

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: February 3, 2014
(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 February 3, 2014, David Carlson, Chief Financial Officer of MRI Interventions, Inc. (the “Company”), is electronically distributing a letter to stockholders of the Company, among other persons. Attached to that letter will be a newsletter that provides an abbreviated 2013 year-in-review with respect to the Company’s ClearPoint system. A copy of the letter, including the newsletter, is being furnished herewith as Exhibit 99.1. The newsletter includes active hyperlinks that are not accessible on Exhibit 99.1. However, the newsletter, with active hyperlinks, is available on the Company’s website at www.mriinterventions.com/clearpoint/clearpoint-newsletter.

The Company is furnishing the information contained in Exhibit 99.1 pursuant to Regulation FD. Such information is furnished pursuant to Item 7.01 of Form 8-K and shall 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 shall 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.

The information contained in Exhibit 99.1 is summary information that is intended to be considered in the context of the Company’s filings with the Securities and Exchange Commission (“SEC”) and other public announcements that the Company may make from time to time, by press release or otherwise. The Company undertakes no duty or obligation to publicly update or revise the information contained in this report, although it may do so from time to time as its management believes is warranted. Any such updating may be made through the filing of other reports or documents with the SEC, through press releases or through other public disclosure.

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 Thomas
Oscar Thomas
Vice President, Business Affairs

Date: February 3, 2014

EXHIBIT INDEX

Exhibit No.	Description
99.1	Letter from David Carlson, Chief Financial Officer of MRI Interventions, Inc.

To our Stockholders and others interested in MRI Interventions,

At the start of this new year, I am pleased to report that things are going very well at MRI Interventions. A brief look back on our progress in 2013 demonstrates the sustained impact our ClearPoint System is having on the field of neurosurgery. Neurosurgeons continued to apply the technology to a number of surgical procedures – asleep DBS to treat Parkinson’s disease and dystonia, focal laser ablation for epilepsy and brain tumors, and direct drug delivery for treating Parkinson’s disease and brain tumors, to name a few – and discovered new ways to apply the system, such as Dr. Ellen Air’s shunt placement at Cincinnati Children’s Hospital in November. We continued our successful involvement as the delivery platform for direct injection of a number of therapeutic agents currently in clinical trials, working with companies like UniQure and Tocagen for the administration of their investigational drug therapies. Additionally in 2013, we collected amazing stories from patients who volunteered to share their asleep DBS experiences with us, and ClearPoint received some very positive press over the course of the year, including stories by Boston’s ABC affiliate, MIT Technology Review and FoxNews.com. At the end of Q3 2013, we announced 29 ClearPoint installations (27 in the U.S. and 2 in Europe).

Last week, we sent the following newsletter to the growing group of visionary medical professionals who embrace the visual revolution in neurosurgery established by the ClearPoint System. This newsletter highlights a few of the clinical successes we experienced with our ClearPoint System in 2013, and we would like to share them with you as well.

I look forward to providing details of our 2013 financial results during our upcoming year-end earnings call – in the interim, we are pleased to share our recap of some of last year’s ClearPoint highlights.

Best regards,

David Carlson, CFO
MRI Interventions, Inc.

News for the ClearPoint Generation - January 2014

[View this email in your browser](#)

Straight to the POINT

**The Only Real Time MRI-guided
Navigation Platform**

Seeing is Believing

CLEARPOINT



A Year in Review - 2013

In this Issue:

- 2013 Asleep DBS Outcomes (Pediatric Dystonia) and Technical Data (Parkinson's Disease and Adult Dystonia)
- Breaking New Ground in Drug Delivery
- Patient Advocacy Groups Take Notice
- Patients Tell Their Stories
- ClearPoint in the News

Breaking New Ground in Drug Delivery

Phase 1 trial of a retroviral replicating vector (Toca 511) in recurrent high grade glioma patients demonstrates the importance of real-time MRI-guided delivery for dose-related evaluation of safety and efficacy

- Using direct MRI guidance, delivery of Toca 511 into as many as four locations in the tumor, at flow rates of up to 30 $\mu\text{L}/\text{min}$ has been achieved without reflux.
- Analysis of tumor from a patient who underwent MRI-guided delivery of Toca 511 showed Toca 511 gene

iMRI Asleep DBS

Results of Interventional MRI (iMRI)-Guided Deep Brain Stimulator Placement in Children (MDS 2013)

- Single brain penetration for all leads
- Mean accuracy 0.6 ± 0.5 mm
- Mean surgical time 190 ± 26 minutes
- Mean percent improvement in BFMDRS movement score at 12 months 87.6 ± 19.2 ($p=0.028$)
- "iMRI guided DBS is technical simple, extremely accurate, provides real-time confirmation of DBS placement, and can be utilized in any diagnostic MRI."
- "Clinical outcomes are comparable with the best reported results using traditional frame-based stereotaxy."

Markun L, Starr P, Larson P, Volz M, Martin A, Hemptinne C, Ostrem J. [Results of interventional MRI \(iMRI\)-guided deep brain stimulator placement in children](#). Poster session presented at: 17th International Congress of Parkinson's Disease and Movement Disorders; 2013 June 16-20; Sydney, Australia.

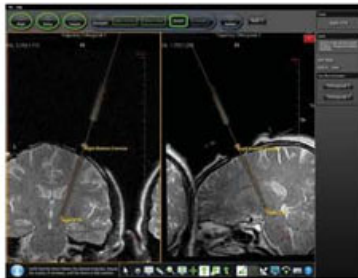
Application Accuracy of a Second

expression.

Manish Aghi 1, Michael A. Vogelbaum2,
Douglas J. Jolly3, Joan M. Robbins3, Derek
Ostertag3, Carlos E. Ibañez3, Harry E.
Gruber3, Noriyuki Kasahara4, Krystof
Bankiewicz5, Timothy F. Cloughesy6, Susan
M. Chang5, Nicholas Butowski5, Santosh
Kesari7, Clark Chen7, Tom Mikkelsen8,
Joseph Landolfi9, E. Antonio Chiocca10,12,
J. Bradley Elder10, Greg Foltz11, Dan
Pertschuk3. ["Phase 1 trial of a retroviral
replicating vector \(Toca 511\) in recurrent
high grade glioma patients demonstrates the
importance of real-time MRI-guided delivery
for dose-related evaluation of safety and
efficacy."](#) Society for Neuro-Oncology
Scientific Meeting and Education Day; 2013
November 22; San Francisco, California.

Exploring Novel Applications

- Shunt placement
- Depth electrode placement
- Pallidotomy



Patient Stories

Martin and Celeste both underwent
"asleep" DBS surgery for

Generation Interventional MRI Stereotactic Platform: Initial Experience in 101 DBS Electrode Implantations (CNS)

- 98% first pass rate
- No electrode repositioning
- Average radial error 0.6 mm
- Average surgical times: bilateral 3
hours 4 minutes, unilateral 2
hours 23 minutes

Larson P, Starr PA, Ostrem JL, Gallfianakis N, San
Luciano Palenzuela M, Martin A. Application
Accuracy of a Second Generation Interventional MRI
Stereotactic Platform: Initial Experience in 101 DBS
Electrode Implantations. Neurosurgery. 2013 Aug;60
Suppl 1:187. doi:
10.1227/01.neu.0000432793.68257.ab.

*Errors are consistently in the
submillimetric range, with the
overwhelming majority of
electrodes placed with 1 pass.*

- Dr. Paul Larson

ClearPoint in the News

- [Boston's ABC Affiliate](#)
- [MIT Technology Review](#)
- [UT San Diego](#)
- [Medgadget](#)
- [SmartPlanet](#)
- [Physician's Weekly](#)
- [Today's Medical
Developments](#)

Parkinson's disease - and it changed their lives



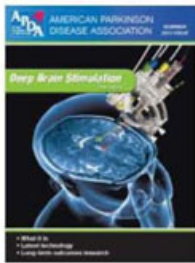
- [Imaging Economics](#)
- [... and MORE!](#)

Lab Spotlight: NINDS-ClearPoint

"With the use of these new technologies, neurosurgery can be done with greater assurance of minimal damage to surrounding tissue, while providing confirmation of delivery of drugs to targeted tissues—all in real time." - July 15, 2013

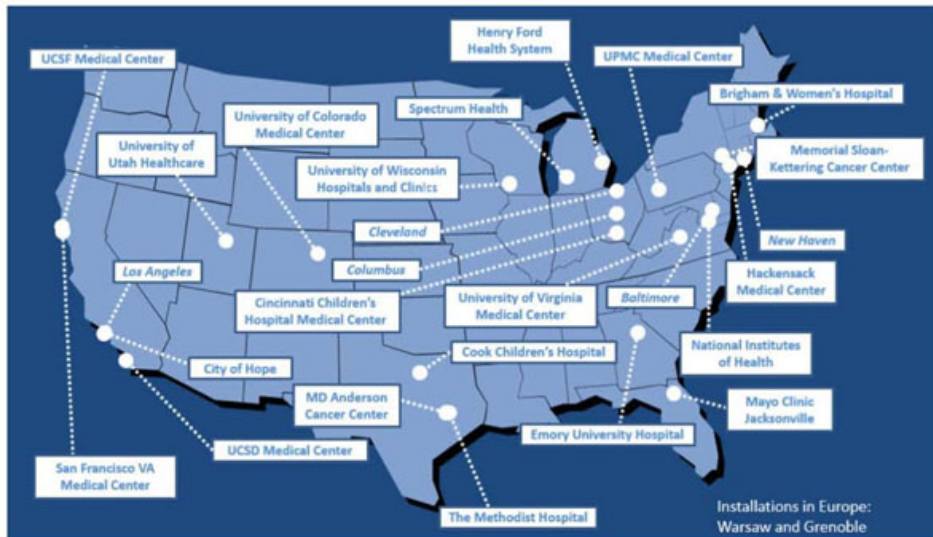


Patient Advocacy Groups



[APDA Summer New Letter](#) [HAPS \(Houston\)](#)

ClearPoint Market Adoption



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40 S Main St
Suite 2550
Memphis, TN 38103

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