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

FORM S-8

REGISTRATION STATEMENT UNDER
THE SECURITIES ACT OF 1933

MRI INTERVENTIONS, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

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

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

92618
(Zip Code)

**Amended and Restated 2013 Incentive Compensation Plan
Non-Qualified Stock Option Agreement with Francis P. Grillo
Non-Qualified Stock Option Agreement with Robert C. Korn
Non-Qualified Stock Option Agreement with Wendelin C. Maners
Non-Qualified Stock Option Agreement with Harold A. Hurwitz**

(Full title of the plans)

Francis P. Grillo
Chief Executive Officer
5 Musick
Irvine, California 92618
(Name and address of agent for service)

(949) 900-6833
(Telephone number, including area code, of agent for service)

With copies to:
Richard F. Mattern, Esq.
Baker, Donelson, Bearman, Caldwell & Berkowitz, PC
165 Madison Avenue, Suite 2000
Memphis, Tennessee 38103
(901) 577-2343

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of securities to be registered	Amount to be registered ⁽¹⁾	Proposed maximum offering price per share	Proposed maximum aggregate offering price	Amount of registration fee
Common Stock, \$0.01 par value per share	5,000,000 shares ⁽²⁾	\$0.63 ⁽³⁾	\$3,150,000	\$366.03
Common Stock, \$0.01 par value per share	2,400,000 shares ⁽⁴⁾	\$1.13 ⁽⁵⁾	\$2,712,000	\$315.14
Common Stock, \$0.01 par value per share	100,000 shares ⁽⁶⁾	\$0.98 ⁽⁵⁾	\$98,000	\$11.39
Common Stock, \$0.01 par value per share	350,000 shares ⁽⁷⁾	\$0.91 ⁽⁵⁾	\$318,500	\$37.01
Common Stock, \$0.01 par value per share	450,000 shares ⁽⁸⁾	\$1.06 ⁽⁵⁾	\$477,000	\$55.43
Total	8,300,000 shares		\$6,755,500	\$784.99

- (1) Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this Registration Statement shall also cover any additional shares of common stock, \$0.01 par value (the "Common Stock"), which become issuable under the above-named plans by reason of any stock dividend, stock split, recapitalization or any other similar transaction effected without receipt of consideration which results in an increase in the number of the Registrant's outstanding shares of common stock.
- (2) Represents 5,000,000 shares of Common Stock of the Registrant issuable under the MRI Interventions, Inc. Amended and Restated 2013 Incentive Compensation Plan (the "Plan").
- (3) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(c) and (h) under the Securities Act, based on the average of the high and low sale prices of the Common Stock of \$0.63 per share, as reported on OTC Markets on August 11, 2015.
- (4) Represents 2,400,000 shares reserved for issuance pursuant to a Non-Qualified Stock Option Agreement effective as of October 6, 2014 between the Registrant and Francis P. Grillo, Chief Executive Officer of the Registrant, approved by the Compensation Committee of the Board of Directors of the Registrant.
- (5) Pursuant to Rule 457(h) under the Securities Act, the proposed maximum offering price per share is based on the price at which the options may be exercised for shares of Common Stock of the Registrant under the Non-Qualified Stock Option Agreement.
- (6) Represents 100,000 shares reserved for issuance pursuant to a Non-Qualified Stock Option Agreement effective as of November 10, 2014 between the Registrant and Robert C. Korn, Vice President, Sales, of the Registrant, approved by the Compensation Committee of the Board of Directors of the Registrant.
- (7) Represents 350,000 shares reserved for issuance pursuant to a Non-Qualified Stock Option Agreement effective as of December 1, 2014 between the Registrant and Wendelin C. Maners, Vice President, Marketing, of the Registrant, approved by the Compensation Committee of the Board of Directors of the Registrant.
- (8) Represents 450,000 shares reserved for issuance pursuant to a Non-Qualified Stock Option Agreement effective as of March 30, 2015 between the Registrant and Harold A. Hurwitz, Chief Financial Officer of the Registrant, approved by the Compensation Committee of the Board of Directors of the Registrant.

PART I

INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

Documents containing information required by Part I of this Registration Statement will be sent or given to employees, officers, directors or others as specified by Rule 428(b)(1) under the Securities Act. In accordance with the rules and regulations of the Securities and Exchange Commission (the "Commission") and the Note to Part I of Form S-8, such documents are not filed with the Commission either as a part of this Registration Statement or as prospectuses or prospectus supplements.

PART II

INFORMATION REQUIRED IN THE REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The following documents, which have been filed by the Registrant with the Commission, are incorporated by reference into this Registration Statement:

- The Registrant's Annual Report on Form 10-K for the year ended December 31, 2014 filed on March 17, 2015;
- The Registrant's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2015 filed on May 7, 2015 and the Quarterly Report on Form 10-Q for the quarterly period ended June 30, 2015 filed on August 10, 2015;
- The Registrant's Current Reports on Form 8-K filed on January 5, 2015, March 17, 2015, March 31, 2015, May 8, 2015 and June 8, 2015, respectively; and
- The description of the Registrant's Common Stock contained in the Registrant's Registration Statement on Form 10 (File No. 000-54575) filed on December 28, 2011, including any subsequent amendment or any report filed for the purpose of updating such description.

All documents subsequently filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), prior to the filing of a post-effective amendment to this Registration Statement which indicates that all of the shares of common stock offered have been sold or which deregisters all of such shares then remaining unsold, shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the date of the filing of such documents; except as to any portion of any future annual or quarterly report to stockholders or document or current report furnished under current items 2.02 or 7.01 of Form 8-K that is not deemed filed under such provisions. For the purposes of this Registration Statement, any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Under no circumstances will any information furnished under current items 2.02 or 7.01 of Form 8-K be deemed incorporated herein by reference unless such Current Report on Form 8-K expressly provides to the contrary.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

None.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the “DGCL”) authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys’ fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

As permitted by Delaware law, as it now exists or may in the future be amended, the Registrant has adopted provisions in the Registrant’s certificate of incorporation and bylaws that limit or eliminate the personal liability of directors for a breach of their fiduciary duty of care as a director to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to the Registrant or the Registrant’s stockholders for monetary damages or breach of fiduciary duty as a director, except for liability for:

- any breach of the director’s duty of loyalty to the Registrant or the Registrant’s stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any act related to unlawful stock repurchases, redemptions or other distributions or payments of dividends; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not limit or eliminate the Registrant’s rights or any stockholder’s rights to seek non-monetary relief, such as injunctive relief or rescission. These provisions will not alter a director’s liability under federal securities laws.

As permitted by Delaware law, the Registrant’s bylaws also provide that:

- the Registrant will indemnify its directors and officers to the fullest extent permitted by law; and
- the Registrant will advance expenses to its directors and officers in connection with a legal proceeding to the fullest extent permitted by law.

The Registrant's bylaws also permit the Registrant to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in connection with their services to the Registrant, regardless of whether the Registrant's bylaws permit such indemnification. The Registrant has obtained such insurance.

In addition to the indemnification provided for in the Registrant's certificate of incorporation and bylaws, the Registrant has entered into separate indemnification agreements with each of its directors and officers. These indemnification agreements require the Registrant, among other things, to indemnify its directors and officers for expenses (including attorneys' fees), judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of the Registrant's directors or officers, or his or her service on behalf of any of the Registrant's subsidiaries or any other company or enterprise to which the person provides services at the Registrant's request.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The exhibits listed in the Exhibit Index that immediately follows the signature pages to this Registration Statement are filed as part of or incorporated into this Registration Statement.

Item 9. Undertakings.

(a) The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement;

Provided, however, that paragraphs (a)(1)(i) and (a)(1)(ii) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in the Registration Statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the city of Irvine, state of California, on this 17th day of August, 2015.

MRI INTERVENTIONS, INC.

By: /s/ Harold A. Hurwitz
Harold A. Hurwitz
Chief Financial Officer and Secretary

POWER OF ATTORNEY

The undersigned directors and officers do hereby constitute and appoint Francis P. Grillo and Harold A. Hurwitz and each of them, with full power of substitution, our true and lawful attorneys-in-fact and agents to do any and all acts and things in our name and behalf in our capacities as directors and officers, and to execute any and all instruments for us and in our names in the capacities indicated below, that such person may deem necessary or advisable to enable the registrant to comply with the Securities Act and any rules, regulations and requirements of the SEC in connection with this registration statement, including specifically, but not limited to, power and authority to sign for us, or any of us, in the capacities indicated below, any and all amendments hereto (including pre-effective and post-effective amendments or any other registration statement filed pursuant to the provisions of Rule 462(b) under the Securities Act); and we do hereby ratify and confirm all that such person or persons shall do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the date indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Francis P. Grillo</u> Francis P. Grillo	Chief Executive Officer and Director (Principal Executive Officer)	August 17, 2015
<u>/s/ Harold A. Hurwitz</u> Harold A. Hurwitz	Chief Financial Officer (Principal Financial and Accounting Officer)	August 17, 2015
<u>/s/ Kimble L. Jenkins</u> Kimble L. Jenkins	Chairman of the Board of Directors	August 17, 2015
<u>/s/ Pascal E.R. Girin</u> Pascal E.R. Girin	Director	August 17, 2015
<u>/s/ Charles E. Koob</u> Charles E. Koob	Director	August 17, 2015
<u>/s/ Philip A. Pizzo, M.D.</u> Philip A. Pizzo, M.D.	Director	August 17, 2015

<u>/s/ Timothy T. Richards</u> Timothy T. Richards	Director	August 17, 2015
<u>/s/ Andrew K. Rooke</u> Andrew K. Rooke	Director	August 17, 2015
<u>/s/ John N. Spencer, Jr.</u> John N. Spencer, Jr.	Director	August 17, 2015
<u>/s/ Maria Sainz</u> Maria Sainz	Director	August 17, 2015

EXHIBIT INDEX

<u>Exhibit No.</u>	<u>Description</u>
3.1	Amended and Restated Certificate of Incorporation, as amended (filed as Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 10, 2015 and incorporated herein by reference).
3.2	Amended and Restated Bylaws (filed as Exhibit 3.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on May 11, 2012 and incorporated herein by reference).
4.1	Reference is made to Exhibits 3.1 and 3.2
4.2	Specimen of Common Stock Certificate (filed as Exhibit 4.2 to the Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 14, 2014 and incorporated herein by reference).
4.3	Amended and Restated 2013 Incentive Compensation Plan (filed as Appendix A to the Registrant's Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on April 17, 2015 and incorporated herein by reference).
5.1*	Opinion of Baker, Donelson, Bearman, Caldwell & Berkowitz, PC
10.1	Non-Qualified Stock Option Agreement, effective as of October 6, 2014, granted by MRI Interventions, Inc. to Francis P. Grillo (filed as Exhibit 10.63 to the Registrant's Registration Statement on Form S-1 (File No. 333-201471) filed with the Securities and Exchange Commission on January 13, 2015 and incorporated herein by reference).
10.2	Non-Qualified Stock Option Agreement, effective as of November 10, 2014, granted by MRI Interventions, Inc. to Robert C. Korn (filed as Exhibit 10.64 to the Registrant's Registration Statement on Form S-1 (File No. 333-201471) filed with the Securities and Exchange Commission on January 13, 2015 and incorporated herein by reference).
10.3	Non-Qualified Stock Option Agreement, effective as of December 1, 2014, granted by MRI Interventions, Inc. to Wendelin C. Maners (filed as Exhibit 10.65 to the Registrant's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 14, 2013 and incorporated herein by reference).
10.4	Non-Qualified Stock Option Agreement, effective as of March 30, 2015, granted by MRI Interventions, Inc. to Harold A. Hurwitz (filed as Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on August 6, 2015 and incorporated herein by reference).
23.1*	Consent of Baker, Donelson, Bearman, Caldwell & Berkowitz, PC (included in Exhibit 5.1)
23.2*	Consent of Cherry Bekaert LLP
<u>24.1*</u>	Power of attorney (included on signature page)

* Filed herewith.

BAKER DONELSON
BEARMAN, CALDWELL & BERKOWITZ, PC

2000 FIRST TENNESSEE
BUILDING
168 MADISON AVENUE
MEMPHIS, TENNESSEE
38102

PHONE: 901.526.2000
FAX: 901.577.2303

www.bakerdonelson.com

August 17, 2015

Board of Directors
MRI Interventions, Inc.
5 Musick
Irvine, California 92618

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have acted as counsel to MRI Interventions, Inc., a Delaware corporation (the "Company"), in connection with the preparation and filing with the Securities and Exchange Commission (the "Commission") of the Company's registration statement on Form S-8 (the "Registration Statement") under the Securities Act of 1933, as amended (the "Securities Act"), on or about the date hereof relating to an aggregate of up to (a) 5,000,000 shares (the "Plan Shares") of Common Stock, par value \$0.01 per share (the "Common Stock") of MRI Interventions, Inc., a Delaware corporation (the "Company"), that may be issued pursuant to the Company's Amended and Restated 2013 Incentive Compensation Plan (the "Plan"); and (b) 3,300,000 shares (together with the Plan Shares, the "Registered Shares") of Common Stock that may be issued pursuant to that certain (i) Non-Qualified Stock Option Agreement, effective as of October 6, 2014, granted by the Company to Francis P. Grillo; (ii) Non-Qualified Stock Option Agreement, effective as of November 10, 2014, granted by the Company to Robert C. Korn; (iii) Non-Qualified Stock Option Agreement, effective as of December 1, 2014, granted by the Company to Wendelin C. Maners; and (iv) Non-Qualified Stock Option Agreement, effective as of March 30, 2015, granted by MRI Interventions, Inc. to Harold A. Hurwitz (collectively, the "Inducement Award Agreements").

In our capacity as counsel to the Company and for purposes of this opinion, we have examined originals, or copies certified or otherwise identified to our satisfaction, of the following documents:

- i. the Amended and Restated Certificate of Incorporation of the Company, as amended and in effect on the date hereof;
- ii. the Bylaws of the Company;
- iii. the Registration Statement and all exhibits thereto;
- iv. the corporate proceedings of the Company with respect to the authorization of the issuance of the Registered Securities; and

- v. such other corporate records, documents, certificates, memoranda and other instruments as we have deemed necessary or appropriate to express the opinions set forth in this letter, subject to the assumptions, limitations and qualifications stated herein.

We have assumed the genuineness and authenticity of all documents submitted to us as originals, and the conformity to originals of all documents where due execution and delivery are a prerequisite to the effectiveness thereof. As to certain factual matters, we have relied upon representations of officers of the Company and have not sought to independently verify such matters.

On the basis of the foregoing, we are of the opinion that:

1. The Company is a corporation duly incorporated and existing under the laws of the State of Delaware and is in good standing with the Secretary of State of the State of Delaware.
2. The Registered Shares that may be issued and sold from time to time in accordance with the Plan and the Inducement Award Agreements will, when issued, sold and paid for in accordance with the Plan and the Inducement Award Agreements, be validly issued, fully paid and non-assessable.

The opinions provided above are, with your concurrence, subject to the following exceptions, limitations and qualifications: (i) the effect of bankruptcy, insolvency, fraudulent transfer, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors (including, without limitation, the effect of statutory or other laws regarding preferential transferees); (ii) the effect of general equitable principles (including, without limitation, concepts of materiality, reasonableness, good faith and fair dealing), regardless of whether considered in a proceeding at law or in equity, and the discretion of the court before which any proceeding therefor may be brought; (iii) the unenforceability under certain circumstances under law or court decisions of provisions providing for the indemnification of or contribution to a party with respect to a liability where such indemnification or contribution is contrary to public policy; and (iv) the unenforceability of any provision requiring the payment of attorneys' fees, where such payment is contrary to law or public policy.

Our examination of matters of law in connection with the opinions expressed herein has been limited to, and accordingly our opinions expressed herein are limited to, the laws of the State of Delaware. We express no opinion with respect to the laws of any other jurisdiction.

This opinion is given as of the date hereof, and we assume no obligation to advise you after the date hereof of facts or circumstances that come to our attention or changes in law that occur which could affect the opinions contained herein.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

BAKER, DONELSON, BEARMAN, CALDWELL
& BERKOWITZ, PC

/s/ Richard F. Mattern

Richard F. Mattern, Authorized Representative

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

MRI Interventions, Inc.
Irvine, California

We consent to the incorporation by reference in this Registration Statement on Form S-8 of MRI Interventions, Inc. of our report dated March 17, 2015, appearing in the Annual Report on Form 10-K of MRI Interventions, Inc. as of and for the year ended December 31, 2014, filed March 17, 2015 with the Securities and Exchange Commission.

/s/ Cherry Bekaert LLP

Charlotte, North Carolina
August 17, 2015