FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPROVAL | | | | | | | | | | | |
|--------------|----------|--|--|--|--|--|--|--|--|--|--|
| OMB Number: | 3235-028 | | | | | | | | | | |
| | | | | | | | | | | | |

Estimated average burden 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* SHAPIRO ROBERT B | | | | | 2. Issuer Name and Ticker or Trading Symbol INTREXON CORP [XON] | | | | | | | | | | 5. Relationship of Reporting Person(s) to Issuer (Check all applicable) X Director 10% Owner | | | | | |
|-----------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------|---------|-------------------------------------------------------------------|-------------------------------------------------------------|---------|-----------------|------------------------------------|----------|------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-----------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------|--|
| (Last) 20374 SE | | 3. Date of Earliest Transaction (Month/Day/Year) 12/17/2013 | | | | | | | | | Officer (give title Other (specif below) below) | | | | | | | | | |
| (Street) GERMANTOWN MD 20876 (City) (State) (Zip) | | | | | | 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 | | | | | |
| | | Tabl | le I - Nor | n-Deriv | ative | Se | curitie | s Acq | uired, | Dis | posed o | f, or | Ben | efic | ially (| Owne | ed | | | |
| I made of decaming (means of | | | 2. Transaction Date (Month/Day/Year) | | ır) E | 2A. Deemed Execution Date, if any (Month/Day/Year) | | Transaction D | | Disposed | I. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 5) | | | | Securi Benefi Owner | icially d Following | 6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 7. Nature of Indirect Beneficial Ownership | | |
| | | | | Code | v | | | Amount | ount (A | | Pric | | | action(s) 3 and 4) | | (Instr. 4) | | | | |
| Common stock 12 | | | | | 7/2013 | | | | A | | 112 | | A | \$19 | 9.83 | 34,084 | | D | | |
| Common stock | | | | | | | | | | | | | | | 8 | | 30,116 | I | By Trust ⁽¹⁾ | |
| | | Та | able II - C | | | | | | | | sed of, onvertib | | | | | ned | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deeme Execution if any (Month/Da | Date, | 4. Transa Code (I 8) | | n of | | 6. Date E Expiratio (Month/D | n Date | | 7. Title and Amount of Securities Underlying Derivative Security (Instrand 4) | | str. 3 | | ivative urity | 9. Number of derivative Securities Beneficially Owned Following Reported Transaction (Instr. 4) | Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership (Instr. 4) | |
| Explanation | | | | | Code | Code V | | | Date Exercisal | | Expiration Date | Title | or Nui of | ount mber ares | | | | | | |

1. Shares held in the Robert B. Shapiro Revocable Trust.

Remarks:

/s/ Robert B. Shapiro, by Donald P. Lehr, Power of <u>Attorney</u>

12/18/2013

** Signature of Reporting Person Date

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

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.

 $^{^{\}star}$ 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).