FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| OMB APPRO | VAL | | | | | | |
|--------------------------|-----------|--|--|--|--|--|--|
| OMB Number: | 3235-0287 | | | | | | |
| 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 ar Sterling | | 2. Issuer Name and Ticker or Trading Symbol INTREXON CORP [XON] | | | | | | | | | all appli Directo | cable) | g Pers | son(s) to Iss 10% Ov Other (s | vner | | | | |
|--|---|---|---|---------|------------------|----------------------------|---|--------|------------------------|-----------------------------------|---------------------------------------|--|-----------------------------------|-------------------------------------|--|--|---------------|--|---|
| (Last) (First) (Middle) 20374 SENECA MEADOWS PARKWAY | | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 01/02/2019 | | | | | | | | below) | | | below) | респу |
| (Street) GERMANTOWN MD 20876 (City) (State) (Zip) | | | | | | | 4. If Amendment, Date of Original Filed (Month/Day/Year) | | | | | | | | ividual or Joint/Group Filing (Check Applicable Form filed by One Reporting Person Form filed by More than One Reporting Person | | | | |
| (9) | | • | | n-Deriv | /ative | Sec | uriti | ies Ar | nuired | Dis | posed o | of or Re | nefic | ially | Owner | | | | |
| 1. Title of Security (Instr. 3) 2. Transac Date (Month/Da | | | | | | tion 2A. Deen Executio | | | 3. Transa Code (| 3. Transaction Code (Instr. | | 4. Securities Acquired (A) Disposed Of (D) (Instr. 3, 4 | | | 5. Amou Securiti Benefici Owned | int of es ally Following | Form (D) o | n: Direct or Indirect nstr. 4) | 7. Nature of Indirect Beneficial Ownership |
| | | | | | | | | | Code | v | Amount | (A) or (D) | Price | e | | rted action(s) . 3 and 4) | | | (Instr. 4) |
| Common | /2019 | 2019 | | | M | | 9,766 | A | (| (1) | 84,387 | | | D | | | | | |
| Common | /2019 | 2019 | | | S ⁽²⁾ | s ⁽²⁾ 3,51 | | D | \$7. | 0705 | 80,873 | | | D | | | | | |
| | | Т | able II - | | | | | | | | osed of converti | | | | wned | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deem Execution if any (Month/D | n Date, | | ransaction Code (Instr. | | n of E | | xercis n Date ay/Ye | ar) Securitic Underly Derivativ | | unt of I | | 3. Price of Derivative Security (Instr. 5) | 9. Number derivative Securities Beneficiall Owned Following Reported Transactio (Instr. 4) | ly | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | Beneficial Ownership t (Instr. 4) |
| | | | | c | Code | v | (A) | (D) | Date Exercisa | | Expiration Date | Title | Amou or Numb of Share | er | | | | | |
| Restricted Stock | (1) | 01/02/2019 | | Ì | M | | | 9,766 | (3) | 1 | (3) | Common Stock | 9,76 | 6 | \$0 | 29,297 | , | D | |

Explanation of Responses:

- 1. Each restricted stock unit represents a contingent right to receive one share of XON common stock.
- 2. This sale was effected pursuant to the terms of a 10b5-1 plan adopted by the reporting person and was made in order to pay the tax liability arising from the vesting of restricted stock units.
- 3. The restricted stock units were granted on January 2, 2018, and the remaining restricted stock units vest in three equal annual installments on each of January 2, 2020, 2021 and 2022.

Remarks:

/s/Rick L. Sterling, by Donald P. Lehr, as attorney-in-fact

01/04/2019

** 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.