FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

| TATEMENT | OF CHANGES | S IN BENEFICIAL | OWNERSHI |
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| OMB APPROVAL | | | | | | | | |
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| OMB Number: | 3235-0287 | | | | | | | |
| Estimated average bu | rden | | | | | | | |
| hours per response: | 0.5 | | | | | | | |

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

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

| Name and Address of Reporting Person* Irvin Jon | | | | | 2. Issuer Name and Ticker or Trading Symbol Mirna Therapeutics, Inc. [MRIN] | | | | | | | | Check | all app | olicable) | g Person(s) to | | | |
|--|---|--|--|---|--|---|---------|---|------------------|--------------|--|-------|--|---|--|---|---|---|---|
| (Last) (First) (Middle) C/O MIRNA THERAPEUTICS, INC. 2150 WOODWARD ST., SUITE 100 | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 10/11/2016 | | | | | | | | | X | belov | | | |
| (Street) AUSTIN TX 78744 (City) (State) (Zip) | | | | 4. If | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | Individual or Joint/Group Filing (Check Applicable Line) X Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | | |
| Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned | | | | | | | | | | | | | | | | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Date) | | | | | Execution Date, | | n Date, | Transaction Dispose Code (Instr. 5) | | Disposed | ties Acquired (A) d Of (D) (Instr. 3, | | | 4 and Sec Ber | | ount of ities icially d Following ted | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | | | | | | v | Amount | | (A) or (D) | or Price | | Transa | action(s) 3 and 4) | | , |
| Common | Stock | | | 10/11/ | /2016 | | | | S ⁽¹⁾ | | 150 | D \$1 | | \$1.8 | 325 | 8 | 3,335 | D | |
| 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) | erivative conversion or Exercise (Month/Day/Year) str. 3) Price of Derivative Security Execution Date, if any (Month/Day/Year) | | | nsaction de (Instr. 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) de V (A) (D) | | 6. Date Exercisable and Expiration Date (Month/Day/Year) Date Expiration Date Date | | 7. Title and Amount of Securities Underlying Derivative Security (Instr. and 4) Amoun or Numbe of Title Shares | | ount mber | <u> </u> | | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | | | | |

Explanation of Responses:

1. Transaction made pursuant to a 10b5-1 trading plan adopted by the Reporting Person on June 29,2016.

/s/ Jon Irvin

10/13/2016

** Signature of Reporting Person

Date

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

- * 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).

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

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.