FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL | | | | | | | | | |
|-------------------------|-----------|--|--|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | | | |
| Estimated average burde | en | | | | | | | | |
| 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

| 1. Name and Address of Reporting Person* <u>Turley James S</u> | | | | | | 2. Issuer Name and Ticker or Trading Symbol INTREXON CORP [XON] | | | | | | | | relationship of Reporting Person(s eck all applicable) X Director 1 | | | son(s) to Issu 10% Ow | | |
|--|---|------------|---|--------|-------|--|---|------|---|-----|--|----------------------|--|---|------------------------------|----------------|--|--|--|
| (Last) 20374 SI | (Fi ENECA ME | | 3. Date of Earliest Transaction (Month/Day/Year) 04/16/2014 | | | | | | | | Offic belo | er (give title w) | | Other (s below) | pecify | | | | |
| (Street) GERMANTOWN MD 20876 (City) (State) (Zip) | | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | e) X Fori Fori | | | | | |
| | | Tab | le I - Nor | n-Deri | vativ | e Se | curities | s Ac | quired, | Dis | posed o | of, or Be | neficial | ly Own | ed | | | | |
| 1. Title of Security (Instr. 3) 2. Transa Date (Month/D | | | | | | ear) | 2A. Deemed Execution Date, if any (Month/Day/Year) | | 3. Transaction Code (Instr. r) 8) | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 5) | | | Secui Benet Owne | cially I Following | Form (D) o | orm: Direct) or Indirect (Instr. 4) | 7. Nature of Indirect Beneficial Ownership | |
| | | | | | | | | | Code | v | Amount | (A) or (D) | Price | | ted action(s) 3 and 4) | | | (Instr. 4) | |
| Common Stock 04/16. | | | | | | | /2014 | | A | | 3,058 | 3,058 A \$ | | 52 | ,058 | | D | | |
| | | ٦ | Гable II - | | | | | | | | | or Bend ble secu | | Owned | | | | | |
| 1. Title of Derivative Security (Instr. 3) | Derivative Conversion Date Security or Exercise (Month/Da | | ercise (Month/Day/Year) if any of (Month/Day/ ative | | | ction Instr. | | | 6. Date Exercisa Expiration Date (Month/Day/Yea | | of Securities | | ies g Security | 8. Price Derivativ Security (Instr. 5) | | e s Illy | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) | |
| | | | | | Code | v | (A) | (D) | Date Exercisal | | Expiration Date | Title | Amount or Number of Shares | | | | | | |
| Option to Purchase Common Stock (Right to Buy) | \$19.62 | 04/16/2014 | | | A | | 55,000 | | (1) | C |)4/16/2024 | Common Stock | 55,000 | \$0 | 55,00 | 0 | D | | |

Explanation of Responses:

1. 15,000 options vested upon grant and are exercisable immediately. The remaining 40,000 options vest annually in increments of 10,000 on each of April 16, 2015, 2016, 2017 and 2018.

Remarks:

/s/ James S. Turley, by Donald P. Lehr, Power of Attorney

04/18/2014

** 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.