

FORM 3

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

OMB APPROVAL

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INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person * Malernee James K. Jr.		2. Date of Event Requiring Statement (Month/Day/Year) 02/27/2012		3. Issuer Name and Ticker or Trading Symbol MRI INTERVENTIONS, INC. [NONE]	
(Last) (First) (Middle) C/O MRI INTERVENTIONS, INC., ONE COMMERCE SQUARE, SUITE 2550		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input type="checkbox"/> Officer <input type="checkbox"/> Other (give title below) (specify below)		5. If Amendment, Date Original Filed(Month/Day/Year)	
(Street) MEMPHIS, TN 38103				6. Individual or Joint/Group Filing(Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person	
(City) (State) (Zip)					

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	136,872	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

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Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Warrants (right to buy)	(1)	09/14/2013	Common Stock	75,000	\$ 0.01	D	

Stock Option (right to buy)	(2)	12/13/2020	Common Stock	38,000	\$ 1.8	D	
Stock Option (right to buy)	(3)	12/13/2020	Common Stock	12,000	\$ 1.8	D	

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Malernee James K. Jr. C/O MRI INTERVENTIONS, INC. ONE COMMERCE SQUARE, SUITE 2550 MEMPHIS, TN 38103	X			

Signatures

/s/ Oscar Thomas, by power of attorney for James K. Malernee, Jr.		02/27/2012
<small>Signature of Reporting Person</small>		<small>Date</small>

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 5(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) The shares subject to this warrant are immediately exercisable.

One-third of the shares subject to this option vested on the first anniversary of the grant date, December 13,

(2) 2011. The remaining shares subject to this option vest ratably on the second and third anniversaries of the grant date, December 13, 2012 and December 13, 2013.

The shares subject to this option vest ratably on the first, second and third anniversaries of the grant date,

(3) December 13, 2011, December 13, 2012 and December 13, 2013, provided that no shares vest until such time as the company closes a target equity financing, which is defined as one or more equity financing transactions that results in cumulative gross proceeds of at least \$10 million.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, See Instruction 6 for procedure.

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