

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D/A

Under the Securities Exchange Act of 1934
(Amendment No. 4)*

MRI Interventions, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

55347P209

(CUSIP Number)

**Bruce C. Conway
5403 Drane Drive
Dallas, Texas 75209
(214) 351-4897**

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

May 26, 2017

(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box.

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

(Continued on following pages)
(Page 1 of 9 Pages)

1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (*entities only*).

Bruce C. Conway

2. Check the Appropriate Box if a Member of a Group (See Instructions)

(a)

(b)

3. SEC Use Only

4. Source of Funds (See Instructions)

PF

5. Check if Disclosure or Legal Proceedings Is Required Pursuant to Items 2(d) or 2(e)

6. Citizenship or Place of Organization

Number of 7. Sole Voting Power
Shares

United States

1,366,856

Beneficially 8. Shared Voting Power
Owned by

20,100

Each 9. Sole Dispositive Power
Reporting

1,366,856

Person 10. Shared Dispositive Power
With

20,100

11. Aggregate Amount Beneficially Owned by Each Reporting Person

1,386,956*

12. Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

13. Percent of Class Represented by Amount in Row (11)

12.72%**

14. Type of Reporting Person (See Instructions)

IN

* Includes 3,600 shares jointly held with his spouse, 16,500 shares held solely by his spouse, 604,384 shares that Mr. Conway has the right to acquire through the exercise of warrants, 1,125 shares that Mr. Conway has the right to acquire through the exercise of options and 39,654 shares in the aggregate owned by the Alden M. Conway Trust, the Chase T. Conway Trust, the Merritt Elizabeth Conway Trust, the Edna N. Conway Irrevocable Trust FBO Alden M. Conway, the Edna N. Conway Irrevocable Trust FBO Chase T. Conway, the Edna N. Conway Irrevocable Trust FBO Merritt Elizabeth Conway and the Conway Family GST Trust. Mr. Conway is the trustee of each of the aforementioned trusts and has voting and investment power of each trust's shares, which are held in trust for the benefit of members of his family. Also includes 5,500 shares owned by the BCC Life Insurance Trust, which shares are held in trust for the benefit of Mr. Conway's children. A third party serves as trustee for such trust.

** Based on 10,335,365 shares of common stock outstanding as of May 30, 2017, determined in accordance with Rule 13d-3 of the Exchange Act.

Item 1. Security and Issuer

This Schedule 13D relates to shares of common stock of MRI Interventions, Inc. (the "Issuer"). The Issuer's principal executive office is located at 5 Musick, Irvine, California 92618.

Item 2. Identity and Background

- (a) This Schedule 13D is being filed by Bruce C. Conway ("Mr. Conway").
- (b) Mr. Conway's address is 5403 Drane Drive, Dallas, Texas 75209.
- (c) Mr. Conway is a self-employed investment consultant and former director of the Issuer.
- (d) Mr. Conway has not been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) in the past five years.
- (e) In the past five years, Mr. Conway has not been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was not and is not subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) Mr. Conway is a citizen of the United States.

Item 3. Source and Amount of Funds or Other Consideration

Prior to May 26, 2017, Mr. Conway beneficially owned an aggregate of 252,193 shares of the Issuer's common stock. Mr. Conway acquired these shares through purchases of the Issuer's common stock with personal funds, upon conversion of the Issuer's Series A Convertible Preferred Stock and certain convertible notes purchased by Mr. Conway with personal funds, and upon the exercise of warrants issued to Mr. Conway in connection with his purchases of such convertible notes. In addition, Mr. Conway held warrants that he had acquired from the Issuer in connection with certain purchases of the Issuer's common stock, warrants that he had received in recognition of his support of the Issuer, and options he had received in connection with his former service as a director of the Issuer.

On May 26, 2017, Mr. Conway purchased 500,000 shares of common stock and a Warrant to purchase 500,000 shares of common stock in the Issuer's private placement, which closed on May 26, 2017, for \$1,000,000 with his personal funds, pursuant to a Securities Purchase Agreement entered into with the Issuer on May 25, 2017, the Warrant issued to Mr. Conway on May 26, 2017, the form of which were previously filed as Exhibits 10.1, and 4.1, respectively, to the Current Report on Form 8-K filed with the SEC on May 25, 2017 and which are incorporated by reference herein. The Warrant is exercisable, in whole or in part, for the five years from the date of closing at an exercise price of \$2.00 per share.

Item 4. Purpose of Transaction

Mr. Conway acquired the shares of the Issuer's common stock as described in Item 3 above for investment purposes.

Depending upon then prevailing market conditions, other investment opportunities available to Mr. Conway, the availability of shares of common stock at prices that would make the purchase of additional shares of common stock desirable and other investment considerations, Mr. Conway may endeavor to increase his position in the Issuer through, among other things, the purchase of shares of common stock on the open market, or in private transactions or otherwise, on such terms and at such times as Mr. Conway may deem advisable. Mr. Conway reserves the right to dispose of any or all of his shares of the Issuer's common stock in the open market, through private transactions, or otherwise, at any time and from time to time and to engage in any hedging or similar transactions.

Mr. Conway intends to review his investment in the Issuer on a continuing basis and may engage in communications with one or more stockholders of the Issuer, one or more officers of the Issuer, one or more members of the board of directors of the Issuer and/or one or more other representatives of the Issuer concerning the business, operations and future plans of the Issuer.

Mr. Conway currently has no plans or proposals that relate to or that would result in any of the actions or transactions described in paragraphs (a) through (j) of Item 4 of the instructions to Schedule 13D. However, Mr. Conway reserves the right from time to time to formulate plans or proposals regarding the Issuer or any of its securities, and to carry out any of the actions or transactions described in paragraphs (a) through (j) of Item 4 of the instructions to Schedule 13D, to the extent deemed advisable by Mr. Conway.

Item 5. Interest in Securities of the Issuer

- (a) On the filing date of this Schedule 13D, Mr. Conway beneficially owned, in the aggregate, 1,386,956 shares of the Issuer's common stock, representing approximately 12.72% of the Issuer's outstanding shares of common stock (based on 10,335,365 shares of the Issuer's common stock issued and outstanding as of May 30, 2017), including 568,384 shares that Mr. Conway has the right to acquire through the exercise of warrants and 1,125 shares that Mr. Conway has the right to acquire through the exercise of stock options.
- (b) Mr. Conway has the sole right to vote, or direct the vote, and sole power to dispose of, or direct the disposition of, 1,366,856 shares of the Issuer's common stock beneficially owned by Mr. Conway. Mr. Conway shares his right to vote, or direct the vote, and his right to dispose of, or direct the disposition of, the remaining 20,100 shares of the Issuer's common stock beneficially owned by Mr. Conway as of the filing date of this Schedule 13D with his spouse ("Mrs. Conway"). See the footnote to Line 11 in the table above, which further describes Mr. Conway's direct and indirect beneficial ownership.
- (c) Mr. Conway effected the following transactions in shares of the Issuer's common stock within the past sixty (60) days (excluding the May 26, 2017 transaction described above):

Transactions in the Securities of the Issuer During the Past 60 days (excluding the May 26, 2017 transaction described above)

On April 5, 2017, Mr. Conway purchased 800 shares of the Issuer's common stock, at \$4.60 per share, on the open market with his personal funds; and

On April 11, 2017, Mr. Conway purchased 300 shares of the Issuer's common stock, at \$4.60 per share, on the open market with his personal funds.

- (d) Other than Mr. Conway and his spouse, no other person is known to have the right to receive, or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of common stock owned by Mr. Conway.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to the Securities of the Issuer

Except as described in Item 3 of this Schedule 13D, Mr. Conway is not subject to any contracts, arrangements, understandings or relationships (legal or otherwise) between himself and any other person with respect to the securities of the Issuer, including, but not limited to, transfer or voting of any of the securities, finder's fees, joint ventures, loan or option arrangements, puts or calls, guarantees of profits, division of profits or loss, or the giving or withholding of proxies or any pledge or contingency, the occurrence of which would give another person voting or investment power over the securities of the Issuer, other than standard default and similar provisions contained in loan agreements.

Item 7. Materials to be Filed as Exhibits

See Exhibit Index immediately following signature page.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Dated: June 5, 2017

BRUCE C. CONWAY

/s/ Bruce C. Conway

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EXHIBIT INDEX

Exhibit No.	Description
99.1 ⁽¹⁾	Form of Securities Purchase Agreement, dated as of May 25, 2017, by and between the Issuer and the Purchasers
99.2 ⁽²⁾	Form of Warrant, dated as of May 26, 2017, issued to Investors
(1)	Filed as Exhibit 10.1 to the Issuer's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 25, 2017 and incorporated herein by reference.
(2)	Filed as Exhibit 4.1 to the Issuer's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 25, 2017 and incorporated herein by reference.

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