FORM 4

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

| , D.C. 20549 | OMB APPROVAL |
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| | 02 / |

| OMB Number: | 3235-0287 | | | | | | |
|--------------------------|-----------|--|--|--|--|--|--|
| Estimated average burden | | | | | | | |
| hours per response: | 0.5 | | | | | | |

bv

Intrexon⁽³⁾

104,093(2)

(2)

(1)

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 Eychange Act of 1934

| | | | | | | | | | | | npany Act | | | | | | | | |
|-------------------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------|-------------------------------------------------------------|---------|-----------------------------------------------------------------------------------|-------------------------------------------------------------|---------|------|-------------------------------------------------|----------|---------------------|--------------------------------------------------------------------------------------|-------|----------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------|--------------------------------------------------------------------------|--------------------------------------------------------------------|
| 1. Name and Address of Reporting Person* <u>KIRK RANDAL J</u> | | | | | 2. Issuer Name and Ticker or Trading Symbol ZIOPHARM ONCOLOGY INC [ZIOP] | | | | | | | | | eck all app | onship of Reporting Pers all applicable) Director | | son(s) to Iss | | |
| (Last) (First) (Middle) C/O THIRD SECURITY, LLC 1881 GROVE AVENUE | | | | | | 3. Date of Earliest Transaction (Month/Day/Year) 10/31/2016 | | | | | | | | | Officer (give title Other (speci below) below) | | | | |
| (Street) RADFO | RD V | | 24141 (Zip) | | 4. If | Amer | ndment, | Date | of Origin | al Filed | I (Month/D | ay/Ye | ear) | Lin | e) Form | filed by On | e Repo | g (Check Ap orting Perso n One Repo | n |
| | | Tal | ole I - No | n-Deriv | ative | Sec | uritie | s Ac | quirec | , Dis | posed (| of, o | r Ben | eficial | ly Owne | d | | | |
| 1. Title of Security (Instr. 3) 2. Transar Date (Month/Da | | | | | Execution Date, | | | Code | Transaction Disposed Of (D) (Ir Code (Instr. 5) | | | | | Securit Benefic Owned | 5. Amount of Securities Beneficially Owned Following | | : Direct r Indirect str. 4) | 7. Nature of Indirect Beneficial Ownership | |
| | | | | | | | | Code | v | Amount | Amount (A) or (D) | | | Transa | Reported Transaction(s) (Instr. 3 and 4) | | | (Instr. 4) | |
| | | | Table II - | | | | | | , | | osed of converti | , | | , | Owned | | | | |
| 1. Title of Derivative Security (Instr. 3) | 2. Conversion or Exercise Price of Derivative Security | 3. Transaction Date (Month/Day/Year) | 3A. Deemed Execution Date, if any (Month/Day/Year) | | 4. Transaction Code (Instr. 3) | | | | 6. Date I Expirati (Month/I | n Date | | e and 7. Title and Amount of Securities Underlying Derivative Secur (Instr. 3 and 4) | | | 8. Price of Derivative Security (Instr. 5) | 9. Numbe derivative Securities Beneficial Owned Following Reported Transacti (Instr. 4) | Ow Fo Olly Dir or (I) | 10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4) | 11. Nature of Indirect Beneficial Ownership (Instr. 4) |
| | | | | | Code | v | (A) | (D) | Date Exercisa | | Expiration Date | Title | | Amount or Number of Shares | | | | | |

(1)

1,030

Common

Stock

(1)

| 1. Name and Address of Reporting Person* KIRK RANDAL J | | | | | | | | | |
|---------------------------------------------------------|---------|----------|--|--|--|--|--|--|--|
| (Last) | (First) | (Middle) | | | | | | | |
| C/O THIRD SECURITY, LLC | | | | | | | | | |
| 1881 GROVE AVENUE | | | | | | | | | |
| (Street) | | | | | | | | | |
| RADFORD | VA | 24141 | | | | | | | |
| (City) | (State) | (Zip) | | | | | | | |
| 1. Name and Address of Reporting Person* INTREXON CORP | | | | | | | | | |
| (Last) | (First) | (Middle) | | | | | | | |
| C/O LEGAL DEPARTMENT | | | | | | | | | |
| 20374 SENECA MEADOWS PARKWAY | | | | | | | | | |
| (Street) | | | | | | | | | |
| GERMANTOWN | MD | 20876 | | | | | | | |
| (City) | (State) | (Zip) | | | | | | | |

10/31/2016

Explanation of Responses:

Series 1

Preferred Stock

(1)

1. Each share of Series 1 Preferred Stock ("Preferred Stock") has a stated value of \$1,200, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other recapitalization with respect to the shares of Preferred Stock. The shares of Preferred Stock shall automatically convert into shares of the issuer's common stock upon the date of commercialization of a product pursuant to the collaboration between Intrexon Corporation ("Intrexon") and the issuer, subject to conversion limitations set forth in the Securities Issuance Agreement entered into between the issuer and Intrexon on June 29, 2016 (the "Issuance Agreement"). The conversion price in connection with such automatic conversion shall be determined as set forth in the Amended and Restated Certificate of Designation, Preferences and Rights of Series 1 Preferred Stock, which the issuer has filed as an exhibit to its Amendment to Current Report on Form 8-K/A, dated July 1, 2016.

2. Intrexon received the shares of Preferred Stock as payment-in-kind dividends in connection with its ownership of shares of Preferred Stock. The holders of Preferred Stock are entitled to receive a monthly

dividend payable in additional shares of Preferred Stock equal to \$12.00 per share of Preferred Stock per month (subject to adjustment), divided by the stated value of \$1,200, rounded down to the nearest whole share.

3. Randal J. Kirk, directly and through certain affiliates, has voting and dispositive power over a majority of the outstanding capital stock of Intrexon. Mr. Kirk may therefore be deemed to have voting and dispositive power over the shares of the issuer owned by Intrexon. Shares held by Intrexon may be deemed to be indirectly beneficially owned (as defined under Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended) by Mr. Kirk. Mr. Kirk disclaims beneficial ownership of such shares, except to the extent of any pecuniary interest therein.

 /s/ Randal J. Kirk
 11/02/2016

 /s/ Randal J. Kirk, CEO of Intrexon Corporation
 11/02/2016

 ** 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.