

TRANSGENOMIC INC  
Form 3  
January 10, 2011

**FORM 3 UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

OMB APPROVAL

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**INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934,  
Section 17(a) of the Public Utility Holding Company Act of 1935 or Section  
30(h) of the Investment Company Act of 1940

(Print or Type Responses)

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)

2. Date of Event Requiring Statement  
 (Month/Day/Year)  
 12/29/2010

3. Issuer Name and Ticker or Trading Symbol  
 TRANSGENOMIC INC [TBIO.OB]

4. Relationship of Reporting Person(s) to Issuer  
 (Check all applicable)  
 Director  10% Owner  
 Officer  Other  
 (give title below) (specify below)

5. If Amendment, Date Original Filed(Month/Day/Year)

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
 Form filed by More than One Reporting Person

**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)
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Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly. SEC 1473 (7-02)

**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 control number.**

**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)  Date Exercisable      Expiration Date	3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)  Title      Amount or Number of Shares	4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D) or Indirect (I)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
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(Instr. 5)

Series A Convertible Preferred Stock	12/29/2010	Â <sup>(1)</sup>	Common Stock	4,137,928 <sup>(3)</sup>	\$ 0 <sup>(4)</sup>	I	By Third Security Senior Staff 2008 LLC <sup>(2)</sup>
Warrant to Purchase Shares of Series A Convertible Preferred	12/29/2010	12/28/2015	Common Stock	2,068,964 <sup>(3)</sup>	\$ 2.32 <sup>(5)</sup>	I	By Third Security Senior Staff 2008 LLC <sup>(2)</sup>
Series A Convertible Preferred Stock	12/29/2010	Â <sup>(1)</sup>	Common Stock	4,137,928 <sup>(3)</sup>	\$ 0 <sup>(4)</sup>	I	By Third Security Staff 2010 LLC <sup>(2)</sup>
Warrant to Purchase Shares of Series A Convertible Preferred	12/29/2010	12/28/2015	Common Stock	2,068,964 <sup>(3)</sup>	\$ 2.32 <sup>(5)</sup>	I	By Third Security Staff 2010 LLC <sup>(2)</sup>
Series A Convertible Preferred Stock	12/29/2010	Â <sup>(1)</sup>	Common Stock	2,068,964 <sup>(3)</sup>	\$ 0 <sup>(4)</sup>	I	By Third Security Incentive 2010 LLC <sup>(2)</sup>
Warrant to Purchase Shares of Series A Convertible Preferred	12/29/2010	12/28/2015	Common Stock	1,034,480 <sup>(3)</sup>	\$ 2.32 <sup>(5)</sup>	I	By Third Security Incentive 2010 LLC <sup>(2)</sup>

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
KIRK RANDAL J C/O THIRD SECURITY, LLC 1881 GROVE AVENUE RADFORD, VA 24141	Â	Â X	Â	Â
Third Security Senior Staff 2008 LLC C/O THIRD SECURITY, LLC 1881 GROVE AVENUE RADFORD, VA 24141	Â	Â X	Â	Â
Third Security Staff 2010 LLC C/O THIRD SECURITY, LLC 1881 GROVE AVENUE RADFORD, VA 24141	Â	Â X	Â	Â
Third Security Incentive 2010 LLC C/O THIRD SECURITY, LLC 1881 GROVE AVENUE RADFORD, VA 24141	Â	Â X	Â	Â

## Signatures

/s/ Randal J.  
Kirk

01/10/2011

\_\_Signature of  
Reporting Person

Date

## Explanation of Responses:

- \* 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).
- (1) Not applicable  
Randal J. Kirk controls each of Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC and Third Security Incentive 2010 LLC. 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.
  - (3) Assumes conversion of shares of Series A Convertible Preferred Stock into Common Stock.
  - (4) Pursuant to its terms, each share of Series A Convertible Preferred Stock is convertible into four shares of Common Stock at a conversion price of \$0.58 per share.
  - (5) Representing the per share price of each share of Series A Preferred Stock issuable upon exercise of the applicable Warrant, which such shares of Series A Preferred Stock are convertible in the manner described in Item 3 above.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure. Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.