



**MRI Interventions, Inc.**

**22,885,855 Shares of Common Stock**

---

This prospectus supplement relates to the prospectus dated January 26, 2015, as supplemented by prospectus supplement no. 1 dated March 17, 2015 and prospectus supplement no. 2 dated March 17, 2015, which permits the resale of up to 15,556,398 outstanding shares of our common stock, and 7,329,457 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, 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. 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 OTC Markets and the OTC Bulletin Board under the symbol MRIC. On March 30, 2015, the last reported sale price of our common stock was \$1.07 per share.

*We are an "emerging growth company" under the federal securities laws and will be subject to reduced public company reporting requirements. Investing in our common stock involves risk. See "Risk Factors" beginning on page 6 of the prospectus, as amended and supplemented by the "Risk Factors" beginning on page 23 of our Annual Report on Form 10-K for the year ended December 31, 2014 which is included in prospectus supplement no. 2, to read about factors you should consider before buying shares of our common stock.*

---

**Neither the Securities and Exchange Commission 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 March 31, 2015.

---

---

---

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): March 25, 2015

**MRI INTERVENTIONS, INC.**

(Exact name of registrant as specified in its charter)

**Delaware**  
(State or Other Jurisdiction of Incorporation)

**000-54575**  
(Commission File Number)

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

**5 Musick**  
**Irvine, California**  
(Address of principal executive offices)

**92618**  
(Zip Code)

**(949) 900-6833**  
(Registrant's telephone number, including area code)

(Former name or former address, if changed since last report)

Check the appropriate box if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

- 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))
- 
-

**Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.**

**Resignation of Director**

On March 25, 2015, Michael J. Ryan notified MRI Interventions, Inc. (the “Company”) of his decision to resign as a member of the Company’s Board of Directors (the “Board”) effective as of April 1, 2015. Having served as a director of the Company since May 2011, Mr. Ryan elected to step down from the Board voluntarily, and as a result Francis P. Grillo, the Company’s Chief Executive Officer and President, will serve as a member of the Board. Mr. Ryan’s resignation was not the result of any disagreement with the Company, its management or its operations, policies or practices.

In recognition of the contributions made by Mr. Ryan as a director of the Company, the Board’s Compensation Committee accelerated the vesting of two stock options previously awarded to Mr. Ryan, an option to purchase 45,000 shares awarded to Mr. Ryan on April 13, 2012 under the Company’s 2012 Incentive Compensation Plan, and an option to purchase 20,000 shares awarded to Mr. Ryan on June 4, 2014 under the Company’s 2013 Non-Employee Director Equity Incentive Plan. For those two stock option awards, as well as the option to purchase 20,000 shares that was awarded to Mr. Ryan on June 14, 2013 under the Company’s 2013 Incentive Compensation Plan, the Compensation Committee also extended the option exercise period through April 1, 2017.

**Election of New Director**

The Company’s Board of Directors, with the recommendation of the Corporate Governance and Nominating Committee, has elected Francis P. Grillo, the Company’s Chief Executive Officer and President, to serve as a director of the Company, effective as of April 1, 2015, until the 2015 annual meeting of stockholders and until his successor is duly elected and qualified or until his earlier death, resignation, disqualification or removal.

As our Chief Executive Officer and President, and as a result of his substantial experience as an executive in medical device companies, we believe Mr. Grillo offers a unique understanding of our business and industry with a particular focus on driving adoption of new medical technologies. Mr. Grillo has served as Chief Executive Officer of the Company since January 2015, and he has served as President of the Company since October 2014. Prior to joining MRI Interventions, Mr. Grillo served as Vice President, Marketing and New Business Development of Intuitive Surgical, Inc., a publicly-traded medical technology company, since August 2008. Before joining Intuitive Surgical, Mr. Grillo worked for Kyphon Inc. from February 2006 to June 2008, most recently as Vice President, Marketing and Business Development. Kyphon was a publicly-traded medical technology company prior to its acquisition by Medtronic, Inc. in November 2007. Prior to Kyphon, from September 1996 to January 2006, Mr. Grillo held various positions at Boston Scientific Corporation, most recently as Vice President, Marketing, Women’s Health, Urology/Gynecology Division. There are no arrangements or understandings between Mr. Grillo and any other person pursuant to which he was elected as a director of the Company. There are no family relationships between Mr. Grillo and any director, executive officer, or any person nominated or chosen by the Company to become a director or executive officer. There are no related person transactions (within the meaning of Item 404(a) of Regulation S-K promulgated by the Securities and Exchange Commission) between Mr. Grillo and the Company.

**Termination of Named Executive Officer**

As part of the previously announced management transition, effective April 1, 2015, Kimble L. Jenkins will separate from employment with the Company and Mr. Jenkins’ employment agreement will be terminated without cause. Mr. Jenkins will continue to serve as a director of the Company and he will remain the Chairman of the Company’s Board of Directors.

---

In support of the previously announced management transition, Mr. Jenkins and the Company will enter into a consulting agreement following the termination of Mr. Jenkins' employment (the "Consulting Agreement"). Under the Consulting Agreement, Mr. Jenkins will, at the request of the Company's Chief Executive Officer: (a) assist in the orderly transition of all business operations from the Company's Memphis, Tennessee offices to the Company's headquarters in Irvine, California; (b) work with the Company's senior executives on transition matters; and (c) provide assistance to the Company on business development matters. To the extent services are rendered under the Consulting Agreement, Mr. Jenkins will be compensated on an hourly basis.

In recognition of the contributions made by Mr. Jenkins as an officer of the Company, the Board's Compensation Committee approved an omnibus amendment to Mr. Jenkins' employment agreement and the equity grant agreements previously awarded to Mr. Jenkins (the "Omnibus Amendment"). Pursuant to the Omnibus Amendment, Mr. Jenkins' stock options will immediately vest upon the termination of his employment, and Mr. Jenkins will thereafter be able to exercise his stock options until the various expiration dates in the respective stock option award agreements.

---

**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.

**MRI INTERVENTIONS, INC.**

By: /s/ Francis P. Grillo \_\_\_\_\_

Francis P. Grillo  
Chief Executive Officer and President

Date: March 31, 2015