

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: June 5, 2012
(Date of earliest event reported)

MRI INTERVENTIONS, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

000-54575
(Commission File
Number)

58-2394628
(I.R.S. Employer
Identification No.)

One Commerce Square, Suite 2550
Memphis, Tennessee
(Address of principal executive offices)

38103
(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 7.01. Regulation FD Disclosure.

On June 5, 2012, MRI Interventions, Inc. (the “Company”) issued a press release announcing the first brain biopsy procedure performed using the Company’s ClearPoint® system. A copy of the press release is furnished herewith as Exhibit 99.1.

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: June 5, 2012

EXHIBIT INDEX

Exhibit No.		Description
99.1	Press Release of the Company dated June 5, 2012	



MD Anderson Performs First MRI-Guided Brain Biopsy Using ClearPoint® System

Procedure represents newest use of MRI Interventions' next-generation technology.

MEMPHIS, Tenn., June 5, 2012 (GLOBE NEWSWIRE)— MRI Interventions, Inc. (OTCBB: MRIC) today announced that the first MRI-guided brain biopsy using the company's ClearPoint® System has been performed at MD Anderson in Houston, Texas by neurosurgeon Dr. Ashwin Viswanathan, working with Dr. Sujit Prabhu. The MRI-guided brain biopsy represents the newest use of the ClearPoint System, which has already been successfully used by neurosurgeons in the United States for the insertion of electrodes and catheters in the brain.

MRI Interventions' ClearPoint System is an integrated system of reusable components, disposable components and intuitive, menu-driven software. It provides guidance for the placement and operation of instruments during neurological procedures performed within the magnetic resonance imaging (MRI) environment. Using the ClearPoint system, a physician sees and selects a neurological target, aims MRI Interventions' targeting device, and watches via MRI as the surgical instrument is advanced to the target. The ClearPoint system is intended to be used as an integral part of procedures, such as biopsies and catheter and electrode insertions, which have traditionally been performed using stereotactic methods, and the system is designed to allow those procedures to be performed in a hospital's existing MRI suite.

"The system worked well," said Dr. Prabhu. "The clear advantage is confirming the position of the needle tip prior to a biopsy and also identifying a safe trajectory to the lesion."

The biopsy needle used in the procedure at MD Anderson was a brain biopsy needle manufactured by Ad-Tech Medical Instrument Corporation.

About MRI Interventions, Inc.

Founded in 1998, MRI Interventions, Inc. 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 ClearPoint® system is designed to enable a range of minimally invasive procedures in the brain. 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.

Contacts

MRI Interventions, Inc.

David Carlson, CFO 901.522.9300



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. For MRI Interventions, particular uncertainties and risks include, among others: demand and market acceptance of its products; its ability to successfully complete the development of, and to obtain regulatory clearance or approval for, future products, including its current product candidates; availability of third party reimbursement; the sufficiency of its 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; its ability to protect and enforce its intellectual property rights; its dependence on collaboration partners; the retention of its sales representatives and independent distributor; the impact of competitive products and pricing; and the impact of the commercial and credit environment on it and its 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, the quarterly report on Form 10-Q for the quarterly period ended March 31, 2012. 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.