

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

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

OMB APPROVAL
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STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

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

| 1. Name and Address of Reporting Person * | | | | | 2.] | 2. Issuer Name and Ticker or Trading Symbol | | | | | | ool | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) | | | | | | | |
|-----------------------------------------------------------------------|-----------------------------------------------------|------------|------------------------|--------|---------------------------|----------------------------------------------------|--------------------------------------------------------|---------------------------------------------|------------------------------------------|------------|----------------|---------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------|------------------------------------------------------|--|--|
| MANUSO JAMES S J | | | | | Re | RespireRx Pharmaceuticals Inc. [RSPI] | | | | | | | RSPI |] | , | | | | | |
| (Last) (First) (Middle) | | | | | 3.] | 3. Date of Earliest Transaction (MM/DD/YYYY) | | | | | | | | X Director 10% Owner X Officer (give title below) Other (specify below) | | | | | | |
| C/O RESPI | DFDV | | | | | | | 9/ | 13/2 | 017 | | | | President and | | ,w) | Other (speer | ly ociow) | | |
| C/O RESEL PHARMAC | | LS INC | 126 | | | | | <i>)</i> | 15/2 | 017 | | | | | | | | | | |
| VALLEY R | | | •, 120 | | | | | | | | | | | | | | | | | |
| | (Str | | | | 4.] | 4. If Amendment, Date Original Filed (MM/DD/YYYY) | | | | | | | | 6. Individual | 6. Individual or Joint/Group Filing (Check Applicable Line) | | | | | |
| GLEN ROCK, NJ 07452 (City) (State) (Zip) | | | | | | | | | | | | | | X_Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | | | |
| (| erty) (St | ` | | - No | n_Doı | ivo | tiva Sacı | ıritias A | canir | ·od I | Dienos | od 4 | of or Ro | noficially Own | ad | | | | | |
| 1.Title of Security | | | , | | | | Deemed | 3. Trans. Code 4. Securities Acquired (A) 5 | | | | | | | ally Owned | 6. | 7. Nature | | | |
| (Instr. 3) | | | | | Execution Date, if any | | (Instr. 8) | | or Disposed of (I (Instr. 3, 4 and 5) | |) 1 | | lowing Reported Transaction(s) | | Ownership Form: Direct (D) | of Indirect Beneficial Ownership | | | | |
| | | | | | | | | Code | V | Am | ount | (A) (D) | | | | | or Indirect (Instr. 4 (I) (Instr. 4) | | | |
| Common Stock | | | | 9/13/2 | 017 | 7 | | P | | 1097 | 7 (5) | A | <u>(1)</u> | 74 | 1252 (5) | | D | | | |
| | Tab | da II. Dar | ivetive | Soone | itios l | Ron | oficially | Owned | (a a | nut | e call | le ss | arranta | options, conve | rtible see | uritios) | | | | |
| Title of Derivate | | 3. Trans. | 3A. Deer | | Trans. | Den | 5. Number | | | | | | | Amount of | 8. Price of | 9. Number of | 10. | 11. Nature | | |
| Security (Instr. 3) | Conversion or Exercise Price of Derivative | Date | Executio Date, if a | n Co | ode istr. 8) | | Derivative Acquired (Disposed ((Instr. 3, 4 | Securities (A) or of (D) | Expiration 1 | | | | | Underlying Security | Derivative Security (Instr. 5) | derivative Securities Beneficially Owned | Ownership Form of Derivative Security: | of Indirect Beneficial Ownership (Instr. 4) | | |
| | Security | | | | Code | v | (A) | (D) | Date Exerc | cisable | Expira Date | tion | Title | Amount or Number of Shares | Following Reported Transaction (Instr. 4) | | Direct (D) or Indirect (I) (Instr. 4) | | | |
| Common Stock Warrants (right to buy) | \$6.83 (<u>5</u>) | 9/13/2017 | | | P | | 2195 (5 | 5) | 9/15/ | 2015 | 9/30/2 | 020 | Common Stock | n 2195 <u>(5)</u> | <u>(1)</u> | 2195 <u>(5)</u> | D | | | |
| Common Stock Options (to purchase shares of Common Stock) | \$1.45 | 12/9/2017 | | J | <u>(2)</u> | | 608704 | | 1 | <u>(2)</u> | 12/9/2 | 022 | Common Stock | n 608704 | (2) | 608704 | D | | | |
| Common Stock Options (to purchase shares of Common Stock) | \$2 | | | | | | | | 1 | (3) | 6/30/2 | 022 | Common Stock | ¹ 50000 | | 50000 | D | | | |
| Common Stock Options (to purchase shares of Common Stock) | \$3.9 | | | | | | | | 1 | <u>(4)</u> | 1/17/2 | 022 | Commmo Stock | 75000 | | 75000 | D | | | |
| COmmon Stock Warrants (right to buy) | \$6.83 ⁽⁵⁾ | | | | | | | | 4/7/2 | 2016 | 9/30/2 | 020 | Common Stock | 36578 (5) | | 36578 ⁽⁵⁾ | D | | | |
| Common Stock Warrants (right to buy) | \$6.5 (5) | | | | | | | | 2/4/2 | 2016 | 2/4/20 | 19 | Common Stock | 8093 (5) | | 8093 <u>(5)</u> | D | | | |
| Common Stock Options (to purchase shares of Common Stock) | \$7.3775 ⁽⁵⁾ | | | | | | | | | <u>(6)</u> | 3/31/2 | 021 | Common Stock | 81539 (5) | | 81539 ⁽⁵⁾ | D | | | |
| Common Stock Options (to purchase shares of Common Stock) | \$6.396 (5) | | | | | | | | | <u>(7)</u> | 8/18/2 | 025 | Common Stock | n 15634 (5) | | 15634 ⁽⁵⁾ | D | | | |
| Common Stock Options (to purchase shares of Common | \$6.396 (5) | | | | | | | | | <u>(7)</u> | 8/18/2 | 025 | Common Stock | 246154 (5) | | 246154 ⁽⁵⁾ | D | | | |

| | Tab | le II - Deri | vative Sec | urities F | Beno | eficially Ow | ned (| <i>e.g.</i> , put | s, calls, v | varrants, o _l | otions, conve | rtible sec | urities) | | |
|--------|-----------------------------------------------------------|-------------------|------------|--------------------|------|----------------------------------------------------------------------------------------------------|-------|--------------------------------------------|--------------------|--------------------------|----------------------------------|--------------------------------------|----------------------------|------------------------------------------------|------------|
| | 2. Conversion or Exercise Price of Derivative | 3. Trans. Date | | Code (Instr. 8) | | 5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5) | | 6. Date Exercisable and Expiration Date | | | | Derivative Security (Instr. 5) | Securities Beneficially | Ownership Form of Derivative | Beneficial |
| | Security | | | Code | V | (A) | | Date Exercisable | Expiration Date | | Amount or Number of Shares | | | Direct (D) or Indirect (I) (Instr. 4) | |
| Stock) | | | | | | | | | | | | | | | |

Explanation of Responses:

- (1) Dr. Manuso purchased shares and warrants in a private transaction for an aggregate of \$5,000, or \$4.56 per unit, with each unit consisting of one share and warrants to purchase two additional shares of the Company's common stock.
- (2) On December 9, 2017, Dr. Manuso forgave all of the accrued but unpaid compensation to which, pursuant to his employment agreement, he was entitled as of September 30, 2017, an aggregate of \$878,360. On that date, the Company granted to Dr. Manuso options to purchase 608,704 shares of the Company's common stock, with a black-scholes value of \$1.44 per option and an aggregate value of \$878,360. These Common Stock Options vested upon issuance.
- (3) These Common Stock Options vested upon issuance.
- (4) These Common Stock Options vested in three installments: 25 percent on January 18, 2017 (the grant date), 25 percent on March 31, 2017, and 50 percent on June 30, 2017, and are all currently vested.
- (5) The exercise price and number of shares of these securities have been adjusted to reflect the Company's 325-to-1 reverse stock split effective September 1, 2016.
- (6) These Common Stock Options vested in four equal installments: 25 percent on March 31, 2016 (the grant date), 25 percent on June 30, 2016, 25 percent on September 30, 2016, and 25 percent on December 31, 2016, and are all currently vested.
- (7) These Common Stock Options vested in three installments: 50 percent on August 18, 2015 (the grant date), 25 percent on February 18, 2016, and 25 percent on August 18, 2016, and are all currently vested.

Reporting Owners

| reporting 5 where | | | | | | | |
|------------------------------------------------------------------------------------|---------------|-----------|-------------------|-------|--|--|--|
| Reporting Owner Name / Address | Relationships | | | | | | |
| Reporting Owner Name / Address | Director | 10% Owner | Officer | Other | | | |
| MANUSO JAMES S J C/O RESPIRERX PHARMACEUTICALS INC. 126 VALLEY ROAD, SUITE C | X | | President and CEO | | | | |
| GLEN ROCK, NJ 07452 | | | | | | | |

Signatures

| /s/ James S. Manuso | 12/12/2017 |
|----------------------------------|------------|
| ** 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 control number.