TRANSGENOMIC INC Form SC 13D/A April 11, 2017

UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, DC 20549

SCHEDULE 13D (Amendment No. 5)* Under the Securities Exchange Act of 1934

TRANSGENOMIC, INC. (Name of Issuer)

Common Stock (Title of Class of Securities)

89365K206 (CUSIP Number)

Third Security, LLC 1881 Grove Avenue Radford, Virginia 24141 Attention: Marcus E. Smith, Esq. (540) 633-7900 (Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

Copy to: John Owen Gwathmey, Esq. David I. Meyers, Esq. Troutman Sanders LLP Troutman Sanders Building 1001 Haxall Point Richmond, Virginia 23219 (804) 697-1239

April 7, 2017 (Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition which is the subject of this Schedule 13D, and is filing this schedule because of Rule 13d-1(b)(3) or (4), check the following box r.

NOTE: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to

the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 89365K206 Page 2 of 5

This Amendment No. 5 (this "Amendment") amends and supplements the Statement on Schedule 13D, dated December 29, 2010 and filed on January 11, 2011, as amended by Amendment No. 1 dated February 3, 2012 and filed on February 7, 2012, as amended by Amendment No. 2 dated January 25, 2013 and filed on January 31, 2013, as amended by Amendment No. 3 dated March 5, 2014 and filed on March 7, 2014, and as amended by Amendment No. 4 dated January 6, 2016 and filed on January 12, 2016 (the "Original Schedule 13D"), relating to the Common Stock, par value \$0.01 per share (the "Common Stock"), of Transgenomic, Inc., a Delaware corporation (the "Company"). Mr. Randal J. Kirk ("Mr. Kirk"), Third Security, LLC ("Third Security"), a Virginia limited liability company that is managed by Third Security, Third Security Staff 2010 LLC ("Staff 2010"), a Virginia limited liability company that is managed by Third Security, and Third Security Staff 2010 LLC ("Staff 2014" and, together with Senior Staff, Staff 2010 and Incentive, the "Investors," and the Investors together with Mr. Kirk and Third Security, the "Reporting Persons"), are filing this Amendment to disclose the entering into of option agreements related to prospective financings involving the Company.

Except as set forth below, there are no changes to the information set forth in the Original Schedule 13D.

Item 4. Purpose of Transaction.

Item 4 of the Original Schedule 13D is hereby amended and supplemented as follows:

The information set forth in Items 3 and 6 is incorporated herein by reference.

On April 7, 2017, the Reporting Persons entered into call option agreements with BV Advisory Partners, LLC and Kuzven Precipio Investor, LLC, which agreements are filed herewith as Exhibit 23 and Exhibit 24, respectively, and incorporated herein by reference (the "Call Option Agreements") pursuant to which the Reporting Persons granted a call option to each party to purchase an aggregate of 7,900,000 shares of Company Common Stock from the Reporting Persons for \$1.00 in the event that certain conditions set forth in the Call Option Agreements are satisfied relating to a proposed bridge financing transaction and prospective merger between New Haven Labs Inc., a wholly owned subsidiary of the Company, and Precipio Diagnostics, LLC (the "Merger").

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer.

Item 6 of the Original Schedule 13D is hereby amended and supplemented to include the responses in Item 4 above.

Item 7. Material to be Filed as Exhibits.

Item 7 of the Original Schedule 13D is hereby amended and supplemented by the following:

CUSIP No. 89365K206 Page 3 of 5

Exhibit Call Option Agreement by and between Third Security Senior Staff 2008 LLC, Third Security Staff 2010

LLC, Third Security Incentive 2010 LLC, Third Security Staff 2014 LLC and BV Advisory Partners, LLC dated April 7, 2017

Exhibit 24 Call Option Agreement by and between Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, Third Security Incentive 2010 LLC, Third Security Staff 2014 LLC and Kuzven Precipio Investor, LLC dated April 7, 2017

Exhibit 25 Joint Filing Agreement, dated as of April 11, 2017, by and among Randal J. Kirk, Third Security, LLC, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, Third Security Incentive 2010 LLC and Third Security Staff 2014 LLC

CUSIP No. 89365K206 Page 4 of 5

SIGNATURES

After reasonable inquiry and to the best of their knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

Date: April 11, 2017

/s/ Randal J. Kirk Randal J. Kirk

THIRD SECURITY, LLC

By:/s/ Randal J. Kirk Randal J. Kirk Manager

THIRD SECURITY SENIOR STAFF 2008 LLC

By:/s/ Randal J. Kirk Randal J. Kirk Manager

THIRD SECURITY STAFF 2010 LLC

By:/s/ Randal J. Kirk Randal J. Kirk Manager

THIRD SECURITY INCENTIVE 2010 LLC

By:/s/ Randal J. Kirk Randal J. Kirk Manager

THIRD SECURITY STAFF 2014 LLC

By:/s/ Randal J. Kirk Randal J. Kirk Manager

EXHIBIT INDEX

Series A Convertible Preferred Stock Purchase Agreement, dated December 29, 2010, by and among Exhibit Transgenomic, Inc. (the "Company"), Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC,

1 and Third Security Incentive 2010 LLC (filed as Exhibit 4.1 to the Company's Current Report on Form 8-K, dated December 28, 2010, and incorporated herein by reference)

Exhibit Form of Warrant (filed as Exhibit 4.2 to the Company's Current Report on Form 8-K, dated December 28, 2010, and incorporated herein by reference)

Exhibit 3 Certificate of Designation of Series A Convertible Preferred Stock dated as of December 28, 2010 (filed as Exhibit 3.1 to the Company's Current Report on Form 8-K, dated December 28, 2010, and incorporated herein by reference)

Registration Rights Agreement, dated December 29, 2010, by and among the Company, Third Security Senior Exhibit Staff 2008 LLC, Third Security Staff 2010 LLC, and Third Security Incentive 2010 LLC (filed as Exhibit 4.3

4 to the Company's Current Report on Form 8-K, dated December 28, 2010, and incorporated herein by reference)

Exhibit 5 Joint Filing Agreement, dated as of January 10, 2011, by and among Randal J. Kirk, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, and Third Security Incentive 2010 LLC (filed with Original Schedule 13D)

Convertible Promissory Note Purchase Agreement by and among Transgenomic, Inc.; Third Security Senior
Exhibit Staff 2008 LLC; Third Security Staff 2010 LLC; and Third Security Incentive 2010 LLC dated December 30,
2011 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K, dated January 6, 2012, and incorporated herein by reference)

Exhibit 7 Convertible Promissory Note by and between Transgenomic, Inc. and Third Security Senior Staff 2008 LLC dated December 30, 2011 (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K, dated January 6, 2012, and incorporated herein by reference)

Exhibit 8 Convertible Promissory Note by and between Transgenomic, Inc. and Third Security Staff 2010 LLC dated December 30, 2011 (filed as Exhibit 10.3 to the Company's Current Report on Form 8-K, dated January 6, 2012, and incorporated herein by reference)

Exhibit 9 Convertible Promissory Note by and between Transgenomic, Inc. and Third Security Incentive 2010 LLC dated December 30, 2011 (filed as Exhibit 10.4 to the Company's Current Report on Form 8-K, dated January 6, 2012, and incorporated herein by reference)

Exhibit 10 Form of Warrant issued by Transgenomic, Inc. to Third Security Senior Staff 2008 LLC; Third Security Staff 2010 LLC; and Third Security Incentive 2010 LLC on February 3, 2012 (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K, dated February 7, 2012, and incorporated herein by reference)

Exhibit 11 Registration Rights Agreement by and among Transgenomic, Inc., certain investors and the Investors (filed as Exhibit 10.4 to the Company's Current Report on Form 8-K, dated February 7, 2012, and incorporated herein by reference)

Exhibit 12	Joint Filing Agreement, dated as of February 7, 2012, by and among Randal J. Kirk, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, and Third Security Incentive 2010 LLC (filed with Original Schedule 13D)	
Exhibit	13 c	Securities Purchase Agreement by and among Transgenomic, Inc. certain investors and the Investors, dated January 25, 2013 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K/A, dated January 30, 2013, and incorporated herein by reference)
Exhibit 14	Form of Warrant issued by Transgenomic, Inc. to certain investors and the Investors (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K/A, dated January 30, 2013, and incorporated herein by reference)	
Exhibit 15	Registration Rights Agreement by and among Transgenomic, Inc., certain investors and the Investors (filed as Exhibit 10.3 to the Company's Current Report on Form 8-K/A, dated January 30, 2013, and incorporated herein by reference)	
Exhibit 16	Joint Filing Agreement, dated as of January 31, 2013, by and among Randal J. Kirk, Third Security, LLC, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, and Third Security Incentive 2010 LLC	
Exhibit 17	Securities Purchase Agreement by and among the Company and the Investors, dated March 5, 2014 (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K/A, dated March 5, 2014 and filed on March 6, 2014, and incorporated herein by reference)	
Exhibit 18	Registration Rights Agreement by and among the Company and the Investors (filed as Exhibit 10.2 to the Company's Current Report on Form 8-K/A, dated March 5, 2014 and filed on March 6, 2014, and incorporated herein by reference)	
Exhibit 19	Joint Filing Agreement, dated as of March 7, 2014, by and among Randal J. Kirk, Third Security, LLC, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, Third Security Incentive 2010 LLC and Third Security Staff 2014 LLC	
Exhibit 20	Securities Purchase Agreement by and among the Company and the Investors, dated January 6, 2016 (filed as Exhibit 10.1 to the Company's Current Report on Form 8-K, dated January 6, 2016 and filed on January 11, 2016, and incorporated herein by reference)	
Exhibit 21	Registration Rights Agreement by and among the Company and the Investors (filed as Exhibit 4.1 to the Company's Current Report on Form 8, dated January 6, 2016 and filed on January 11, 2016, and incorporated herein by reference)	
Exhibit 22	Joint Filing Agreement, dated as of January 12, 2016, by and among Randal J. Kirk, Third Security, LLC, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, Third Security Incentive 2010 LLC and Third Security Staff 2014 LLC	

- Exhibit Call Option Agreement by and between Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, Third Security Incentive 2010 LLC, Third Security Staff 2014 LLC and BV Advisory Partners, LLC
- dated April 7, 2017
- ExhibitCall Option Agreement by and between Third Security Senior Staff 2008 LLC, Third Security Staff 201024LLC, Third Security Incentive 2010 LLC, Third Security Staff 2014 LLC and Kuzven Precipio Investor, LLC
dated April 7, 2017

Exhibit 25 Joint Filing Agreement, dated as of April 11, 2017, by and among Randal J. Kirk, Third Security, LLC, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, Third Security Incentive 2010 LLC and Third Security Staff 2014 LLC