

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

OMB APPROVAL	
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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>KIRK RANDAL J</u> (Last) (First) (Middle) <u>C/O THIRD SECURITY, LLC</u> <u>1881 GROVE AVENUE</u> (Street) <u>RADFORD VA 24141</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>INTREXON CORP [XON]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) Other (specify below) <u>Chief Executive Officer</u>
	3. Date of Earliest Transaction (Month/Day/Year) <u>08/13/2013</u>	
	4. If Amendment, Date of Original Filed (Month/Day/Year)	
6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	08/13/2013		C		97,252 ⁽¹⁾	A	\$0	97,252	I	by MGK 2008 ⁽²⁾
Common Stock	08/13/2013		C		5,185 ⁽⁴⁾	A	\$16	102,437	I	by MGK 2008 ⁽²⁾
Common Stock	08/13/2013		C		725,578 ⁽¹⁾	A	\$0	725,578	I	by MGK 2009 ⁽²⁾
Common Stock	08/13/2013		C		38,628 ⁽⁴⁾	A	\$16	764,206	I	by MGK 2009 ⁽²⁾
Common Stock	08/13/2013		C		889,213 ⁽¹⁾	A	\$0	889,213	I	by MGK 2011 ⁽²⁾
Common Stock	08/13/2013		C		51,213 ⁽⁴⁾	A	\$16	940,426	I	by MGK 2011 ⁽²⁾
Common Stock	08/13/2013		C		69,959 ⁽¹⁾	A	\$0	69,959	I	by ZSK 2009 ⁽²⁾
Common Stock	08/13/2013		C		3,709 ⁽⁴⁾	A	\$16	73,668	I	by ZSK 2009 ⁽²⁾

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

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. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Series F Convertible Preferred Stock	(3)	08/13/2013		C			42,794	(3)	(3)	Common Stock	24,453	(3)	0	I	by MGK 2008 ⁽²⁾
Series F Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	363	\$16 ⁽⁴⁾	0	I	by MGK 2008 ⁽²⁾
Series E Convertible Preferred Stock	(3)	08/13/2013		C			49,980	(3)	(3)	Common Stock	28,560	(3)	0	I	by MGK 2008 ⁽²⁾
Series E Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	2,275	\$16 ⁽⁴⁾	0	I	by MGK 2008 ⁽²⁾

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(e.g., puts, calls, warrants, options, convertible securities)**

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. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Series D Convertible Preferred Stock	(3)	08/13/2013		C			77,419	(3)	(3)	Common Stock	44,239	(3)	0	I	by MGK 2008 ⁽²⁾
Series D Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	2,547	\$16 ⁽⁴⁾	0	I	by MGK 2008 ⁽²⁾
Series F Convertible Preferred Stock	(3)	08/13/2013		C			362,286	(3)	(3)	Common Stock	207,020	(3)	0	I	by MGK 2009 ⁽²⁾
Series F Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	3,077	\$16 ⁽⁴⁾	0	I	by MGK 2009 ⁽²⁾
Series E Convertible Preferred Stock	(3)	08/13/2013		C			448,185	(3)	(3)	Common Stock	256,105	(3)	0	I	by MGK 2009 ⁽²⁾
Series E Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	20,408	\$16 ⁽⁴⁾	0	I	by MGK 2009 ⁽²⁾
Series D Convertible Preferred Stock	(3)	08/13/2013		C			394,995	(3)	(3)	Common Stock	225,711	(3)	0	I	by MGK 2009 ⁽²⁾
Series D Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	12,998	\$16 ⁽⁴⁾	0	I	by MGK 2009 ⁽²⁾
Series C Convertible Preferred Stock	(3)	08/13/2013		C			64,300	(3)	(3)	Common Stock	36,742	(3)	0	I	by MGK 2009 ⁽²⁾
Series C Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	2,145	\$16 ⁽⁴⁾	0	I	by MGK 2009 ⁽²⁾
Series F Convertible Preferred Stock	(3)	08/13/2013		C			141,588	(3)	(3)	Common Stock	80,907	(3)	0	I	by MGK 2011 ⁽²⁾
Series F Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	1,202	\$16 ⁽⁴⁾	0	I	by MGK 2011 ⁽²⁾
Series E Convertible Preferred Stock	(3)	08/13/2013		C			452,537	(3)	(3)	Common Stock	258,592	(3)	0	I	by MGK 2011 ⁽²⁾
Series E Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	12,149	\$16 ⁽⁴⁾	0	I	by MGK 2011 ⁽²⁾
Series D Convertible Preferred Stock	(3)	08/13/2013		C			875,800	(3)	(3)	Common Stock	500,457	(3)	0	I	by MGK 2011 ⁽²⁾
Series D Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	34,987	\$16 ⁽⁴⁾	0	I	by MGK 2011 ⁽²⁾
Series C Convertible Preferred Stock	(3)	08/13/2013		C			86,200	(3)	(3)	Common Stock	49,257	(3)	0	I	by MGK 2011 ⁽²⁾
Series C Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	2,875	\$16 ⁽⁴⁾	0	I	by MGK 2011 ⁽²⁾

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(e.g., puts, calls, warrants, options, convertible securities)**

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				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares				
Series F Convertible Preferred Stock	(3)	08/13/2013		C			33,016	(3)	(3)	Common Stock	18,866	(3)	0	I	by ZSK 2009 ⁽²⁾
Series F Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	280	\$16 ⁽⁴⁾	0	I	by ZSK 2009 ⁽²⁾
Series E Convertible Preferred Stock	(3)	08/13/2013		C			38,510	(3)	(3)	Common Stock	22,005	(3)	0	I	by ZSK 2009 ⁽²⁾
Series E Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	1,753	\$16 ⁽⁴⁾	0	I	by ZSK 2009 ⁽²⁾
Series D Convertible Preferred Stock	(3)	08/13/2013		C			50,904	(3)	(3)	Common Stock	29,088	(3)	0	I	by ZSK 2009 ⁽²⁾
Series D Convertible Preferred Stock Dividend	\$16 ⁽⁴⁾	08/13/2013		C			0 ⁽⁴⁾	(4)	(4)	Common Stock ⁽⁴⁾	1,676	\$16 ⁽⁴⁾	0	I	by ZSK 2009 ⁽²⁾

Explanation of Responses:

- The indicated shares represent the number of shares received upon conversion of the Issuer's Convertible Preferred Stock, indicated by Series in Table II.
- Randal J. Kirk controls each of MGK 2008 LLC ("MGK 2008"), MGK 2009 LLC ("MGK 2009"), MGK 2011 LLC ("MGK 2011") and ZSK 2009 LLC ("ZSK 2008"). Shares held by these entities 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.
- Effective upon the closing of the Issuer's firm commitment underwritten initial public offering of its Common Stock, the shares of Convertible Preferred Stock automatically converted at a ratio of 1.75-to-1 into the number of shares of Common Stock shown in column 7. The shares of Convertible Preferred Stock had no expiration date.
- Effective upon the closing of the Issuer's firm commitment underwritten initial public offering all accrued dividends with respect to the shares of Convertible Preferred Stock were converted into shares of Common Stock at the then current fair market value, or \$16.00 per share. Payment for partial shares was issued in the form of a monetary refund by the Issuer.

Remarks:

/s/ Randal J. Kirk

08/15/2013

** 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 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.

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