

Valentine Keith
 Form 4
 September 22, 2009

FORM 4 UNITED STATES SECURITIES AND EXCHANGE COMMISSION
 Washington, D.C. 20549

OMB APPROVAL

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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

STATEMENT OF CHANGES IN 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 *
 Valentine Keith

2. Issuer Name and Ticker or Trading Symbol
 NUVASIVE INC [NUVA]

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

(Last) (First) (Middle)

3. Date of Earliest Transaction (Month/Day/Year)
 09/18/2009

____ Director _____ 10% Owner
 Officer (give title below) _____ Other (specify below)
 President and COO

7475 LUSK BLVD.

(Street)

4. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)
 Form filed by One Reporting Person
 ___ Form filed by More than One Reporting Person

SAN DIEGO, CA 92121

(City) (State) (Zip)

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

| 1. Title of Security (Instr. 3) | 2. Transaction Date (Month/Day/Year) | 2A. Deemed Execution Date, if any (Month/Day/Year) | 3. Transaction Code (Instr. 8) | 4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | 5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4) | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Ownership (Instr. 4) |
|---------------------------------|--------------------------------------|--|--------------------------------|---|---|--|-----------------------------------|
| | | | Code | V Amount (A) or (D) Price | | | |
| Common Stock | 09/18/2009 | | M | 8,000 A \$ 9.5 | 10,016 | D | |
| Common Stock | 09/18/2009 | | F | 1,848 (1) D \$ 41.15 | 8,168 | D | |
| Common Stock (2) | 09/21/2009 | | S(3) | 6,152 D \$ 40.9556 | 2,016 | D | |

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

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number.

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

| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | 4. Transaction Code (Instr. 8) | 5. Number of Derivative Securities (A) or Disposed of (D) (Instr. 3, 4, and 5) | 6. Date Exercisable and Expiration Date (Month/Day/Year) | 7. Title and Amount of Underlying Securities (Instr. 3 and 4) | 8. Amount or Number of Shares |
|--|--|--------------------------------------|--|--------------------------------|--|--|---|-------------------------------|
| Stock Option (Right to Buy) | \$ 9.5 | 09/18/2009 | | M | 8,000 | 12/17/2008 12/17/2014 | Common Stock | 8,000 |

Reporting Owners

| Reporting Owner Name / Address | Relationships | | | |
|---|---------------|-----------|-------------------|-------|
| | Director | 10% Owner | Officer | Other |
| Valentine Keith 7475 LUSK BLVD. SAN DIEGO, CA 92121 | | | President and COO | |

Signatures

/s/ Jason Hannon,
Attorney-in-fact

09/22/2009

**Signature of Reporting Person Date

Explanation of Responses:

- * If the form is filed by more than one reporting person, see Instruction 4(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) Shares withheld at the election of the Reporting Person to satisfy payment of the option exercise price in connection with an exercise of a stock option granted in December 2004
- (2) The shares sold were acquired upon the net exercise of a stock option.
- (3) The sale reported on this Form 4 was effected pursuant to a Rule 10b5-1 trading plan adopted by the Reporting Person on September 12, 2008.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.