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 (Date of earliest event reported): April 6, 2017

MRI INTERVENTIONS, INC.

(Exact name of registrant as specified in its charter)

DELAWARE (State or other jurisdiction of incorporation) 001-34822 (Commission File Number) 58-2394628 (I.R.S. Employer Identification Number)

5 Musick

Irvine, Ca. 92618 (Address of principal executive offices, zip code)

(949) 900-6833

(Registrant's telephone number, including area code)

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))

D Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Item 2.02. Results of Operations and Financial Condition.

On April 6, 2017, MRI Interventions, Inc. (the "Company") issued a press release announcing its financial performance for the first fiscal quarter ended March 31, 2017. A copy of the press release is furnished herewith as Exhibit 99.1.

The information in Item 2.02 of this Form 8-K, as well as Exhibit 99.1 attached hereto, shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended (the "Securities Act"), or the Exchange Act, except as shall be expressly set forth by specific reference in such a filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

The following exhibits are furnished herewith:

Exhibit 99.1 Press Release dated April 6, 2017.

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 hereunto duly authorized.

Date: April 6, 2017

MRI INTERVENTIONS, INC.

By: /s/ Harold A. Hurwitz

Harold A. Hurwitz Chief Financial Officer

INDEX TO EXHIBITS

ExhibitDescriptionNumberDescriptionExhibit 99.1Press Release dated April 6, 2017.



For Immediate Release

MRI INTERVENTIONS ANNOUNCES RECORD QUARTERLY REVENUE, RECORD CLEARPOINT[®] SYSTEM PROCEDURES IN 2017 FIRST QUARTER

Company Achieves Eighth Consecutive Quarter of ClearPoint System Procedure Growth

IRVINE, CA, April 6, 2017 – MRI Interventions, Inc. (OTCQB: MRIC) today announced preliminary results for the quarter ended March 31, 2017.

Total revenues were \$2.0 million for the three months ended March 31, 2017, and \$1.4 million for the same period in 2016, an increase of \$613,000, or 44%.

ClearPoint disposable product sales were \$1.7 million for the three months ended March 31, 2017, compared with \$1.1 million for the same period in 2016, representing an increase of \$559,000, or 51%. This increase was due primarily to a record 146 ClearPoint Neuro Navigation System procedures performed in the 2017 first quarter.

ClearPoint reusable product sales were \$259,000 for the three months ended March 31, 2017, compared with \$262,000 for the same period in 2016. Reusable products consist primarily of computer hardware and software bearing sales prices that are appreciably higher than those for disposable products and historically have fluctuated from period to period.

Management's Comments

"We are very pleased to report a 44% increase in first quarter revenue year-over-year, and our eighth consecutive quarter of record procedures as adoption of the ClearPoint System continues to increase," said Frank Grillo, President and Chief Executive Officer of MRI Interventions, Inc. "Just a few of the highlights from this quarter include:

- Year-over-year revenue growth of 44% in the first quarter, including the first time quarterly revenue has exceeded \$2 million;
- A record 146 procedures in the first quarter, our eighth quarter in a row of growth in procedure volume;
- Two ClearPoint Systems sales, three new ClearPoint System evaluation sites, and four sites completing their first procedures with the ClearPoint System;
- · Continued strong growth in both deep brain stimulation and laser ablation procedures; and
- · Continued growth in our new account pipeline, resulting in an installed base of 49 accounts.

We are pleased with the continued adoption of our technology, and are encouraged by the broadening use of our technology in multiple procedure types in our existing sites. We look forward to reporting our full financial results near the end of April."

5 Musick, Irvine, California 92618 949.900.6833

About MRI Interventions, Inc.

Building on the imaging power of magnetic resonance imaging ("MRI"), MRI Interventions is creating innovative platforms for performing the next generation of minimally invasive surgical procedures in the brain. The ClearPoint Neuro Navigation System, which has received 510(k) clearance and is CE marked, utilizes a hospital's existing diagnostic or intraoperative MRI suite to enable a range of minimally invasive procedures in the brain. For more information, please visit www.mriinterventions.com.

Forward-Looking Statements

Statements herein concerning MRI Interventions, Inc. (the "Company") plans, growth and strategies may include forward-looking statements within the context of the federal securities laws. Statements regarding the Company's future events, developments and future performance, as well as management's expectations, beliefs, plans, estimates or projections relating to the future, are forward-looking statements within the meaning of these laws. Uncertainties and risks may cause the Company's actual results to differ materially from those expressed in or implied by forward-looking statements. Particular uncertainties and risks include those relating to: the Company's ability to obtain additional financing; estimates regarding the sufficiency of the Company's cash resources; future revenues from sales of the Company's ClearPoint Neuro Navigation System products; and the Company's ability to market, commercialize and achieve broader market acceptance for the Company's actual results are described in the "Risk Factors" section of the Company's Annual Report on Form 10-K for the year ended December 31, 2016, which has been filed with the Securities and Exchange Commission, as well as the Company's Quarterly Report on Form 10-Q for the three months ended March 31, 2017, which will be filed with the Securities and Exchange Commission on or before May 15, 2017.

Contact:

Harold A. Hurwitz, Chief Financial Officer (949) 900-6833

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