment No. 6 to Shareholder Rights Agreement, dated June 3, 2016, between NeuroMetrix, Inc. and American Stock Transfer & Trust Company, as Rights Agent.*
10.1	Form of Securities Purchase Agreement by and among NeuroMetrix, Inc. and the purchasers named therein, as amended.*
10.2	Form of Registration Rights Agreement by and among NeuroMetrix, Inc. and the purchasers named therein.*
31.1	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.
31.2	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.
32	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.
101	The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) Balance Sheets at June 30, 2016 and December 31, 2015, (ii) Statements of Operations for the quarters and six months ended June 30, 2016 and 2015, (iii) Statements of Cash Flows for the six months ended June 30, 2016 and 2015, and (iv) Notes to Financial Statements.

*Previously filed with the Current Report on Form 8-K filed on June 3, 2016.