

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

SCHEDULE 13D

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

MRI Interventions, Inc.
(Name of Issuer)

Common Stock

(Title of Class of Securities)

55347P100

(CUSIP Number)

Bruce C. Conway
5514 Wenonah Drive
Dallas, Texas 75209
(214) 351-4897

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

May 9, 2012

(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

United States

7.	Sole Voting Power	<u>3,820,094</u>
8.	Shared Voting Power	<u>380,000</u>
9.	Sole Dispositive Power	<u>3,820,094</u>
10.	Shared Dispositive Power	<u>380,000</u>

11. Aggregate Amount Beneficially Owned by Each Reporting Person.....4,200,094*

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

13. Percent of Class Represented by Amount in Row (11).....7.3%**

14. Type of Reporting Person (See Instructions)

IN

*Includes 32,891 shares jointly held with his spouse, 260,000 shares held solely by his spouse, 350,000 shares that Mr. Conway has the right to acquire through the exercise of warrants, 45,000 shares that Mr. Conway has the right to acquire through the exercise of stock options, and 1,410,000 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 90,000 shares in the aggregate owned by the Gordon McShane Trust for Alden M. Conway, the Gordon McShane Trust for Chase T. Conway and the Gordon McShane Trust for Merritt E. Conway. Mr. Conway's spouse serves as trustee for each such trust and has voting and investment power of each trust's shares, which are held in trust for the benefit of Mr. Conway's children. Also includes 30,000 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 57,320,447 shares of common stock outstanding as of May 3, 2013, as reported by MRI Interventions, Inc. in its Quarterly Report on Form 10-Q for the three months ended March 31, 2013.

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 One Commerce Square, Suite 2550, Memphis, Tennessee 38103.

Item 2. Identity and Background

- (a) This Schedule 13D is being filed by Bruce C. Conway ("Mr. Conway").
- (b) Mr. Conway's address is 5514 Wenonah 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 9, 2012, Mr. Conway beneficially owned an aggregate of 3,252,731 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.

On May 9, 2012, the Issuer issued 250,000 warrants to Mr. Conway in recognition of his long-standing support of the Issuer. The warrants were fully vested and exercisable upon issuance, have an exercise price of \$1.00 per share and have a term of five years.

On July 3, 2012, Mr. Conway purchased 100,000 units, each unit consisting of one share of common stock and one warrant to purchase 0.5 share of common stock, in the Issuer's PIPE closing on such date for \$110,000 with his personal funds, pursuant to a Securities Purchase Agreement entered into with the Issuer and the Warrant issued to Mr. Conway on July 3, 2012, the forms of which were previously filed as Exhibits 10.1 and 4.1, respectively, to the Current Report on Form 8-K filed with the Securities and Exchange Commission (the "SEC") on July 6, 2012 and are incorporated by reference herein. The Warrant is exercisable, in whole or in part, for five years from the date of closing at an exercise price of \$1.45 per share.

On January 25, 2013, Mr. Conway purchased 100,000 units, each unit consisting of one share of common stock and one warrant to purchase 0.5 share of common stock, in the Issuer's PIPE closing on such date for \$120,000 with his personal funds, pursuant to a Securities Purchase Agreement entered into with the Issuer on January 18, 2013 and the Warrant issued to Mr. Conway on January 25, 2013, the forms 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 January 22, 2013 and are incorporated by reference herein. The Warrant is exercisable, in whole or in part, for five years from the date of closing at an exercise price of \$1.75 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, 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, 4,200,094 shares of the Issuer's common stock, representing approximately 7.3% of the Issuer's outstanding shares of common stock (based on 57,320,447 shares of the Issuer's common stock issued and outstanding as of May 3, 2013), including 350,000 shares that Mr. Conway has the right to acquire through the exercise of warrants and 45,000 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, 3,820,094 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 380,000 shares of the Issuer's common stock beneficially owned by Mr. Conway as of the filing date of this Schedule 13D with his spouse. 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 of the transactions described in Item 3 above:

Transactions within 60 Days Prior to May 9, 2012

On April 13, 2012, in recognition of the contributions made by Mr. Conway as a director of the Issuer at such time, the Issuer granted a stock option of 45,000 shares to Mr. Conway, with an exercise price of \$1.00 per share, under the Issuer's 2012 Incentive Compensation Plan. Upon issuance, the shares subject to these stock options were to vest ratably on the first, second and third anniversaries of the grant date, April 13, 2013, April 13, 2014 and April 13, 2015. The Issuer subsequently accelerated the vesting of these shares to vest immediately, and, as a result, all 45,000 shares subject to the stock option are fully vested and currently exercisable.

Transactions within 60 Days Prior to July 3, 2012 (excluding the May 9, 2012 transaction described in Item 3 above)

On May 25, 2012, Mr. Conway purchased 3,748 shares of the Issuer's common stock, at \$0.75 per share, on the open market with his personal funds;

On June 12, 2012, on behalf of 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, Mr. Conway purchased an aggregate of 2,250 shares of the Issuer's common stock, at \$1.20 per share, on the open market with his personal funds. Mr. Conway serves as the trustee for each of these trusts.

On June 13, 2012, on behalf of the Conway Family GST Trust, Mr. Conway purchased 5,000 shares, at \$1.10 per share, and 1,000 shares, at \$1.45 per share, of the Issuer's common stock on the open market with his personal funds. On June 14, 2012, Mr. Conway purchased an additional 4,000 shares of the Issuer's common stock, at \$1.00 per share, on the open market on behalf of this trust with his personal funds. Mr. Conway serves as the trustee for this trust.

On June 14, 2012, Mr. Conway also purchased 1,000 shares on behalf of each of the Gordon McShane Trust for Merritt E. Conway, the Gordon McShane Trust for Chase T. Conway and the Gordon McShane Trust for Alden M. Conway, at \$1.00, \$0.96 and \$0.90 per share, respectively, on the open market with his personal funds. Mr. Conway's spouse serves as the trustee for each of these trusts.

Transactions within 60 Days Prior to January 25, 2013

Mr. Conway did not engage in any transactions in shares of the Issuer's common stock within sixty (60) days prior to the January 25, 2013 transaction.

- (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: May 31, 2013

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 July 3, 2013, by and between the Issuer and the Investors
99.2 ⁽²⁾	Form of Warrant, dated as of July 3, 2013, issued to Investors
99.3 ⁽³⁾	Form of Securities Purchase Agreement, dated as of January 18, 2013, by and between the Issuer and the Investors
99.4 ⁽⁴⁾	Form of Warrant, dated as of January 25, 2013, 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 July 6, 2012 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 July 6, 2012 and incorporated herein by reference.
- ⁽³⁾ Filed as Exhibit 10.1 to the Issuer's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 22, 2013 and incorporated herein by reference.
- ⁽⁴⁾ Filed as Exhibit 4.1 to the Issuer's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 22, 2013 and incorporated herein by reference.

