PROSPECTUS SUPPLEMENT NO. 11
(to Prospectus dated July 7, 2017)

Filed Pursuant to Rule 424(b)(3)
Registration No. 333-218960

MRI Interventions, Inc.

13,807,533 Shares of Common Stock

This prospectus supplement relates to the prospectus dated July 7, 2017, as supplemented by prospectus supplement no. 1 dated August 11, 2017, prospectus supplement no. 2 dated August 18, 2017, prospectus supplement no. 3 dated September 5, 2017, prospectus supplement no. 4 dated October 3, 2017, prospectus supplement no. 5 dated October 10, 2017, prospectus supplement no. 6 dated November 6, 2017, prospectus supplement no. 7 dated November 7, 2017, prospectus supplement no. 8 dated December 14, 2017, prospectus no. 9 dated March 21, 2018 and prospectus no. 10 dated April 30, 2018, which permits the resale of up to 6,693,333 outstanding shares of our common stock and 7,114,200 shares of our common stock issuable upon the exercise of outstanding warrants, by the selling securityholders identified in the prospectus, as amended and supplemented from time to time. We will pay the expenses of registering the shares of our common stock, but we are not selling any shares of common stock in this offering and therefore will not receive any proceeds from this offering. We will, however, receive the exercise price of the warrants, if and when the warrants are exercised for cash by the securityholders.

This prospectus supplement is being filed to update, amend and supplement the information previously included in the prospectus with the information contained in our Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission (the "SEC") on May 15, 2018 (the "10-Q"). Accordingly, we have attached the 10-Q to this prospectus supplement. You should read this prospectus supplement together with the prospectus, which is to be delivered with this prospectus supplement.

Our common stock is traded in the over-the-counter market and is quoted on the OTCQB Marketplace and the OTC Bulletin Board under the symbol MRIC. On May 14, 2018, the last reported sale price of our common stock was $2.70 per share.

Investing in our common stock involves risk. See "Risk Factors" beginning on page 12 of the prospectus to read about factors you should consider before buying shares of our common stock.

Neither the SEC nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus or this prospectus supplement. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is May 15, 2018.

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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2018

Or

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

For the transition period from_____to _____

Commission file number: 001–34822

MRI Interventions, Inc.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**58– 2394628**
(State or Other Jurisdiction of Incorporation or Organization)	(IRS Employer Identification Number)
5 Musick **Irvine, California** (Address of Principal Executive Offices)	**92618** (Zip Code)

(949) 900 – 6833
(Registrant's Telephone Number, Including Area Code)

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

☒ Yes ☐ No

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

☒ Yes ☐ No

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

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☐	Smaller Reporting Company ☒
(Do not check if smaller reporting company)	Emerging Growth Company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

☐ Yes ☒ No

As of May 1, 2018, there were 10,974,462 shares of common stock outstanding.

MRI INTERVENTIONS, INC.

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Trademarks, Trade Names and Service Marks

ClearPoint®, *ClearTrace*®, *MRI Interventions*® and *SmartFrame*® are trademarks of MRI Interventions, Inc. Any other trademarks, trade names or service marks referred to in this Quarterly Report on Form 10-Q (this "Quarterly Report") are the property of their respective owners. As used in this Quarterly Report, Brainlab refers to Brainlab AG and its affiliates.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report contains "forward-looking statements" as defined under the United States federal securities laws. The forward-looking statements are contained principally in the section of this Quarterly Report entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations." These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about:

- future revenues from sales of ClearPoint system products;
- our ability to market, commercialize and achieve broader market acceptance for our ClearPoint system products; and
- estimates regarding the sufficiency of our cash resources and our ability to obtain additional financing, to the extent necessary or advisable.

In some cases, you can identify forward-looking statements by terms such as "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would," and similar expressions intended to identify forward-looking statements, although not all forward-looking statements contain these words. Although we believe that we have a reasonable basis for each forward-looking statement contained in this Quarterly Report, we caution you that these statements are based on a combination of facts and factors currently known by us and our projections of the future, about which we cannot be certain. You should refer to the section titled "Risk Factors" of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, which we filed with the SEC on March 21, 2018, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by the forward-looking statements contained in this Quarterly Report. As a result of these factors, we cannot assure you that the forward-looking statements in this Quarterly Report will prove to be accurate. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We do not undertake to update any of the forward-looking statements after the date of this Quarterly Report, except to the extent required by applicable securities laws.

PART I – FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

MRI INTERVENTIONS, INC.
Condensed Consolidated Balance Sheets
(Unaudited)

	March 31, 2018	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 7,513,634	$ 9,289,831
Accounts receivable, net	910,109	949,415
Inventory, net	2,532,763	2,314,184
Prepaid expenses and other current assets	153,171	192,727
Total current assets	11,109,677	12,746,157
Property and equipment, net	387,892	267,667
Software license inventory	819,400	871,900
Other assets	31,116	11,641
Total assets	$ 12,348,085	$ 13,897,365
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 654,820	$ 759,445
Accrued compensation	496,436	806,445
Other accrued liabilities	359,270	480,159
Derivative liabilities	29,875	95,786
Deferred service revenue	216,632	256,178
Senior secured note payable	2,000,000	2,000,000
2014 junior secured notes payable, net of unamortized discount and deferred issuance costs of $80,344 at March 31, 2018	1,894,656	-
Total current liabilities	5,651,689	4,398,013
Accrued interest	787,125	752,500
2014 junior secured notes payable, net of unamortized discount and deferred issuance costs of $100,430 at December 31, 2017	-	1,874,570
2010 junior secured notes payable, net of unamortized discount of $1,840,115 and $1,956,458 at March 31, 2018 and December 31, 2017, respectively	1,159,885	1,043,542
Total liabilities	7,598,699	8,068,625
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, $0.01 par value; 25,000,000 shares authorized at March 31, 2018 and December 31, 2017; none issued and outstanding at March 31, 2018 and December 31, 2017	-	-
Common stock, $0.01 par value; 200,000,000 shares authorized; 10,825,896 shares issued and outstanding at March 31, 2018; and 10,693,851 issued and outstanding at December 31, 2017	108,258	106,937
Additional paid-in capital	107,318,162	106,757,920
Accumulated deficit	(102,677,034)	(101,036,117)
Total stockholders' equity	4,749,386	5,828,740
Total liabilities and stockholders' equity	$ 12,348,085	$ 13,897,365

See accompanying notes to Condensed Consolidated Financial Statements.

MRI INTERVENTIONS, INC.
Condensed Consolidated Statements of Operations
(Unaudited)

	For The Three Months Ended March 31,	
	2018	**2017**
Revenues:		
Product revenues	$ 1,538,598	$ 1,922,215
Service and other revenues	84,768	84,857
Total revenues	1,623,366	2,007,072
Cost of revenues	588,967	752,464
Research and development costs	546,328	557,699
Sales and marketing expenses	962,214	1,066,259
General and administrative expenses	952,951	984,270
Operating loss	(1,427,094)	(1,353,620)
Other income (expense):		
Gain (loss) from change in fair value of derivative liabilities	34,443	(93,046)
Other income (expense), net	(794)	4,127
Interest expense, net	(247,472)	(213,199)
Net loss	$ (1,640,917)	$ (1,655,738)
Net loss per share attributable to common stockholders:		
Basic and diluted	$ (0.15)	$ (0.46)
Weighted average shares outstanding:		
Basic and diluted	10,741,618	3,622,032

See accompanying notes to Condensed Consolidated Financial Statements.

MRI INTERVENTIONS, INC.
Condensed Consolidated Statements of Cash Flows
(Unaudited)

	For The Three Months Ended March 31,	
	2018	**2017**
Cash flows from operating activities:		
Net loss	$ (1,640,917)	$ (1,655,738)
Adjustments to reconcile net loss to net cash flows from operating activities:		
Depreciation and amortization	31,623	36,121
Share-based compensation	247,464	206,896
Expenses paid through the issuance of common stock	77,500	-
(Gain) loss from change in fair value of derivative liabilities	(34,443)	93,046
Amortization of debt issuance costs and original issue discounts	136,429	100,622
Increase (decrease) in cash resulting from changes in:		
Accounts receivable	39,306	(143,832)
Inventory, net	(297,280)	(62,043)
Prepaid expenses and other current assets	39,556	39,371
Other assets	(19,475)	(5,659)
Accounts payable and accrued expenses	(500,899)	5,059
Deferred revenue	(39,546)	39,980
Net cash flows from operating activities	(1,960,682)	(1,346,177)
Cash flows from investing activities:		
Purchases of property and equipment	(20,646)	-
Net cash flows from investing activities	(20,646)	-
Cash flows from financing activities:		
Proceeds from warrant exercises	205,131	-
Net cash flows from financing activities	205,131	-
Net change in cash and cash equivalents	(1,776,197)	(1,346,177)
Cash and cash equivalents, beginning of period	9,289,831	3,315,774
Cash and cash equivalents, end of period	$ 7,513,634	$ 1,969,597
SUPPLEMENTAL CASH FLOW INFORMATION		
Cash paid for:		
Income taxes	$ -	$ -
Interest	$ 146,611	$ 146,611

See accompanying notes to Condensed Consolidated Financial Statements.

MRI INTERVENTIONS, INC.
Condensed Consolidated Statements of Cash Flows, continued
(Unaudited)

NON-CASH INVESTING AND FINANCING TRANSACTIONS:

During the three months ended March 31, 2018 and 2017, the Company recorded net transfers of ClearPoint reusable components having an aggregate net book value of $131,201 and $91,405, respectively, from inventory to loaned systems, which are included in property and equipment in the accompanying condensed consolidated balance sheets.

See accompanying notes to Condensed Consolidated Financial Statements.

1. Description of the Business and Liquidity

MRI Interventions, Inc. (the "Company") is a medical device company focused on the development and commercialization of technology that enables physicians to see inside the brain and heart using direct, intra-procedural magnetic resonance imaging ("MRI") guidance while performing minimally invasive surgical procedures. The Company was incorporated in the state of Delaware in March 1998. The Company's principal executive office and principal operations are located in Irvine, California. The Company established MRI Interventions (Canada) Inc., a wholly-owned subsidiary incorporated in Canada, in August 2013. This subsidiary was established primarily for the purpose of performing software development, and its activities are reflected in these condensed consolidated financial statements.

The Company's ClearPoint system, an integrated system comprised of reusable and disposable products, is designed to allow minimally invasive procedures in the brain to be performed in an MRI suite. The Company received 510(k) clearance from the U.S. Food and Drug Administration ("FDA") in 2010 to market the ClearPoint system in the United States for general neurological interventional procedures. The Company's ClearTrace system is a product candidate that is designed to allow catheter-based minimally invasive procedures in the heart to be performed in an MRI suite. Although still a product candidate, the Company has suspended its efforts to commercialize the ClearTrace system.

Liquidity

The Company has incurred net losses since its inception which has resulted in a cumulative deficit at March 31, 2018 of $103 million. Since inception, the Company has financed its operations principally from the sale of equity securities, the issuance of notes payable and license arrangements. As discussed in Note 5, in May 2017, the Company completed a private offering of equity units (the "2017 PIPE") through which the Company received aggregate gross proceeds of approximately $13.25 million, before deducting placement agents' fees and offering expenses aggregating approximately $1.3 million. As a result, the Company's cash and cash equivalent balances at March 31, 2018 aggregated $7.5 million.

The Company's plans for the next twelve months reflect management's anticipation of increases in revenues from sales of the ClearPoint System and related disposable products as a result of greater utilization at existing installed sites and the installation of the ClearPoint System at new sites. Management also anticipates maintaining recurring operating expenses at historical levels, with expected decreases in research and development expenses and general and administrative expenses being offset by increases in selling and marketing expenses associated with the anticipated growth in revenues. However, there is no assurance that the Company will be able to achieve its anticipated results, and even in the event such results are achieved, the Company expects to continue to consume cash in its operations over at least the next twelve months. In addition, as discussed in Note 4, the Company has notes payable with principal aggregating $4.0 million, of which $2.0 million matures in December 2018 and $2.0 million matures in March 2019.

As a result of the foregoing, the Company believes it will be necessary to seek additional sources of funds from the sale of equity or debt securities, which likely would result in dilution to the Company's current stockholders, or from the establishment of a credit facility or the entry into an agreement with a strategic partner or some other form of collaborative relationship. There is no assurance, however, that the Company will be able to obtain such additional financing on commercially reasonable terms, if at all, and there is no assurance that any additional financing that the Company does obtain will be sufficient to meet its needs. If the Company is not able to obtain the additional financing on a timely basis, the Company may be unable to achieve its anticipated results, and the Company may not be able to meet its other obligations as they become due. An inability to obtain a sufficient amount of additional funding would create substantial doubt as to the Company's ability to continue as a going concern.

2. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation and Use of Estimates

In the opinion of management, the accompanying unaudited condensed consolidated financial statements have been prepared on a basis consistent with the Company's December 31, 2017 audited consolidated financial statements, and include all adjustments, consisting of only normal recurring adjustments, necessary to fairly state the information set forth therein. These condensed consolidated financial statements have been prepared in accordance with United States ("U.S.") Securities and Exchange Commission ("SEC") rules for interim financial information, and, therefore, omit certain information and footnote disclosures necessary to present such statements in accordance with generally accepted accounting principles in the U.S. ("GAAP"). The preparation of these condensed consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses and the related disclosures at the date of the financial statements and during the reporting period. Actual results could materially differ from these estimates. These condensed financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2017, which was filed with the SEC on March 21, 2018 (the "2017 Form 10-K"). The accompanying unaudited condensed consolidated balance sheet as of December 31, 2017 has been derived from the audited consolidated financial statements at that date but does not include all information and footnotes required by GAAP for a complete set of financial statements. The results of operations for the three months ended March 31, 2018 may not be indicative of the results to be expected for the entire year or any future periods.

Derivative Liabilities

Derivative liabilities represent the fair value of a conversion feature of a note payable and of certain warrants to purchase common stock (see Note 6). These derivative liabilities are calculated utilizing the Monte Carlo simulation valuation method. Changes in the fair values of these warrants are recognized as other income or expense in the related condensed consolidated statements of operations.

Fair Value Measurements

The Company measures and records certain financial assets and liabilities at fair value on a recurring basis. GAAP provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority, referred to as Level 1, to quoted prices in active markets for identical assets and liabilities. The next priority, referred to as Level 2, is given to quoted prices for similar assets or liabilities in active markets or quoted prices for identical or similar assets or liabilities in markets that are not active; that is, markets in which there are few transactions for the asset or liability, or inputs other than quoted prices that are observable for the asset or liability. The lowest priority, referred to as Level 3, is given to unobservable inputs. The table below reflects the level of the inputs used in the Company's fair value calculations:

	Quoted Prices in Active Markets (Level 1)	Significant Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total Fair Value
March 31, 2018				
Derivative liabilities - warrants	$ -	$ -	$ 15,875	$ 15,875
Derivative liabilities – debt conversion feature	$ -	$ -	$ 14,000	$ 14,000
December 31, 2017				
Derivative liabilities - warrants	$ -	$ -	$ 79,286	$ 79,286
Derivative liabilities – debt conversion feature	$ -	$ -	$ 16,500	$ 16,500

Inputs used in the Company's Level 3 calculation of fair value include the assumed dividend rate on the Company's common stock, risk-free interest rates, stock price volatility and the likelihood of a future equity financing transaction, all of which are further discussed in Note 6.

Carrying amounts of the Company's cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their fair values due to their short maturities.

The table below reflects the carrying values and the estimated fair values, based on Level 3 inputs, of the Company's outstanding notes payable, including the related accrued interest, at March 31, 2018 and December 31, 2017:

	Carrying Values	Estimated Fair Values
March 31, 2018		
Senior secured note payable, including accrued interest	$ 2,027,500	$ 2,027,500
2014 junior secured notes payable, including accrued interest	$ 1,903,031	$ 1,983,375
2010 junior secured notes payable, including accrued interest	$ 1,938,635	$ 3,778,750
December 31, 2017		
Senior secured note payable, including accrued interest	$ 2,028,111	$ 2,028,111
2014 junior secured notes payable, including accrued interest	$ 1,942,195	$ 2,042,625
2010 junior secured notes payable, including accrued interest	$ 1,796,042	$ 3,752,500

Inventory

Inventory is carried at the lower of cost (first-in, first-out method) or net realizable value. Items in inventory relate predominantly to the Company's ClearPoint system. Software license inventory related to ClearPoint systems undergoing on-site customer evaluation at either March 31, 2018 or December 31, 2017 is included in inventory in the accompanying condensed consolidated balance sheets as of those respective dates. All other software license inventory is classified as a non-current asset. The Company periodically reviews its inventory for obsolete items and provides a reserve upon identification of potential obsolete items.

Revenue Recognition / Recently Adopted Accounting Pronouncement

Effective January 1, 2018, the Company adopted the provisions of Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers," which, with subsequent amendments thereto, created a new Topic 606 within the Accounting Standards Codification ("ASC"). Topic 606 is principle-based and provides a five-step model to determine when and how revenue is recognized. The core principle is that an entity should 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. Prior to adoption, the Company assessed the impact of Topic 606 and determined that adoption would not have a material effect on its consolidated financial statements. The Company adopted Topic 606 in conformity with its provisions on January 1, 2018 under the modified retrospective method.

The Company's revenues are comprised of: (1) product revenues resulting from the sale of functional neurological products, and drug delivery and biologic products; (2) product revenues resulting from the sale of ClearPoint capital equipment; and (3) revenues resulting from the rental, service, installation, training and shipping related to ClearPoint capital equipment. The Company recognizes revenue when control of the Company's products and services is transferred to its customers in an amount that reflects the consideration the Company expects to receive from its customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract, and recognizing revenue when the performance obligations have been satisfied. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. The Company considers a performance obligation satisfied once it has transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The Company recognizes revenue for satisfied performance obligations only when it determines there are no uncertainties regarding payment terms or transfer of control.

- *Sales of functional neurology products, and biologics and drug delivery systems products*: Revenues from the sale of functional neurology products (consisting of disposable products sold commercially and related to cases utilizing the Company's ClearPoint system), and biologics and drug delivery systems (consisting primarily of disposable products related to customer-sponsored clinical trials utilizing the ClearPoint system), are recognized at the time risk of loss passes to the customer, which is generally upon delivery to the customer's location.

- *Sales of capital equipment*: The predominance of capital equipment sales (consisting of integrated computer hardware and software that are integral components of the Company's ClearPoint system) are preceded by customer evaluation periods of generally 90 days. During these evaluation periods, installation of, and training of customer personnel on, the systems have been completed and the systems have been in operation. Accordingly, capital equipment sales following such evaluation periods are recognized upon receipt of an executed purchase agreement or purchase order that provide for risk of loss to pass to the customer. Sales of capital equipment not having been preceded by an evaluation period are recognized on an individual agreement basis as described above.

- *Rental, service and other revenues:* Revenues from rental of ClearPoint capital equipment are recognized over the term of the rental agreement, which is less than one year. Revenues from service of ClearPoint capital equipment previously sold to customers are based on agreements with terms ranging from one to three years. Typically, the Company bills and collects service fees at the inception of the agreement and recognizes revenue ratably over the term of the related service agreement. Service fees billed, collected and unearned are classified as deferred service revenue in the accompanying condensed consolidated statements of operations. Other revenues consist primarily of installation, training and shipping fees in connection with sales of ClearPoint capital equipment and are recognized as the related services are performed.

The Company operates in one industry segment, and substantially all its sales are to U.S.-based customers.

Information with respect to revenue by source is as follows:

	Three Months Ended March 31,	
	2018	2017
Disposable products:		
Functional neurology	$ 1,148,870	$ 1,290,484
Biologics and drug delivery	210,930	372,965
Total disposable product revenue	1,359,800	1,663,449
Capital equipment	178,798	258,766
Total product revenue	1,538,598	1,922,215
Rental, service and other	84,768	84,857
Total revenue	$ 1,623,366	$ 2,007,072

Net Loss Per Share

The Company computes net loss per share using the weighted-average number of common shares outstanding during the period. Basic and diluted net loss per share are the same because the conversion, exercise or issuance of all potential common stock equivalents, which comprise the entire amount of the Company's outstanding common stock options and warrants as described in Note 5, would be anti-dilutive.

Concentration Risks and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents and accounts receivable. The Company holds its cash and cash equivalents on deposit with financial institutions in the U.S. insured by the Federal Deposit Insurance Corporation. At March 31, 2018, the Company had $214,267 in bank balances that were in excess of the insured limits.

Information with respect to customers that accounted for sales in excess of 10% of total sales in the three-month periods ended March 31, 2018 and 2017 is as follows:

	Three Months Ended March 31,	
	2018	2017
Customer - 1	13%	12%

Information with respect to accounts receivable from those customers who comprised more than 10% of accounts receivable at March 31, 2018 and December 31, 2017 is as follows:

	March 31, 2018	December 31, 2017
Customer – 1	20%	10%

Prior to granting credit, the Company performs credit evaluations of its customers' financial condition, and generally does not require collateral from its customers. The Company will provide an allowance for doubtful accounts when collections become doubtful. The allowance for doubtful accounts at March 31, 2018 and December 31, 2017 was $28,000 and $29,000, respectively.

The Company is subject to risks common to emerging companies in the medical device industry, including, but not limited to: new technological innovations; acceptance and competitiveness of its products; dependence on key personnel; dependence on key suppliers; changes in general economic conditions and interest rates; protection of proprietary technology; compliance with changing government regulations; uncertainty of widespread market acceptance of products; access to credit for capital purchases by customers; and product liability claims. Certain components used in manufacturing have relatively few alternative sources of supply and establishing additional or replacement suppliers for such components cannot be accomplished quickly. The inability of any of these suppliers to fulfill the Company's supply requirements may negatively impact future operating results.

Recent Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, "Leases," which created a new Topic, ASC Topic 842 and established the core principle that a lessee should recognize the assets, representing rights-of-use, and liabilities to make lease payments, that arise from leases. For leases with a term of 12 months or less, a lessee is permitted to make an election under which such assets and liabilities would not be recognized, and lease expense would be recognized generally on a straight-line basis over the lease term. This standard is effective for the Company beginning in 2019, and early application is permitted. The Company currently has two leases for manufacturing and office space that would be subject to the provisions of ASU 2016-02. The Company believes that adoption of ASC Topic 842 (as amended by ASC 2017-13 described above) will result in the establishment on the Company's consolidated balance sheet of an asset and liability for each such lease, but that neither such assets and liabilities nor the resulting lease expense recognition will have a material effect on the Company's consolidated financial statements.

In July 2017, the FASB issued ASU 2017-11, "Earnings Per Share (Topic 260); Distinguishing Liabilities from Equity (Topic 480); Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception," which, among other items, changes the classification of certain equity-linked financial instruments (or embedded features) with down round features. The standard is effective for the Company beginning in 2019, and early adoption is permitted. Because the terms of the Company's currently existing derivative liabilities described in Note 6, all of which the Company believes are included in the scope of the standard, will have expired prior to the standard's effective date, the Company believes that adoption of the standard on its effective date will not have a material effect on the Company's consolidated financial statements.

3. Inventory

Inventory consists of the following as of:

	March 31, 2018	December 31, 2017
Raw materials and work in process	$ 1,235,130	$ 1,167,142
Software licenses	52,500	52,500
Finished goods	1,245,133	1,094,542
Inventory, net, included in current assets	2,532,763	2,314,184
Software licenses – non-current	819,400	871,900
Total	$ 3,352,163	$ 3,186,084

4. Notes Payable

Senior Secured Note Payable

The indebtedness outstanding under the senior secured note payable to Brainlab, originally issued to Brainlab on April 5, 2011, and subsequently amended and restated on March 6, 2013 and April 4, 2016 (the "Brainlab Note"), at March 31, 2018 and December 31, 2017 was $2.0 million, and matures on December 31, 2018. Interest, at an annual rate of 5.5%, is payable quarterly in arrears.

The Brainlab Note is collateralized by a senior security interest in all the assets of the Company.

2014 Junior Secured Notes Payable

The indebtedness outstanding under the 2014 Junior Secured Notes Payable (the "2014 Secured Notes") at March 31, 2018 and December 31, 2017 was $1.975 million. The 2014 Secured Notes mature on March 25, 2019 and bear interest at an annual rate of 12%, payable semi-annually, in arrears, and are collateralized by a security interest in all the Company's assets, which security interest is junior and subordinate to the security interest that collateralizes the Brainlab Note.

Under the terms of a securities purchase agreement, the 2014 Secured Notes were issued in a private placement that included warrants (the "investor warrants") to purchase 0.01 shares of the Company's common stock for each dollar in principal amount. Under GAAP, the Company allocated the private placement proceeds proportionately between the 2014 Secured Notes and the investor warrants based on their relative fair values, with the amount allocated to the fair value of the investor warrants recorded as equity and as a discount to the carrying amount at the date of issuance. This discount is being amortized to interest expense over the five-year term of the 2014 Secured Notes using the effective interest method. The unamortized discount at March 31, 2018 and December 31, 2017 was $54,216 and $67,770, respectively. The carrying amount of the 2014 Secured Notes in the accompanying condensed consolidated balance sheets is also presented net of issuance costs, as discussed further below.

The Company's placement agents earned cash commissions of $145,500 as well as warrants (the "placement agent warrants") to purchase shares of the Company's common stock. The placement agent warrants have the same terms and conditions as the investor warrants. The placement agent cash commissions, the fair value of the placement agent warrants, and other offering expenses were recorded as deferred financing costs and are presented as reductions of the carrying amount of the 2014 Secured Notes in the accompanying condensed consolidated balance sheets. These deferred financing costs, having an unamortized balance of $26,128 and $32,660 at March 31, 2018 and December 31, 2017, respectively, are being amortized to interest expense over the term of the 2014 Secured Notes using the effective interest method.

2010 Junior Secured Notes Payable

The indebtedness outstanding under the 2010 Junior Secured Notes Payable (the "2010 Secured Notes") at March 31, 2018 and December 31, 2017 was $3.0 million. The 2010 Secured Notes accrue interest at an annual rate of 3.5% and are collateralized by a security interest in all the Company's assets, which security interest is junior and subordinate to the security interest that collateralizes the Brainlab Note and the 2014 Secured Notes. All outstanding principal and interest on the 2010 Secured Notes will be due and payable in a single payment upon maturity.

Under the terms of a securities purchase agreement, the 2010 Secured Notes were issued in a private placement of units that included the 2010 Secured Notes and one share of the Company's common stock. Under GAAP, the Company allocated the $3.0 million in proceeds from the sale of the units between the 2010 Secured Notes and the shares of common stock based on their relative fair values. The amount allocated to the value of the shares of common stock was recorded as equity and as a discount to the carrying value of the 2010 Secured Notes at their date of issuance. The unamortized discount at March 31, 2018 and December 31, 2017 was $1,840,115 and $1,956,458, respectively. This discount is being amortized to interest expense over the 10-year term of the notes using the effective interest method.

At March 31, 2018 and December 31, 2017, the Company's Chairman and one of the Company's officers held 2010 Secured Notes they purchased at the date of original issuance having an aggregate principal balance of $197,000.

Scheduled Notes Payable Maturities

Scheduled principal payments as of March 31, 2018 with respect to notes payable are summarized as follows:

Years ending December 31,		
2018	$	2,000,000
2019		1,975,000
2020		3,000,000
Total scheduled principal payments		6,975,000
Less: Unamortized discounts and deferred financing costs		(1,920,459)
Total	$	5,054,541

5. Stockholders' Equity

2017 Private Placement

On May 26, 2017, the Company completed the 2017 PIPE pursuant to a Securities Purchase Agreement dated May 25, 2017 (the "2017 PIPE Purchase Agreement") with certain accredited investors (collectively, the "2017 PIPE Investors") for the private placement of 6,625,000 units (the "2017 PIPE Units") at a purchase price of $2.00 per unit, with each unit consisting of: (i) one share of the Company's common stock; and (ii) a warrant to purchase one share of the Company's common stock (each, a "2017 PIPE Warrant" and collectively, the "2017 PIPE Warrants").

In connection with the sale of the 2017 PIPE Units, the Company received aggregate gross proceeds of approximately $13.25 million, before deducting placement agents' fees and offering expenses aggregating approximately $1.3 million. In addition, the placement agents for the 2017 PIPE received, in the aggregate, warrants ("2017 PIPE Placement Agent Warrants") to purchase up to 509,200 shares of common stock.

Purchase Agreement

The 2017 PIPE Purchase Agreement contains representations and warranties by the Company and the 2017 PIPE Investors and covenants of the Company and the 2017 PIPE Investors (including indemnification from the Company in the event of breaches of its representations and warranties), which the Company believes are customary for transactions of this type.

Registration Rights Agreement

Concurrent with completion of the 2017 PIPE, the Company and the 2017 PIPE Investors entered into a Registration Rights Agreement (the "2017 PIPE Registration Rights Agreement") pursuant to which the Company was required to prepare and file a registration statement (the "2017 PIPE Registration Statement") with the SEC under the Securities Act of 1933, as amended, covering the resale of the shares of common stock to be issued to the 2017 PIPE Investors under the 2017 PIPE Purchase Agreement as well as the shares of common stock underlying the 2017 PIPE Warrants and the 2017 PIPE Placement Agent Warrants. The Company was required to file such 2017 PIPE Registration Statement on or before June 26, 2017, and was required to use its best efforts to have the 2017 PIPE Registration Statement declared effective as soon as practicable. The Company filed the 2017 PIPE Registration Statement on June 26, 2017, and the 2017 PIPE Registration Statement was declared effective by the SEC on July 7, 2016, both dates being in conformity with the foregoing requirements. Pursuant to the 2017 PIPE Registration Rights Agreement, if the Company fails to continuously maintain the effectiveness of the 2017 PIPE Registration Statement (with certain permitted exceptions), the Company will incur certain liquidated damages to the 2017 PIPE Investors. The 2017 PIPE Registration Rights Agreement also contains mutual indemnifications by the Company and each 2017 PIPE Investor, which the Company believes are customary for transactions of this type.

Warrants

The 2017 PIPE Warrants are exercisable, in full or in part, at any time prior to the fifth anniversary of their issuance, at an exercise price of $2.20 per share, subject to provisions for: (a) adjustments in the case of certain corporate transactions; (b) consideration to be received in lieu of shares of the Company's common stock in the case of certain fundamental transactions; and (c) a "cashless exercise" feature. The 2017 PIPE Placement Agent Warrants have the same terms and conditions as the 2017 PIPE Warrants.

Issuance of Common Stock in Lieu of Cash Payments

Under the terms of the Amended and Restated Non-Employee Director Compensation Plan, each non-employee member of the Company's Board of Directors may elect to receive all or part of his or her director fees in shares of the Company's common stock. Director fees, whether paid in cash or in shares of common stock, are payable quarterly on the last day of each fiscal quarter. The number of shares of common stock issued to directors is determined by dividing the product of: (i) the fees otherwise payable to each director in cash, times (ii) the percentage of fees the director elected to receive in shares of common stock, by (iii) the volume weighted average price per share of common stock over the last five trading days of the quarter. During the three months ended March 31, 2018, 9,298 shares were issued to directors as payment for director fees in lieu of cash. No shares were issued to directors as payment for director fees during the three months ended March 31, 2017.

Stock Incentive Plans

The Company has various share-based compensation plans and share-based compensatory contracts (collectively, the "Plans") under which it has granted share-based awards, such as stock grants, and incentive and non-qualified stock options, to employees, directors, consultants and advisors. Awards may be subject to a vesting schedule as set forth in individual award agreements. Certain of the Plans also have provided for cash-based performance bonus awards.

Since June 2015, the Company has granted share-based awards under the MRI Interventions, Inc. Amended and Restated 2013 Incentive Compensation Plan (the "2013 Plan"). Under the 2013 Plan, a total of 1,956,250 shares of the Company's common stock are reserved for issuance. Of this amount, stock grants of 114,483 shares have been awarded and option grants, net of options terminated, expired or forfeited, of 748,145 shares were outstanding as of March 31, 2018. Accordingly, 1,093,622 shares remained available for grants under the 2013 Plan as of that date.

Stock option activity under all of the Company's Plans during the three months ended March 31, 2018 is summarized below:

	Shares	Weighted - Average Exercise Price
Outstanding at December 31, 2017	1,238,199	$ 12.47
Granted	-	-
Forfeited	(6,745)	6.41
Outstanding at March 31, 2018	1,231,454	$ 12.50

The Company records share-based compensation expense on a straight-line basis over the related vesting period. For the three months ended March 31, 2018 and 2017, share-based compensation expense related to options was:

Three Months Ended March 31,	
2018	2017
$ 247,464	$ 206,896

As of March 31, 2018, there was unrecognized compensation expense of $949,372 related to outstanding stock options, which is expected to be recognized over a weighted average period of 1.77 years.

Warrants

Warrants have generally been issued for terms of up to five years. Common stock warrant activity for the three months ended March 31, 2018 was as follows:

	Shares	Weighted - Average Exercise Price
Outstanding at December 31, 2017	8,949,078	$ 4.12
Issued	-	-
Exercised	(103,207)	4.15
Terminated	(49,749)	2.00
Outstanding at March 31, 2018	8,796,122	$ 4.15

6. Derivative Liabilities

Derivative liabilities at March 31, 2018 arose from an amendment the Company entered into with Brainlab, with respect to the Brainlab Note and related warrants (the “Brainlab warrants”), the provisions of which created: (a) a conversion feature allowing for $500,000 the principal balance of the Brainlab Note to be converted in a Qualified Public Offering, as defined in the amendment, at a public offering price that may be less than market value per share of the Company’s common stock; and (b) down round strike price protection with respect to Brainlab warrants.

Derivative liabilities at December 31, 2017 arose from the amendment to the Brainlab Note described above, and from warrants, issued in 2013, that contained net-cash settlement and down-round provisions (the “2013 warrants”). The 2013 warrants expired in January 2018.

The fair values of the conversion feature and the Brainlab warrants were calculated using the Monte Carlo simulation valuation method. Assumptions used in calculating the fair value of the conversion feature at March 31, 2018 are as follows:

Risk free interest rates	2.49%
Volatility	60.00%

In addition to the assumptions above, the Company also estimates the likelihood of whether it will participate in a Qualified Public Offering prior to maturity of the Brainlab Note.

The fair values and the changes in fair values of derivative liabilities during the three months ended March 31, 2018 and 2017 are as follows:

	Three Months Ended March 31,	
	2018	**2017**
Balance, beginning of period	$ 95,786	$ 131,173
Reduction from warrant exercise	(31,468)	-
Loss on change in fair value for the period	(34,443)	93,046
Balance, end of period	$ 29,875	$ 224,219

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with the unaudited condensed financial statements and the notes thereto appearing in Part I, Item 1 of this Quarterly Report. Historical results and trends that might appear in this Quarterly Report should not be interpreted as being indicative of future operations.

Overview

We are a medical device company that develops and commercializes innovative platforms for performing minimally invasive surgical procedures in the brain and heart under direct, intra-procedural MRI guidance. We have two product platforms. Our ClearPoint system, which is in commercial use, is used to perform minimally invasive surgical procedures in the brain. We anticipate that our ClearTrace system, which is a product candidate, will be used to perform minimally invasive surgical procedures in the heart. In 2015, we suspended development of the ClearTrace system so that we could focus our resources on the ClearPoint system. Both systems utilize intra-procedural MRI to guide the procedures and are designed to work in a hospital's existing MRI suite. We believe that our two product platforms, subject to appropriate regulatory clearance and approval, will deliver better patient outcomes, enhance revenue potential for both physicians and hospitals, and reduce costs to the healthcare system.

In 2010, we received regulatory clearance from the FDA to market our ClearPoint system in the U.S. for general neurological procedures. In 2011, we also obtained CE marking approval for our ClearPoint system, which enables us to sell our ClearPoint system in the European Union. Substantially all our product revenues for the three months ended March 31, 2018 relate to sales of our ClearPoint system products. We do not have regulatory clearance or approval to sell our ClearTrace system for commercial use. We have financed our operations and internal growth primarily through the sale of equity securities, the issuance of convertible and other secured notes, and license arrangements. We have incurred significant losses since our inception in 1998 as we have devoted substantial efforts to research and development. As of March 31, 2018, we had accumulated losses of approximately $103 million. We may continue to incur operating losses as we commercialize our ClearPoint system products, continue to develop our ClearTrace system, and expand our business.

Factors Which May Influence Future Results of Operations

The following is a description of factors that may influence our future results of operations, and that we believe are important to an understanding of our business and results of operations.

Revenues

In 2010, we received 510(k) clearance from the FDA to market our ClearPoint system in the U.S. for general neurological procedures. Future revenues from sales of our ClearPoint system products are difficult to predict and may not be sufficient to offset our continuing research and development expenses and our increasing selling, general and administrative expenses. We cannot sell our ClearTrace system for commercial use until we receive regulatory clearance or approval.

Generating recurring revenues from the sale of disposable products is an important part of our business model for our ClearPoint system. We anticipate that, over time, recurring revenues will constitute an increasing percentage of our total revenues as we leverage installations of our ClearPoint system to generate recurring sales of our ClearPoint disposable products. Our product revenues were approximately $1.5 million for the three months ended March 31, 2018 and were almost entirely related to our ClearPoint system.

Our revenue recognition policies are more fully described in Note 2 to the Condensed Consolidated Financial Statements included elsewhere in this Quarterly Report.

Cost of Product Revenues

Cost of product revenues includes the direct costs associated with the assembly and purchase of components for disposable products and ClearPoint system reusable products which we have sold, and for which we have recognized the revenue in accordance with our revenue recognition policy. Cost of product revenues also includes the allocation of manufacturing overhead costs and depreciation of loaned systems installed under our ClearPoint placement program, as well as provisions for obsolete, impaired, or excess inventory.

Research and Development Costs

Our research and development costs consist primarily of costs associated with the conceptualization, design, testing, and prototyping of our ClearPoint system products and our ClearTrace system components (prior to the suspension of such development). Such costs include salaries, travel, and benefits for research and development personnel, including related share-based compensation; materials and laboratory supplies in research and development activities; consultant costs; sponsored research and product development with third parties; and licensing costs related to technology not yet commercialized. We anticipate that, over time, our research and development costs may increase as we: (i) continue to develop enhancements to our ClearPoint system; (ii) resume our ClearTrace system product development efforts; and (iii) seek to expand the application of our technological platforms. From our inception through March 31, 2018, we have incurred approximately $51 million in research and development expenses.

Product development timelines, likelihood of success, and total costs can vary widely by product candidate. There are also risks inherent in the regulatory clearance and approval process. At this time, we are unable to estimate with any certainty the costs that we will incur in either the further development of our ClearTrace system for commercialization, or in our efforts to expand the application of our technological platforms.

Sales and Marketing, and General and Administrative Expenses

Our sales and marketing, and general and administrative expenses consist primarily of salaries, incentive-based compensation, travel and benefits, including related share-based compensation; marketing costs; professional fees, including fees for attorneys and outside accountants; occupancy costs; insurance; and other general and administrative expenses, which include, but are not limited to, corporate licenses, director fees, hiring costs, taxes, postage, office supplies and meeting costs. Our sales and marketing expenses are expected to increase due to costs associated with the commercialization of our ClearPoint system and the increased headcount necessary to support growth in operations.

Critical Accounting Policies

As described in Note 2 to the Condensed Consolidated Financial Statements included elsewhere in this Quarterly Report, effective January 1, 2018, we adopted the provisions of ASC Topic 606, “Revenue from Contracts with Customers.” Adoption of Topic 606 had no material effect on our condensed consolidated financial statements.

There have been no other significant changes in our critical accounting policies during the three months ended March 31, 2018 as compared to the critical accounting policies described in our 2017 Form 10-K.

Results of Operations

Three Months Ended March 31, 2018 Compared to the Three Months Ended March 31, 2017

	Three Months Ended March 31,		
	2018	**2017**	**Percentage Change**
Product revenues	$ 1,538,598	$ 1,922,215	(20)%
Service and other revenues	84,768	84,857	NM
Total revenues	1,623,366	2,007,072	(19)%
Cost of revenues	588,967	752,464	(22)%
Research and development costs	546,328	557,699	(2)%
Sales and marketing expenses	962,214	1,066,259	(10)%
General and administrative expenses	952,951	984,270	(3)%
Other income (expense):			
Gain (loss) from change in fair value of derivative liabilities	34,443	(93,046)	(137)%
Other income (expense), net	(793)	4,127	(119)%
Interest expense, net	(247,472)	(213,199)	16%
Net loss	$ (1,640,917)	$ (1,655,738)	1%

NM = Not meaningful

Revenue. Total revenues were $1.6 million for the three months ended March 31, 2018, and $2.0 million for the three months ended March 31, 2017, a decrease of $400,000, or 19%.

Functional neurology revenue, which consists of disposable product commercial sales related to cases utilizing the ClearPoint system, decreased 11% to $1.1 million for the three months ended March 31, 2018, from $1.3 million for the same period in 2017. The decrease was due primarily to a larger number of cases consuming two kits per case (as opposed to one kit per case) during the first quarter of 2017, relative to the same period in 2018. There were no increases in functional neurology product prices during the period between the three months ended March 31, 2017 and the same period in 2018 that would be reasonably expected to affect a typical customer order.

Biologics and drug delivery systems revenue, which consists primarily of disposable product sales related to customer-sponsored clinical trials utilizing the ClearPoint system, decreased 43% to $211,000 for the three months ended March 31, 2018, from $373,000 for the same period in 2017. Revenues from this product line may vary from quarter to quarter based primarily on biotechnology customers' scheduling of clinical trials. The decrease from the first quarter of 2017 to the same period in 2018 was due to the purchasing pattern of two biotechnology customers who purchased an aggregate of $305,000 of product during the first quarter of 2017, as compared to an aggregate of $74,000 during the same period in 2018. There were no increases in biologics and drug delivery product prices during the period between the three months ended March 31, 2017 and the same period in 2018 that would be reasonably expected to affect a typical customer order.

Capital equipment revenue, consisting of sales, rentals and service of ClearPoint reusable hardware and software, decreased 23% to $263,000 for the three months ended March 31, 2018, from $344,000 for the same period in 2017. Revenues from this product line historically have varied from quarter to quarter. This decrease was due primarily to a decrease from the first quarter of 2017 to the same period in 2018 in the number of ClearPoint systems sold. There were no increases in capital equipment product prices during the period between the three months ended March 31, 2017 and the same period in 2018 that would be reasonably expected to affect a typical customer order.

Cost of Revenue. Cost of revenue was $589,000 for the three months ended March 31, 2018, representing gross margin of 64%, compared to $752,000 for the same period in 2017, representing gross margin of 63%. The increase in gross margin was due primarily to a favorable mix of revenues in the first quarter of 2018, in which (i) biologics and drug delivery revenues, and (ii) service revenues, both bearing higher gross margins relative to other product lines, bore a higher percentage of total revenues, when compared to the same period in 2017.

Research and Development Costs. Research and development costs were $546,000 for three months ended March 31, 2018, compared to $558,000 for the same period in 2017, a decrease of $11,000, or 2%. The decrease was due primarily to decreases in software development costs of $56,000 and pre-commercial license fee of $17,000, being partially offset by increases in share-based compensation expenses of $28,000 and regulatory legal fees of $33,000.

Sales and Marketing Expenses. Sales and marketing expenses were $962,000 for the three months ended March 31, 2018, compared to $1.1 million for the same period in 2017, a decrease of $104,000, or 10%. This decrease was primarily due to a decrease in sales personnel costs of $251,000 due to: (a) consolidation in the second quarter of 2017 of our sales and marketing leadership; and (b) a decrease in incentive compensation in the first quarter of 2018, relative to the same period in 2017, based on lower sales volume. This decrease was partially offset by a $152,000 increase in clinical personnel costs due to: (y) an increase in clinical personnel headcount in the first quarter of 2018, relative to the same period in 2017; and (z) relocation costs incurred in the first quarter of 2018 to position our clinical personnel in closer proximity to high-volume customer locations.

General and Administrative Expenses. General and administrative expenses were $953,000 for the three months ended March 31, 2018, compared to $984,000 for the same period in 2017, a decrease of $31,000, or 3%. This decrease was due primarily to decreases in professional fees of $20,000 and investor relations fees of $27,000 due to financing activity in which we were engaged during the first quarter of 2017 that did not recur during the same period in 2018.

Other Income (Expense). During the three months ended March 31, 2018 and 2017, we recorded a gain of $34,000 and a loss of $93,000, respectively, resulting from changes in the fair value of our derivative liabilities. Derivative liabilities at March 31, 2018 arose from an amendment the Company entered into with Brainlab, with respect to the Brainlab Note and related warrants (the "Brainlab warrants"), the provisions of which created: (a) a conversion feature allowing for $500,000 the principal balance of the Brainlab Note to be converted in a Qualified Public Offering, as defined in the amendment, at a public offering price that may be less than market value per share of the Company's common stock; and (b) down round strike price protection with respect to Brainlab warrants.

Derivative liabilities at March 31, 2017 arose from the amendment to the Brainlab Note described above, and from warrants, issued in 2013, that contained net-cash settlement and down-round provisions (the "2013 warrants"). The 2013 warrants expired in January 2018.

Net interest expense for the three months ended March 31, 2018 was $247,000, compared with $213,000 for the same period in 2017. The increase was due to increased amortization of the discount and deferred issuance costs associated with the 2014 Secured Notes and the 2010 Secured Notes, both as described in Note 4 to the Condensed Consolidated Financial Statements included elsewhere in this Quarterly Report.

Liquidity and Capital Resources

At March 31, 2018, we had cash and cash equivalent balances aggregating $7.5 million, resulting primarily from completion of the 2017 PIPE discussed in Note 5 to the Condensed Consolidated Financial Statements included elsewhere in this Quarterly Report. Net cash used in operating activities was $2.0 million and $1.3 million for the three months ended March 31, 2018 and 2017, respectively.

Our plans for the next twelve months reflect management's anticipation of increases in revenues from sales of the ClearPoint System and related disposable products as a result of greater utilization at existing installed sites and the installation of the ClearPoint System at new sites. Management also anticipates maintaining recurring operating expenses at historical levels, with expected decreases in research and development expenses and general and administrative expenses being offset by increases in selling and marketing expenses associated with the anticipated growth in revenues. However, there is no assurance that we will be able to achieve our anticipated results, and even in the event such results are achieved, we expect to continue to consume cash in its operations over at least the next twelve months. In addition, as discussed in Note 4 to the Condensed Consolidated Financial Statements included elsewhere in the Quarterly Report, we have notes payable with principal aggregating $4.0 million, of which $2.0 million matures in December 2018 and $2.0 million matures in March 2019.

As a result of the foregoing, we believe it will be necessary to seek additional sources of funds from the sale of equity or debt securities, which likely would result in dilution to our current stockholders, or from the establishment of a credit facility or the entry into an agreement with a strategic partner or some form of collaborative relationship. There is no assurance, however, that we will be able to obtain such additional financing on commercially reasonable terms, if at all, and there is no assurance that any additional financing that we do obtain will be sufficient to meet our needs. If we are not able to obtain the additional financing on a timely basis, we may be unable to achieve our anticipated results, and we may not be able to meet our other obligations as they become due. An inability to obtain a sufficient amount of additional funding would create substantial doubt as to our ability to continue as a going concern.

Cash Flows

Cash activity for the three months ended March 31, 2018 and 2017 is summarized as follows:

	Three Months Ended March 31,	
	2018	**2017**
Cash used in operating activities	$ (1,960,682)	$ (1,346,177)
Cash used in investing activities	(20,646)	-
Cash provided by financing activities	205,131	-
Net change in cash and cash equivalents	$ (1,776,197)	$ (1,346,177)

Net Cash Flows from Operating Activities. We used $2.0 million and $1.3 million of cash for operating activities during the three months ended March 31, 2018 and 2017, respectively.

During the three months ended March 31, 2018, uses of cash in operating activities primarily consisted of: (i) our $1.6 million net loss; (ii) increases in inventory of $297,000, and in other assets of $19,000; and (iii) decreases in accounts payable and accrued expenses of $501,000, and in deferred revenue of $40,000. These uses were partially offset by: (a) non-cash expenses included in our net loss aggregating $459,000 and consisting primarily of depreciation and amortization, share-based compensation, expenses paid through the issuance of common stock, change in fair value of derivative liabilities and amortization of debt issuance costs and original issue discounts; and (b) decreases in accounts receivable of $39,000 and prepaid expenses and other current assets of $40,000.

During the three months ended March 31, 2017, uses of cash in operating activities primarily consisted of: (i) our $1.7 million net loss; and (ii) increases in accounts receivable of $144,000, inventory of $62,000 and other assets of $6,000. These uses were partially offset by: (a) a decrease in prepaid expenses and other current assets of $39,000; (b) increases in accounts payable and accrued expenses of $5,000 and in deferred revenue of $40,000; and (c) non-cash expenses included in our loss from operations aggregating $437,000 and consisting of depreciation and amortization, share-based compensation, loss on change in fair value of derivative liabilities, and amortization of debt issuance costs and original issue discounts.

Net Cash Flows from Investing Activities. Net cash flows used in investing activities for the three months ended March 31, 2018 were $21,000 and consisted of equipment acquisitions. There were no cash flows from investing activities during the three months ended March 31, 2017.

Net Cash Flows from Financing Activities. Net cash flows from financing activities for the three months ended March 31, 2018 consisted of cash proceeds received from warrant exercises of $205,000. There were no cash flows from financing activities during the three months ended March 31, 2017.

Operating Capital and Capital Expenditure Requirements

To date, we have not achieved profitability. We could continue to incur net losses as we continue our efforts to expand the commercialization of our ClearPoint system products, resume the currently suspended development of our ClearTrace system, and pursue additional applications for our technology platforms. Our cash balances are primarily held in non-interest-bearing demand accounts. Cash in excess of immediate requirements is invested primarily with a view to liquidity and capital preservation.

Because of the numerous risks and uncertainties associated with the development and commercialization of medical devices, we are unable to estimate the exact amounts of capital outlays and operating expenditures necessary to successfully commercialize our ClearPoint system products, complete the development of our ClearTrace system and pursue additional applications for our technology platforms. Our future capital requirements will depend on many factors, including, but not limited to, the following:

- the timing of broader market acceptance and adoption of our ClearPoint system products;
- the scope, rate of progress and cost of our ongoing product development activities relating to our ClearPoint system;
- the cost and timing of expanding our sales, clinical support, marketing and distribution capabilities, and other corporate infrastructure;
- the cost and timing of establishing inventories at levels sufficient to support our sales;
- the effect of competing technological and market developments;
- the cost of pursuing additional applications of our technology platforms under current collaborative arrangements, and the terms and timing of any future collaborative, licensing or other arrangements that we may establish;
- the scope, rate of progress and cost of our research and development activities relating to our ClearTrace system (prior to the suspension of such development);
- the cost and timing of any clinical trials;
- the cost and timing of regulatory filings, clearances and approvals; and
- the cost of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights.

Off-Balance Sheet Arrangements

We are not a party to any off-balance sheet arrangements that have, or are reasonably likely to have, a material current or future effect on our financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK.

Interest Rate Risk

Our exposure to market risk is limited primarily to interest income sensitivity, which is affected by changes in the general level of U.S. interest rates, because all our investments are in short-term bank deposits and institutional money market funds. The primary objective of our investment activities is to preserve principal while at the same time maximizing the income we receive without significantly increasing risk. Due to the nature of our short-term investments, we believe that we are not subject to any material market risk exposure.

Foreign Currency Risk

To date, we have recorded no product sales in currencies other than U.S. dollars. We have only limited business transactions in foreign currencies. We do not currently engage in hedging or similar transactions to reduce our foreign currency risks, which at present, are not material. We believe we have no material exposure to risk from changes in foreign currency exchange rates at this time. We will continue to monitor and evaluate our internal processes relating to foreign currency exchange, including the potential use of hedging strategies.

ITEM 4. CONTROLS AND PROCEDURES.

Disclosure Controls and Procedures

We have established disclosure controls and procedures, as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 (the "Exchange Act"). Our disclosure controls and procedures are designed to ensure that material information relating to us is made known to our principal executive officer and principal financial officer by others within our organization. Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our disclosure controls and procedures as of March 31, 2018 to ensure that the 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. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive officer and principal financial officer as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were effective as of March 31, 2018.

Changes in Internal Control Over Financial Reporting

During the quarter ended March 31, 2018, there were no changes in our internal control over financial reporting that materially affected, or that are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS.

None.

ITEM 1A. RISK FACTORS.

Our business, future financial condition and results of operations are subject to a number of factors, risks and uncertainties, which are disclosed in Item 1A, "Risk Factors," in Part I of our 2017 Form 10-K. Additional information regarding some of those risks and uncertainties is contained in the notes to the Condensed Consolidated Financial Statements appearing in Part I, Item 1 of this Quarterly Report, and in "Management's Discussion and Analysis of Financial Condition and Results of Operations" appearing in Part I, Item 2 of this Quarterly Report. The risks and uncertainties disclosed in our 2017 Form 10-K, our quarterly reports on Form 10-Q and other reports filed with the SEC are not necessarily all the risks and uncertainties that may affect our business, financial condition and results of operations in the future.

There have been no material changes to the risk factors as disclosed in our 2017 Form 10-K.

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

None.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES.

None.

ITEM 4. MINE SAFETY DISCLOSURES.

None.

ITEM 5. OTHER INFORMATION.

None.

ITEM 6. EXHIBITS.

The exhibits listed below are filed, furnished or incorporated by reference as part of this Quarterly Report.

Exhibit Number	Exhibit Description
10.1*	Transition and Release Agreement, dated as of March 9, 2018 by and between MRI Interventions, Inc. and Wendelin Maners
31.1*	Certification of Chief Executive Officer Pursuant to Rule 13a-14(a) Under the Securities Exchange Act of 1934
31.2*	Certification of Chief Financial Officer Pursuant to Rule 13a-14(a) Under the Securities Exchange Act of 1934
32+	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to Rule 13a-14(b) under the Securities Exchange Act of 1934 and Section 1350 of Chapter 60 of Title 18 of the United States Code
101.INS*	XBRL Instance
101.SCH*	XBRL Taxonomy Extension Schema
101.CAL*	XBRL Taxonomy Extension Calculation
101.DEF*	XBRL Taxonomy Extension Definition
101.LAB*	XBRL Taxonomy Extension Labels
101.PRE*	XBRL Taxonomy Extension Presentation

* Filed herewith.

\+ This certification is being furnished solely to accompany this Quarterly Report pursuant to 18 U.S.C. Section 1350, and it is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934 and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

SIGNATURES

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

Date: May 15, 2018

MRI INTERVENTIONS, INC.

By: /s/ Joseph M. Burnett
Joseph M. Burnett
Chief Executive Officer
(Principal Executive Officer)

By: /s/ Harold A. Hurwitz
Harold A. Hurwitz
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)