TRANSGENOMIC INC Form 10-Q May 09, 2012 Table of Contents

| SEC   | TED STATES<br>URITIES AND EXCHANGE COMN<br>SHINGTON, D.C. 20549  | SSION  |
|-------|--|--|
| FOI   | RM 10-Q  |  |
| (Ma   | rk One)  |  |
| X     | QUARTERLY REPORT PURSUA<br>OF 1934                               | NT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT |
|       | For the quarterly period ended Mar                               | 1 31, 2012   |
| Or    |  |  |
| o     | TRANSITION REPORT PURSUA<br>OF 1934                              | NT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT |
| Com   | For the transition period from<br>mission File Number: 000-30975 | to   |
| TRA   | NSGENOMIC, INC.  |  |
| (Exa  | ect name of registrant as specified in it                        | charter)   |
| Dela  | ware   | 911789357  |
| (Stat | te or other jurisdiction of                                      | (I.R.S. Employer   |
|       | rporation or organization)                                       | Identification No.)                                      |
| 1232  | 25 Emmet Street, Omaha, Nebraska                                 | 68164  |
|       | dress of principal executive offices) 452-5400                   | (Zip Code)   |
| •     | gistrant's telephone number, including                           | rea code)  |
|       |  | (4) 1 (1) 1 1 1 (1) 1 (1) 1 (1) 1 (1) (1)                |

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days. Yes x No o Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ) Yes x No o

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer o Accelerated filer x
Non-accelerated filer o (Do not check if a smaller reporting company) Smaller reporting company o

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange

Act). Yes o No x

As of May 8, 2012, the number of shares of common stock outstanding was 71,645,725.

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## PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

TRANSGENOMIC, INC. AND SUBSIDIARY

## CONDENSED CONSOLIDATED BALANCE SHEETS

(Dollars in thousands except per share data)

|  | March 31,<br>2012<br>(unaudited) | December 31, 2011 |
|--|----------------------------------|-------------------|
| ASSETS   | (unadanca)                       | _011              |
| CURRENT ASSETS:  |                                  |                   |
| Cash and cash equivalents  | \$19,291                         | \$4,946           |
| Accounts receivable, net   | 6,704                            | 7,573             |
| Inventories, net   | 4,014                            | 3,859             |
| Other current assets   | 1,028                            | 820               |
| Total current assets   | 31,037                           | 17,198            |
| PROPERTY AND EQUIPMENT:  |                                  |                   |
| Equipment  | 10,277                           | 10,143            |
| Furniture, fixtures & leasehold improvements                                       | 3,711                            | 3,682             |
|  | 13,988                           | 13,825            |
| Less: accumulated depreciation   | (12,112                          | ) (11,969 )       |
|  | 1,876                            | 1,856             |
| OTHER ASSETS:  |                                  |                   |
| Goodwill   | 6,440                            | 6,440             |
| Intangibles, net   | 7,691                            | 7,966             |
| Other assets   | 140                              | 102               |
|  | \$47,184                         | \$33,562          |
| LIABILITIES AND STOCKHOLDERS' EQUITY   |                                  |                   |
| CURRENT LIABILITIES:   |                                  |                   |
| Accounts payable   | \$1,567                          | \$2,609           |
| Accrued compensation   | 1,047                            | 1,133             |
| Short term debt  |                                  | 3,082             |
| Current maturities of long term debt   | 7,294                            | 3,703             |
| Accrued expenses   | 3,593                            | 3,839             |
| Other Liabilities  | 1,042                            | 1,042             |
| Current portion of lease obligations   | 316                              | 320               |
| Accrued preferred stock dividend   | 765                              | 600               |
| Total current liabilities  | 15,624                           | 16,328            |
| LONG TERM LIABILITIES:   |                                  |                   |
| Long term debt less current maturities   | 1,345                            | 4,937             |
| Common stock warrant liability   | 3,100                            | _                 |
| Other long-term liabilities  | 1,211                            | 1,249             |
| Total liabilities  | 21,280                           | 22,514            |
| STOCKHOLDERS' EQUITY:  |                                  |                   |
| Series A preferred stock, \$.01 par value, 15,000,000 shares authorized, 2,586,205 | 26                               | 26                |
| shares issued and outstanding  | 20                               | 20                |
| Common stock, \$.01 par value, 100,000,000 shares authorized, 71,645,725 and       | 721                              | 501               |
| 49,625,725 shares issued and outstanding, respectively                             |                                  |                   |
| Additional paid-in capital   | 170,423                          | 152,987           |
| Accumulated other comprehensive income   | 397                              | 336               |
|  |                                  |                   |

| Accumulated deficit        | (145,663 | ) (142,802 | ) |
|----------------------------|----------|------------|---|
| Total stockholders' equity | 25,904   | 11,048     |   |
|                            | \$47 184 | \$33,562   |   |

See notes to unaudited condensed consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY

UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(Dollars in thousands except per share data)

|   | Three Month             | s E | Ended      |   |
|---|-------------------------|-----|------------|---|
|   | March 31,               |     |            |   |
|   | 2012                    |     | 2011       |   |
| NET SALES   | \$7,206                 |     | \$7,480    |   |
| COST OF GOODS SOLD  | 4,102                   |     | 3,326      |   |
| Gross profit  | 3,104                   |     | 4,154      |   |
| OPERATING EXPENSES:   |                         |     |            |   |
| Selling, general and administrative                                 | 4,994                   |     | 4,323      |   |
| Research and development  | 549                     |     | 557        |   |
| Restructuring charges   |                         |     | 24         |   |
|   | 5,543                   |     | 4,904      |   |
| LOSS FROM OPERATIONS  | (2,439                  | )   | (750       | ) |
| OTHER INCOME (EXPENSE):   |                         |     |            |   |
| Interest income (expense), net                                      | (273                    | )   | (238       | ) |
| Expense on preferred stock  |                         |     | (2,027     | ) |
| Other, net  | 20                      |     | 231        |   |
|   | (253                    | )   | (2,034     | ) |
| LOSS BEFORE INCOME TAXES  | (2,692                  | )   | (2,784     | ) |
| INCOME TAX EXPENSE (BENEFIT)  | 4                       |     | (6         | ) |
| NET LOSS  | \$(2,696                | )   | \$(2,778   | ) |
| PREFERRED STOCK DIVIDENDS AND ACCRETION                             | (165                    | )   | (260       | ) |
| NET LOSS AVAILABLE TO COMMON STOCKHOLDERS                           | \$(2,861                | )   | \$(3,038   | ) |
| BASIC AND DILUTED LOSS PER COMMON SHARE                             | \$(0.05                 | )   | \$(0.06    | ) |
| BASIC AND DILUTED WEIGHTED AVERAGE SHARES OF COMMON STOC            | K <sub>62,683,527</sub> |     | 49,293,005 |   |
| OUTSTANDING   | 02,003,327              |     | 47,273,003 |   |
| See notes to unaudited condensed consolidated financial statements. |                         |     |            |   |

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# TRANSGENOMIC, INC. AND SUBSIDIARY UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS (Dollars in thousands)

|   | Three Months l | Ended      |   |
|---|----------------|------------|---|
|   | March 31,      |            |   |
|   | 2012           | 2011       |   |
| Net Loss  | \$(2,696       | ) \$(2,778 | ) |
| Foreign currency translation adjustment, net of tax | 61             | 107        |   |
| Other Comprehensive Income, net of tax              | 61             | 107        |   |
| Comprehensive Loss                                  | \$(2,635       | ) \$(2,671 | ) |

See notes to unaudited condensed consolidated financial statements.

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# TRANSGENOMIC, INC. AND SUBSIDIARY UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY Three Months Ended March 31,2012

(Dollars in thousands except per share data)

|   | Preferred St          | ock          | Common Sto            | ck           |                                  |                       |    |   |          |
|---|-----------------------|--------------|-----------------------|--------------|----------------------------------|-----------------------|----|---|----------|
|   | Outstanding<br>Shares | Par<br>Value | Outstanding<br>Shares | Par<br>Value | Additional<br>Paid-in<br>Capital | Accumulate<br>Deficit | ed | Accumulated<br>Other<br>Comprehensive<br>Income | Total    |
| Balance, January 1, 2012                            | 2,586,205             | 26           | 49,625,725            | \$501        | \$152,987                        | \$(142,802            | )  | \$336   | \$11,048 |
| Net loss  |                       |              |                       |              |                                  | (2,696                | )  | _   | (2,696)  |
| Foreign currency translation adjustment, net of tax | (                     |              | _                     | _            | _                                | _                     |    | 61  | 61       |
| Non-cash stock-based compensation                   | d                     |              |                       | _            | 273                              | _                     |    | _   | 273      |
| Private Placement, net                              |                       |              | 22,000,000            | 220          | 17,153                           |                       |    |   | 17,373   |
| Issuance of shares of stock                         |                       |              | 20,000                | _            | 10                               | _                     |    | _   | 10       |
| Dividends on preferred stock                        |                       |              | _                     | _            | _                                | (165                  | )  | _   | (165)    |
| Balance, March 31, 2012                             | 2,586,205             | 26           | 71,645,725            | 721          | 170,423                          | (145,663              | )  | \$397   | \$25,904 |

See notes to unaudited condensed consolidated financial statements.

# TRANSGENOMIC, INC. AND SUBSIDIARY UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS (Dollars in thousands)

|   | Three Months Ended March 31, |   | nded     |   |
|---|------------------------------|---|----------|---|
|   | 2012                         |   | 2011     |   |
| CASH FLOWS PROVIDED BY (USED IN) OPERATING ACTIVITIES:                              |                              |   |          |   |
| Net loss  | \$(2,696                     | ) | \$(2,778 | ) |
| Adjustments to reconcile net loss to net cash flows provided by (used in) operating |                              |   |          |   |
| activities:   |                              |   |          |   |
| Depreciation and amortization   | 513                          |   | 494      |   |
| Non-cash, stock based compensation  | 273                          |   | 9        |   |
| Provision for losses on doubtful accounts   | 474                          |   | 448      |   |
| Provision for losses on inventory obsolescence                                      | 1                            |   | 7        |   |
| Preferred stock revaluation   | _                            |   | 2,027    |   |
| Changes in operating assets and liabilities:  |                              |   |          |   |
| Accounts receivable   | 448                          |   | (350     | ) |
| Inventories   | (128                         | ) | 210      |   |
| Prepaid expenses and other current assets   | (204                         | ) | 316      |   |
| Accounts payable  | (1,057                       | ) | (780     | ) |

| Accrued liabilities   | (292     | ) | 471     |   |
|---|----------|---|---------|---|
| Other long term liabilities   | (97      | ) | (29     | ) |
| Long term deferred income taxes                                     | 5        |   | 6       |   |
| Net cash flows provided by (used in) operating activities           | (2,760   | ) | 51      |   |
| CASH FLOWS USED IN INVESTING ACTIVITIES:                            |          |   |         |   |
| Purchases of property and equipment                                 | (198     | ) | (86     | ) |
| Change in other assets  | (67      | ) | (1      | ) |
| Net cash flows used in investing activities                         | (265     | ) | (87     | ) |
| CASH FLOWS PROVIDED BY (USED IN) FINANCING ACTIVITIES:              |          |   |         |   |
| Principal payments on capital lease obligations                     | (52      | ) | (66     | ) |
| Issuance of common stock and warrants, net                          | 17,483   |   | 7       |   |
| Principal payment on note payable                                   | (82      | ) | (248    | ) |
| Net cash flows provided by (used in) financing activities           | 17,349   |   | (307    | ) |
| EFFECT OF FOREIGN CURRENCY EXCHANGE RATE CHANGES ON CASH            | 21       |   | 59      |   |
| NET CHANGE IN CASH AND CASH EQUIVALENTS                             | 14,345   |   | (284    | ) |
| CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD                    | 4,946    |   | 3,454   |   |
| CASH AND CASH EQUIVALENTS AT END OF PERIOD                          | \$19,291 |   | \$3,170 |   |
| SUPPLEMENTAL CASH FLOW INFORMATION                                  |          |   |         |   |
| Cash paid during the period for:                                    |          |   |         |   |
| Interest  | \$495    |   | \$238   |   |
| Income taxes, net   | 2        |   | 13      |   |
| SUPPLEMENTAL DISCLOSURE OF NON-CASH INFORMATION                     |          |   |         |   |
| Acquisition of equipment through capital leases                     | \$12     |   | \$147   |   |
| Dividends accrued on preferred stock                                | 165      |   | 150     |   |
| Note Payable converted to Equity                                    | 3,000    |   |         |   |
| See notes to unaudited condensed consolidated financial statements. |          |   |         |   |

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TRANSGENOMIC, INC. AND SUBSIDIARY

NOTES TO UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS—(Continued)

Three Months Ended March 31, 2012 and 2011

#### A. BUSINESS DESCRIPTION

Business Description.

Transgenomic, Inc. is a global biotechnology company advancing personalized medicine in the detection and treatment of cancer and inherited diseases through its proprietary molecular technologies and world-class clinical and research services. We have three complementary business segments.

Clinical Laboratories. Our clinical laboratories specialize in genetic testing for cardiology, neurology, mitochondrial disorders, and oncology. Located in New Haven, Connecticut and Omaha, Nebraska, the molecular clinical reference laboratories are certified under the Clinical Laboratory Improvement Amendment (CLIA) as high complexity labs and our Omaha facility is also accredited by the College of American Pathologists (CAP).

Pharmacogenomics Services. Our Contract Research Organization located in Omaha, Nebraska provides pharmacogenomics research services supporting Phase II and Phase III clinical trials conducted by our pharmaceutical customers. This lab specializes in pharmacogenomic, biomarker and mutation discovery research serving the pharmaceutical and biomedical industries world-wide for disease research, drug and diagnostic development and clinical trial support.

Diagnostic Tools. Our proprietary product is the WAVE® System which has broad applicability to genetic variation detection in both molecular genetic research and molecular diagnostics. There is a worldwide installed base of over 1,525 WAVE Systems as of March 31, 2012. We also distribute bioinstruments produced by other manufacturers ("OEM Equipment") through our sales and distribution network. Service contracts to maintain installed systems are sold and supported by our technical support personnel. The installed WAVE base and some OEM Equipment platforms generate a demand for consumables that are required for the continued operation of the bioinstruments. We develop, manufacture and sell these consumable products. In addition, we manufacture and sell consumable products that can be used on multiple, independent platforms. These products include SURVEYOR® Nuclease and a range of chromatography columns.

#### **B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

Principles of Consolidation.

The consolidated financial statements include the accounts of Transgenomic, Inc. and its wholly owned subsidiary. All inter-company balances and transactions have been eliminated in consolidation.

Risks and Uncertainties.

Certain risks and uncertainties are inherent in our day-to-day operations and to the process of preparing our financial statements. The more significant of those risks are presented below and throughout the notes to the consolidated financial statements.

Use of Estimates.

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses during the reporting period. In addition, estimates and assumptions associated with the determination of the fair value of certain assets and related impairments require considerable judgment by management. Actual results could differ from the estimates and assumptions used in preparing these consolidated financial statements.

Reclassifications.

Certain prior year amounts have been reclassified in order to conform to the current year presentation regarding segment reporting.

Fair Value.

Unless otherwise specified, book value approximates fair market value. The common stock warrant liability is recorded at fair value. See Footnote H - Fair Value.

Basis of Presentation.

The condensed consolidated balance sheet as of December 31, 2011 was derived from our audited balance sheet as of that date. The accompanying consolidated financial statements as of and for the three months ended March 31, 2012 and 2011 are unaudited and reflect all adjustments that are, in the opinion of management, necessary for a fair presentation of the financial position and operating results for the interim periods. These unaudited consolidated financial statements and notes should be read in conjunction with the audited consolidated financial statements and notes thereto for the year ended December 31, 2011 contained in our Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 14, 2012. The results of operations for the interim periods presented are not necessarily indicative of the results for the entire year.

Cash and Cash Equivalents.

Cash and cash equivalents include cash and investments with original maturities at the date of acquisition of three months or less. Such investments presently consist of temporary overnight investments.

Concentrations of Cash.

From time to time, we may maintain a cash position with financial institutions in amounts that exceed federally insured limits. We have not experienced any losses on such accounts as of March 31, 2012.

Accounts Receivable.

The following is a summary of activity for the allowance for doubtful accounts during the three months ended March 31, 2012 and 2011:

|                                   | Dollars in Thousands |            |            |           |
|-----------------------------------|----------------------|------------|------------|-----------|
|                                   | Beginning            | Write Offs | Ending     |           |
|                                   | Balance              | Provision  | WIIIC OIIS | Balance   |
| Three Months Ended March 31, 2012 | \$1,088              | \$474      | \$(483     | ) \$1,079 |
| Three Months Ended March 31, 2011 | \$334                | \$448      | \$(66      | ) \$716   |

While payment terms are generally 30 days, we have also provided extended payment terms of up to 90 days in certain cases. We operate globally and some of the international payment terms may be greater than 90 days. Accounts receivable are carried at original invoice amount and shown net of allowance for doubtful accounts and contractual allowances. The estimate made for doubtful accounts is based on a review of all outstanding amounts on a quarterly basis. We determine the allowance for doubtful accounts and contractual allowances by regularly evaluating individual customer receivables and considering a customer's financial condition, credit history and current economic conditions. Accounts receivable are written off when deemed uncollectible. Recoveries of accounts receivable previously written off are recorded when received.

Inventories.

Inventories are stated at the lower of cost or market net of allowance for obsolete inventory. Cost is computed using standard costs for finished goods and average or latest actual cost for raw materials and work in process, which approximates the first-in, first-out (FIFO) method.

The following is a summary of activity for the allowance for obsolete inventory during the three months ended March 31, 2012 and 2011:

|                                   | Dollars in Thousands |           |            |         |
|-----------------------------------|----------------------|-----------|------------|---------|
|                                   | Beginning            | Provision | Write Offs | Ending  |
|                                   | Balance              |           |            | Balance |
| Three Months Ended March 31, 2012 | \$511                | \$1       | \$(3       | ) \$509 |
| Three Months Ended March 31, 2011 | \$518                | \$7       | \$(5       | ) \$520 |

We determine the allowance for obsolescence by evaluating inventory quarterly for items deemed to be slow moving or obsolete.

Property and Equipment.

Property and equipment are carried at cost less accumulated depreciation. Depreciation is computed by the straight-line method over the estimated useful lives of the related assets as follows:

Leasehold improvements1 to 10 yearsFurniture and fixtures3 to 7 yearsProduction equipment3 to 7 yearsComputer equipment3 to 7 yearsResearch and development equipment2 to 7 years

Depreciation expense related to property and equipment was \$0.2 million during each of the three months ended March 31, 2012 and 2011. Included in depreciation for each period was less than \$0.1 million related to equipment acquired under capital leases.

#### Goodwill.

Goodwill is the excess of the purchase price over fair value of assets acquired and is not amortized. Goodwill is tested for impairment annually. We perform this impairment analysis during the fourth quarter of each year or when a significant event occurs that may impact goodwill. Impairment occurs when the carrying value is determined to be not recoverable thereby causing the carrying value of the goodwill to exceed its fair value. If impaired, the asset's carrying value is reduced to its fair value. No events have transpired in the three months ended March 31, 2012 that would require an impairment analysis prior to our scheduled review.

## Stock Based Compensation.

All stock options awarded to date have exercise prices equal to the market price of our common stock on the date of grant and have ten-year contractual terms. Unvested options as of March 31, 2012 had vesting periods of one or three years from date of grant. None of the stock options outstanding at March 31, 2012 are subject to performance or market-based vesting conditions.

We measure and recognize compensation expense for all stock-based awards made to employees and directors, including stock options. Compensation expense is based on the calculated fair value of the awards as measured at the grant date and is expensed ratably over the service period of the awards (generally the vesting period). During the three months ended March 31, 2012, we recorded compensation expense of \$0.3 million within selling, general and administrative expense. During the three months ended March 31, 2011, we recorded compensation expense of less than \$0.1 million within selling, general and administrative expense. As of March 31, 2012, there was \$0.8 million of unrecognized compensation expense related to unvested stock options, which is expected to be recognized over a weighted-average period of nearly three years.

We granted 100,000 stock options during the quarter ended March 31, 2012. The fair value of the options granted during the three months ended March 31, 2012 was estimated on the respective grant dates using the Black-Scholes option pricing model. The Black-Scholes model was used with the following assumptions: risk-free interest rates of 0.81% based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of eight years, based on expected exercise activity behavior; and volatility of 109% based on the historical volatility of our stock over a time that is consistent with the expected life of the option. A small group of senior executives holds the majority of the stock options and such senior executives are expected to hold the options for five years. Forfeitures of 1.64% have been assumed.

There were 130,000 stock options granted during the quarter ended March 31, 2011. The Black-Scholes model was used with the following assumptions: risk-free interest rates of 2.16% based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected life of six years, based on historical exercise activity behavior; and volatility of 107% based on the historical volatility of our stock over the past five years. A small group of senior executives held the majority of the stock options and such senior executives are expected to hold the options until they are vested. Forfeitures of 3.6% were assumed in the calculation.

#### Net Sales Recognition.

Revenue is realized and earned when all of the following criteria are met:

Persuasive evidence of an arrangement exists

Delivery has occurred or services have been rendered

The seller's price to the buyer is fixed or determinable, and

Collectability is reasonably assured.

Net sales from our Clinical Laboratories segment are recognized on an individual test basis and takes place when the

test report is completed, reviewed and sent to the client less the reserve for insurance, Medicare and Medicaid contractual adjustments. There are no deferred net sales associated with our Clinical Laboratories segment. Adjustments to the allowances, based on actual receipts from third party payers, are recorded upon settlement. In our Pharmacogenomics Services segment, we perform services on a project by project basis. When we receive payment in advance, we recognize revenue when we deliver the service. These projects typically do not extend beyond one year. At March 31, 2012 and 2011, deferred net sales associated with pharmacogenomics research projects, included in the balance sheet in other accrued liabilities, was \$0.1 million in each period. Net sales of products in our Diagnostic Tools segment are recognized in accordance with the terms of the sales arrangement. Such recognition is based on receipt of an unconditional customer order and transfer of title and risk of ownership to the customer, typically upon shipment of the product under a purchase order. Our sales terms do not provide for the right of return unless the product is damaged or defective. Net sales from certain services associated with the analytical instruments, to be performed subsequent to shipment of the products, is deferred and recognized when the services are provided. Such services, mainly limited to installation and training services that are not essential to the functionality of the instruments, typically are performed in a timely manner subsequent to shipment of the instrument. We also enter into various service contracts that cover installed instruments. These contracts cover specific time periods and net sales associated with these contracts are deferred and recognized ratably over the service period. At March 31, 2012 and 2011, deferred net sales, mainly associated with our service contracts, included in the balance sheet in accrued expenses, was \$1.3 million and \$1.5 million, respectively.

Taxes collected from customers and remitted to government agencies for specific net sales producing transactions are recorded net with no effect on the income statement.

Common Stock Warrants.

The Common Stock Warrants do not qualify to be treated as equity, and accordingly, are recorded as a liability. The Common Stock Warrant liability was initially recorded at fair value using a Monte Carlo simulation model. We were required to record this instrument at fair value at each reporting date and changes are recorded as an adjustment to earnings. The Common Stock Warrant liability is considered a level three financial instrument. Translation of Foreign Currency.

Our foreign subsidiary uses the local currency of the country in which it is located as its functional currency. Its assets and liabilities are translated into U.S. dollars at the exchange rates in effect at the balance sheet date. A cumulative translation gain of approximately \$0.1 million is reported as accumulated other comprehensive income on the accompanying consolidated balance sheet as of March 31, 2012. A cumulative translation gain of \$0.1 million was reported as accumulated other comprehensive income as of March 31, 2011. Revenues and expenses are translated at the average rates during the period. For transactions that are not denominated in the functional currency, we recognized less than \$0.1 million as foreign currency transaction loss in the determination of net loss for the three months ending March 31, 2012 and \$0.1 million as foreign currency transaction gain in the determination of net loss for the three months ending March 31, 2011.

Earnings(Loss) Per Share.

Basic earnings(loss) per share is calculated based on the weighted-average number of common shares outstanding during each period. Diluted earnings per share include shares issuable upon exercise of outstanding stock options, warrants or conversion rights that have exercise or conversion prices below the market value of our common stock. Options, warrants and conversion rights pertaining to 28,741,938 and 18,095,894 shares of our common stock have been excluded from the computation of diluted earnings per share at March 31, 2012 and 2011, respectively. The options, warrants and conversion rights that were exercisable in 2011 and 2010 were not included because the effect would be anti-dilutive due to the net loss.

Recently adopted accounting pronouncements.

In January 2010, the FASB issued guidance to amend the disclosure requirements related to fair value measurements, effective for years beginning after December 15, 2010. The guidance requires the disclosure of roll forward activities on purchases, sales, issuance, and settlements of the assets and liabilities measured using significant unobservable inputs (Level Three fair value measurements). We adopted the new disclosure provisions with the filing of our Form 10-Q for the three months ended March 31, 2011.

In June 2011, the FASB issued guidance on the presentation of comprehensive income. The new guidance eliminates the current option to report other comprehensive income and its components in the statement of changes in equity. Instead, an entity will be required to present either a continuous statement of net income and other comprehensive income or in two separate but consecutive statements. The new guidance is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2011. The Company elected to report other comprehensive income and its components in a separate statement of comprehensive income for the three months ended March 31, 2012 and 2011.

In July 2011, the FASB issued guidance on the presentation of net patient service revenue. The new guidance requires a change in presentation of the statement of operations by reclassifying the provision for bad debts associated with patient service revenue from an operating expense to a deduction from patient service revenue (net of contractual allowances and discounts). Additionally, enhanced disclosure about policies for recognizing revenue and assessing bad debts are required. Disclosures of patient service revenue (net of contractual allowances and discounts) as well as qualitative and quantitative information about changes in the allowance for doubtful accounts will be required. The new guidance is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2011. Our adoption of this guidance did not have a material impact on our consolidated financial statements. In September 2011, the FASB issued guidance on Intangibles including goodwill and other intangibles. The new guidance will allow an entity to first assess qualitative factors to determine whether it is necessary to perform the two-step quantitative goodwill impairment test. The new guidance is effective for fiscal years beginning after December 15, 2011. We will follow this guidance in our fourth quarter 2012 testing of goodwill and other intangibles.

In May 2011, the FASB issued Accounting Standards Update No. 2011-04, "Fair Value Measurement" ("ASU 2011-04"). ASU 2011-04 amends ASC 820 to achieve common fair value measurement and disclosure requirements in U.S. Generally Accepted Accounting Principles (GAAP) and International Financial Reporting Standards (IFRS). The amended guidance requires information disclosure regarding transfers between Level 1 and Level 2 of the fair value hierarchy, information disclosure regarding sensitivity of a fair value measurement categorized within Level 3 of the fair value hierarchy to changes in unobservable inputs and any interrelationships between those unobservable inputs, and the categorization by level of the fair value hierarchy for items that are not measured at fair value. The amended guidance was effective for financial periods beginning after December 15, 2011. ASU 2011-04 did not have a material effect on the Company's consolidated financial position or results of operations.

#### **C.INVENTORIES**

Inventories (net of allowance for obsolescence) consisted of the following:

|                                   | Donars in Thousands |              |  |
|-----------------------------------|---------------------|--------------|--|
|                                   | March 31,           | December 31, |  |
|                                   | 2012                | 2011         |  |
| Finished goods                    | \$2,911             | \$2,608      |  |
| Raw materials and work in process | 1,481               | 1,485        |  |
| Demonstration inventory           | 131                 | 277          |  |
|                                   | \$4,523             | \$4,370      |  |
| Less allowance for obsolescence   | (509                | ) (511 )     |  |
| Total                             | \$4.014             | \$3,859      |  |

#### D.INTANGIBLES AND OTHER ASSETS

Long-lived intangible assets and other assets consisted of the following:

| Dollars in | n Thousands |          |        |              |          |
|------------|-------------|----------|--------|--------------|----------|
| March 31   | 1, 2012     |          | Decemb | per 31, 2011 |          |
| Cost       | Accumulated | Net Rook | Cost   | Accumulated  | Net Rook |

Dollars in Thousands

|   |                | Amortization | Value   |         | Amortization | Value   |
|---|----------------|--------------|---------|---------|--------------|---------|
| Intangibles—acquired technology             | \$6,535        | \$1,138      | \$5,397 | \$6,535 | \$911        | \$5,624 |
| Intangibles—assay royalties                 | 1,434          | 256          | 1,178   | 1,434   | 205          | 1,229   |
| Intangibles—third party payor relationships | 367            | _            | 367     | 367     |              | 367     |
| Intangibles—tradenames and tradema          | ır <b>R4</b> 4 | 61           | 283     | 344     | 49           | 295     |
| Patents                                     | 726            | 274          | 452     | 703     | 267          | 436     |
| Intellectual property                       | 20             | 6            | 14      | 20      | 5            | 15      |
|   | \$9,426        | \$1,735      | \$7,691 | \$9,403 | \$1,437      | \$7,966 |

Estimated Useful Life
Intellectual property
Patents
Intangibles—acquired technology
Intangibles—third party payor relationships
Intangibles—assay royalties
Intangibles—tradenames and trademarks

Estimated Useful Life
10 years
7 years
7 years
7 years
7 years

Other assets include U.S. security deposits and deferred tax assets, net of applicable valuation allowances. Amortization expense for intangible assets was \$0.3 million during each of the three months ended March 31, 2012 and 2011. Amortization expense for intangible assets is expected to be \$1.2 million in each of the years 2012 through 2017.

#### E. COMMITMENTS AND CONTINGENCIES

We are subject to a number of claims of various amounts, which arise out of the normal course of business. In the opinion of management, the disposition of pending claims will not have a material adverse effect on our financial position, results of operations or cash flows.

We lease certain equipment, vehicles and operating facilities under non-cancellable operating leases that expire on various dates through 2022. The future minimum lease payments required under these leases are approximately \$0.8 million in 2012, \$1.1 million in 2013, \$1.0 million in 2014, \$0.9 million in 2015. \$0.9 million in 2016 and \$0.6 million in 2017. Rent expense for each of the three months ended March 31, 2012 and 2011 was \$0.2 million and \$0.3 million, respectively.

At March 31, 2012, firm commitments to vendors totaled \$2.3 million.

#### F.INCOME TAXES

We file income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and various foreign jurisdictions. We have statutes of limitation open for federal income tax returns related to tax years 2008 through 2011. We have state income tax returns subject to examination primarily for tax years 2008 through 2011. Open tax years related to foreign jurisdictions, primarily the United Kingdom, remain subject to examination for the tax years 2008 through 2011.

Income tax expense for the three months ended March 31, 2012 was nominal. This is the result of the change in deferred tax assets and liabilities reported in financial statements of our subsidiary outside the U.S. We believe the tax expense recorded will be offset in future periods by a tax expense related to income reported in financial statements of our subsidiary outside the U.S. Income tax expense for the three months ended March 31, 2011 was less than \$0.1 million. The effective tax rate for the three months ended March 31, 2012 is 0.14%, which is primarily the result of valuation allowances against the net operating losses for the U.S.

During the three months ended March 31, 2012 and 2011, there were no material changes to the liability for uncertain tax positions.

#### G. STOCKHOLDERS' EQUITY

Common Stock.

Our Board of Directors is authorized to issue up to 100,000,000 shares of common stock, from time to time, as provided in a resolution or resolutions adopted by the Board of Directors.

On February 7, 2012 we entered into definitive agreements with institutional and other accredited investors and raised approximately \$22.0 million in a private placement financing ("Private Placement"), which includes an aggregate of \$3.0 million in convertible notes issued in December 2011 to entities associated with Third Security, LLC, a related party, that automatically convert into shares of our common stock and warrants to purchase such common stock on the same terms as all investors in the Private Placement. Pursuant to the purchase agreement, we issued an aggregate of 19,000,000 shares of our common stock at a price per share of \$1.00, as well as five-year warrants to purchase up to an aggregate of 9,500,000 shares of common stock with an exercise price of \$1.25 per share. In connection with the conversion of the convertible notes issued by us to the entities associated with Third Security, LLC, the entities received an aggregate of 3,000,000 shares of common stock and 1,500,000 warrants on the same terms as all investors in the Private Placement. The costs incurred to complete the Private Placement were recorded as a reduction in equity in the amount of \$1.5 million. Net proceeds from this offering will be used for general corporate and working capital purposes, primarily to accelerate development of several of our key initiatives.

Pursuant to the Company's equity financing completed on February 2, 2012, the Company is obligated to pay PGxHealth, LLC ("PGx") an aggregate of \$5.5 million as a prepayment under the senior secured promissory note (the "Note"). The Company has accounted for the full prepayment amount as a current liability as of March 31, 2012. The Company has contacted PGx on numerous occasions to make arrangements for having the Company make the prepayment to PGx in accordance with the terms of the Note, as well as to coordinate the timing of the prepayment. However, PGx has not responded to any of the Company's outreach efforts. The Company intends to continue to comply with the original terms of the Note.

Common Stock Warrants.

11,000,000 common stock warrants were issued during the three months ended March 31, 2012. No common stock warrants were issued or exercised during the three months ended March 31, 2011. Warrants to purchase an aggregate of 16,172,408 shares of common stock were outstanding at March 31, 2012.

| Warrant Holder                                   | Issue Year Expiration |               | Underlying | Exercise |  |
|--|-----------------------|---------------|------------|----------|--|
| warrant Holder                                   | issue i eai           | Expiration    | Shares     | Price    |  |
| Affiliates of Third Security, LLC <sup>(1)</sup> | 2010                  | December 2015 | 5,172,408  | \$0.58   |  |
| Various Institutional Holders <sup>(2)</sup>     | 2012                  | February 2017 | 9,500,000  | \$1.25   |  |
| Affiliates of Third Security, LLC <sup>(2)</sup> | 2012                  | February 2017 | 1,500,000  | \$1.25   |  |
|  |                       |               | 16,172,408 |          |  |

This Warrant was issued in connection with the Financing. The number of underlying shares shown reflects the (1)number of shares of common stock issuable upon conversion of the shares of Series A Preferred Stock for which this Warrant is currently exercisable.

(2) These Warrants were issued in connection with the Private Placement in February 2012.

#### H.FAIR VALUE

Financial Accounting Standards Board ("FASB") guidance on fair value measurements, which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements for our financial assets and liabilities, as well as for other assets and liabilities that are carried at fair value on a recurring basis in our consolidated financial statements.

FASB guidance establishes a three-level fair value hierarchy based upon the assumptions (inputs) used to price assets or liabilities. The three levels of inputs used to measure fair value are as follows:

Level 1—Unadjusted quoted prices in active markets for identical assets or liabilities,

Level 2—Observable inputs other than those included in Level 1, such as quoted prices for similar assets and liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets, and

Level 3—Unobservable inputs reflecting our own assumptions and best estimate of what inputs market participants would use in pricing the asset or liability.

The common stock warrant liability is recorded at fair value. We are required to record this instrument at fair value at each reporting date and changes are recorded as an adjustment to earnings. The gains or losses included in earnings are reported in other income (expense) in our Statement of Operations.

The common stock warrant liability is considered a Level 3 financial instrument and is valued using a Monte Carlo simulation. This method is well suited to value options with non-standard features, such as anti-dilution protection. A Monte Carlo simulation model uses repeated random sampling to simulate significant uncertainty in inputs.

Assumptions and inputs used in the valuation of the commons stock warrants are broken down into four sections: Static Business Inputs; Static Technical Inputs; Simulated Business Inputs: and Simulated Technical Inputs.

Static Business Inputs include: Our equity value which is was estimated using our stock price at the Valuation Date of \$1.20; the amount of down-round financing, the timing of the down-round financing, the expected exercise period was 4.86 years from the valuation date and no other potential fundamental transactions are expected during the term of the common stock warrants.

Static Technical Inputs include: volatility of 55% and the risk-free interest rate of 1.04% based on the 5-year U.S. Treasury bond.

Simulated Business Inputs include the probability of down-round financing which was estimated to be 10% for simulated equity values below the down-round financing cut-off point.

Simulated Technical Inputs include: Our equity value in periods 1 -10 follows a geometric Brownian motion and is simulated over 10 independent six-month periods; a down-round financing event was randomly simulated in an iteration based on the 10% discrete probability of a down-round financing for those iterations where our simulated equity value at the expected timing of down-round financing was below the down-round financing cut-off point.

During the three months ended March 31, 2012, the changes in the fair value of the liability measured using significant unobservable inputs (Level 3) was comprised of the following:

Dollars in Thousands For the Three Months Ended March 31, 2012 \$3,100

Balance at March 31, 2012

We had no Level 3 liabilities at December 31, 2011. The change in unrealized gains or losses of Level 3 liabilities are included in earnings are reported in other income (expense) in our Statement of Operations.

#### I.STOCK OPTIONS

The following table summarizes stock option activity during the three months ended March 31, 2012:

| Number of | Weighted Average  |
|-----------|---|
| Options   | Exercise Price  |
| 4,172,000 | \$ 1.10   |
| 100,000   | 1.45  |
| (20,000   | ) (0.50   |
| (39,998   | 2.80  |
| (18,001   | ) (4.89   |
| 4,194,001 | \$ 1.09   |
| 2,224,710 | \$ 1.01   |
|           | Options 4,172,000 100,000 (20,000 (39,998 (18,001 4,194,001 |

During the three months ended March 31, 2012, we granted options exercisable to purchase 100,000 shares of common stock at a weighted average exercise price of \$1.45 per share under our 2006 Equity Incentive Plan. Options to purchase an aggregate of 130,000 shares of common stock were granted during the three months ended March 31,

2011.

#### J. OPERATING SEGMENT AND GEOGRAPHIC INFORMATION

Our chief operating decision-maker is our Chief Executive Officer, who regularly evaluates our performance based on net sales and gross profit. The preparation of this segment analysis requires management to make estimates and assumptions around expenses below the gross profit level. While we believe the segment information to be directionally correct, actual results could differ from the estimates and assumptions used in preparing this information. The accounting policies of the segments are the same as the policies discussed in Footnote B – Summary of Significant Accounting Policies.

We have three reportable operating segments, Clinical Laboratories, Pharmacogenomic Services and Diagnostic Tools. During the third quarter of 2011, we changed the manner in which we report segment results internally. Accordingly, segment results of the prior period have been reclassified to reflect these changes. Beginning with the third quarter of 2011, our chief operating decision-maker reviews our business as having three segments. The change in segments was driven by our corporate strategy to advance personalized medicine through proprietary molecular technologies and world-class clinical and research services. These lines of business are complementary with the Pharmacogenomics Services driving innovation and leading to kit production in our Diagnostic Tools segment and new tests in our Clinical Laboratories.

**Dollars** in Thousands

Segment information for the three months ended March 31, 2012 and 2011 is as follows:

|  | 2012   | ousa              | nas                          |       |  |   |  |     |
|--|--|-------------------|------------------------------|-------|--|---|--|-----|
|  | Clinical   |                   | Pharmacoge                   | nomic | Diagnostic   |   | TD 4 1   |     |
|  | Laboratories   |                   | Services                     |       | Tools  |   | Total  |     |
| Net Sales  | \$3,371  |                   | \$630                        |       | \$3,205  |   | \$7,206  |     |
| Gross Profit   | 1,274  |                   | 374                          |       | 1,456  |   | 3,104  |     |
| Net Income (Loss) before Taxes   | (2,168   | )                 | 81                           |       | (605   | ) | (2,692   | )   |
| Income Tax Expense (Benefit)   | _  |                   | _                            |       | 4  |   | 4  |     |
| Net Income (Loss)  | \$(2,168   | )                 | \$81                         |       | \$(609   | ) | \$(2,696                                       | )   |
| Depreciation/Amortization  | 416  |                   | 32                           |       | 47   |   | 495  |     |
| Interest Income (Expense)  | (247   | )                 | (5                           | )     | (21  | ) | (273   | )   |
|  | March 31, 201  | 12                |                              |       |  |   |  |     |
| Total Assets   | 27,118   |                   | 3,477                        |       | 16,589   |   | 47,184   |     |
|  | Dollars in The<br>2011<br>Clinical<br>Laboratories   | ousa              | Pharmacoger<br>Services      | nomic | Diagnostic<br>Tools                                |   | Total  |     |
| Net Sales  | Laboratories   |                   | DCI VICCS                    |       |  |   |  |     |
|  | \$3.487  |                   | \$ 270                       |       |  |   | \$7.480  |     |
|  | \$3,487<br>1 900                                     |                   | \$ 270<br>(113               | )     | \$3,723  |   | \$7,480<br>4 154                               |     |
| Gross Profit   | 1,900  | )                 | (113                         | )     | \$3,723<br>2,367                                   |   | 4,154  | )   |
| Gross Profit<br>Net Loss before Taxes  | · ·  | )                 |                              | )     | \$3,723<br>2,367<br>752                            | ) | 4,154<br>(2,784                                | )   |
| Gross Profit Net Loss before Taxes Income Tax Expense (Benefit)  | 1,900<br>(3,289                                      | )                 | (113<br>(247<br>—            | )     | \$3,723<br>2,367<br>752<br>(6                      | ) | 4,154<br>(2,784<br>(6                          | )   |
| Gross Profit Net Loss before Taxes Income Tax Expense (Benefit) Net Loss                                       | 1,900  | )                 | (113                         | )     | \$3,723<br>2,367<br>752                            | ) | 4,154<br>(2,784                                | ) ) |
| Gross Profit Net Loss before Taxes Income Tax Expense (Benefit)  | 1,900<br>(3,289<br>—<br>\$(3,289                     | )                 | (113<br>(247<br>—<br>\$ (247 | )     | \$3,723<br>2,367<br>752<br>(6<br>\$758<br>49       | ) | 4,154<br>(2,784<br>(6<br>\$(2,778              | )   |
| Gross Profit Net Loss before Taxes Income Tax Expense (Benefit) Net Loss Depreciation/Amortization             | 1,900<br>(3,289<br>—<br>\$(3,289                     | )                 | (113<br>(247<br>—<br>\$ (247 | )     | \$3,723<br>2,367<br>752<br>(6<br>\$758             | ) | 4,154<br>(2,784<br>(6<br>\$(2,778<br>477       | ) ) |
| Gross Profit Net Loss before Taxes Income Tax Expense (Benefit) Net Loss Depreciation/Amortization Restructure | 1,900<br>(3,289<br>—<br>\$(3,289<br>394<br>—         | )<br>)<br>11      | (113<br>(247<br>—<br>\$ (247 | )     | \$3,723<br>2,367<br>752<br>(6<br>\$758<br>49<br>24 | ) | 4,154<br>(2,784<br>(6<br>\$(2,778<br>477<br>24 | ) ) |
| Gross Profit Net Loss before Taxes Income Tax Expense (Benefit) Net Loss Depreciation/Amortization Restructure | 1,900<br>(3,289<br>—<br>\$(3,289<br>394<br>—<br>(233 | )<br>)<br>)<br>11 | (113<br>(247<br>—<br>\$ (247 | )     | \$3,723<br>2,367<br>752<br>(6<br>\$758<br>49<br>24 | ) | 4,154<br>(2,784<br>(6<br>\$(2,778<br>477<br>24 | ) ) |

Net sales for the three months ended March 31, 2012 and 2011 by country were as follows:

|                     | Dollars in T | Dollars in Thousands |  |  |
|---------------------|--------------|----------------------|--|--|
|                     | Three Month  | Three Months Ended   |  |  |
|                     | March 31,    |                      |  |  |
|                     | 2012         | 2011                 |  |  |
| United States       | \$4,724      | \$5,036              |  |  |
| Italy               | 799          | 826                  |  |  |
| United Kingdom      | 336          | 258                  |  |  |
| All Other Countries | 1,347        | 1,360                |  |  |
| Total               | \$7,206      | \$7,480              |  |  |

No other country individually accounted for more than 5% of total net sales.

More than 95% of our long-lived assets are located within the United States. Substantially all of the remaining long-lived assets are located within Europe.

## K. SUBSEQUENT EVENTS

Events or transactions that occur after the balance sheet date, but before the financial statements are complete, are reviewed to determine if they should be recognized. We have no material subsequent events to disclose.

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Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

## Forward-Looking Information

This report, including Management's Discussion & Analysis, contains forward-looking statements. These statements are based on management's current views, assumptions or beliefs of future events and financial performance and are subject to uncertainty and changes in circumstances. Readers of this report should understand that these statements are not guarantees of performance or results. Many factors could affect our actual financial results and cause them to vary materially from the expectations contained in the forward-looking statements. These factors include, among other things: our expected revenue, income (loss), receivables, operating expenses, supplier pricing, availability and prices of raw materials, Medicare/Medicaid/Insurance reimbursements, product pricing, foreign currency exchange rates, sources of funding operations and acquisitions, our ability to raise funds, sufficiency of available liquidity, future interest costs, future economic circumstances, industry conditions, our ability to execute our operating plans, the success of our cost savings initiatives, competitive environment and related market conditions, actions of governments and regulatory factors affecting our business and other risks as described in our reports filed with the Securities and Exchange Commission. In some cases these statements are identifiable through the use of words such as "anticipate," "believe," "estimate," "expect," "intend," "plan," "project," "target," "can," "could," "may," "should," "will," "would" and sin You are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements we make are not guarantees of future performance and are subject to various assumptions, risks and other factors that could cause actual results to differ materially from those suggested by these forward-looking statements. Actual results may differ materially from those suggested by the forward-looking statements that we make for a number of reasons including those described in Part II, Item 1A, "Risk Factors," of this report and in Part I, Item 1A "Risk Factors" of our Annual Report on Form 10-K for the fiscal year ended December 31,2011, which we filed with the Securities and Exchange Commission on March 14, 2012.

We expressly disclaim any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

The following discussion should be read together with our financial statements and related notes contained in this report and with the financial statements, related notes, and Management's Discussion & Analysis included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011, which we filed with the Securities and Exchange Commission on March 14, 2012. Results for the quarter ended March 31, 2012 are not necessarily indicative of results that may be attained in the future.

## Overview

Transgenomic, Inc. is a global biotechnology company advancing personalized medicine in the detection and treatment of cancer and inherited diseases through its proprietary molecular technologies and world-class clinical and research services. We have three complementary business segments.

Clinical Laboratories. Our clinical laboratories specialize in genetic testing for cardiology, neurology, mitochondrial disorders, and oncology. Located in New Haven, Connecticut and Omaha, Nebraska the molecular clinical reference laboratories are certified under the Clinical Laboratory Improvement Amendment (CLIA) as high complexity labs and our Omaha facility is also accredited by the College of American Pathologists (CAP).

Pharmacogenomics Services. Our Contract Research Organization located in Omaha, Nebraska provides pharmacogenomics research services supporting Phase II and Phase III clinical trials conducted by our pharmaceutical customers. This lab specializes in pharmacogenomic, biomarker and mutation discovery research serving the pharmaceutical and biomedical industries world-wide for disease research, drug and diagnostic development and clinical trial support.

Diagnostic Tools. Our proprietary product is the WAVE® System which has broad applicability to genetic variation detection in both molecular genetic research and molecular diagnostics. There is a worldwide installed base of over 1,525 WAVE Systems as of March 31, 2012. We also distribute bioinstruments produced by other manufacturers ("OEM Equipment") through our sales and distribution network. Service contracts to maintain installed systems are sold and supported by our technical support personnel. The installed WAVE base and some OEM Equipment platforms

generate a demand for consumables that are required for the continued operation of the bioinstruments. We develop, manufacture and sell these consumable products. In addition, we manufacture and sell consumable products that can be used on multiple, independent platforms. These products include SURVEYOR® Nuclease and a range of chromatography columns.

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#### **Executive Summary**

Net sales for the three months ended March 31, 2012 decreased by \$0.3 million or 4% compared to the same period in 2011. During the three months ended March 31, 2012, net sales from our Clinical Laboratories segment decreased by \$0.1 million compared to the same three month period in 2011. Our laboratory information management system (LIMS) installed at our New Haven, Connecticut laboratory testing facility experienced a software failure that resulted in reduced sample processing capacity which impacted revenue for the first quarter of 2012. Net sales from our Pharmacogenomics Services segment increased by \$0.4 million for the three months ended March 31, 2012 compared to the same period in 2011. Net sales in our Diagnostic Tools segment were down \$0.5 million or 14% for the three months ended March 31, 2012 compared to the same period in 2011. Our gross profit margin decreased from 56% for the three months ended March 31, 2011 to 43% for the same period in 2011. Loss from operations was \$2.4 million for the three months ended March 31, 2012 compared to \$0.8 million for the three months ended March 31, 2011. As of March 31, 2012, we had cash and cash equivalents of \$19.3 million.

#### Outlook

We anticipate continued growth in 2012 in all three of our business units, Clinical Labs, Pharmacogenomic Services and Diagnostic Tools, as we commercialize new assay technologies and tests we have developed internally or in-licensed, and as we expand into other markets and regions worldwide.

Our FAMILION franchise, which we acquired in December 2010, includes eleven tests for inherited cardiac disorders. We continue to believe that there is significant opportunity to expand this business based on increased use of existing tests and the launch of new products into the marketplace. In May, the Heart Rhythm Society issued new diagnostic guidelines supporting the use of some of our key cardiac tests. In November 2011, we launched two new genetic tests at the annual American Heart Association meeting. These include our PGxPredict:CLOPIDOGREL Panel, a uniquely comprehensive test to predict a patient's response to clopidogrel (Plavix®), the most widely prescribed antiplatelet drug used to reduce the risks of death, stroke and heart attack, and a test for familial atrial fibrillation.

The clopidogrel response test, in particular, is a significant opportunity for Transgenomic, as it is the only test which analyzes the genes CYP2C19 and ABCB1 to help predict a patient's ability to absorb and metabolize clopidogrel. Clopidogrel is taken in an inactive form, known as a prodrug, and must be absorbed through the intestine and then metabolized by the liver to form the active drug in a process controlled by these genes. Patients with dysfunctional or lower functioning ABCB1 or CYP2C19 are at heightened risk for cardiovascular events than patients with normal protein function due to poorer availability of the active drug. The risk associated with dysfunctional or lower functioning CYP2C19 prompted the FDA in 2010 to add a black box warning to the clopidogrel label.

In March of 2012, Transgenomic announced the publication of a new study by researchers at Vanderbilt University in the journal "Clinical Pharmacology and Therapeutics." This large, independent study, the third such study examining CYP2C19 and ABCB1, demonstrated the importance of both genes in determining which patients would benefit from treatment with clopidogrel and which should pursue alternative treatment. ABCB1 is proprietary to Transgenomic, protected by an issued patent in Europe and pending patent in the US. There are approximately 6 million new patients prescribed Plavix each year, of which about 47% will not fully benefit from their therapy because of genetic variations in either CYP2C19 or ABCB1. This highlights a need for broad-based testing, and represents a potential multi-billion dollar opportunity for Transgenomic's Clinical Laboratories division.

In June 2011, we launched our Nuclear Mitome Test, which employs next-generation sequencing technology to identify mutations in 448 genes, and represents the most comprehensive genetic test available for mitochondrial disorders to date. We recently presented clinical findings from 78 patients tested for nuclear mitochondrial disorders using this test 2012 Annual Meeting of the American College of Medical Genetics. The findings, presented by Dr. Jeana DaRe, Assistant CLIA Laboratory Director at Transgenomic, included details of both the technical performance of the Nuclear Mitome Test as well as the wide variety of clinically revealing results discovered through its use. In addition, Dr. DaRe highlighted two case studies. In both cases, patients achieved a definitive diagnosis through the identification of genetic mutations far outside the normal spectrum of genetic testing. These results concluded the

patients' diagnostic odysseys, which had encompassed wide-ranging genetic and non-genetic tests as well as consultation with various medical specialties, all of which had failed to pinpoint the underlying disease. These results are a typical occurrence in patients sent for NuclearMitome testing.

In our Pharmacogenomics Services Unit, we continue to perform cancer pathway gene mutation analysis and other associated genomics service testing for a number of pharmaceutical companies: both for pre-clinical drug discovery projects and phase II and III clinical trials. Although we may experience variability in quarter-to-quarter revenues based on the timing of projects or when specimens may arrive, we continue to experience growth in this area of the business. We can now analyze a patient's blood serum

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rather than a tumor to detect DNA mutations, using our ultra-sensitive DNA mutation detection technology, termed "ICE COLD-PCR". This is a significant achievement, and we believe it should lead to faster growth of our pharmacogenomics research services as pharmaceutical companies adopt this novel approach for both drug and disease research.

In February, we announced our collaboration with MD Anderson in a study to evaluate the use of our high sensitivity ICE COLD-PCR mutation detection technology in analysis of DNA isolated from circulating tumor cells (CTCs) in blood samples from patients with advanced cancer. CTC's are very rare in blood and difficult to analyze using traditional genomic methods. Our ICE COLD PCR is a simple assay technology that has the ability to enrich very low levels of mutant DNA, allowing for the detection of tumor biomarkers using standard DNA sequencing techniques. With this technology, we have the potential to determine the best therapeutic options for patients. CTC analysis may also be feasible when there is no solid tumor to biopsy. Since the analysis is done in blood, the procedure is also much easier and safer than a tumor biopsy.

For our instruments and consumables business, we experienced an increase in the number of units sold as compared to a year ago, although the mix of instruments sold resulted in a lower average sales prices. As a reminder, our instrument sales translate into incremental revenue from consumables and service contract sales, providing compounded and repeating revenue growth. During the first quarter, we began delivering instruments to our European distribution partner, A. Menarini Diagnostics, one of the leading diagnostic distribution companies in Europe. Our agreement with Menarini, which was signed last November, covers the sale and marketing of our newly-licensed WAVE® MCE instruments and consumables, as well as our SURVERYOR® Scan mutation detection kits for the European Union. We believe this partnership has significant revenue potential over the next several years. It terms of our Laboratory Services Unit, our New Haven, Connecticut laboratory testing facility experienced a software failure in the first quarter that resulted in reduced sample processing capacity. The Company has reviewed and improved its internal procedures to secure proper function of the laboratory information management system (LIMS). The Company believes that full sample processing capacity has been restored and expects to complete the sample backlog caused by the LIMS failure by June 2012.

## Uncertainties

We have historically operated at a loss and have not consistently generated sufficient cash from operating activities to cover our operating and other cash expenses. We have been able to historically finance our operating losses through borrowings or from the issuance of additional equity. At March 31, 2012 we had cash and cash equivalents of \$19.3 million. We believe that existing sources of liquidity are sufficient to meet expected cash needs during 2012 and beyond.

The uncertainty of the current general economic conditions could negatively impact our business in the future. There are many factors that affect the market demand for our products and services that we cannot control. Demand for our Diagnostic Tools business is affected by the needs and budgetary resources of research institutions, universities and hospitals. The instrument purchase represents a significant expenditure by these types of customers and often requires a long sales cycle. These customers may not have the funding available to purchase our instruments. Competition and new instruments in the marketplace also may impact our sales.

We have translation risk that occurs when transactions are consummated in a currency other than British Pound Sterling, which is the functional currency of our foreign subsidiary. These transactions, which are most often consummated in Euros, must be translated into British Pound Sterling. In addition, results of operations and the balance sheet of our foreign subsidiary are translated from British Pound Sterling to our reporting currency, which is the U.S. Dollar. As a result we are subject to exchange rate risk. Fluctuations in foreign exchange rates could impact our business and financial results.

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Results of Operations Three Months Ended March 31, 2012 and 2011 Net Sales. Net sales consisted of the following:

|                           | Dollars in Three Mon |         |        |       |    |
|---------------------------|----------------------|---------|--------|-------|----|
|                           | March 31,            |         | Change |       |    |
|                           | 2012                 | 2011    | \$     | %     |    |
| Clinical Laboratories     | \$3,371              | \$3,487 | \$(116 | ) (3  | )% |
| Pharmacogenomics Services | 630                  | 270     | 360    | 133   | %  |
| Diagnostic Tools          | 3,205                | 3,723   | (518   | ) (14 | )% |
| Total Net sales           | \$7,206              | \$7,480 | \$(274 | ) (4  | )% |

Clinical Laboratories net sales decreased \$0.1 million during the three months ended March 31, 2012 compared to the same period in 2011. Our laboratory information management system (LIMS) installed at our New Haven, Connecticut laboratory testing facility experienced a software failure that temporarily resulted in reduced sample processing capacity which impacted revenue for the first quarter of 2012.

Pharmacogenomics Services net sales of \$0.6 million during the three months ended March 31, 2012 increased by \$0.4 million compared to the same period of 2011 due to the volume of genetic testing performed in connection with various clinical trials at various stages by our pharmaceutical company clients. Pharmacogenomics Services net sales have peaks due to the nature of patient enrollment patterns and the timing of clinical trials. While the revenue generated from genetic testing related to clinical trials is significant, it is usually earned over the duration of the trial. Therefore, each period for Pharmacogenomics Services should be considered on a standalone basis and is not indicative of future net sales.

Diagnostic Tools net sales of \$3.2 million decreased \$0.5 million, or 14%, during the three months ended March 31, 2012 as compared to the same period in 2011. We sold more instruments in the first quarter of 2012 but they had a lower average sales price due to the mix of instruments sold. We sold two OEM Equipment instruments in each of the first quarters of 2012 and 2011. We sold nine WAVE instruments in the first quarter of 2012 compared to four in the first quarter of 2011. In the first quarter of 2012, we began delivering instruments for our exclusive distribution agreement with A. Menarini Diagnostics for our SURVEYOR® Scan and WAVE MCE (Micro-Capillary Electrophoresis) Mutation Detection system which accounted for the increase in WAVE system sales. Net sales of bioconsumables were down \$0.5 million during the three months ended March 31, 2012 compared to the same period in 2011. Bioconsumable sales volumes in both the United States and Europe were lower in the first quarter of 2012 compared to the first quarter of 2011.

Cost of Goods Sold. Costs of goods sold include material costs for the products that we sell and substantially all other costs associated with our manufacturing facilities (primarily personnel costs, rent and depreciation). It also includes direct costs (primarily personnel costs, rent, supplies and depreciation) associated with our Clinical Laboratories and Pharmacogenomics Services operations.

Gross Profit. Gross profit and gross margins for each of our business segments were as follows:

|                           | Dollars in T<br>Three Mont |         |          |       |    |
|---------------------------|----------------------------|---------|----------|-------|----|
|                           | March 31,                  |         | Margin % | 6     |    |
|                           | 2012                       | 2011    | 2012     | 2011  |    |
| Clinical Laboratories     | \$1,274                    | \$1,900 | 38       | % 54  | %  |
| Pharmacogenomics Services | 374                        | (113    | ) 59     | % (42 | )% |
| Diagnostic Tools          | 1,456                      | 2,367   | 45       | % 64  | %  |
| Gross Profit              | \$3,104                    | \$4,154 | 43       | % 56  | %  |

Gross profit was \$3.1 million or 43% of total net sales during the first quarter of 2012, compared to \$4.2 million, or 56% of total net sales during the same period of 2011. During the three months ended March 31, 2012, the gross margin for Clinical

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Laboratories was 38% as compared to 54% in the same period of 2011. Our laboratory information management system (LIMS) installed at our New Haven, Connecticut laboratory testing facility experienced a software failure that resulted in reduced sample processing capacity which impacted revenue and gross profit for the first quarter of 2012. Clinical Laboratories has a relatively fixed-cost base so any decrease in revenue directly impacts gross margins. Pharmacogenomics Services gross margin increased from negative 42% for the three months ended March 31, 2011 to 59% for the three months ended March 31, 2012. Pharmacogenomics Services has a relatively fixed-cost base and any increase or decrease in revenue directly impacts gross margins. Diagnostic Tools gross margin decreased from 64% in the three months ended March 31, 2011 to 45% in the same period of 2011 due to the mix of instruments sold and lower bioconsumables sales which also have a relatively fixed-cost base.

Selling, General and Administrative Expenses. Selling, general and administrative expenses primarily consist of personnel costs, marketing, travel and entertainment costs, professional fees, and facility costs. In addition, the effects of foreign currency revaluation are included in selling, general and administrative expenses. Our selling, general and administrative costs increased \$0.7 million from \$4.3 million to \$5.0 million during the three month period ended March 31, 2012 compared to the same period in 2011. In addition, we had bad debt charges of \$0.5 million, and stock option expense of \$0.3 million during the three months ended March 31, 2012. Foreign currency revaluation loss for the three months ended March 31, 2012 was nominal compared to \$0.1 million in revaluation gain for the three months ended March 31, 2011.

Research and Development Expenses. Research and development expenses primarily include personnel costs, legal fees, outside services, collaboration expenses, supplies, and facility costs and are expensed in the period in which they are incurred. For the three months ended March 31, 2012 and 2011, these costs totaled \$0.5 million and \$0.6 million, respectively. Research and development expenses totaled 8% and 7% of net sales during the three months ended March 31, 2012 and 2011, respectively.

Other Income (Expense). Other expense for the three months ended March 31, 2012 and 2011 includes interest expense.

Income Tax Expense (Benefit). Income tax expense for the three months ended March 31, 2012 was nominal. This is the result of the change in deferred tax assets and liabilities reported in the financial statements of our foreign subsidiary. This tax expense is due to tax expense related to state and franchise taxes as well as reserves for uncertain income taxes. Income tax expense for the three months ended March 31, 2011 was \$0.1 million.

#### Liquidity and Capital Resources

Our working capital positions at March 31, 2012 and December 31, 2011 were as follows:

|  | Dollars in Thou |                   |          |   |
|--|-----------------|-------------------|----------|---|
|  | March 31, 2012  | December 31, 2011 | Change   |   |
| Current assets (including cash and cash equivalents of \$19,291 and \$4,946, respectively) | \$31,037        | \$17,198          | \$13,839 |   |
| Current liabilities  | 15,624          | 16,328            | (704     | ) |
| Working capital  | \$15,413        | \$870             | \$14,543 |   |

In February 2012, we entered into a definitive agreement with institutional and other accredited investors and raised approximately \$22.0 million in a Private Placement financing which included \$3.0 million in convertible notes issued in December 2011 that were converted into shares of our common stock as part of the Private Placement financing. Net proceeds of the Private Placement were \$17.4 million.

Pursuant to the Company's equity financing completed on February 2, 2012, the Company is obligated to pay PGxHealth, LLC ("PGx") an aggregate of \$5.5 million as a prepayment under the senior secured promissory note (the "Note"). The Company has accounted for the full prepayment amount as a current liability as of March 31, 2012. The Company has contacted PGx on numerous occasions to make arrangements for having the Company make the prepayment to PGx in accordance with the terms of the Note, as well as to coordinate the timing of the prepayment.

However, PGx has not responded to any of the Company's outreach efforts. The Company intends to continue to comply with the original terms of the Note.

We have historically operated at a loss and have not consistently generated sufficient cash from operating activities to cover our operating and other cash expenses. Historically we have been able to finance our operating losses through borrowings or from the issuance of additional equity. At March 31, 2012, we had cash and cash equivalents of \$19.3 million. We believe that existing sources of liquidity are sufficient to meet expected cash needs in 2012 and beyond. However, we cannot be certain that we will be able to increase our net sales, further reduce our expenses or raise additional capital. Accordingly, we may not have sufficient sources of liquidity to continue our operations indefinitely.

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#### **Analysis of Cash Flows**

Three Months Ended March 31, 2012 and 2011

Net Change in Cash and Cash Equivalents. Cash and cash equivalents increased by \$14.3 million during the three months ended March 31, 2012 compared to a decrease of \$0.3 million during the three months ended March 31, 2011. During the three months ended March 31, 2012 we used cash of \$2.8 million in operating activities, \$0.3 million in investing activities, which was offset by cash provided by financing activities of \$17.3 million. In the three months ended March 31,2011, net cash provided by operating activities was \$0.1 million, \$0.1 million was used in investing activities and \$0.3 million was used in financing activities.

Cash Flows Provided By or Used In Operating Activities. Cash flows used in operating activities totaled \$2.8 million during the three months ended March 31, 2012 and compared to cash flows provided by operating activities of \$0.1 million during the three months ended 2011. The cash flows used in operating activities in 2012 include the net loss and decrease in accounts payable, offset by non-cash items including the provision for losses on doubtful accounts, stock option expense and depreciation and amortization. The cash flows provided by operating activities in 2011 include the net loss and decrease in accounts payable, offset by the non-cash items which include revaluation of the preferred stock conversion feature and warrant liability, depreciation and amortization.

Cash Flows Used In Investing Activities. Cash flows used in investing activities totaled \$0.3 million during the three months ended March 31, 2012 compared to cash flows used in investing activities of \$0.1 million during the same period of 2011. Cash flows used in investing activities in 2012 include purchases of property and equipment of \$0.2 million and additions to our patents of \$0.1 million. Cash flows used in investing activities in 2011 consisted primarily of purchases of property and equipment.

Cash Flows Provided by or Used in Financing Activities. Cash flows provided by financing activities were \$17.3 million for the three months ended March 31, 2012. Cash provided by financing activities during the first quarter of 2012 included the proceeds from the issuance of 19,000,000 million shares of our common stock and from the issuance of common stock in connection with the exercise of stock options for 20,000 shares. Cash flows used in financing activities were for payments on debt and capital lease obligations. Cash flows used in financing activities were \$0.3 million for the three months ended March 31, 2011. Cash flows used in financing activities were for principal payments on debt and capital lease obligations offset by the cash received from issuance of common stock in connection with the exercise of stock options for 10,000 shares during the first quarter of 2011.

#### Off-Balance Sheet Arrangements

At March 31, 2012 and December 31, 2011, we did not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

## Critical Accounting Policies and Estimates

Accounting policies used in the preparation of the consolidated financial statements may involve the use of management judgments and estimates. Certain of our accounting policies are considered critical as they are both important to the portrayal of our financial statements and they require significant or complex judgments on the part of management. Our judgments and estimates are based on experience and assumptions that we believe are reasonable under the circumstances. Further, we evaluate our judgments and estimates from time to time as circumstances change. Actual financial results based on judgments or estimates may vary under different assumptions or circumstances. Our critical accounting policies are discussed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 filed with the Securities and Exchange Commission on March 14, 2012.

#### Recently Issued Accounting Pronouncements

Please refer to our Annual Report on Form 10-K for the fiscal year ended December 31, 2011 filed with the Securities and Exchange Commission on March 14, 2012. There have been no changes to those accounting pronouncements listed except as noted in Footnote B - Summary of Significant Accounting Policies to the notes to unaudited condensed consolidated financial statements contained in this report.

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#### Impact of Inflation

We do not believe that price inflation or deflation had a material adverse effect on our financial condition or results of operations during the periods presented.

#### Item 3. Quantitative and Qualitative Disclosures About Market Risk

#### Foreign Currency Translation Risk

Sales of products in foreign countries are mainly completed in either British Pounds Sterling or the Euro. Additionally, the British Pound Sterling is the functional currency of our wholly owned subsidiary, Transgenomic Limited. Results of operations and the Balance Sheet are translated from the functional currency of the subsidiary to our reporting currency of the U.S. Dollar. Results of operations for our foreign subsidiary are translated using the average exchange rate during the period. Assets and liabilities are translated at the exchange rate in effect at the balance sheet date. In addition, we have revaluation risk which occurs when the transaction is consummated in a currency other than the Bristish Pound Sterling. This transaction must be revalued within the Transgenomic Limited ledger, whose functional currency is the British Pound Sterling. The majority of the transactions on this ledger are in Euro. As a result we are subject to exchange rate risk and we do not currently engage in foreign currency hedging activities. A hypothetical 10% change in foreign currency exchange rates could have a meterial effect on our future operating results.

#### Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures. Management performed, with the participation of our Chief Executive Officer and Chief Financial Officer, an evaluation of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act are recorded, processed, summarized, and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management including our Chief Executive Officer and our Chief Financial Officer, to allow timely decisions regarding required disclosures. Based on the evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that, as of March 31, 2012, our disclosure controls and procedures were effective.

We have evaluated the changes in our internal control over financial reporting that occurred during the three months ended March 31, 2012 and concluded that there have not been any changes that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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#### PART II. OTHER INFORMATION

#### Item 1. Legal Proceedings

We are subject to a number of claims of various amounts which arise out of the normal course of our business. In our opinion, the disposition of pending claims will not have a material adverse effect on our financial position, results of operations or cash flows.

#### Item 1A. Risk Factors

We may experience temporary disruptions and delays in processing tissue samples at our facilities.

We may experience delays in processing tissue samples caused by software and other errors. Recently, our laboratory information management system (LIMS) installed in our New Haven, Connecticut laboratory testing facility experienced a software failure that resulted in reduced sample processing capacity. Although we have reviewed and improved our internal procedures to secure proper function of the LIMS and we believe that the full sample processing capacity has been restored, there are no assurances that we will not experience future temporary delays or disruptions in processing samples at our New Haven, Connecticut facility or at our other facilities. Any delay in processing samples could have an adverse effect on our business, financial condition and results of operation. Except as set forth above, there have been no material changes in our risk factors from those previously disclosed in Part 1, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2011 that was filed with the Securities and Exchange Commission on March 14, 2012.

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## Item 6. Exhibits

| (a) Exhibits 3.1 | Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q (Registration No. 000-30975) filed or November 14, 2005)   |
|------------------|--|
| 3.2              | Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3(ii) to the Registrant's Current Report on Form 8-K (Registration No. 000-30975) filed on May 25, 2007)   |
| 3.3              | Certificate of Designation of Series A Convertible Preferred Stock dated as of December 28, 2010 (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K (Registration No. 000-30975) filed on January 4, 2011)   |
| 4.1              | Form of Certificate of the Registrant's Common Stock (incorporated by reference to Exhibit 4 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000)  |
| 4.2              | Common Stock Purchase Warrant by and between the Registrant and Laurus Master Fund, Ltd., dated December 3, 2003 (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-3 (Registration No. 333-111442) filed on December 22, 2003)   |
| 4.3              | Registration Rights Agreement by and between the Registrant and Laurus Master Fund, Ltd., dated December 3, 2003 (incorporated by reference to Exhibit 10.5 to the Registrant's Registration Statement on Form S-3 (Registration No. 333-111442) filed on December 22, 2003)   |
| 4.4              | Common Stock Purchase Warrant by and between the Registrant and Laurus Master Fund, Ltd., dated February 19, 2004, as amended on April 15, 2004 (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-3 (Registration No. 333-114661) filed on April 21, 2004)                 |
| 4.5              | Registration Rights Agreement by and between the Registrant and Laurus Master Fund, Ltd., dated February 19, 2004 (incorporated by reference to Exhibit 10.4 to the Registrant's Registration Statement on Form S-3 (Registration No. 333-114661) filed on April 21, 2004)   |
| 4.6              | Common Stock Purchase Warrant by and between the Registrant and Laurus Master Fund, Ltd., dated August 31, 2004 (incorporated by reference to Exhibit 10.3 to the Registrant's Registration Statement on Form S-3 (Registration No. 333-118970) filed on September 14, 2004)   |
| 4.7              | Common Stock Purchase Warrant by and between the Registrant and Oppenheimer & Co., Inc. dated October 27, 2005 (incorporated by reference to Exhibit 10.34 to the Registrant's Annual Report on Form 10-K filed on March 31, 2006)   |
| 4.8              | Form of Series A Convertible Preferred Stock Warrant issued to Third Security Senior Staff 2008 LLC Third Security Staff 2010 LLC, and Third Security Incentive 2010 LLC (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K (Registration No. 000-30975) filed on January 4, 2011) |

Registration Rights Agreement, dated December 29, 2010, by and among the Registrant, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC, and Third Security Incentive 2010 LLC (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K (Registration No. 000-30975) filed on January 4, 2011)

- First Amendment to Registration Rights Agreement dated November 8, 2011 (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on November 14, 2011)
- Secured Promissory Note, issued December 29, 2010 by the Registrant in favor of PGxHealth, LLC (incorporated by reference to Exhibit 4.4 to the Registrant's Current Report on Form 8-K (Registration No. 000-30975) filed on January 4, 2011)
- Secured Promissory Note, issued December 29, 2010 by the Registrant in favor of PGxHealth, LLC (incorporated by reference to Exhibit 4.5 to the Registrant's Current Report on Form 8-K (Registration No. 000-30975) filed on January 4, 2011)
- Convertible Promissory Note by and between the Registrant and Third Security Senior Staff 2008 LLC dated December 30, 2011 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on January 6, 2012)
- Convertible Promissory Note by and between the Registrant and Third Security Staff 2010 LLC dated
  4.14 December 30, 2011 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on
  Form 8-K filed on January 6, 2012)
- Convertible Promissory Note by and between the Registrant and Third Security Incentive 2010 LLC dated December 30, 2011(incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on January 6, 2012)

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| 4.16    | Form of Warrant issued by the Registrant to the Third Security Entities on February 7, 2012 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on February 7, 2012)   |
|---------|--|
| 4.17    | Form of Warrant issued by the Registrant to the Investors on February 7, 2012 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on February 7, 2012)   |
| 4.18    | Form of Registration Rights Agreement entered into by and among the Registrant, the Third Security Entities and the Investors dated February 2, 2012 (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed on February 7, 2012)  |
| 10.1    | Securities Purchase Agreement entered into by and among the Registrant and the Investors dated February 2, 2012 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 7, 2012)   |
| 31.1    | Certification of Craig J. Tuttle, President and Chief Executive Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, as amended   |
| 31.2    | Certification of Brett L. Frevert, Chief Financial Officer, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, as amended  |
| 32.1    | Certification of Craig J. Tuttle, President and Chief Executive Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, as amended   |
| 32.2    | Certification of Brett L. Frevert, Chief Financial Officer, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, as amended  |
| 101.INS | XBRL Instance Document *   |
| 101.SCH | XBRL Taxonomy Extension Schema Document *  |
| 101.CAL | XBRL Taxonomy Extension Calculation Linkbase Document *  |
| 101.DEF | XBRL Taxonomy Extension Definition Linkbase Document *   |
| 101.LAB | XBRL Taxonomy Extension Label Linkbase Document *  |
| 101.PRE | XBRL Taxonomy Extension Presentation Linkbase Document *   |
| *       | Attached as Exhibit 101 to this report are documents formatted in XBRL (Extensible Business Reporting Language). Users of this data are advised that, pursuant to Rule 406T of Regulation S-T, the interactive data file is deemed not filed or part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, is deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is otherwise not subject to liability under these sections. |
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## **SIGNATURES**

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

## TRANSGENOMIC, INC.

Date: May 9, 2012

By: /S/ CRAIG J. TUTTLE Craig J. Tuttle President and Chief Executive Officer (Principal Executive Officer)

By: /S/ BRETT L. FREVERT
Brett L. Frevert
Chief Financial Officer
(Principal Financial Officer and Principal
Accounting Officer)