UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Date of Report: May 9, 2013 (Date of earliest event reported)

MRI INTERVENTIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware000-5457558-2394628(State or other jurisdiction(Commission File(I.R.S. Employerof incorporation or organization)Number)Identification No.)One Commerce Square, Suite 2550
Memphis, Tennessee38103(Address of principal executive offices)(Zip Code)

(901) 522-9300

(Registrant's telephone number, including area code)

Not Applicable

(Former Name or Former Address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the Registrant under any of the following provisions:

☐ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
☐ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
☐ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
☐ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))
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Item 2.02. Results of Operations and Financial Condition.

On May 9, 2013, MRI Interventions, Inc. (the "Company") issued a press release announcing information regarding the Company's results of operations and financial condition for the first fiscal quarter ended March 31, 2013. A copy of the press release is furnished herewith as Exhibit 99.1.

The press release is furnished by the Company pursuant to Item 2.02 of Form 8-K and will not be deemed to be "filed" for the purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor will it be deemed to be incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 7.01. Regulation FD Disclosure.

The Company sold 70 SmartFrame kits during the three months ended March 31, 2013. For the six month period ended December 31, 2012, the Company sold a total of 118 SmartFrame kits. The SmartFrame targeting device is an MRI-compatible trajectory frame that serves as the centerpiece of the ClearPoint system's disposable components. Depending on the type of neurological procedure being performed, a ClearPoint procedure will utilize either one or two SmartFrame kits.

This information is furnished by the Company pursuant to Item 7.01 of Form 8-K and will not be deemed to be "filed" for the purposes of Section 18 of the Exchange Act, or otherwise subject to the liabilities of that section, nor will it be deemed to be incorporated by reference in any filing under the Securities Act of 1933 or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01. Financial Statements and Exhibits.

(d) Exhibits.

See Exhibit Index immediately following signature page.

SIGNATURE

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 hereunto duly authorized.

MRI INTERVENTIONS, INC.

By: /s/ Oscar L. Thomas

Oscar L. Thomas Vice President, Business Affairs

Date: May 9, 2013

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EXHIBIT INDEX

Exhibit No. Description 99.1 Press Release of the Company dated May 9, 2013

MRI INTERVENTIONS ANNOUNCES FIRST QUARTER 2013 FINANCIAL RESULTS

MEMPHIS, Tenn., May 9, 2013 – MRI Interventions, Inc. (OTCQB: MRIC), a commercial stage medical device company focused on creating innovative platforms for performing the next generation of minimally invasive surgical procedures in the brain and heart, announced today its financial results for the first quarter ended March 31, 2013.

Management Comments

"We are very pleased with the progress we made in the first quarter. We grew our revenues, we added to our installed base, and we made significant progress in building out the sales and marketing capabilities that we need to support accelerated growth in our business going forward," said Kimble Jenkins, CEO of MRI Interventions.

"We are pleased to report growth in our revenues, with revenues of \$1.3 million in the first quarter 2013 compared to \$980,000 in the first quarter 2012," said Jenkins. "In particular, we are very pleased with the growth in product revenues of 107%, with \$460,000 in the first quarter 2013 up from \$222,000 in the first quarter 2012. This significant growth was driven primarily by increasing sales of our ClearPoint disposable products. On a quarter-over-quarter basis, our total product and service revenues increased 86%, with \$614,000 in the first quarter 2013 up from \$330,000 in the first quarter 2012."

Jenkins continued, "Our ClearPoint installed base continues to expand, as we ended the first quarter 2013 with 23 sites, including 21 hospitals in the United States and two hospitals in Europe. In a strong start to 2013, we added three new ClearPoint installations in the first quarter. One of our new ClearPoint sites, Brigham and Women's Hospital in Boston, is a leader in the medical community in the clinical use of interventional MRI. Our other Q1 installations were Spectrum Health in Grand Rapids, Michigan, and the VA Medical Center in San Francisco. We believe the diverse nature of these new ClearPoint sites reflects the broad-based interest we see building as part of the ClearPoint commercial rollout. We are also excited to penetrate the VA hospital system."

"We are pleased with the increasing interest for our ClearPoint technology in the marketplace, and in response we worked during the quarter to expand our sales and marketing capabilities to take advantage of the growing commercial opportunity. While we recognize that it will take time to reap the full benefits of our efforts, we already have been able to accelerate the pace and expand the scope of our commercialization activities," said Jenkins.

Additional First Quarter 2013 Highlights

Expanded the Company's sales and marketing presence

- Expanded the Company's sales and clinical support capabilities through increased head count
- Expanded the Company's conference presence by adding exhibitions at the American Academy of Neurology Annual Meeting, the Intraoperative Imaging Society Annual Meeting and the 2013 Winter Clinics for Cranial & Spinal Surgery

Expanded the Company's involvement in drug delivery clinical trials

- Announced involvement in two gene therapy trials for the treatment of Parkinson's disease
- Presently involved in five different clinical trials to enable delivery of therapeutics for the treatment of Parkinson's disease and brain tumors

Introduced several ClearPoint® system product enhancements

- SmartFlow[®] large bore cannula allows for a clinically meaningful increase in drug delivery rate
- SmartTwist MRI-compatible hand drill enables less invasive access for ClearPoint neurological procedures
- ClearPoint adjustable head stabilization device accommodates a wider range of possible entry points to the brain

Added to the Company's extensive patent portfolio in the field of MRI-guided interventions

- Received four issued patents in the quarter
- Filed seven new patent applications in the quarter
- Ended the quarter with 84 issued patents and 102 pending applications, both U.S. and foreign

First Quarter 2013 Financial Review

The Company recorded revenues of \$1.3 million for the quarter ended March 31, 2013, compared to \$980,000 for the same period in 2012. Product revenues and service revenues related to contract product development totaled \$614,000 for the quarter ended March 31, 2013, compared to \$330,000 for the same period in 2012. Disposable component revenues were \$347,000 for the quarter ended March 31, 2013, compared with \$222,000 for the same period in 2012, representing growth of 56%. Capital product sales were \$113,000 in the first quarter 2013, while the Company did not recognize any capital product revenues in the quarter ended March 31, 2012. Development service revenues increased from \$108,000 in the first quarter 2012 to \$154,000 for the same period in 2013. Recognition of license revenues was \$650,000 for both the first quarter 2013 and the first quarter 2012.

The Company's gross margin related to product revenues was 51% for the quarter ended March 31, 2013, compared to 54% for the same period in 2012. The change in gross margin was driven by a shift in the Company's mix of product revenues, as the Company recognized revenues from the sale of ClearPoint capital products in the first quarter 2013 but did not recognize any such revenues in the first quarter 2012. Margins on the ClearPoint capital products are lower than on the disposable components. In addition, the Company incurred increased depreciation expense relating to systems installed under its ClearPoint Placement Program.

Research and development costs were \$771,000 for the quarter ended March 31, 2013, compared to \$690,000 for the same period in 2012.

Selling, general and administrative expenses were \$1.6 million for the quarter ended March 31, 2013, compared to \$1.3 million for the same period in the prior year.

For the quarter ended March 31, 2013, the Company's net loss was \$950,000 (\$0.02 per share), compared to a net loss of \$3.5 million (\$0.14 per share) for the same period in 2012.

The Company had a cash balance of \$9.2 million at March 31, 2012.

Summarized financial information is presented below. Further information concerning the Company's financial position and results of operations for the three month period ended March 31, 2013 will be included in its Quarterly Report on Form 10-Q to be filed with the Securities and Exchange Commission.

MRI INTERVENTIONS, INC.

Condensed Statements of Operations (unaudited)

	Quarters End	Quarters Ended March 31,			
	2013	2012			
Revenues:					
Related party license revenues	\$ 650,000	\$ 650,000			
Product and development service revenues	614,199	329,999			
Total revenues	1,264,199	979,999			
Costs and operating expenses:					
Cost of product revenues	226,331	101,669			
Research and development costs	771,453	689,669			
Selling, general, and administrative	1,633,447	1,340,103			
Total costs and operating expenses	2,631,231	2,131,441			
Operating loss	(1,367,032)	(1,151,442)			
Other income (expense):	· · · · · ·				
Other income, net	515,599	1,170			
Interest expense, net	(98,570)	(2,324,117)			
Net loss	\$ (950,003)	\$ (3,474,389)			
Net loss per common share:					
Basic and diluted	\$ (0.02)	\$ (0.14)			
Weighted average shares outstanding:	<u> </u>				
Basic and diluted	54,860,923	25,187,547			

MRI INTERVENTIONS, INC.

Condensed Balance Sheets

(unaudited)

	N	March 31, 2013	De	ecember 31, 2012
ASSETS				
Current Assets:				
Cash and cash equivalents	\$	9,198,267	\$	1,620,005
Accounts receivable		384,045		445,432
Inventory		1,061,640		899,702
Other current assets		40,471		110,873
Total current assets		10,684,423		3,076,012
Property and equipment, net		1,249,359		1,287,115
Other assets		1,089,900		1,188,619
Total assets	\$	13,023,682	\$	5,551,746
LIABILITIES AND STOCKHOLDERS' DEFICIT				
Current liabilities:				
Accounts payable and accrued expenses	\$	2,518,349	\$	3,416,461
Derivative liabilities		3,771,310		789
Deferred revenue		<u>-</u>		762,725
Total current liabilities		6,289,659		4,179,975
Other accrued liabilities		273,683		574,722
Notes payable, net of unamortized discounts		8,292,146		6,534,150
Total liabilities		14,855,488		11,288,847
Stockholders' deficit		(1,831,806)		(5,737,101)
Total liabilities and stockholders' deficit	\$	13,023,682	\$	5,551,746

Conference Call

There will be a conference call today at 4:30 p.m. Eastern Time. To listen to the conference call, please dial 877-407-9034 from the United States or Canada or 201-493-6737 from other international locations. A playback of the call will be available through May 16, 2013, and may be accessed by dialing 877-660-6853 from the United States or Canada, or 201-612-7415 from other international locations, and referencing Conference ID 413671. Additionally, you may access the live or archived webcast of the conference call on the Company's website at http://ir.stockpr.com/mriinterventions/ir-calendar.

About MRI Interventions, Inc.

Founded in 1998, MRI Interventions is creating innovative platforms for performing the next generation of minimally invasive surgical procedures in the brain and heart. Utilizing a hospital's existing MRI suite, the company's FDA-cleared and CE-marked ClearPoint[®] system is designed to enable a range of minimally invasive procedures in the brain. MRI Interventions has a co-development and co-distribution agreement with Brainlab, a leader in software-driven medical technology, relating to the ClearPoint system. In partnership with Siemens Healthcare, MRI Interventions is developing the ClearTrace[®] system to enable MRI-guided catheter ablations to treat cardiac arrhythmias, including atrial fibrillation. Building on the imaging power of MRI, the company's interventional platforms strive to improve patient care while reducing procedure costs and times. MRI Interventions is also working with Boston Scientific Corporation to incorporate its MRI-safety technologies into Boston Scientific's implantable leads for cardiac and neurological applications. For more information, please visit www.mriinterventions.com.

Forward-Looking Statements

Certain matters in this press release may constitute forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements often can be identified by words such as "anticipates," "believes," "could," "estimates," "expects," "intends," "may," "plans," "potential," "predicts," "projects," "should," "will," "would," or the negative of these words or other words of similar meaning. Forward-looking statements by their nature address matters that, to different degrees, are uncertain and involve risk. Uncertainties and risks may cause MRI Interventions' actual results and the timing of events to differ materially from those expressed in or implied by MRI Interventions' forward-looking statements. Particular uncertainties and risks include, among others: demand and market acceptance of our products; our ability to successfully expand our sales and clinical support capabilities; our ability to successfully complete the development of, and to obtain regulatory clearance or approval for, future products, including our current product candidates; availability of third party reimbursement; the sufficiency of our cash resources to maintain planned commercialization efforts and research and development programs; future actions of the FDA or any other regulatory body that could impact product development, manufacturing or sale; our ability to protect and enforce our intellectual property rights; our dependence on collaboration partners; the impact of competitive products and pricing; and the impact of the commercial and credit environment on us and our customers and suppliers. More detailed information on these and additional factors that could affect MRI Interventions' actual results are described in MRI Interventions' filings with the Securities and Exchange Commission, including, without limitation, MRI Interventions' Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 11, 2013. Except as required by law, MRI Interventions undertakes no obligation to publicly update or revise any forward-looking statements contained in this press release to reflect any change in MRI Interventions' expectations or any change in events, conditions or circumstances on which any such statements are based.