

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

OMB APPROVAL	
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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>MITCHELL DEAN J</u>			2. Date of Event Requiring Statement (Month/Day/Year) 08/07/2013		3. Issuer Name and Ticker or Trading Symbol <u>INTREXON CORP [XON]</u>		
(Last) (First) (Middle) 20374 SENECA MEADOWS PARKWAY			4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)			5. If Amendment, Date of Original Filed (Month/Day/Year)	
(Street) GERMANTOWN MD 20876						6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person Form filed by More than One Reporting Person	
(City) (State) (Zip)							

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Common Stock	3,851	D	

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date				
Option to Purchase Common Stock	(1)	03/17/2019	Common Stock 8,571	3.29	D	
Option to Purchase Common Stock	(2)	06/30/2020	Common Stock 2,857	3.29	D	
Option to Purchase Common Stock	(3)	03/07/2021	Common Stock 2,857	5.91	D	
Option to Purchase Common Stock	(4)	12/02/2021	Common Stock 8,571	7.12	D	
Option to Purchase Common Stock	(5)	03/15/2022	Common Stock 2,857	7.12	D	
Option to Purchase Common Stock	(6)	05/28/2023	Common Stock 2,857	9.67	D	

Explanation of Responses:

- These options are immediately exercisable.
- 2,142 options are exercisable immediately; the remaining 715 options vest on January 1, 2014.
- 1,428 options are exercisable immediately; the remaining options vest annually in increments of 714 and 715 on each of January 1, 2014 and 2015, respectively.
- 2,142 options are exercisable immediately; the remaining options vest annually in increments of 2,143 on each of December 1, 2013, 2014 and 2015, respectively.
- 714 options are exercisable immediately; the remaining options vest annually in increments of 714, 714 and 715 on each of January 1, 2014, 2015 and 2016, respectively.
- These options vest annually in increments of 714, 714 and 715 on each of January 1, 2014, 2015, 2016 and 2017, respectively.

Remarks:

/s/ Dean J. Mitchell

08/07/2013

** 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 5 (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.

SECTION 16

POWER OF ATTORNEY

I, Dean J. Mitchell, do hereby constitute and appoint Donald P. Lehr and Rick L. Sterling, my true and lawful attorneys-in-fact, either of whom acting singly is here
I do hereby ratify and confirm all acts my said attorney shall do or cause to be done by virtue hereof. I acknowledge that the foregoing attorneys-in-fact, serving
This power of attorney shall remain in full force and effect until it is revoked by the undersigned in a signed writing delivered to each such attorney-in-fact or th
WITNESS the execution hereof this 7th day of August, 2013.

/s/ Dean J. Mitchell

Dean J. Mitchell