

NEOGENOMICS INC
Form 424B5
August 14, 2014
Table of Contents

**Filed Pursuant to Rule 424(b)(5)
Registration No. 333-193105**

This preliminary prospectus supplement relates to an effective registration statement under the Securities Act of 1933, but is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED AUGUST 14, 2014

Preliminary Prospectus Supplement

(to Prospectus dated January 3, 2014)

Shares

NeoGenomics, Inc.

Common Stock

We are offering _____ shares of our common stock pursuant to this prospectus supplement and the accompanying prospectus.

Our common stock is traded on the NASDAQ Capital Market under the symbol NEO. On August 12, 2014, the closing price of our common stock on the NASDAQ Capital Market was \$4.97 per share.

Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-5 of this prospectus supplement and in the documents we incorporate by reference into this prospectus supplement and the accompanying prospectus.

| | Per Share | Total |
|---|------------------|--------------|
| Public Offering Price | \$ | \$ |
| Underwriting Discounts and Commissions ¹ | \$ | \$ |
| Proceeds to NeoGenomics, Inc. before expenses | \$ | \$ |

(1) See Underwriting for additional information regarding underwriting compensation.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.

We have granted the underwriters an option for a period of 30 days to purchase up to an additional _____ shares. If the underwriters exercise the option in full, the total public offering price will be \$ _____, the total underwriting discounts and commissions will be \$ _____, and the total proceeds, before expenses, to NeoGenomics, Inc. will be \$ _____.

Delivery of the shares is expected to be made on or about August _____, 2014.

William Blair

Craig-Hallum Capital Group

Stephens Inc.

Roth Capital

Sidoti & Company,

Dawson James

Partners

LLC

Securities, Inc.

The date of this prospectus supplement is August _____, 2014

Table of Contents

TABLE OF CONTENTS

Prospectus Supplement

| | Page |
|--|-------------|
| <u>About This Prospectus Supplement</u> | S-ii |
| <u>Prospectus Supplement Summary</u> | S-1 |
| <u>Risk Factors</u> | S-5 |
| <u>Forward-Looking Statements</u> | S-20 |
| <u>Market Price Data and Dividend Information</u> | S-22 |
| <u>Use of Proceeds</u> | S-23 |
| <u>Capitalization</u> | S-24 |
| <u>Selected Financial and Other Annual and Quarterly Data</u> | S-25 |
| <u>Material United States Federal Income Tax Considerations for Non-U.S. Holders</u> | S-29 |
| <u>Underwriting</u> | S-33 |
| <u>Legal Matters</u> | S-38 |
| <u>Experts</u> | S-38 |
| <u>Where You Can Find More Information</u> | S-38 |
| <u>Incorporation of Certain Information by Reference</u> | S-38 |

Prospectus

| | Page |
|---|-------------|
| <u>About This Prospectus</u> | 2 |
| <u>Prospectus Summary</u> | 3 |
| <u>Risk Factors</u> | 5 |
| <u>Documents Incorporated By Reference</u> | 5 |
| <u>Cautionary Note Regarding Forward-Looking Statements</u> | 6 |
| <u>Use of Proceeds</u> | 6 |
| <u>Plan of Distribution</u> | 6 |
| <u>Description of Our Capital Stock</u> | 8 |
| <u>Description of Warrants We May Offer</u> | 9 |
| <u>Legal Matters</u> | 11 |
| <u>Experts</u> | 11 |
| <u>Disclosure of Commission Position on Indemnification</u> | 11 |

You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we have authorized for use in connection with this offering. We have not, and the underwriters have not, authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus

supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and any free writing prospectus that we have authorized for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus supplement entitled **Where You Can Find More Information and **Incorporation of Certain Information by Reference**.**

S-i

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement and the accompanying prospectus. The second part, the accompanying prospectus dated January 3, 2014, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to this prospectus, we are referring to both parts of this document combined. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the Securities and Exchange Commission, or SEC, before the date of this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date for example, a document incorporated by reference in the accompanying prospectus the statement in the document having the later date modifies or supersedes the earlier statement. You should assume that the information contained in this prospectus supplement is accurate as of the date on the front cover of this prospectus supplement only and that any information we have incorporated by reference or included in the accompanying prospectus is accurate only as of the date given in the document incorporated by reference or as of the date of the prospectus, as applicable, regardless of the time of delivery of this prospectus supplement or the accompanying prospectus or any sale of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

All references in this prospectus supplement and the accompanying prospectus to NeoGenomics, the Company, we, us, our, or similar references refer to NeoGenomics, Inc. and its subsidiaries on a consolidated basis, except where the context otherwise requires or as otherwise indicated.

This prospectus supplement, the accompanying prospectus and the information incorporated herein and therein by reference includes trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus supplement or the accompanying prospectus are the property of their respective owners.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

*This summary highlights certain information about us, this offering and selected information contained elsewhere in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our common stock. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus supplement and the accompanying prospectus, including the information incorporated by reference in this prospectus supplement and the accompanying prospectus, and the information included in any free writing prospectus that we have authorized for use in connection with this offering, including the information referred to under the heading *Risk Factors* in this prospectus supplement beginning on page S-5.*

Our Company

We operate a network of cancer-focused testing laboratories whose mission is to improve patient care through exceptional genetic and molecular testing services. Our vision is to become America's premier cancer testing laboratory by delivering uncompromising quality, exceptional service and innovative products and services. We have laboratory locations in Ft. Myers and Tampa, Florida; Irvine, Fresno and West Sacramento California; and Nashville, Tennessee, and currently offer the following types of testing services:

Cytogenetics testing the study of normal and abnormal chromosomes and their relationship to disease. Cytogenetic studies are often utilized to answer diagnostic, prognostic and predictive questions in the treatment of hematological malignancies and solid tumors;

Fluorescence In-Situ Hybridization testing a branch of cancer genetics that focuses on detecting and locating the presence or absence of specific DNA sequences and genes on chromosomes. This testing service helps bridge abnormality detection between the chromosomal and DNA sequence levels;

Flow cytometry testing a rapid way to measure the characteristics of cell populations. Cells from peripheral blood, bone marrow aspirate, lymph nodes and other areas are labeled with selective fluorescent antibodies and quantified according to their surface antigens. These fluorescent antibodies bind to specific cell surface antigens and are used to identify malignant cell populations. Flow cytometry is typically performed in conjunction with morphology testing which looks at smears on glass slides for abnormal cell populations;

Immunohistochemistry testing the process of identifying cell proteins in a tissue section utilizing the principle of antibodies binding specifically to antigens. Specific surface cytoplasmic or nuclear markers are characteristic of cellular events such as proliferation or cell death (apoptosis). This testing service is also widely used to understand the distribution and localization of differentially expressed proteins; and

Molecular testing a rapidly emerging cancer diagnostic tool focusing on the analysis of DNA and RNA, as well as the structure and function of genes at the molecular level. Molecular testing employs multiple technologies including bi-directional Sanger sequencing analysis, DNA fragment length analysis, real-time

polymerase chain reaction RNA analysis and Next-Generation sequencing.

All of these testing services are widely utilized to determine the diagnosis and prognosis of various types and subtypes of cancer and to help predict a patient's potential response to specific therapies. We offer testing services on both a tech-only basis, where we perform the technical component of the testing (specimen set-up, staining, imaging, sorting and categorization of cells, chromosomes, genes or DNA) and the client physician performs the related professional interpretation component (analyzing the laboratory data, viewing the cells,

S-1

Table of Contents

developing the diagnosis or prognosis as well as preparing and writing the final report), as well as on a full service or global basis where we perform both the technical component and our medical staff provides the professional interpretation component.

Our customer targets include pathologists, hospital pathology groups, oncologist, and clinical groups. As of June 30, 2014, approximately 73% of our revenue was attributable to pathologists and hospital pathology groups, approximately 24% of our revenue was attributable to oncologists and clinical groups, and approximately 3% of our revenue was attributable to clinical trials and other sources.

The market size for U.S. cancer testing is estimated to be between \$10 billion and \$12 billion. The total testing market for hematopoietic cancers and solid tumor cancers is estimated to be between \$3-4 billion and \$7-8 billion, respectively, with approximate new annual diagnoses of hematopoietic cancers and solid tumor cancers being 150,000 and 1.45 million, respectively. For the six months ending June 30, 2014, the Company's revenue split for hematopoietic cancer and solid tumor cancer testing was approximately 80% and approximately 20%, respectively.

Recent Developments

Acquisition of Path Logic

On July 8, 2014, we acquired through our wholly owned subsidiary, NeoGenomics Laboratories, all of the outstanding equity ownership interests of Path Labs, LLC d/b/a Path Logic for \$5.85 million, reflecting a purchase price of \$6.0 million less liabilities assumed, using cash on hand and borrowings under our revolving credit facility.

Path Logic is a provider of specialized anatomic pathology services to hospitals and physicians in Northern California. Path Logic provides high-quality anatomic pathology services with significant expertise in the sub-specialties of renal pathology, dermatopathology, women's health and gastrointestinal and genitourinary pathology. As part of the transaction, we acquired Path Logic's main laboratory in West Sacramento, California, as well as satellite facilities in Santa Ana and Fresno, California.

Path Logic reported revenue of \$9.84 million for the year ended December 31, 2013, and employed approximately 65 people. The acquisition of Path Logic enables us to provide specialized anatomic pathology services for our clinical trials and pathology clients across the country.

Corporate Offices

Our principal executive offices are located at 12701 Commonwealth Drive, Suite 9, Fort Myers, Florida 33913. Our telephone number is (239) 768-0600. Our website can be accessed at www.neogenomics.com. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus supplement, and you should not consider it part of this prospectus supplement or the accompanying prospectus.

Table of Contents

The Offering

The following is a brief summary of the terms of the offering. For a more complete description of our common stock, see Description of Our Capital Stock beginning on page 6 of the accompanying prospectus.

| | |
|--|---|
| Issuer | NeoGenomics, Inc. |
| Shares of common stock offered by us | shares (or shares if the underwriters exercise their option to purchase additional shares in full). |
| Common stock to be outstanding immediately after this offering | shares (or shares if the underwriters exercise their option to purchase additional shares in full). |
| Option to purchase additional shares | We have granted an option to the underwriters to purchase up to an additional shares of common stock within 30 days of the date of this prospectus supplement. |
| Use of proceeds | We intend to use the net proceeds for working capital, capital expenditures and other corporate purposes, including potential acquisitions. The Company may also use proceeds to repay debt, although at this time no decision has been made to the amount or timing of repayment. See Use of Proceeds. |
| Risk factors | Investing in our common stock involves a high degree of risk. See Risk Factors beginning on page S-5 of this prospectus supplement for a discussion of factors that you should carefully consider before deciding to invest in shares of our common stock. |
| Listing and trading symbol | Our common stock is listed and traded on the NASDAQ Capital Market under the symbol NEO . |
| The number of shares of our common stock to be outstanding after this offering is based upon 50,003,799 shares outstanding as of June 30, 2014. This number does not include, as of such date: | |
| 5,814,794 shares of common stock issuable upon the exercise of outstanding stock options, at a weighted average exercise price of \$1.38 per share; | |

Edgar Filing: NEOGENOMICS INC - Form 424B5

650,000 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of \$1.48 per share; and

1,187,056 shares of common stock available for future issuance under our equity compensation plans.

S-3

Table of Contents**Summary Historical Financial Data**

The following table sets forth a summary of our historical financial data as of the dates and for each of the periods indicated. The historical financial data as of and for the years ended December 31, 2011, December 31, 2012 and December 31, 2013 is derived from our audited consolidated financial statements, which are incorporated by reference into this prospectus supplement. The historical financial data for the six months ended June 30, 2013 and June 30, 2014 and as of June 30, 2014 is derived from our unaudited consolidated financial statements, which are incorporated by reference into this prospectus supplement. The historical financial data as of June 30, 2013 is derived from our unaudited consolidated financial statements that are not incorporated by reference into this prospectus supplement. We have prepared the unaudited consolidated financial statements on the same basis as the audited consolidated financial statements and have included, in our opinion, all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results that should be expected in the future, and our interim results are not necessarily indicative of the results that should be expected for the full year or any other period.

The following summary historical financial data should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations and our audited consolidated financial statements and the related notes appearing in our Annual Report on Form 10-K for the year ended December 31, 2013, and our unaudited consolidated financial statements and related notes appearing in our Form 10-Q for the six-month period ended June 30, 2014. See Where You Can Find More Information.

| | Fiscal Year Ended December 31, | | | Six Months Ended June 30, | |
|-------------------------------------|-----------------------------------|-----------|-----------|------------------------------|-----------|
| | 2011 | 2012 | 2013 | 2013 | 2014 |
| | (in thousands) | | | | |
| Operating Data: | | | | | |
| Net revenue | \$ 43,484 | \$ 59,867 | \$ 66,467 | \$ 31,260 | \$ 38,852 |
| Cost of revenue | 24,056 | 33,031 | 34,730 | 16,857 | 19,904 |
| Gross profit | 19,428 | 26,836 | 31,737 | 14,403 | 18,948 |
| Operating expenses | | | | | |
| General and administrative | 12,331 | 15,843 | 17,397 | 8,239 | 10,924 |
| Research and development | 543 | 2,281 | 2,440 | 1,451 | 1,261 |
| Sales and marketing | 6,963 | 7,501 | 8,726 | 3,903 | 5,791 |
| Total operating expenses | 19,837 | 25,625 | 28,563 | 13,593 | 17,976 |
| Income (loss) from operations | (409) | 1,211 | 3,174 | 810 | 972 |
| Interest and other income (expense) | (768) | (1,146) | (989) | (517) | (518) |
| Income (loss) before taxes | (1,177) | 65 | 2,185 | 293 | 454 |
| Income taxes | | | 152 | 17 | 78 |
| Net income (loss) | (1,177) | \$ 65 | \$ 2,033 | \$ 276 | \$ 376 |

| Balance Sheet Data (at period end): | | | | | |
|--|----------|----------|----------|----------|----------|
| Cash and cash equivalents | \$ 2,628 | \$ 1,868 | \$ 4,834 | \$ 4,636 | \$ 5,023 |
| Working capital | 1,734 | 823 | 13,168 | 11,107 | 12,856 |
| Total assets | 19,949 | 30,071 | 39,916 | 34,459 | 43,638 |
| Revolving credit line | 3,898 | 8,458 | 4,282 | 3,193 | 1,989 |
| Long-term debt, including current portion | 4,715 | 5,309 | 6,080 | 5,517 | 7,785 |
| Total stockholders' equity | 5,897 | 9,216 | 21,711 | 19,440 | 23,133 |

S-4

Table of Contents

RISK FACTORS

An investment in our common stock is subject to numerous risks. You should carefully consider these risk factors, along with the information provided elsewhere in this prospectus supplement, the accompanying prospectus, the documents we incorporate by reference herein and therein, and in any free writing prospectus that we have authorized for use in connection with this offering, before investing in our common stock. If any of these risks actually occur, our business, financial condition, results of operations or cash flow could be seriously harmed. This could cause the trading price of our common stock to decline, resulting in a loss of all or part of your investment.

Risks Related to Our Business

We may not be able to implement our business strategies which could impair our ability to continue operations.

Implementation of our business strategies will depend in large part on our ability to (i) attract and maintain a significant number of clients; (ii) effectively provide acceptable products and services to our clients; (iii) develop and license new products and technologies; (iv) obtain adequate financing on favorable terms to fund our business strategies; (v) maintain appropriate internal procedures, policies, and systems; (vi) hire, train, and retain skilled employees and management; (vii) continue to operate despite increasing competition in the medical laboratory industry; (viii) be paid reasonable fees by government payers that will adequately cover our costs; (ix) establish, develop and maintain our name recognition; and (x) establish and maintain beneficial relationships with third-party insurance providers and other third-party payers. Our inability to obtain or maintain any or all these factors could impair our ability to implement our business strategies successfully, which could have material adverse effects on our results of operations and financial condition.

We may be unsuccessful in managing our growth which could prevent us from operating profitably.

Our growth has placed, and is expected to continue to place, a significant strain on our managerial, operational and financial resources. To manage our potential growth, we must continue to implement and improve our operational, financial and billing systems and to expand, train and manage our employee base. We may not be able to effectively manage the expansion of our operations and our systems and our procedures or controls may not be adequate to support our operations. Our management may not be able to achieve the rapid execution necessary to fully exploit the market opportunity for our products and services. Any inability to manage growth could have a material adverse effect on our business, results of operations, potential profitability and financial condition. Part of our business strategy may be to acquire assets or other companies that will complement our existing business, such as our recent acquisition of Path Labs, LLC. At this time, we are unable to predict whether or when any material transaction will be completed should negotiations commence. We may not be able to effectively integrate the operations of Path Labs, LLC, or the acquired operations from any other transaction we may complete, with our own operations. We may also seek to finance any future acquisition by debt financings or issuances of equity securities and such financing may not be available on acceptable terms or at all.

We may experience discontinuation or recalls of existing testing products or failures to develop, or acquire, licenses for new or improved testing technologies which could materially and adversely affect our revenues.

From time to time, manufacturers discontinue or recall reagents, test kits or instruments used by us to perform laboratory testing. Such discontinuations or recalls could adversely affect our costs, testing volume and revenue.

Our industry is subject to changing technology and new product introductions. Our success will depend, in part, on our ability to develop, acquire or license new and improved technologies on favorable terms and to

S-5

Table of Contents

obtain appropriate coverage and reimbursement for these technologies. We may not be able to negotiate acceptable licensing arrangements and we cannot be certain that such arrangements will yield commercially successful diagnostic tests. If we are unable to license these testing methods at competitive rates, our research and development costs may increase as a result. In addition, if we are unable to license new or improved technologies to expand our testing operations, our testing methods may become outdated when compared with our competition and testing volume and revenue may be materially and adversely affected.

We may incur greater costs than anticipated, which could result in sustained losses.

We use reasonable efforts to assess and predict the expenses necessary to pursue our business strategies. However, implementing our business strategies may require more employees, capital equipment, supplies or other expenditure items than management has predicted. Similarly, the cost of compensating additional management, employees and consultants or other operating costs may be more than we estimate, which could result in ongoing and sustained losses.

We rely on a limited number of third parties for the manufacture and supply of certain of our critical laboratory instruments and materials, and we may not be able to find replacement suppliers or manufacturers in a timely manner in the event of any disruption, which could adversely affect our business.

We rely on third parties for the manufacture and supply of some of our critical laboratory instruments, equipment and materials that we need to perform our specialized diagnostic services, and rely on a limited number of suppliers for certain laboratory materials and some of the laboratory equipment with which we perform our diagnostic services. Generally, we do not have long-term contracts with our suppliers and manufacturers that commit them to supply equipment and materials to us. Because we cannot ensure the actual production or manufacture of such critical equipment and materials, or the ability of our suppliers to comply with applicable legal and regulatory requirements, we may be subject to significant delays caused by interruption in production or manufacturing. If any of our third party suppliers or manufacturers were to become unwilling or unable to provide this equipment or these materials in required quantities or on our required timelines, we would need to identify and acquire acceptable replacement sources on a timely basis. While we have developed alternate sourcing strategies for most of the equipment and materials we use, we cannot be certain that these strategies will be effective and even if we were to identify other suppliers and manufacturers for the equipment and materials we need to perform our specialized diagnostic services, there can be no assurance that we will be able to enter into agreements with such suppliers and manufacturers or otherwise obtain such items on a timely basis or on acceptable terms, if at all. In addition, some of the reagents are covered by patents and thus are only available from one supplier. If we encounter delays or difficulties in securing necessary laboratory equipment or materials, including consumables, we would face an interruption in our ability to perform our specialized diagnostic services and experience other disruptions that would adversely affect our business, results of operations and financial condition.

We may face fluctuations in our results of operations and we are subject to seasonality in our business which could negatively affect our business operations

Management expects that our results of operations may fluctuate significantly in the future as a result of a variety of factors, including, but not limited to: (i) the continued rate of growth, usage and acceptance of our products and services; (ii) demand for our products and services; (iii) the introduction and acceptance of new or enhanced products or services by us or by competitors; (iv) our ability to anticipate and effectively adapt to developing markets and to rapidly changing technologies; (v) our ability to attract, retain and motivate qualified personnel; (vi) the initiation, renewal or expiration of significant contracts with our major clients; (vii) pricing changes by us, our suppliers or our competitors; (viii) seasonality; and (ix) general economic conditions and other factors. Accordingly, future sales and

operating results are difficult to forecast. Our expenses are based in part on our expectations as to future revenues and to a significant extent are relatively fixed, at least in the short-term. We may not be able to adjust spending in a timely manner to compensate for any unexpected revenue

S-6

Table of Contents

shortfall. Accordingly, any significant shortfall in relation to our expectations would likely have an immediate adverse impact on our business, results of operations and financial condition. In addition, we may determine from time to time to make certain pricing or marketing decisions or acquisitions that could have a short-term material adverse affect on our business, results of operations and financial condition and may not result in the long-term benefits intended. Furthermore, in Florida, currently our largest referral market for lab testing services, a meaningful percentage of the population, returns to homes in the Northern U.S. to avoid the hot summer months. This combined with the usual summer vacation schedules of our clients usually results in seasonality in our business. Because of all of the foregoing factors, our operating results in future periods could be less than the expectations of investors.

We depend substantially upon third parties for payment of services, which could have a material adverse affect on our cash flows and results of operations.

Our business consists of a clinical laboratory that provides medical testing services for doctors, hospitals, and other laboratories on patient specimens that are sent to our laboratory. In the case of some specimen referrals that are received for patients that are not in-patients or out-patients at a hospital or institution or otherwise sent by another reference laboratory, we typically bill the patient's insurance company or a government program for our services. As such we rely on the cooperation of numerous third-party payers, including but not limited to Medicare, Medicaid, and various insurance companies, to get paid for performing services on behalf of our clients and their patients. The amount of such third-party payments is governed by contractual relationships in cases where we are a participating provider for a specified insurance company or by established government reimbursement rates in cases where we are an approved provider for a government program such as Medicare or Medicaid. However, we do not have contractual relationships with some of the insurance companies with whom we deal, nor are we necessarily able to become an approved provider for all government programs. In such cases, we are deemed to be a non-participating provider and there is no contractual assurance that we will be able to collect the amounts billed to such insurance companies or government programs. Currently, we are not a participating provider with some of the insurance companies we bill for our services. Until such time as we become a participating provider with such insurance companies, there can be no contractual assurance that we will be paid for the services we bill to such insurance companies or patients, and such third-parties may change their reimbursement policies for non-participating providers in a manner that may have a material adverse effect on our cash flow or results of operations. Insurance companies may also try to steer business away from us towards in-network providers by sending letters to physicians and even imposing financial penalties, if they continue to send us business.

Our business is subject to rapid scientific change, which could have a material adverse effect on our business, results of operations and financial condition.

The market for genetic and molecular testing services is characterized by rapid scientific developments, evolving industry standards and customer demands, and frequent new product introductions and enhancements. For example, new tests developed by our competitors may prove superior and replace our existing tests. Our future success will depend in significant part on our ability to continually improve our offerings in response to both evolving demands of the marketplace and competitive service offerings, and we may be unsuccessful in doing so which could have a material adverse effect on our business, results of operations and financial condition.

The market for our services is highly competitive, which could have a material adverse affect on our business, results of operations and financial condition.

The market for genetic and molecular testing services is highly competitive and we expect competition to continue to increase. We compete with other commercial clinical laboratories in addition to the in-house laboratories of many major hospitals and physician practices. Many of our existing competitors have significantly greater financial, human,

technical and marketing resources than we do. Some physician groups and

S-7

Table of Contents

hospitals have made the decision to internalize testing rather than using an outsourced laboratory such as us and therefore control the referral of their own specimens. Our competitors may develop products and services that are superior to ours or that achieve greater market acceptance than our offerings. We may not be able to compete successfully against current and future sources of competition and in such cases, this may have a material adverse effect on our business, results of operations and financial condition.

We face the risk of capacity constraints, which could have a material adverse affect on our business, results of operations and financial condition.

We compete in the market place primarily on three factors: (i) the quality and accuracy of our test results; (ii) the speed or turn-around times of our testing services; and (iii) our ability to provide after-test support to those physicians requesting consultation. Any unforeseen increase in the volume of clients could strain the capacity of our personnel and systems, which could lead to inaccurate test results, unacceptable turn-around times, or customer service failures. In addition, as the number of our clients and specimens increases, our products, services, and infrastructure may not be able to scale accordingly. We may also not be able to hire additional licensed medical technologists that we need to handle increased volumes. Any failure to handle higher volume of requests for our products and services could lead to the loss of established clients and have a material adverse effect on our business, results of operations and financial condition. If we produce inaccurate test results, our clients may choose not to use us in the future. This could severely harm our business, results of operations and financial condition. In addition, based on the importance of the subject matter of our tests, inaccurate results could result in improper treatment of patients, and potential liability for us.

We may fail to protect our facilities, which could have a material adverse affect on our business, results of operations and financial condition.

Our operations are dependent in part upon our ability to protect our laboratory operations against physical damage from explosions, fire, floods, hurricanes, earthquakes, power loss, telecommunications failures, break-ins and similar events. We do not presently have an emergency back-up generator in place at our Nashville, Tennessee or Irvine, California laboratory locations that would otherwise mitigate to some extent the effects of a prolonged power outage. The occurrence of any of these events could result in interruptions, delays or cessations in service to clients, which could have a material adverse effect on our business, results of operations and financial condition.

The steps taken by us to protect our proprietary rights may not be adequate, which could result in infringement or misappropriation by third-parties.

We regard our copyrights, trademarks, trade secrets and similar intellectual property as critical to our success, and we rely upon trademark and copyright law, trade secret protection and confidentiality and/or license agreements with our employees, clients, partners and others to protect our proprietary rights. The steps taken by us to protect our proprietary rights may not be adequate or third parties may infringe or misappropriate our copyrights, trademarks, trade secrets and similar proprietary rights. In addition, other parties may assert infringement claims against us.

We are dependent on key personnel and need to hire additional qualified personnel in order for our business to succeed.

Our performance is substantially dependent on the performance of our senior management and key technical personnel. In particular, our success depends substantially on the continued efforts of our senior management team, which currently is composed of a small number of individuals. The loss of the services of any of our executive officers, our medical staff, our laboratory directors or other key employees could have a material adverse effect on our business, results of operations and our financial condition. Our future success also depends on our continuing ability

to attract and retain highly qualified managerial and technical personnel. Competition for such personnel is intense and we may not be able to retain our key managerial and technical employees or

S-8

Table of Contents

may not be able to attract and retain additional highly qualified managerial and technical personnel in the future. The inability to attract and retain the necessary managerial and technical personnel could have a material adverse effect upon our business, results of operations and financial condition.

The failure to obtain necessary additional capital to finance growth and capital requirements, could adversely affect our business, financial condition and results of operations.

We may seek to exploit business opportunities that require more capital than we have currently available. We may not be able to raise such capital on favorable terms or at all. If we are unable to obtain such additional capital, we may be required to reduce the scope of our anticipated expansion, which could adversely affect our business, financial condition and results of operations.

As of June 30, 2014, we had cash and cash equivalents of \$5.0 million and had \$8.0 million of availability under our credit facility with CapitalSource. We used approximately \$3.0 million in cash and borrowed approximately \$3.0 million on our credit facility, to finance the purchase of PathLogic on July 8, 2014.

Even if we are able to access the full amount available under our credit facility with CapitalSource, we may still need additional capital to fully implement our business, operating and development plans. Should the financing we require to sustain our working capital needs be unavailable or prohibitively expensive when we require it, there could be a material adverse effect on our long-term business, rate of growth, operating results, financial condition and prospects.

Proposed government regulation of laboratory developed tests may result in delays to launching certain laboratory tests and increase our costs to implement new tests.

We frequently develop testing procedures to provide diagnostic results to clients that cannot currently be provided using test kits approved by the U.S. Food and Drug Administration, or FDA. The FDA has been considering changes to the way that it regulates these Laboratory Developed Tests, or LDTs. Currently all LDTs are conducted and offered in accordance with Clinical Laboratory Improvements Amendments, or CLIAs, and individual state licensing procedures. The FDA is considering requiring FDA clearance or approval of a subset of LDTs, as well as a modified approach that may require FDA oversight short of the full approval process. There are currently no formal definitions or regulations on how such approvals would be requested and granted, but there is a risk that such a process could delay the offering of certain tests and result in additional validation costs and fees. There is also an associated risk for us that some tests currently offered might become subject to the prior approval of the FDA. This FDA approval process would be time-consuming and costly, with no guarantee of ultimate approval success.

On July 31, 2014 the FDA issued a notification to Congress of the Anticipated Details of the Draft Guidance for Industry, Food and Drug Administration Staff, and Clinical Laboratories: Framework for Regulatory Oversight of Laboratory Developed Tests (LDTs). As described in this notification, FDA plans to provide draft guidance to clinical laboratories that develop their own LDTs regarding how FDA intends to regulate such laboratories under the Federal Food, Drug, and Cosmetic Act. The anticipated regulatory framework would use a risk-based approach to enforce the FDA's premarket review requirements, and for high-risk tests, the framework may require laboratories to use FDA-approved tests, if available, rather than LDTs. If implemented, the framework may also require us to obtain premarket clearance or approval for certain of our LDTs. Implementation of this framework would include a lengthy phase-in period ranging from two to nine years depending on the risk assessment rating of each particular test. Once the draft guidance is issued, the FDA will provide an opportunity for public comment before the guidance is finalized. We anticipate the Agency will receive numerous comments on this issue, and the regulatory framework ultimately implemented by the FDA may differ substantially from the framework described in the notification to Congress.

Healthcare reform programs may impact our business and the pricing we receive for our services.

In March of 2010, health care reform legislation known as the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or commonly referred to collectively

S-9

Table of Contents

as the Affordable Care Act, was passed into law. The Affordable Care Act contains several provisions that seek to limit Medicare spending in the future. One key provision is the establishment of Accountable Care Organizations under which hospitals and physicians will be able to share savings that result from cost control efforts. We cannot predict what the final business models will be, nor can we predict with certainty the future impact on our business. There is the possibility that these organizations will seek to lower reimbursement for the services we provide and some may potentially restrict access to our services. We may not be able to gain access into certain Accountable Care Organizations. These changes could have an adverse and material impact on our operations. In furtherance of health care reform and the reduction in health care expenditures, the Affordable Care Act contains numerous provisions to be implemented through 2018. Other significant measures contained in the Affordable Care Act include, for example, coordination and promotion of research on comparative clinical effectiveness of different technologies and procedures, initiatives to revise Medicare payment methodologies, such as bundling of payments across the continuum of care by providers and physicians, and initiatives to promote quality indicators in payment methodologies. There can be no assurance at this time that the implementation of these provisions will not have a material adverse effect on our business.

In addition, other legislative changes have been proposed and adopted in the United States since the Affordable Care Act was enacted. On August 2, 2011, the Budget Control Act of 2011 among other things, created measures for spending reductions by Congress. A Joint Select Committee on Deficit Reduction, tasked with recommending a targeted deficit reduction of at least \$1.2 trillion for the years 2013 through 2021, was unable to reach required goals, thereby triggering the legislation's automatic reduction to several government programs. This includes aggregate reductions of Medicare payments to providers up to 2% per fiscal year, which went into effect on April 1, 2013 and will remain in effect through 2024 unless additional Congressional action is taken. On January 2, 2013, President Obama signed into law the American Taxpayer Relief Act of 2012, or the ATRA, which, among other things, increased the period for the government to recover overpayments from providers from three to five years.

We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our services or additional pricing pressures.

Steps taken by government payers, such as Medicare and Medicaid to control the utilization and reimbursement of healthcare services, including esoteric testing may diminish our net revenue.

We face efforts by government payers to reduce utilization as well as reimbursement for laboratory testing services. Changes in governmental reimbursement may result from statutory and regulatory changes, retroactive rate adjustments, administrative rulings and other policy changes.

From time to time, legislative freezes and updates affect some of our tests that are reimbursed by the Medicare program under the Medicare Physician Fee Schedule or Clinical Laboratory Fee Schedule. The Medicare Physician Fee Schedule, which is updated on an annual basis using a prescribed statutory formula, is subject to significant reductions in reimbursement unless Congress intervenes. In the past, when the application of the statutory formula resulted in lower payments, Congress has passed interim legislation to prevent the reductions. The most recent legislative intervention passed was Protecting Access to Medicare Act of 2014, or PAMA, which provided for a 0.5% update from 2013 MPFS payment rates through 2014 and a 0% update from January 1 until April 1, 2015. If Congress fails to intervene to prevent the negative update factor in future years, the resulting decrease in payment may adversely affect our revenue, business, operating results, financial condition and prospects.

In addition, recent laws make changes to Medicare reimbursement for our tests that are reimbursed under the Clinical Laboratory Fee Schedule, or CLFS, many of which have already gone into effect. The Affordable Care Act includes a

reduction in the annual update factor used to adjust payments under the CLFS for inflation. This update factor reflects the consumer price index for all urban consumers, or CPI-U, and the ACA reduces the

S-10

Table of Contents

CPI-U by 1.75% for the years 2011 through 2015. The Affordable Care Act also imposes a multifactor productivity adjustment in addition to the CPI-U, which may further reduce payment rates. Further, in February 2012, the Middle Class Tax Relief and Job Creation Act of 2012 was passed, which, among other things, reduced the update to the CLFS by an additional 2% for CY 2013, and rebased payments at the reduced rate for subsequent years. Overall, when adding this 2% reduction to the Affordable Care Act's adjustments, the payment rates under the CLFS declined by 2.95% and 0.75% for 2013 and 2014, respectively. This reduction does not include the additional sequestration adjustment.

Most recently, on April 1, 2014, PAMA was signed to law, which, among other things, is expected to significantly alter the current payment methodology under the CLFS. Under the new law, starting January 1, 2016 and every three years thereafter (or annually in the case of advanced diagnostic lab tests), clinical laboratories must report laboratory test payment data for each Medicare-covered clinical diagnostic lab test that it furnishes during a time period to be defined by future regulations. The reported data must include the payment rate (reflecting all discounts, rebates, coupons and other price concessions) and the volume of each test that was paid by each private payer (including health insurance issuers, group health plans, Medicare Advantage plans and Medicaid managed care organizations). Beginning in 2017, the Medicare payment rate for each clinical diagnostic lab test will be equal to the weighted median amount for the test from the most recent data collection period. The payment rate will apply to laboratory tests furnished by a hospital laboratory if the test is separately paid under the hospital outpatient prospective payment system. It is too early to predict the impact on reimbursement for our tests reimbursed under the CLFS.

Also under PAMA, the Centers for Medicare & Medicaid Services, or CMS, is required to adopt temporary billing codes to identify new tests and new advanced diagnostic laboratory tests that have been cleared or approved by the FDA. For an existing test that is cleared or approved by the FDA and for which Medicare payment is made as of April 1, 2014, CMS is required to assign a unique billing code if one has not already been assigned by the agency. In addition to assigning the code, CMS must publicly report payment for the tests no later than January 1, 2016. We cannot determine at this time the full impact of the new law on our business, financial condition and results of operations.

CMS also adopts policies, from time to time, limiting or excluding coverage for certain of the tests that we perform. Likewise, many state governments are under budget pressures and are also considering reductions to their Medicaid fees. Further, Medicare, Medicaid and other third party payers audit for overutilization of billed services. Even though all tests performed by us are ordered by our clients, who are responsible for establishing the medical necessity for the tests ordered, we may be subject to recoupment of payments, as the recipient of the payments for such tests, in the event that a third party payer such as CMS determines that the tests failed to meet all applicable criteria for payment. When third party payers like CMS revise their coverage policies, our costs generally increase due to the complexity of complying with additional administrative requirements. Furthermore, Medicaid reimbursement and regulations vary by state. Accordingly, we are subject to varying administrative and billing regulations, which also increase the complexity of servicing such programs and our administrative costs. Finally, state budget pressures have encouraged states to consider several courses that may impact our business, such as delaying payments, restricting coverage eligibility, service coverage restrictions and imposing taxes on our services.

In certain jurisdictions, Palmetto GBA, a Medicare administrative contractor, administers the Molecular Diagnostic Services Program, or MolDX, and establishes coverage and reimbursement for certain molecular diagnostic tests, including many of our tests. To obtain coverage for an established molecular diagnostic test or LDT, laboratories must apply for and obtain a unique test identifier. For newly developed tests or for established tests that have not been validated for clinical and analytical validity and clinical utility, laboratories must submit a detailed dossier of clinical data to substantiate that the test meets Medicare's requirements for coverage. We have received favorable coverage for many of our molecular tests, however we have also received non-coverage determination for many newer tests. The

field of molecular diagnostics is evolving very rapidly, and clinical studies on many new tests are still underway. We cannot be assured that some of our molecular tests will ever be covered services by Medicare, nor can we determine when the medical literature will meet the standard for coverage that Palmetto GBA has set.

S-11

Table of Contents

In recent years, Medicare has encouraged beneficiaries to participate in managed care programs, known as Medicare Advantage programs, and has encouraged beneficiaries from the traditional fee-for-service Medicare program to switch to Medicare Advantage programs. This has resulted in rapid growth of health insurance and managed care plans offering Medicare Advantage programs and growth in Medicare beneficiary enrollment in these programs. Also in recent years, many states have increasingly mandated that Medicaid beneficiaries enroll in managed care arrangements. If these efforts continue to be successful, we may experience a further shift of traditional Medicare and Medicaid fee-for-service beneficiaries to managed care programs. As a result, we would be required to contract with those private managed care programs in order to be reimbursed for services to their Medicare and Medicaid members. There can be no assurance that we will be successful in entering into agreements with these managed care programs at rates of payment similar to those we realize from our non-managed care lines of business.

CMS has, as part of its regulatory structure, developed the National Correct Coding Initiative, or NCCI to promote national correct coding methodologies and to control improper coding leading to inappropriate payment in Medicare Part B claims. The most recent NCCI Coding Policy Manual resulted in changes in how we bill both FISH and immunohistochemistry testing. The language relates to what NCCI considers bundled services, and will impact the quantity of certain tests that are billed. NCCI limits the number of units we may bill for certain test codes which lowers the overall reimbursement we receive for that test. While many in the laboratory industry are not in agreement with the determination, there can be no assurance that CMS will make any modifications to the existing language.

We expect the initiatives described above to continue and, if they do, to reduce reimbursements for clinical laboratory services, to impose more stringent cost controls on clinical laboratory services and to reduce utilization of clinical laboratory services. These efforts, including changes in law or regulations that may occur in the future, may each individually or collectively have a material adverse impact on our business, operating results, financial condition and prospects.

Our net revenue will be diminished if payers do not adequately cover or reimburse our services.

There has been and will continue to be significant efforts by both federal and state agencies to reduce costs in government healthcare programs and otherwise implement government control of healthcare costs. In addition, increasing emphasis on managed care in the United States may continue to put pressure on the pricing of healthcare services. Uncertainty exists as to the coverage and reimbursement status of new applications or services. Third party payers, including governmental payers such as Medicare and private payers, are scrutinizing new medical products and services and may not cover or may limit coverage and the level of reimbursement for our services. Third party insurance coverage may not be available to patients for any of our existing tests or for tests we discover and develop. In addition, a substantial portion of the testing for which we bill our hospital and laboratory clients is ultimately paid by third party payers. Any pricing pressure exerted by these third party payers on our clients may, in turn, be exerted by our clients on us. If government and other third party payers do not provide adequate coverage and reimbursement for our tests, our operating results, cash flows or financial condition may decline.

Third party billing is extremely complicated and results in significant additional costs to us.

Billing for laboratory services is extremely complicated. Depending on the billing arrangement and applicable law, we must bill various payers, such as patients, insurance companies, Medicare, Medicaid, doctors and employer groups, hospitals and other laboratories, all of which have different billing requirements. Additionally, our billing relationships require us to undertake internal audits to evaluate compliance with applicable laws and regulations as well as internal compliance policies and procedures. Insurance companies also impose routine external audits to evaluate payments made, which adds further complexity to the billing process.

Among others, the primary factors which complicate our billing practices are:

pricing differences between our fee schedules and the reimbursement rates of the payers;

S-12

Table of Contents

changes in carrier rules;

disputes with payers as to the party who is responsible for payment; and

disparity in coverage and documentation requirements among various carriers.

We incur significant additional costs as a result of our participation in the Medicare and Medicaid programs, as billing and reimbursement for clinical laboratory services are subject to considerable and complex federal and state regulations. The additional costs we expect to incur include those related to: (i) complexity added to our billing processes and systems; (ii) training and education of our employees and clients; (iii) implementing compliance procedures and oversight; (iv) collections and legal costs; and (v) costs associated with, among other factors, challenging coverage and payment denials and providing patients with information regarding claims processing and services, such as advance beneficiary notices.

Our operations are subject to strict laws prohibiting fraudulent billing and other abuse, and our failure to comply with such laws could result in substantial penalties.

Of particular importance to our operations are federal and state laws prohibiting fraudulent billing and providing for the recovery of non-fraudulent overpayments. Government investigations of clinical laboratories have been ongoing for a number of years and are expected to continue in the future. A large number of laboratories have entered into substantial settlements with federal and state governments under these laws. Private payers have also brought civil actions against laboratories which have resulted in substantial judgments.

In particular, if an entity is determined to have violated the federal False Claims Act, it may be required to pay up to three times the actual damages sustained by the government, plus civil penalties of between \$5,500 to \$11,000 for each separate false claim. There are many potential bases for liability under the federal False Claims Act. Liability arises, when an entity submits, or causes another to submit, a claim for reimbursement to the federal government for a service which was not provided or which did not qualify for reimbursement. Submitting a claim with reckless disregard or deliberate ignorance of its truth or falsity could also result in substantial civil liability. In addition, the False Claims Act's whistleblower or qui tam provisions are being used with more frequency to challenge the reimbursement practices of providers and suppliers. Those provisions allow a private individual to bring an action on behalf of the government alleging that the defendant has submitted false claims for payment to the federal government. The government must decide whether to intervene in the lawsuit and whether to prosecute the case. If it declines to do so, the individual may pursue the case alone, although the government must be kept apprised of the progress of the lawsuit. Whether or not the federal government intervenes in the case, it will receive the majority of any recovery. The successful qui tam relator who brought the case is entitled to a portion of the proceeds and its attorneys' fees and costs. In addition, various states have enacted laws modeled after the federal False Claims Act, which apply to items and services reimbursed under Medicaid and other state programs, or, in several states, apply regardless of the payer. If the government or qui tam relator were to allege or determine that we were violating these false claims laws, we could be subject to substantial fines and penalties, which could adversely affect our operations.

The failure to comply with significant government regulation and laboratory operations may subject us to liability, penalties or limitation of operations.

We are subject to extensive state and federal regulatory oversight. Upon periodic inspection, our laboratory locations may be out of compliance with CLIA or with any applicable licensure or certification laws. The sanctions for failure to comply with CLIA or state licensure requirements could include the suspension or revocation of the right to

perform clinical laboratory services, or the suspension, revocation or limitation of the laboratory's CLIA certificate or state license, as well as civil or criminal penalties or administrative fines. In addition, any new legislation or regulation or the application of existing laws and regulations in ways that we have not anticipated could have a material adverse effect on our business, results of operations and financial condition.

S-13

Table of Contents

Existing federal laws governing Medicare and Medicaid, as well as some other state and federal laws, also regulate certain aspects of the relationship between healthcare providers, including clinical laboratories, and their referral sources, including physicians, hospitals and other laboratories. Certain provisions of these laws, known as the anti-kickback laws and the Stark Law, contain extremely broad proscriptions. Violation of these laws may result in criminal penalties, exclusion from participation in the Medicare and Medicaid programs, and significant civil monetary penalties. We seek to structure our arrangements with physicians and other clients to be in compliance with the anti-kickback laws, Stark Law and comparable state laws, and to keep up-to-date on developments concerning their application by various means, including consultation with legal counsel. However, we are unable to predict how these laws will be applied in the future and the arrangements into which we enter may become subject to scrutiny thereunder.

A failure to comply with governmental payer regulations could result in our being excluded from participation in Medicare, Medicaid or other governmental payer programs, which would decrease our revenues and adversely affect our results of operations and financial condition

Tests which are reimbursable from Medicare and other government payers (State Medicaid programs) accounted for approximately 25%, 36% and 43% of our revenues for the years ended December 31, 2013, 2012 and 2011, respectively. The Medicare program imposes extensive and detailed requirements on diagnostic service providers, including, but not limited to, rules that govern how we structure our relationships with physicians, how and when we submit claims for reimbursement and how we provide specialized diagnostic laboratory services. Our failure to comply with applicable Medicare, Medicaid and other governmental payer rules could result in our inability to participate in a governmental payer program, an obligation to repay funds already paid to us for services performed, civil monetary penalties, criminal penalties and/or limitations on the operational function of our laboratory. If we were unable to receive reimbursement under a governmental payer program, a substantial portion of our revenues would be lost, which would adversely affect our results of operations and financial condition.

Failure to comply with the HIPAA security and privacy regulations may increase our operational costs.

The Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH Act, and similar state privacy and security laws contain provisions that affect the handling of claims and other patient information that are, or have been, transmitted electronically and regulate the general disclosure of patient records and protected health information, or PHI. These provisions, which address security and confidentiality of patient information as well as the administrative aspects of claims handling, have very broad applicability and they specifically apply to healthcare providers, which include physicians and clinical laboratories.

The HIPAA privacy and security regulations establish comprehensive federal standards with respect to the uses and disclosures of PHI by health plans and healthcare providers, in addition to setting standards to protect the confidentiality, integrity and availability of electronic PHI. The regulations establish a complex regulatory framework on a variety of subjects, including, for example, the circumstances under which uses and disclosures of PHI are permitted or required without a specific authorization by the patient, a patient's right to access, amend and receive an accounting of certain disclosures of PHI; the content of notices of privacy practices for PHI, and administrative, technical and physical safeguards required of entities that use or receive PHI electronically. We have implemented policies and procedures related to compliance with the HIPAA privacy and security laws regulations, as required by law. The privacy regulations establish a uniform federal standard and do not supersede state laws that may be more stringent. Therefore, we are required to comply with both federal privacy regulations and varying state privacy laws and regulations. The federal privacy regulations restrict our ability to use or disclose individually identifiable patient health information, without patient authorization, for purposes other than payment, treatment or healthcare operations

(as defined by HIPAA), except for disclosures for various public policy purposes and other permitted purposes outlined in the privacy regulations. The privacy and security regulations provide for significant civil fines, criminal penalties, and other sanctions for wrongful use or

S-14

Table of Contents

disclosure of PHI. Although the HIPAA statute and regulations do not expressly provide for a private right of action for damages, we could incur damages under state laws to private parties for the wrongful use or disclosure of confidential health information or other private personal information. Additionally, the recent amendments to HIPAA provide that the state Attorneys General may bring an action against a covered entity, such as us, for a violation of HIPAA. We insure some of our risk with respect to HIPAA security breaches although there could be operational costs associated with HIPAA breaches above our insured limits.

Changes in regulations, payer policies or contracting arrangements with payers or changes in other laws, regulations or policies may adversely affect coverage or reimbursement for our specialized diagnostic services, which may decrease our revenues and adversely affect our results of operations and financial condition.

Governmental payers, as well as private insurers and private payers, have implemented and will continue to implement measures to control the cost, utilization and delivery of healthcare services, including clinical laboratory and pathology services. Congress has considered, from time to time and has implemented changes to laws and regulations governing healthcare service providers, including specialized diagnostic service providers. These changes have adversely affected and may in the future adversely affect coverage for our services. We also believe that healthcare professionals will not use our services if third party payers do not provide adequate coverage and reimbursement for them. These changes in federal, state, local and third party payer regulations or policies may decrease our revenues and adversely affect our results of operations and financial condition. We will continue to be a non-contracting provider until such time as we enter into contracts with third party payers with whom we are not currently contracted. Because a portion of our revenues is from third-party payers with whom we are not currently contracted, it is likely that we will be required to make positive or negative adjustments to accounting estimates with respect to contractual allowances in the future, which may adversely affect our results of operations, our credibility with financial analysts and investors, and our stock price.

We are subject to security risks which could harm our operations.

The HITECH Act imposed restrictions and penalties on covered entities and their business associates to deter breaches of security. As a result, the remedial actions required, the reporting requirements, and sanctions for a breach are more stringent, especially if the security of the covered entity's electronic health records system does not conform to certain security standards. Our electronic health records system is periodically modified to meet applicable security standards. Despite the implementation of various security measures by us, our infrastructure may be vulnerable to computer viruses, break-ins and similar disruptive problems caused by our clients or others, any of which could lead to interruption, delays or cessation in service to our clients. Further, such break-ins, whether electronic or physical could also potentially jeopardize the security of confidential information, including PHI stored in our computer systems as it relates to clients, patients, and other parties connected through us, which may deter potential clients and give rise to uncertain liability to parties whose security or privacy has been infringed. A significant security breach could result in fines, loss of clients, damage to our reputation, direct damages, costs of repair and detection, costs to remedy the breach, and other expenses. We insure some of our risk with respect to security breaches but the occurrence of any of the foregoing events could have a material adverse effect on our business, results of operations and financial condition.

We must hire and retain qualified sales representatives to grow our sales, if not, our existing business and our results of operations and financial condition will likely suffer.

Our ability to retain existing clients for our specialized diagnostic services and attract new clients is dependent upon retaining existing sales representatives and hiring and training new sales representatives, which is an expensive and time-consuming process. We face intense competition for qualified sales personnel and our inability to hire or retain

an adequate number of sales representatives could limit our ability to maintain or expand our business and increase sales. Even if we are able to increase our sales force, our new sales personnel may not commit the necessary resources or provide sufficient high quality service and attention to effectively market and sell our services. If we are unable to maintain and expand our marketing and sales networks or if our

S-15

Table of Contents

sales personnel do not perform to our standards, we may be unable to maintain or grow our existing business and our results of operations and financial condition will likely suffer accordingly. If a sales representative ceases employment, we risk the loss of client goodwill based on the impairment of relationships developed between the sales representative and the healthcare professionals for whom the sales representative was responsible. This is particularly a risk if the representative goes to work for a competitor, as the healthcare professionals that are our clients may choose to use a competitor's services based on their relationship with our former sales representative.

Performance issues, service interruptions or price increases by our shipping carrier could adversely affect our business, results of operations and financial condition, and harm our reputation and ability to provide our specialized diagnostic services on a timely basis.

Expedited, reliable shipping is essential to our operations. One of our marketing strategies entails highlighting the reliability of our point-to-point transport of patient samples. We rely heavily on a single provider of transport services, which we refer to as the Carrier, for reliable and secure point-to-point transport of patient samples to our laboratory and enhanced tracking of these patient samples. Should the Carrier encounter delivery performance issues such as loss, damage or destruction of a sample, it may be difficult to replace our patient samples in a timely manner and such occurrences may damage our reputation and lead to decreased demand for our services and increased cost and expense to our business. In addition, any significant increase in shipping rates could adversely affect our operating margins and results of operations. Similarly, strikes, severe weather, natural disasters or other service interruptions by delivery services we use would adversely affect our ability to receive and process patient samples on a timely basis. If the Carrier or we were to terminate our relationship, we would be required to find another party to provide expedited, reliable point-to-point transport of our patient samples. There are only a few other providers of such nationwide transport services, and there can be no assurance that we will be able to enter into arrangements with such other providers on acceptable terms, if at all. Finding a new provider of transport services would be time-consuming and costly and result in delays in our ability to provide our specialized diagnostic services. Even if we were to enter into an arrangement with such provider, there can be no assurance that they will provide the same level of quality in transport services currently provided to us by the Carrier. If the new provider does not provide the required quality and reliable transport services, it could adversely affect our business, reputation, results of operations and financial condition.

We use biological and hazardous materials that require considerable expertise and expense for handling, storage or disposal and may result in claims against us.

We work with hazardous materials, including chemicals, biological agents and compounds, blood samples and other human tissue that could be dangerous to human health and safety or the environment. Our operations also produce hazardous and biohazardous waste products. Federal, state and local laws and regulations govern the use, generation, manufacture, storage, handling and disposal of these materials and wastes. Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair business efforts. If we do not comply with applicable regulations, we may be subject to fines and penalties. In addition, we cannot entirely eliminate the risk of accidental injury or contamination from these materials or wastes. Our general liability insurance and/or workers' compensation insurance policy may not cover damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or penalized with fines in an amount exceeding our resources, and our operations could be suspended or otherwise adversely affected.

Our ability to comply with the financial covenants in our credit agreements depends primarily on our ability to generate substantial operating cash flow.

Our ability to comply with the financial covenants under our credit agreement with CapitalSource will depend primarily on our success in generating substantial operating cash flow. Our credit agreement contains numerous financial and other restrictive covenants, including restrictions on purchasing and selling assets, paying dividends to our shareholders, and incurring additional indebtedness. Our failure to meet these covenants could

S-16

Table of Contents

result in a default and acceleration of repayment of the indebtedness under our credit facility. If the maturity of our indebtedness were accelerated, we may not have sufficient funds to pay such indebtedness. In such event, our lenders would be entitled to proceed against the collateral securing the indebtedness, which includes all of our entire accounts receivable, to the extent permitted by our credit agreements and applicable law.

Risks Related to Our Common Stock

We do not intend to pay dividends on our common stock for the foreseeable future.

We do not anticipate paying dividends on our common stock in the foreseeable future. Rather, we plan to retain earnings, if any, for the operation and expansion of our business. Also our credit agreement limits our ability to pay dividends.

We may become involved in securities class action litigation that could divert management's attention and harm our business.

The stock markets have from time to time experienced significant price and volume fluctuations that have affected the market prices for the common stock of diagnostic companies. These broad market fluctuations may cause the market price of our common stock to decline. In the past, securities class action litigation has often been brought against a company following a decline in the market price of its securities. This risk is especially relevant for us because clinical laboratory service companies have experienced significant stock price volatility in recent years. We may become involved in this type of litigation in the future. Litigation often is expensive and diverts management's attention and resources, which could adversely affect our business.

If any securities analyst downgrades our common stock or our sector, the price of our common stock could be negatively affected.

Securities analysts may publish reports about us or our industry containing information about us that may affect the trading price of our common stock. If a securities or industry analyst downgrades the outlook for our common stock or one of our competitors' stocks or chooses to terminate coverage of our common stock, the trading price of our common stock may be negatively affected.

The price of our common stock may fluctuate significantly.

The price of our common stock has been, and is likely to continue to be, volatile, which means that it could decline substantially within a short period of time. For example, the per share price of our common stock traded on the NASDAQ Capital Market ranged from \$2.05 to \$4.20 for the period from January 1, 2013 to December 31, 2013. The price of our common stock could fluctuate significantly for many reasons, including the following:

future announcements concerning us or our competitors;

regulatory developments and enforcement actions bearing on advertising, marketing or sales;

reports and recommendations of analysts and whether or not we meet the milestones and metrics set forth in such reports;

gaining or losing large customers or managed care plans;

introduction of new products or services;

acquisition or loss of significant manufacturers, distributors or suppliers or an inability to obtain sufficient quantities of materials needed to provide our services;

quarterly variations in operating results, which we have experienced in the past and expect to experience in the future;

S-17

Table of Contents

business acquisitions or divestitures;

changes in governmental or third-party reimbursement practices; and

fluctuations in the economy, world political events or general market conditions.

In addition, stock markets in general and the market for shares of health care stocks in particular, have experienced extreme price and volume fluctuations in recent years, fluctuations that frequently have been unrelated to the operating performance of the affected companies. These broad market fluctuations may adversely affect the market price of our common stock. The market price of our common stock could decline below its current price and the market price of our shares may fluctuate significantly in the future. These fluctuations may be unrelated to our performance.

Actual operating results may differ significantly from our guidance.

From time to time, we release guidance regarding our future performance or the expected future performance of companies or businesses that we have agreed to acquire. Any such guidance represents our management's estimates as of the date of release. This guidance, which consists of forward-looking statements, is prepared by our management and is qualified by, and subject to, the assumptions and the other information contained or referred to in such release and the factors described under "Forward-Looking Statements" in this prospectus supplement. Our guidance is not prepared with a view toward compliance with published guidelines of the American Institute of Certified Public Accountants, and neither our independent registered public accounting firms nor any other independent expert or outside party compiles or examines the guidance and, accordingly, no such person expresses any opinion or any other form of assurance with respect thereto.

Guidance is based upon a number of assumptions and estimates that, while presented with numerical specificity, are inherently subject to business, economic and competitive uncertainties and contingencies, many of which are beyond our control and are based upon specific assumptions with respect to future business decisions, some of which will change. We generally state possible outcomes as high and low ranges which are intended to provide a sensitivity analysis as variables are changed but are not intended to represent that actual results could not fall outside of the suggested ranges. The principal reason that we release this data is to provide a basis for our management to discuss our business outlook with analysts and investors. We do not accept any responsibility for any projections or reports published by any such persons.

Guidance is necessarily speculative in nature, and it can be expected that some or all of the assumptions of the guidance furnished by us will not materialize or will vary significantly from actual results. Accordingly, our guidance is only an estimate of what management believes is realizable as of the date of release. Actual results will vary from the guidance. Investors should also recognize that the reliability of any forecasted financial data diminishes the farther in the future that the data is forecast. In light of the foregoing, investors are urged to put the guidance in context and not to place undue reliance on it. Any failure to successfully implement our operating strategy or the occurrence of any of the events or circumstances set forth in, or incorporated by reference into, this prospectus supplement could result in the actual operating results being different than the guidance, and such differences may be adverse and material.

Risks Related to this Offering

We may allocate the net proceeds from this offering in ways that you may not approve and the proceeds may not be used effectively.

We intend to use the net proceeds from this offering for general corporate and working capital purposes. In general, our management will have broad discretion in the application of the net proceeds from this offering and could spend the net proceeds in ways that do not necessarily improve our operating results or enhance the value of our common stock.

S-18

Table of Contents

You may experience future dilution as a result of future equity offerings and other issuances of our common stock or other securities. In addition, this offering and future equity offerings and other issuances of our common stock or other securities may adversely affect our common stock price.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share in this offering. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or securities convertible into common stock in future transactions may be higher or lower than the price per share in this offering.

As of June 30, 2014, 5,814,794 shares of common stock were reserved for issuance upon the exercise of outstanding stock options, 650,000 shares of common stock were reserved for issuance upon the exercise of outstanding warrants and 1,187,056 shares of common stock were reserved for future issuance under our equity compensation plans. You will incur dilution upon exercise of any outstanding stock options or warrants, or upon the issuance of shares of common stock under our equity incentive programs.

In addition, the sale of shares in this offering and any future sales of a substantial number of shares of our common stock in the public market, or the perception that such sales may occur, could adversely affect the price of our common stock. We cannot predict the effect, if any, that market sales of those shares of common stock or the availability of those shares of common stock for sale will have on the market price of our common stock.

Table of Contents

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, the documents that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering contain forward-looking statements and information within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, which are subject to the safe harbor created by those sections. These forward-looking statements include, but are not limited to, statements concerning our strategy, future operations, future financial position, future revenues, projected costs, prospects and plans and objectives of management. The words anticipates, believes, estimates, expects, intends, plans, projects, will, would and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements and you should not place undue reliance on our forward-looking statements. These forward-looking statements involve known and unknown risks and uncertainties that could cause our actual results, performance or achievements to differ materially from those expressed or implied by the forward-looking statements, including, without limitation, the risks set forth in Risk Factors beginning on page S-5.

Forward-looking statements include, but are not limited to, statements about:

Our ability to implement our business strategy;

The expected reimbursement levels from governmental payers and private insurers and proposed changes to those levels;

The application, to our business and the services we provide, of existing laws, rules and regulations, including without limitation, Medicare laws, anti-kickback laws, Health Insurance Portability and Accountability Act of 1996 regulations, state medical privacy laws, federal and state false claims laws and corporate practice of medicine laws;

Regulatory developments in the United States including increasing downward pressure on health care reimbursement;

Our ability to maintain our license under the Clinical Laboratory Improvement Amendments of 1988;

Our ability to expand our operations and increase our market share;

Our ability to expand our service offerings by adding new testing capabilities;

Our ability to meet our future capital requirements;

Our ability to integrate acquired businesses;

The impact of internalization of testing by customers;

Our ability to compete with other diagnostic laboratories;

Our ability to hire and retain sufficient managerial, sales, clinical and other personnel to meet our needs;

Our ability to successfully scale our business, including expanding our facilities, our backup systems and infrastructure;

Our ability to generate sufficient cash flow from our license agreement with Health Discovery Corporation to support its fair value; and

The accuracy of our estimates regarding reimbursement, expenses, future revenues and capital requirements. These forward-looking statements represent our management's beliefs and assumptions only as of the date of this prospectus supplement. You should read this prospectus supplement, the accompanying prospects, the

Table of Contents

documented that are incorporated by reference and any free writing prospectus that we have authorized for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

Except as required by law, we assume no obligation to update these forward-looking statements to reflect events or circumstances after the date of this prospectus supplement, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

Table of Contents**MARKET PRICE DATA AND DIVIDEND INFORMATION****Market Information**

Our common stock is listed on the NASDAQ Capital Market under the symbol NEO . The following table sets forth, for the quarters indicated, the high and low sale per share sales prices of our common stock as reported by the NASDAQ Capital Market.

| | High | Low |
|---------------------------------------|-------------|------------|
| Fiscal Year 2014 | | |
| Third Quarter through August 12, 2014 | \$ 5.77 | \$ 3.34 |
| Second Quarter | 3.80 | 2.95 |
| First Quarter | 4.69 | 3.17 |
| Fiscal Year 2013 | | |
| Fourth Quarter | 4.15 | 2.70 |
| Third Quarter | 4.05 | 2.05 |
| Second Quarter | 4.20 | 3.45 |
| First Quarter | 4.02 | 2.40 |
| Fiscal Year 2012 | | |
| Fourth Quarter | 3.10 | 2.31 |
| Third Quarter | 3.20 | 1.55 |
| Second Quarter | 1.78 | 1.50 |
| First Quarter | 1.84 | 1.40 |

The closing price of our common stock on the NASDAQ Global Market on August 12, 2014 was \$4.97 per share. As of August 12, 2014 there were 586 stockholders of record of our common stock. The number of record holders does not include beneficial owners of common stock whose shares are held in the names of banks, brokers, nominees or other fiduciaries.

Dividends

We have never declared or paid cash dividends on our common stock. We intend to retain all future earnings to finance future growth and therefore we do not anticipate paying any cash dividends in the foreseeable future. In addition, certain of our financing agreements may limit our ability to pay dividends in the future.

Table of Contents

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering of approximately \$ million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise in full their option to purchase additional shares, we estimate that our net proceeds from this offering will be approximately \$ million, after deducting the estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds for working capital, capital expenditures and other corporate purposes, including potential acquisitions. The Company may also use proceeds to repay debt, although at this time no decision has been made to the amount or timing of repayment. As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds.

Pending specific use of the net proceeds, we intend to invest the net proceeds from this offering in a variety of capital preservation investments, including short-term, investment-grade and interest-bearing instruments.

Table of Contents**CAPITALIZATION**

The following table sets forth our cash and cash equivalents and capitalization as of June 30, 2014 as follows:

on an actual basis; and

on an as adjusted basis to reflect our issuance and sale in this offering of _____ shares of our common stock, at a public offering price of \$ _____ per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table together with the section of this prospectus supplement entitled "Use of Proceeds" and with the financial statements and related notes and the other information that we incorporated by reference into this prospectus supplement and the accompanying prospectus, including our Annual Report on Form 10-K and Quarterly Reports on Form 10-Q that we file from time to time.

| | June 30, 2014 | |
|---|-------------------------------|--------------------|
| | Actual | As Adjusted |
| | (dollars in thousands) | |
| Cash and cash equivalents | \$ 5,023 | \$ |
| Long-term debt, including current portion | 7,785 | 7,785 |
| Stockholders' equity: | | |
| Preferred stock, \$0.01 par value; 10,000,000 shares authorized; no shares issued or outstanding | | |
| Common stock, \$0.01 par value; 100,000,000 shares authorized; 50,003,799 shares issued and outstanding, actual; _____ shares issued and outstanding, as adjusted | 50 | |
| Additional paid-in capital | 43,244 | |
| Accumulated deficit | (20,161) | (20,161) |
| Total stockholders' equity | 23,133 | |
| Total capitalization | \$ 30,918 | \$ |

* The table above does not reflect the Company's recent acquisition of Path Labs, LLC on July 8, 2014. The table above excludes as of June 30, 2014:

Edgar Filing: NEOGENOMICS INC - Form 424B5

5,814,794 shares of common stock issuable upon the exercise of outstanding stock options, at a weighted average exercise price of \$1.38 per share;

650,000 shares of common stock issuable upon the exercise of outstanding warrants, at a weighted average exercise price of \$1.48 per share; and

1,187,056 shares of common stock available for future issuance under our equity compensation plans.

S-24

Table of Contents**SELECTED FINANCIAL AND OTHER ANNUAL AND QUARTERLY DATA**

The tables and charts set forth below provide selected financial and other annual and quarterly data which reflect results obtained by the Company during the periods covered by each respective chart. The results reflected in the tables and charts below are not necessarily indicative of the results that should be expected in the future. Furthermore, interim results are not necessarily indicative of the results that should be expected for the full year or any other period.

Adjusted EBITDA is defined by NeoGenomics as net income from continuing operations before (i) interest expense, (ii) tax expense and therapeutic discovery tax grants, (iii) depreciation and amortization expense, (iv) non-cash stock-based compensation and warrant amortization expense and (v) other extraordinary or non-recurring charges, such as the costs related to moving our California facility. NeoGenomics believes that Adjusted EBITDA provides a more consistent measurement of operating performance and trends across reporting periods by excluding these cash and non-cash items of expense not directly related to ongoing operations from income. Adjusted EBITDA also assists investors in performing analysis that is consistent with financial models developed by research analysts.

Adjusted EBITDA as defined by NeoGenomics is not a measurement under GAAP and may differ from non-GAAP measures used by other companies. There are limitations inherent in non-GAAP financial measures such as Adjusted EBITDA because they exclude a variety of charges and credits that are required to be included in a GAAP presentation, and do not therefore present the full measure of NeoGenomics recorded costs against its net revenue. Accordingly, investors should consider non-GAAP results together with GAAP results in analyzing NeoGenomics financial performance.

The tables below provide our annual results for fiscal years ended December 31, 2009 through 2013 and a non-GAAP reconciliation of net income (loss) to EBITDA.

Annual Results

| | Fiscal Year Ended | | | | |
|-------------------------------|--------------------------|-------------|-------------|-------------|-------------|
| | 2009 | 2010 | 2011 | 2012 | 2013 |
| | (in thousands) | | | | |
| Revenue | 29,469 | 34,371 | 43,484 | 59,867 | 66,467 |
| Cost of Revenue | 14,254 | 18,588 | 24,056 | 33,031 | 34,730 |
| Gross Profit | 15,215 | 15,783 | 19,428 | 26,836 | 31,737 |
| Operating Expenses: | | | | | |
| General & Administrative | 10,057 | 11,267 | 12,331 | 15,843 | 17,397 |
| Sales & Marketing | 6,886 | 7,479 | 6,963 | 7,501 | 8,726 |
| Research & Development | 0 | 0 | 543 | 2,281 | 2,440 |
| Total Operating Expenses | 16,943 | 18,746 | 19,837 | 25,625 | 28,563 |
| Income (Loss) from Operations | (1,728) | (2,963) | (409) | 1,211 | 3,174 |
| Other Income (expense), net | (515) | (340) | (768) | (1,146) | (989) |
| Income Taxes | 0 | 0 | 0 | 0 | 152 |
| Net Income (Loss) | (2,243) | (3,303) | (1,177) | 65 | 2,033 |

S-25

Table of Contents

| | Fiscal Year Ended | | | | |
|--|-------------------|----------------|--------------|--------------|--------------|
| | 2009 | 2010 | 2011 | 2012 | 2013 |
| | (in thousands) | | | | |
| Adjusted EBITDA Reconciliation: | | | | | |
| Net Income (loss) (per GAAP) | (2,243) | (3,303) | (1,177) | 65 | 2,033 |
| Adjustments to Net Income (loss) | | | | | |
| Interest expense (income), net | 516 | 700 | 768 | 1,146 | 989 |
| Amortization of Intangibles | 0 | 0 | 0 | 182 | 223 |
| Income Tax Expense | 0 | 15 | 0 | 0 | 152 |
| Therapeutic Discovery Tax Grant | 0 | (374) | 0 | 0 | 0 |
| Depreciation | 1,184 | 1,780 | 2,086 | 3,637 | 4,189 |
| EBITDA (non-GAAP) | (543) | (1,182) | 1,677 | 5,030 | 7,586 |
| Further Adjustments to EBITDA: | | | | | |
| Non-Recurring Costs* | 0 | 0 | 0 | 170 | 0 |
| Non-Cash Based Stock Compensation | 440 | 616 | 457 | 798 | 929 |
| Adjusted EBITDA (non-GAAP) | (103) | (566) | 2,134 | 5,998 | 8,515 |

* Costs related to moving the Irvine, California laboratory in September of 2012.

The following tables provide the Company's results for selected fiscal quarters and a non-GAAP reconciliation of net income (loss) to EBITDA:

Quarterly Results

| | For the Quarter Ended | | | | | |
|---------------------------------|-----------------------|--------------|--------------|--------------|--------------|---------------|
| | Q1 2013 | Q2 2013 | Q3 2013 | Q4 2013 | Q1 2014 | Q2 2014 |
| | (in thousands) | | | | | |
| Revenue | 15,657 | 15,603 | 16,884 | 18,323 | 18,182 | 20,670 |
| Cost of Revenue | 8,411 | 8,446 | 8,713 | 9,160 | 9,473 | 10,431 |
| Gross Profit | 7,246 | 7,157 | 8,171 | 9,163 | 8,709 | 10,239 |
| Operating Expenses: | | | | | | |
| General & Administrative | 4,175 | 4,064 | 4,335 | 4,823 | 5,054 | 5,870 |
| Sales & Marketing | 1,931 | 1,972 | 2,336 | 2,487 | 2,633 | 3,158 |
| Research & Development | 835 | 616 | 340 | 649 | 628 | 633 |
| Total Operating Expenses | 6,941 | 6,652 | 7,011 | 7,959 | 8,315 | 9,661 |
| Income from Operations | 305 | 505 | 1,160 | 1,204 | 394 | 578 |
| Other Income (expense), net | (285) | (232) | (231) | (241) | (265) | (253) |
| Income Taxes | 17 | 0 | 29 | 106 | 27 | 51 |
| Net Income | 3 | 273 | 900 | 857 | 102 | 274 |

| | For the Quarter Ended | | | | | |
|--|-----------------------|---------|---------|---------|---------|---------|
| | Q1 2013 | Q2 2013 | Q3 2013 | Q4 2013 | Q1 2014 | Q2 2014 |
| | (in thousands) | | | | | |
| Adjusted EBITDA Reconciliation: | | | | | | |
| Net Income (per GAAP) | 3 | 273 | 900 | 857 | 102 | 274 |
| Adjustments to Net Income | | | | | | |
| Interest expense (income), net | 285 | 232 | 231 | 241 | 265 | 256 |
| Amortization of Intangibles | 55 | 55 | 56 | 56 | 56 | 55 |
| Income Tax Expense | 17 | 0 | 29 | 106 | 27 | 51 |
| Depreciation | 990 | 1,063 | 1,063 | 1,074 | 1,151 | 1,249 |
| EBITDA (non-GAAP) | 1,350 | 1,623 | 2,279 | 2,334 | 1,601 | 1,885 |
| Further Adjustments to EBITDA: | | | | | | |
| Non-Recurring Costs | 0 | 0 | 0 | 0 | 0 | 0 |
| Non-Cash Based Stock Compensation | 444 | 202 | (116) | 399 | 84 | 197 |
| Adjusted EBITDA (non-GAAP) | 1,794 | 1,825 | 2,163 | 2,733 | 1,685 | 2,082 |

S-26

Table of Contents

The following is a quarterly balance sheet covering selected fiscal quarters:

Quarterly Balance Sheet Summary

| | For the Quarter Ended | | | | | |
|---|-----------------------|---------------|---------------|---------------|---------------|---------------|
| | Q1 2013 | Q2 2013 | Q3 2013 | Q4 2013 | Q1 2014 | Q2 2014 |
| | (in thousands) | | | | | |
| Assets: | | | | | | |
| Cash & Cash Equivalents | 4,628 | 4,636 | 4,929 | 4,834 | 5,385 | 5,023 |
| Accounts Receivable (Net of allowance) | 15,628 | 16,005 | 15,727 | 18,653 | 19,262 | 18,800 |
| Other Current Assets | 2,487 | 2,522 | 3,171 | 4,004 | 3,500 | 4,259 |
| Total Current Assets | 22,743 | 23,163 | 23,827 | 27,491 | 28,147 | 28,082 |
| Property and Equipment | 8,045 | 8,437 | 8,592 | 9,694 | 11,472 | 12,974 |
| Intangible Assets | 2,744 | 2,689 | 2,633 | 2,577 | 2,521 | 2,466 |
| Other Long-Term Assets | 84 | 170 | 178 | 154 | 179 | 116 |
| Total Assets | 33,616 | 34,459 | 35,230 | 39,916 | 42,319 | 43,638 |
| Current Liabilities | | | | | | |
| Current Liabilities | 11,949 | 12,056 | 12,246 | 14,323 | 15,227 | 15,226 |
| Long Term Liabilities | 2,837 | 2,963 | 2,657 | 3,882 | 4,597 | 5,279 |
| Total Liabilities | 14,786 | 15,019 | 14,903 | 18,205 | 19,824 | 20,505 |
| Stockholder's Equity | 18,830 | 19,440 | 20,327 | 21,711 | 22,495 | 23,133 |
| Total Liabilities and Stockholder's Equity | 33,616 | 34,459 | 35,230 | 39,916 | 42,319 | 43,638 |

The chart below provides additional information regarding our historical gross margin, cumulative change in average revenue per test and cumulative change in productivity.

- (1) Productivity calculated as the average number of lab tests completed per month per laboratory full time equivalent (FTE).

Table of Contents

(2) The expiration of the Medicare Technical Component (TC) Grandfather Clause took effect on 7/1/12 and resulted in an ~ 11% year-over-year Reduction in Avg Rev/Test.

The chart below provides additional information regarding our historic cost per test and adjusted EBITDA margin percentage.

S-28

Table of Contents

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following is a summary of the material U.S. federal income tax considerations relevant to the purchase, ownership and disposition of our common stock by a non-U.S. holder (as defined below) as of the date hereof, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary deals only with non-U.S. holders that acquire our common stock in this offering and hold the common stock as a capital asset (generally, property held for investment) within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended, or the Code.

For purposes of this summary, a non-U.S. holder means a beneficial owner of our common stock that is an individual, corporation, estate or trust for U.S. federal income tax purposes that is not any of the following: (i) an individual citizen or resident of the United States, (ii) a corporation (or other entity taxable as a corporation) created or organized in or under the laws of the United States, any state thereof, or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (iv) a trust if (1) its administration is subject to the primary supervision of a court within the United States and one or more U.S. persons have the authority to control all of its substantial decisions, or (2) it has a valid election in effect under applicable U.S. Treasury regulations to be treated as a U.S. person.

If an entity classified as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner will generally depend on the status of the partner and the activities of the partnership. If you are a partnership holding our common stock, or a partner in such a partnership, you should consult your tax advisors.

This summary is based upon provisions of the Code, U.S. Treasury regulations, rulings, and judicial decisions as of the date of this prospectus supplement. Those authorities may be changed, perhaps retroactively, or be subject to differing interpretations, so as to result in U.S. federal tax considerations different from those summarized below. This summary is not a detailed description of all U.S. federal tax considerations that may be relevant to you in light of your particular circumstances. In addition, it does not address the U.S. federal tax considerations to you if you are subject to special treatment under the U.S. federal tax laws (including if you are a bank or other financial institution, insurance company, broker or dealer in securities or currencies, tax-exempt organization, persons subject to the alternative minimum or net investment income tax, traders in securities that elect to use a mark-to-market method of accounting for their securities holdings, regulated investment companies, pension plans, foreign government or agency, U.S. expatriate, controlled foreign corporation, passive foreign investment company, corporations that accumulate earnings to avoid U.S. federal income tax, or a person who holds our common stock in a straddle or as part of a hedging, conversion or constructive sale transaction). Except where noted, this summary does not address any taxes other than U.S. federal income tax (and to the limited extent provided below, the U.S. federal estate tax laws), including local, state, foreign, or estate tax. We cannot assure you that a change in law will not alter significantly the tax considerations that we describe in this summary.

If you are considering the purchase of our common stock, you should consult your own tax advisors concerning the particular U.S. federal tax consequences to you of the purchase, ownership and disposition of the common stock, as well as the consequences to you arising under the laws of any other taxing jurisdiction, including any state, local or foreign tax consequences.

Distributions on Common Stock

We have never declared or paid any cash dividends on our common stock and do not anticipate paying any cash dividends on our common stock in the foreseeable future. If we were to pay cash dividends in the future on our common stock, they would be subject to U.S. federal income tax in the manner described below.

S-29

Table of Contents

Cash distributions on our common stock generally will constitute dividends for U.S. federal income tax purposes to the extent paid out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of current and accumulated earnings and profits will be applied against and reduce a non-U.S. holder's tax basis in our common stock, to the extent thereof, and any excess will be treated as capital gain realized on the sale or other disposition of the common stock and subject to tax in the manner described below under **Gain on Disposition of Common Stock**.

Distributions paid to a non-U.S. holder of our common stock that constitute dividends under the rules described above generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. If we determine, at a time reasonably close to the date of payment of a distribution on our common stock, that the distribution will not constitute a dividend because we do not anticipate having current or accumulated earnings and profits, we may elect not to withhold U.S. federal income tax from such distribution as permitted by U.S. Treasury Regulations. Any such distribution will also be subject to the discussion below under the heading **Withholding and Information Reporting Requirements FATCA**.

Dividends that are effectively connected with the conduct of a trade or business by a non-U.S. holder within the United States and, where an income tax treaty applies, are attributable to a U.S. permanent establishment of the non-U.S. holder, are not subject to this withholding tax, but instead are subject to U.S. federal income tax on a net income basis at applicable individual or corporate rates. A non-U.S. holder generally must deliver an IRS Form W-8ECI certifying under penalties of perjury that such dividends are effectively connected with a U.S. trade or business of the holder in order for effectively connected dividends to be exempt from this withholding tax. Any such effectively connected dividends received by a non-U.S. holder that is a corporation generally will be included in the effectively connected earnings and profits of the foreign corporation, which may be subject to an additional branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty.

A non-U.S. holder of our common stock who is entitled to and wishes to claim the benefits of an applicable treaty rate (and avoid backup withholding as discussed below) with respect to dividends received on our common stock, generally will be required to (i) complete IRS Form W-8BEN or W-8-BEN-E (or an acceptable substitute form) and make certain certifications, under penalty of perjury, to establish its status as a non-U.S. person and its entitlement to treaty benefits or (ii) if the common stock is held through certain foreign intermediaries, satisfy the relevant certification requirements of applicable U.S. Treasury regulations. Special certification and other requirements apply to certain non-U.S. holders that are entities rather than individuals. These certification requirements may require a non-U.S. holder to obtain and provide a U.S. taxpayer identification number. If you hold stock through a financial institution or other agent acting on your behalf, you will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through intermediaries.

The certification requirements described above must be satisfied prior to the payment of dividends and may be required to be updated periodically. A non-U.S. holder of our common stock eligible for a reduced rate of U.S. federal withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Disposition of Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax with respect to gain recognized on a sale or other disposition of our common stock unless:

the gain is effectively connected with a trade or business of the non-U.S. holder in the United States and, where a tax treaty applies, is attributable to a U.S. permanent establishment of the non-U.S. holder;

S-30

Table of Contents

in the case of a non-U.S. holder who is an individual, such holder is present in the United States for 183 or more days in the taxable year of the sale or other disposition and certain other conditions are met; or

subject to certain exceptions, we are or have been a U.S. real property holding corporation, as such term is defined in Section 897(c) of the Code, during the shorter of the five-year period ending on the date of disposition or the non-U.S. holder's holding period of our common stock.

Gain described in the first bullet point above will be subject to tax on a net basis at regular graduated U.S. federal income tax rates. A non-U.S. holder that is a corporation may also be subject to a branch profits tax equal to 30%, or such lower rate as may be specified by an applicable income tax treaty, of its effectively connected earnings and profits attributable to such gain for the taxable year, as adjusted for certain items. An individual non-U.S. holder described in the second bullet point above will be required to pay (subject to applicable income tax treaties) a flat 30% tax on the gain derived from the sale, which may be offset by U.S. source capital losses, even though the individual is not considered a resident of the United States. As long as our common stock is regularly traded on an established securities market, within the meaning of Section 897(c)(3) of the Code, the rules described in the third bullet point above will apply to you only if you actually or constructively hold more than five percent of such regularly traded common stock at any time during the applicable period that is specified in the Code (the regularly traded stock exception). A corporation generally will be considered a U.S. real property holding corporation only if the fair market value of its U.S. real property interests (as defined in the Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe we currently are not, and do not anticipate becoming, a U.S. real property holding corporation for U.S. federal income tax purposes. If, however, it turns out that we are or become a U.S. real property holding corporation, a non-U.S. holder for whom the regularly traded stock exception is not applicable or who is not otherwise exempt will be required to pay U.S. federal income tax at regular graduated U.S. federal income tax rates with respect to the gain recognized.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of dividends paid to such holder and the tax withheld (if any) with respect to such dividends, regardless of whether withholding was required. Copies of the information returns reporting such dividends and any withholding may also be made available to the tax authorities in the country in which the non-U.S. holder resides under the provisions of an applicable income tax treaty. In addition, dividends paid to a non-U.S. holder may be subject to backup withholding unless applicable certification requirements are met establishing that the holder is not a U.S. person.

Payment of the proceeds of a sale of our common stock within the United States or conducted through certain U.S. related financial intermediaries is subject to information reporting and, depending upon the circumstances, backup withholding unless the non-U.S. holder certifies under penalties of perjury that it is not a U.S. person (and the payor does not have actual knowledge or reason to know that the holder is a U.S. person) or the holder otherwise establishes an exemption.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against such holder's U.S. federal income tax liability provided the required information is timely furnished to the IRS.

Withholding and Information Reporting Requirements FATCA

The Foreign Account Tax Compliance Act (FATCA) generally will impose a U.S. federal withholding tax on certain types of payments made to foreign financial institutions (as specially defined under these rules) and certain other non U.S. entities if certification, information reporting and other specified requirements are not met.

S-31

Table of Contents

FATCA potentially imposes a 30% withholding tax on dividends on or gross proceeds from the sale or other disposition of our common stock if they are paid to a foreign financial institution or to a foreign non-financial entity, unless (i) the foreign financial institution undertakes certain diligence and reporting obligations and other specified requirements are satisfied, (ii) the foreign non-financial entity either certifies it does not have any substantial U.S. owners or furnishes identifying information regarding each substantial U.S. owner and other specified requirements are satisfied or (iii) the foreign financial institution or foreign non-financial entity otherwise qualifies for an exemption from these rules. If the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (i) above, it must enter into an agreement with the U.S. Treasury requiring, among other things, that it undertake to identify accounts held by certain U.S. persons or U.S. owned foreign entities, annually report certain information about such accounts and withhold 30% on payments to account holders whose actions prevent it from complying with these reporting and other requirements. Under FATCA, withholding will be required on payments of dividends on our stock, and withholding on payments of gross proceeds from the sale or disposition of our stock will be required for sales or dispositions made on or after January 1, 2017. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Prospective investors should consult their tax advisors regarding the impact of this legislation on their investment in our common stock.

Federal Estate Tax

Common stock owned or treated as owned by an individual (including by reason of holding interests in certain entities) who is a non-U.S. person (as specially defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

The preceding discussion of material U.S. federal tax considerations is for general information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed changes in applicable laws.

Table of Contents**UNDERWRITING**

Under the terms and subject to the conditions to be set forth in an underwriting agreement, dated as of August , 2014, by and between us and William Blair & Company, L.L.C., acting as representative for the underwriters named below, we have agreed to sell to the underwriters, and the underwriters have agreed to purchase from us, the following respective number of shares common stock:

| Underwriter | Number of Shares |
|---------------------------------|-------------------------|
| William Blair & Company, L.L.C. | |
| Craig-Hallum Capital Group LLC | |
| Stephens Inc. | |
| Roth Capital Partners, LLC | |
| Sidoti & Company, LLC. | |
| Dawson James Securities, Inc. | |
| Total | |

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriting agreement provides that the underwriters will purchase all of the shares if any of them are purchased. We have agreed to indemnify the underwriters and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares subject to their acceptance of the shares from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Option to Purchase Additional Shares

We have granted the underwriters an option, exercisable no later than 30 calendar days after the date of the underwriting agreement, to purchase up to an aggregate of additional shares at the public offering price, less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement and as indicated below. We will be obligated to sell these shares to the underwriters to the extent the option is exercised.

Commission and Expenses

The underwriters have advised us that they propose to offer the shares of common stock directly to the public at the offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$ per share. After the offering, the public offering price and the concession to dealers may be reduced by the underwriters. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement.

Table of Contents

The following table shows the per share and total underwriting discounts and commissions that we will pay to the underwriters and the proceeds we will receive before expenses. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

| | PER SHARE | TOTAL WITHOUT OVER- ALLOTMENT EXERCISE | TOTAL WITH OVER- ALLOTMENT EXERCISE |
|--|--------------|--|--|
| Public offering price | \$ | \$ | \$ |
| Underwriting discounts and commissions | \$ | \$ | \$ |
| Proceeds to NeoGenomics, Inc., before expenses | \$ | \$ | \$ |

We have also agreed to reimburse the underwriters for certain of their expenses in an amount not to exceed \$5,000. We estimate the total offering expenses of this offering that will be payable by us, excluding the underwriting discounts and commissions, will be approximately \$, which includes legal costs and various other fees.

No Sales of Similar Securities

We have agreed with the underwriters, subject to specified exceptions, not to (i) offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise transfer or dispose of, directly or indirectly, or file with the SEC a registration statement under the Securities Act relating to, any of our securities that are substantially similar to our common stock, including but not limited to any options or warrants to purchase shares of our common stock or any securities that are convertible into or exchangeable for, or that represent the right to receive, common stock, or any such substantially similar securities, or publicly disclose the intention to make any offer, sale, pledge, disposition or filing or (ii) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of the common stock, or any such other securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of common stock or such other securities, in cash or otherwise.

Our directors and executive officers have agreed, subject to certain exceptions, with the underwriters not to directly or indirectly (i) offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant for the sale of, or otherwise dispose of or transfer any common stock or any securities convertible into or exchangeable or exercisable for common stock, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition, or file, make any demand with respect to, cause to be filed, or exercise any right with respect to any registration statement under the Securities Act with respect to any of the foregoing or (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the common stock, whether any such swap or transaction is to be settled by delivery of common stock or other securities, in cash or otherwise. The lock-up agreements do not prohibit our directors or executive officers from transferring shares of our common stock for bona fide gifts or other estate and tax planning purposes, subject to certain requirements, including that the transferee be subject to the same lock-up terms. The lock-up agreements do not prohibit us from issuing shares of common stock to our executive officers and directors upon exercise of options or vesting of restricted stock outstanding on the date of this prospectus supplement.

These restrictions will apply through and including the date that is 90 days after the date of this prospectus supplement; provided, however, that such 90 day restricted period is subject to extension if during the last 17 days of the restricted period, we issue an earnings release or material news or a material event relating to the Company occurs.

In any such event, the underwriters' representative may extend, by written notice to us, the restrictions until the expiration of the 18-day period beginning on the issuance of the earnings release or the occurrence of the material news or material event, as applicable.

S-34

Table of Contents

The underwriters may at their discretion and at any time or from time to time before the termination of the 90-day restricted period, without public notice, release all or any portion of the securities subject to lock up agreements. There are no existing agreements between the underwriters and us, providing consent to the sale of shares prior to the expiration of the lock up period.

NASDAQ Capital Market Listing

Our common stock is listed on the NASDAQ Capital Market under the symbol **NEO** .

Price Stabilization and Short Positions

Until the distribution of the common stock is completed, SEC rules may limit the underwriters from bidding for and purchasing our common stock.

In connection with this offering, the underwriters may engage in transactions that stabilize, maintain or otherwise make short sales of our common stock and may purchase shares of our common stock in the open market to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. The underwriters may close out any short position by purchasing shares of our common stock in the open market or exercising their option to purchase additional shares. A short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering. The underwriters may also engage in stabilizing bids, which are bids for or the purchase of shares of our common stock on behalf of the underwriters in the open market prior to the completion of this offering for the purpose of fixing or maintaining the price of our common stock.

The underwriters' purchases to cover short sales, as well as other purchases by the underwriters for their own account, and stabilizing bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market.

In connection with this offering, the underwriters may also engage in passive market making transactions in our common stock on the NASDAQ Capital Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Neither we, nor the underwriters, make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor the underwriters makes any representation that the underwriters will engage in these transactions or that any transaction, if commenced, will not be discontinued without notice.

Affiliations

The underwriters and their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and their affiliates have, from time to time, performed, and may in the future perform, various financial advisory and

investment banking services for us, for which they received or will receive customary fees and expenses.

S-35

Table of Contents

In the ordinary course of their various business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of ours. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short position in such securities and instruments.

Selling Restrictions

Canada

The shares of common stock may be sold only to purchasers purchasing as principal that are both accredited investors as defined in National Instrument 45-106 Prospectus and Registration Exemptions and permitted clients as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares of common stock must be made in accordance with an exemption from the prospectus requirements and in compliance with the registration requirements of applicable securities laws.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive, each, a Relevant Member State, an offer to the public of any shares of our common stock may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the representatives for any such offer; or
- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer to the public in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our common stock to be offered so as to enable an investor to decide to purchase any shares of our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

United Kingdom

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of

S-36

Table of Contents

Section 21 of the Financial Services and Markets Act 2000, or the FSMA) received by it in connection with the issue or sale of the shares of our common stock in circumstances in which Section 21(1) of the FSMA does not apply to us; and

- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

S-37

Table of Contents

LEGAL MATTERS

The validity of the common stock being offered will be passed upon for us by Burton, Bartlett & Glogovac, Reno, Nevada. The underwriters are represented by Latham & Watkins LLP, Chicago, Illinois, in connection with certain legal matters related to this offering.

EXPERTS

Our consolidated financial statements as of December 31, 2013 and 2012, and for each of the years in the three year period ended December 31, 2013, included or referred to in this prospectus supplement have been audited by Kingery & Crouse, P.A., independent registered certified public accountants, and are incorporated by reference into this prospectus supplement in reliance upon such reports given on the authority of such firm as experts in accounting and auditing. The financial statements of Path Labs, LLC as of and for the years ended December 31, 2013 and 2012 incorporated in the prospectus by reference to the Form 8-K/A filed with the Securities and Exchange Commission on August 7, 2014 have been so incorporated in reliance on the report of Crowe Horwath LLP, independent certified public accounting firm, given on the authority of said firm as experts in auditing and accounting.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the SEC. We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities we are offering under this prospectus supplement. This prospectus supplement and the accompanying prospectus do not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus supplement and the accompanying prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You may read and copy the registration statement, as well as our reports, proxy statements and other information, at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. The SEC also maintains an Internet site that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC, including NeoGenomics, Inc. The SEC's Internet site can be found at <http://www.sec.gov>. We maintain a website at <http://www.neogenomics.com>. Information found on, or accessible through, our website is not a part of, and is not incorporated into, this prospectus supplement, and you should not consider it part of this prospectus supplement or the accompanying prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to another document that we have filed separately with the SEC. You should read the information incorporated by reference because it is an important part of this prospectus supplement and the accompanying prospectus. Information in this prospectus supplement supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus supplement, while information that we file later with the SEC will automatically update and supersede the information in this prospectus supplement. We incorporate by reference the following information or documents that we have filed with the SEC:

our Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed with the SEC on February 24, 2014;

our Quarterly Reports on Form 10-Q for the fiscal periods ended: (i) March 31, 2014, filed with the SEC on May 12, 2014, and (ii) June 30, 2014, filed with the SEC on July 29, 2014;

S-38

Table of Contents

our Current Reports on Form 8-K, filed with the SEC on February 19, 2014, April 23, 2014, June 10, 2014, July 11, 2014 and August 7, 2014;

the information specifically incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended December 31, 2013 from our definitive proxy statement on Schedule 14A, filed with the SEC on April 30, 2014; and

the description of our common stock, which is registered under Section 12 of the Exchange Act, in our registration statement on Form 8-A, filed with the SEC on December 5, 2012, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference any future filings (other than Current Reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items unless such Form 8-K expressly provides to the contrary) made with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the termination of this offering, and such filings will become a part of this prospectus supplement and the accompanying prospectus from the date that such documents are filed with the SEC. Information in such future filings updates and supplements the information provided in this prospectus supplement and the accompanying prospectus. Any statements in any such future filings will automatically be deemed to modify and supersede any information in any document we previously filed with the SEC that is incorporated or deemed to be incorporated herein by reference to the extent that statements in the later filed document modify or replace such earlier statements.

We will furnish without charge to each person, including any beneficial owner, to whom a prospectus supplement is delivered, upon written or oral request, a copy of any or all of the documents incorporated by reference into this prospectus supplement but not delivered with the prospectus supplement, including exhibits that are specifically incorporated by reference into such documents. Requests should be directed to:

NeoGenomics, Inc.

12701 Commonwealth Drive, Suite 9

Fort Myers, Florida 33913

(239) 768-0600

S-39

Table of Contents

PROSPECTUS

NeoGenomics, Inc.

\$100,000,000 of Common Stock

Preferred Stock and/or

Warrants

We may offer and sell, from time to time, in one or more offerings, any combination of debt and equity securities that we describe in this prospectus having a total initial offering price not exceeding \$100,000,000.

This prospectus provides you with a general description of these securities. We will file prospectus supplements and may provide other offering material at later dates that will contain specific terms of each offering of securities by us. These supplements may also add, update or change information contained in this prospectus.

You should read this prospectus and the applicable prospectus supplement carefully before you invest in the securities described in the applicable prospectus supplement. This prospectus may not be used to consummate sales of securities unless accompanied by a prospectus supplement.

We will sell these securities directly to our stockholders or to other purchasers or through agents on our behalf or through underwriters or dealers as designated from time to time. If any agents or underwriters are involved in the sale of any of these securities, the applicable prospectus supplement will provide the names of the agents or underwriters and any applicable fees, commission or discounts.

Our common stock is listed on the NASDAQ Capital Market under the symbol **NEO** .

Investing in our securities involves a high degree of risk. See the section entitled Risk Factors on page 5 of this prospectus and in the documents we filed with the Securities and Exchange Commission that are incorporated in this prospectus by reference for certain risks and uncertainties you should consider.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

Edgar Filing: NEOGENOMICS INC - Form 424B5

This prospectus is dated January 3, 2014.

Table of Contents

TABLE OF CONTENTS

| | Page |
|---|-------------|
| <u>About This Prospectus</u> | 2 |
| <u>Prospectus Summary</u> | 3 |
| <u>Risk Factors</u> | 5 |
| <u>Documents Incorporated by Reference</u> | 5 |
| <u>Cautionary Note Regarding Forward-Looking Statements</u> | 6 |
| <u>Use of Proceeds</u> | 6 |
| <u>Plan of Distribution</u> | 6 |
| <u>Description of Our Capital Stock</u> | 8 |
| <u>Description of Warrants We May Offer</u> | 9 |
| <u>Legal Matters</u> | 11 |
| <u>Experts</u> | 11 |
| <u>Disclosure of Commission Position on Indemnification</u> | 11 |

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus of NeoGenomics, Inc., a Nevada corporation (collectively with all of its subsidiaries, the Company, NeoGenomics, or we, us, or our) is a part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (SEC) utilizing a shelf registration process. Under this shelf registration process, we may, from time to time, sell the securities described in this prospectus in one or more offerings. Based on a recent price of \$3.50 of our common stock and 41,801,376 shares of our common stock held by our non-affiliates within 60 days immediately prior to the filing date of the registration statement on Form S-3 of which this prospectus is made a part, the aggregate market value of our outstanding voting and non-voting common equity held by our non-affiliates was approximately \$146,304,816.

The registration statement containing this prospectus, including the exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. The registration statement, including the exhibits and the documents incorporated herein by reference, can be read on the SEC website or at the SEC offices mentioned under the heading Prospectus Summary Where You Can Find More Information.

We may provide a prospectus supplement containing specific information about the amounts, prices and terms of the securities for a particular offering. The prospectus supplement may add, update or change information in this prospectus. If the information in the prospectus is inconsistent with a prospectus supplement, you should rely on the information in that prospectus supplement. You should read both this prospectus and, if applicable, any prospectus supplement. See Prospectus Summary Where You Can Find More Information for more information.

We have not authorized any dealer, salesman or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus or any prospectus supplement. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or any prospectus supplement. This prospectus and any prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and any prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus or any prospectus supplement is accurate on any date subsequent to the date set forth on the front of such document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any prospectus supplement is delivered or securities are sold on a later date.

Table of Contents

PROSPECTUS SUMMARY

Our Company

We operate a network of cancer-focused testing laboratories whose mission is to improve patient care through exceptional genetic and molecular testing services. Our vision is to become America's premier cancer testing laboratory by delivering uncompromising quality, exceptional service and innovative products and services. The Company has laboratory locations in Ft. Myers and Tampa, Florida; Irvine, California; and Nashville, Tennessee, and currently offers the following types of testing services:

- a) Cytogenetics testing the study of normal and abnormal chromosomes and their relationship to disease. Cytogenetic studies are often utilized to assist in refining treatment options for hematopoietic cancers such as leukemia and lymphoma;
- b) Fluorescence In-Situ Hybridization (FISH) testing a branch of cancer genetics that focuses on detecting and locating the presence or absence of specific DNA and genes on chromosomes;
- c) Flow cytometry testing a rapid way to measure the characteristics of cell populations. Cells from peripheral blood, bone marrow aspirate, lymph nodes, and other areas are labeled with selective fluorescent antibodies and quantified according to their surface antigens. These fluorescent antibodies bind to specific cell surface antigens and are used to identify malignant cell populations. Flow cytometry is typically performed in conjunction with morphology testing which looks at smears on glass slides for abnormal cell populations;
- d) Immunohistochemistry (IHC) testing the process of identifying cell proteins in a tissue section utilizing the principle of antibodies binding specifically to antigens. Specific surface cytoplasmic or nuclear markers are characteristic of cellular events such as proliferation or cell death (apoptosis). IHC is also widely used to understand the distribution and localization of differentially expressed proteins; and
- e) Molecular testing a rapidly emerging cancer diagnostic tool focusing on the analysis of DNA and RNA, as well as the structure and function of genes at the molecular level. Molecular testing employs multiple technologies including bi-directional Sanger sequencing analysis, DNA fragment length analysis, and real-time polymerase chain reaction (RT-PCR) RNA analysis and Next Generation sequencing.

All of these testing services are widely utilized to inform the diagnosis and prognosis of various types and subtypes of cancer and to help predict a patient's potential response to specific therapies. NeoGenomics offers testing services on both a tech-only basis, where we perform the technical component of the testing (specimen set-up, staining, imaging, sorting and categorization of cells, chromosomes, genes, DNA or RNA) and the client physician performs the related professional interpretation component (analyzing the laboratory data, developing the diagnosis or prognosis as well as preparing and writing the final report), as well as on a full service or global basis where we perform both the technical component and the professional interpretation component.

The Offering

We may offer and sell, from time to time, in one or more offerings, any combination of debt and equity securities that we describe in this prospectus having a total initial offering price not exceeding \$100,000,000 at prices and on terms to be determined by market conditions at the time of any offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities.

Table of Contents

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

Where You Can Find More Information

We are subject to the information requirements of the Exchange Act. Accordingly, we file annual, quarterly and current reports, proxy statements as may be required and other information with the SEC and filed a registration statement on Form S-3 under the Securities Act relating to the securities offered by this prospectus. This prospectus, which forms part of the registration statement, does not contain all of the information included in the registration statement. For further information, you should refer to the registration statement and its exhibits.

You may read and copy the registration statement and any document we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. You can also review our filings by accessing the website maintained by the SEC at <http://www.sec.gov>. The site contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. In addition to the foregoing, we maintain a website at <http://www.neogenomics.com>. Our website content is made available for informational purposes only. It should neither be relied upon for investment purposes nor is it incorporated by reference into this prospectus. We make available at <http://www.neogenomics.com/company-investor-relations-overview.htm> copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K and any amendments to such document as soon as practicable after we electronically file such material with or furnish such documents to the SEC.

About Us

Our principal executive offices are located at 12701 Commonwealth Drive, Suite 5, Fort Myers, Florida 33913. Our telephone number is (239) 768-0600. Our website can be accessed at www.neogenomics.com. Our website is not incorporated by reference into this prospectus.

Table of Contents

RISK FACTORS

An investment in our securities which may be offered hereby is subject to numerous risks, including the risks described under the caption "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2012, which is incorporated by reference herein. You should carefully consider these risks, along with the information provided elsewhere in this prospectus and the documents we incorporate by reference in this prospectus before investing in our securities. You could lose all or part of your investment in the securities.

DOCUMENTS INCORPORATED BY REFERENCE

The SEC allows us to incorporate by reference into this prospectus certain information that we file with the SEC, which means that we can disclose important information to you by referring you to other documents separately filed by us with the SEC that contain such information. The information we incorporate by reference is considered to be part of this prospectus and information we later file with the SEC will automatically update and supersede the information in this prospectus. The following documents filed by us with the SEC pursuant to Section 13(a) of the Securities Exchange Act of 1934 (the "Exchange Act") and any of our future filings under Sections 13(a), 13(c), 14 or 15 (d) of the Exchange Act, except for information furnished under Item 2.02 or 7.01 of Current Report on Form 8-K, or exhibits related thereto, made before the termination of the offering are incorporated by reference herein:

- (1) our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, filed with the SEC on February 21, 2013;
- (2) our Quarterly Reports on Form 10-Q for the fiscal periods ended: (i) March 31, 2013, as filed with the SEC on May 13, 2013; (ii) June 30, 2013, as filed with the SEC on August 2, 2013; and (iii) September 30, 2013, as filed with the SEC on October 30, 2013;
- (3) our Current Reports on Form 8-K, as filed with the SEC on February 19, 2013, February 28, 2013, April 23, 2013, April 25, 2013, May 9, 2013, June 12, 2013, July 31, 2013, October 23, 2013 and November 18, 2013;
- (4) all other reports filed pursuant to Section 13(a) or 15(d) of the Exchange Act and all proxy or information statements filed pursuant to Section 14 of the Exchange Act since the end of the fiscal year covered by the Annual Report referenced in (1) above; and
- (5) The description of our common stock contained in the Registration Statement on Form 8-A filed with the SEC on December 5, 2012.

In addition, all documents subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Exchange Act before the date our offering is terminated or complete are deemed to be incorporated by reference into, and to be a part of, this prospectus.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, a copy of any or all of the reports or documents that have been incorporated by reference in the prospectus contained in the registration statement but not delivered with the prospectus, other than an exhibit to these filings unless we have specifically

Edgar Filing: NEOGENOMICS INC - Form 424B5

incorporated that exhibit by reference into the filing, upon written or oral request and at no cost to the requester. Requests should be made by writing or telephoning us at the following address:

NeoGenomics, Inc.

12701 Commonwealth Drive, Suite 9

Fort Myers, Florida 33913

(239) 768-0600

Table of Contents

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements within the meaning of Section 27A of the Securities Act regarding our business, financial condition, results of operations and prospects. Words such as *expects*, *anticipates*, *intends*, *plans*, *believes*, *seeks*, *estimates* and similar expressions or variations of such words are intended to identify forward-looking statements. However, these are not the exclusive means of identifying forward-looking statements. Although forward-looking statements contained in this prospectus reflect our good faith judgment, such statements can only be based on facts and factors currently known to us. Consequently, forward-looking statements are inherently subject to risks and uncertainties, and actual outcomes may differ materially from the results and outcomes discussed in the forward-looking statements. Further information about the risks and uncertainties that may impact us are described or incorporated by reference in *Risk Factors* beginning on page 3. You should read that section carefully. You should not place undue reliance on forward-looking statements, which speak only as of the date of this prospectus. We undertake no obligation to update publicly any forward-looking statements in order to reflect any event or circumstance occurring after the date of this prospectus or currently unknown facts or conditions or the occurrence of unanticipated events.

USE OF PROCEEDS

Unless otherwise specified in the applicable prospectus supplement, we intend to use the net proceeds from the sale of the securities described in this prospectus for general corporate and operations purposes and to fund our anticipated growth. Pending such use, we reserve the right to temporarily invest the proceeds or use them to reduce indebtedness on our working capital facility with Capital Source Bank. The applicable prospectus supplement will provide more details on the use of proceeds of any specific offering.

PLAN OF DISTRIBUTION

We may sell the securities described in this prospectus on a continuous or delayed basis directly to purchasers, through underwriters, broker-dealers or agents that may receive compensation in the form of discounts, concessions or commissions from us or the purchasers of the securities, in *at the market offerings* within the meaning of Rule 415(a)(4) of the Securities Act, to or through a market maker or into an existing trading market, on an exchange, or otherwise or through a combination of any such methods of sale. Discounts, concessions or commissions as to any particular underwriter, broker-dealer or agent may be in excess of those customary in the types of transactions involved.

The securities may be sold from time to time in one or more transactions at fixed prices, which may be changed from time to time, at prevailing market prices at the time of sale, at varying prices determined at the time of sale or at negotiated prices. These sales may be effected in transactions, which may involve crosses or block transactions:

on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale, including, as of the date of this prospectus, the NASDAQ Capital Market in the case of our Common Stock;

in the over-the-counter market;

in transactions otherwise than on these exchanges or services or in the over-the-counter market; or
through the writing of options, whether the options are listed on an options exchange or otherwise.

Table of Contents

Each time that we use this prospectus to sell our securities, we shall also provide a prospectus supplement. For each series of securities, the applicable prospectus supplement will set forth the terms of the offering including:

the public offering price;

the name or names of any underwriters, dealers or agents;

the purchase price of the securities;

the proceeds from the sale of the securities to us;

any underwriting discounts, agency fees, or other compensation payable to underwriters or agents;

any discounts or concessions allowed or reallowed or repaid to dealers; and

the securities exchanges on which the securities will be listed, if any.

If we use underwriters in the sale of securities, the securities will be acquired by the underwriters for their own account. The underwriters may then resell the securities in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale or thereafter. The securities may be either offered to the public through underwriting syndicates represented by managing underwriters, or directly by underwriters. The obligations of the underwriters to purchase the securities will be subject to certain conditions. The underwriters will be obligated to purchase all the securities offered if they purchase any securities. The public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

If we use dealers in the sale of securities, we will sell securities to such dealers as principals. The dealers may then resell the securities to the public at varying prices to be determined by such dealers at the time of resale. We may solicit offers to purchase the securities directly, and we may sell the securities directly to institutional or other investors, who may be deemed underwriters within the meaning of the Securities Act with respect to any resales of those securities. The terms of these sales will be described in the applicable prospectus supplement. If we use agents in the sale of securities, unless otherwise indicated in the prospectus supplement, they will use their reasonable best efforts to solicit purchases for the period of their appointment. Unless otherwise indicated in a prospectus supplement, if we sell directly, no underwriters, dealers or agents would be involved. We will not make an offer of securities in any jurisdiction that does not permit such an offer.

We may grant underwriters who participate in the distribution of securities an option to purchase additional securities to cover overallocments, if any, in connection with the distribution. Any underwriter may engage in overallocation, stabilizing transactions, short covering transactions and penalty bids in accordance with SEC orders, rules and regulations and applicable law. To the extent permitted by applicable law and SEC orders, rules and regulations, an overallocation involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. To

the extent permitted by applicable law and SEC orders, rules and regulations, short covering transactions involve purchases of the common stock in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the common stock originally sold by the dealer is purchased in a covering transaction to cover short positions. Those activities may cause the price of the common stock to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters who are qualified market makers on the NASDAQ Stock Market may engage in passive market making transactions in the common stock on the NASDAQ Stock Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the

Table of Contents

passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. The anti-manipulation rules under the Exchange Act may apply to sales of shares in the market. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of the shares to engage in market-making activities for the particular securities being distributed for a period of up to five business days before the distribution. The restrictions may affect the marketability of the shares and the ability of any person or entity to engage in market-making activities for the shares.

Underwriters, dealers and agents that participate in any distribution of securities may be deemed to be underwriters as defined in the Securities Act. Any discounts, commissions or profit they receive when they resell the securities may be treated as underwriting discounts and commissions under the Securities Act. Only underwriters named in the prospectus supplement are underwriters of the securities offered in the prospectus supplement. We may have agreements with underwriters, dealers and agents to indemnify them against certain civil liabilities, including certain liabilities under the Securities Act, or to contribute with respect to payments that they may be required to make.

We may authorize underwriters, dealers or agents to solicit offers from certain institutions whereby the institution contractually agrees to purchase the securities from us on a future date at a specific price. This type of contract may be made only with institutions that we specifically approve. Such institutions could include banks, insurance companies, pension funds, investment companies and educational and charitable institutions. The underwriters, dealers or agents will not be responsible for the validity or performance of these contracts.

Each series of securities will be a new issue of securities. Our Common Stock is listed on the NASDAQ Capital Market. Unless otherwise specified in the applicable prospectus supplement, our securities (other than our Common Stock) will not be listed on any exchange. It has not presently been established whether the underwriters, if any, of the securities will make a market in the securities. If the underwriters make a market in the securities, such market making may be discontinued at any time without notice.

Agents, dealers and underwriters may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the agents, dealers or underwriters may be required to make in respect thereof. Agents, dealers or underwriters may be customers of, engage in transactions with, or perform services for us and our subsidiaries in the ordinary course of business.

DESCRIPTION OF OUR CAPITAL STOCK

Common Stock

We are authorized to issue 100,000,000 shares of common stock, par value \$0.001 per share (Common Stock) of which 48,982,625 shares were issued and outstanding as of November 29, 2013. The outstanding shares of our Common Stock are fully paid and non-assessable. The holders of Common Stock are entitled to one vote per share for the election of directors and with respect to all other matters submitted to a vote of stockholders. Shares of our Common Stock do not have cumulative voting rights, which means that the holders of more than 50% of such shares voting for the election of directors can elect 100% of the directors if they choose to do so. Our Common Stock does not have preemptive rights, meaning that the common stockholders' ownership interest in the Company would be diluted if additional shares of Common Stock are subsequently issued and the existing stockholders are not granted the right, at the discretion of our Board of Directors, to maintain their ownership interest in our Company.

Upon liquidation, dissolution or winding-up of the Company, our assets, after the payment of debts and liabilities and any liquidation preferences of, and unpaid dividends on, any class of preferred stock then outstanding, will be distributed pro-rata to the holders of our Common Stock. The holders of our Common Stock do not have preemptive

or conversion rights to subscribe for any of our securities and have no right to require us

Table of Contents

to redeem or purchase their shares. The holders of Common Stock are entitled to share equally in dividends, if, as and when declared by our Board of Directors, out of funds legally available therefore, subject to the priorities given to any class of preferred stock which may be issued.

Our Common Stock is listed for quotation on the NASDAQ Capital Market under the symbol **NEO**. On November 29, 2013, the last reported sale price of our common stock was \$3.50 per share.

Preferred Stock

We are authorized to issue 10,000,000 shares of preferred stock, par value \$0.001 per share (Preferred Stock). Preferred Stock may be issued from time to time in one or more series. The Board of Directors is authorized to fix or alter the dividend rights, dividend rate, conversion rights, voting rights, rights and terms of redemption (including sinking fund provisions), the redemption price or prices, the liquidation preferences of any wholly unissued series of Preferred Stock, and the number of shares constituting any such series and the designation thereof, or any of them; and to increase or decrease the number of shares of any series subsequent to the issue of shares of that series, but not below the number of shares of such series then outstanding and which the Company may be obligated to issue under options, warrants or other contractual commitments. In case the number of shares of any series shall be so decreased, the shares constituting such decrease shall resume the status which they had prior to the adoption of the resolution originally fixing the number of shares of such series. As of November 29, 2013, no such shares had been designated.

DESCRIPTION OF WARRANTS WE MAY OFFER

We may issue warrants from time to time in one or more series for the purchase of our Common Stock or Preferred Stock or any combination of those securities. Warrants may be issued independently or together with any shares of Common Stock or shares of Preferred Stock or offered by any prospectus supplement and may be attached to or separate from Common Stock or Preferred Stock. Each series of warrants may be issued under a separate warrant agreement to be entered into between us and a warrant agent, or any other bank or trust company specified in the related prospectus supplement relating to the particular issue of warrants. A warrant agent may act as our agent in connection with the warrants and would not assume any obligation or relationship of agency or trust for or with any holders of warrants or beneficial owners of warrants. The specific terms of any series of warrants will be described in the applicable prospectus supplement relating to that series of warrants along with any general provisions applicable to that series of warrants.

The following is a general description of the warrants we may issue. The applicable prospectus supplement will describe the specific terms of any issuance of warrants. The terms of any warrants we offer may differ from the terms described in this prospectus. As a result, we will describe in the prospectus supplement the specific terms of the particular series of warrants offered by that prospectus supplement. Accordingly, for a description of the terms of a particular series of warrants, you should carefully read this prospectus, the applicable prospectus supplement, and the applicable warrant agreement, which will be filed as an exhibit to the registration statement of which this prospectus forms a part.

Terms. If warrants are offered by us, the prospectus supplement will describe the terms of the warrants, including the following if applicable to the particular offering:

the title of the warrants;

the total number of warrants;

the number of shares of Common Stock purchasable upon exercise of the warrants to purchase Common Stock and the price at which such shares of Common Stock may be purchased upon exercise;

the designation and terms of the Preferred Stock with which the warrants are issued and the number of warrants issued with each share of Preferred Stock;

Table of Contents

the date on and after which the warrants and the related Common Stock or Preferred Stock will be separately transferable;

if applicable, the date on which the right to exercise the warrants will commence and the date on which this right will expire;

if applicable, the minimum or maximum amount of the warrants which may be exercised at any one time;

a discussion of federal income tax, accounting and other special considerations, procedures and limitations relating to the warrants; and

any other terms of the warrants including terms, procedures and limitations relating to the exchange and exercise of the warrants.

Warrants may be exchanged for new warrants of different denominations, may be presented for registration of transfer, and may be exercised at the office of the Company, the warrant agent or any other office indicated in the prospectus supplement. Before the exercise of their warrants, holders of warrants will not have any of the rights of holders of shares of Common Stock or shares of Preferred Stock, including the right to receive payments of dividends, if any, on the shares of Common Stock or Preferred Stock or to exercise any applicable right to vote.

Exercise of Warrants. Each warrant will entitle the holder to purchase a number of shares of Common Stock or shares of Preferred Stock at an exercise price as will in each case be set forth in, or calculable from, the prospectus supplement relating to those warrants. Warrants may be exercised at the times set forth in the prospectus supplement relating to the warrants. After the close of business on the expiration date (or any later date to which the expiration date may be extended by us), unexercised warrants will become void. Subject to any restrictions and additional requirements that may be set forth in the prospectus supplement relating thereto, warrants may be exercised by delivery to the warrant agent, or at the office of the Company or any other office indicated in the prospectus supplement, of the certificate evidencing the warrants properly completed and duly executed, and of payment as provided in the prospectus supplement of the amount required to purchase shares of Common Stock or shares of Preferred Stock purchasable upon such exercise. The exercise price will be the price applicable on the date of payment in full, as set forth in the prospectus supplement relating to the warrants. Upon receipt of the payment, and the certificate representing the warrants to be exercised properly completed and duly executed at the office of the Company, the warrant agent or any other office indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the shares of Common Stock or shares of Preferred Stock purchasable upon such exercise. If fewer than all of the warrants represented by that certificate are exercised, a new certificate will be issued for the remaining amount of warrants.

The description in the applicable prospectus supplement and other offering material of any warrants we offer will not necessarily be complete and will be qualified in its entirety by reference to the applicable warrant agreement, which will be filed with the SEC if we offer warrants. For more information on how you can obtain copies of the applicable warrant agreement if we offer warrants, see [Documents Incorporated by Reference](#) and [Prospectus Summary Where You Can Find More Information](#). We urge you to read the applicable warrant agreement and the applicable prospectus supplement and any other offering material in their entirety.

Table of Contents

LEGAL MATTERS

The validity of the securities offered by this prospectus has been passed upon for us by Burton, Bartlett & Glogovac, Reno, Nevada. If legal matters in connection with offerings made pursuant to this prospectus are passed upon by counsel for the underwriters, dealers or agents, if any, such counsel will be named in the prospectus supplement relating to such offering.

EXPERTS

Our consolidated financial statements as of December 31, 2012 and 2011 and for the years then ended included or referred to in this prospectus have been audited by Kingery & Crouse, P.A., independent registered certified public accountants, and are incorporated by reference into this prospectus in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

DISCLOSURE OF COMMISSION POSITION ON INDEMNIFICATION

Insofar as indemnification for liabilities arising under the Securities Act, as amended, may be permitted to directors, officers, and controlling persons of the registrant pursuant to the Company's constituent documents, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer, or controlling person in the successful defense of any action, suit, or proceeding) is asserted by such director, officer, or controlling person connected with the securities being registered, we will, unless in the opinion of our counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

Table of Contents

[] Shares

NeoGenomics, Inc.

Common Stock

Prospectus Supplement

August , 2014

William Blair

Craig-Hallum Capital Group

Stephens Inc.

Roth Capital Partners

Sidoti & Company, LLC

Dawson James Securities, Inc.