

NEOGENOMICS INC  
Form 424B7  
December 11, 2018

Filed Pursuant to Rule 424(b)(7)  
Registration No. 333-228743

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion  
Dated December 11, 2018

Preliminary Prospectus Supplement  
(To Prospectus dated December 11, 2018)

10,835,145 shares

NeoGenomics, Inc.

Common Stock

---

All of the shares of common stock in the offering are being sold by the selling stockholder identified in this prospectus supplement. NeoGenomics, Inc. will not receive any of the proceeds from the sale of the shares being sold by the selling stockholder.

Our common stock is listed on the NASDAQ Capital Market under the symbol "NEO." On December 10, 2018, the last reported sale price of our common stock on the NASDAQ Capital Market was \$13.94 per share.

Investing in our common stock involves risks. See "Risk Factors" beginning on page S-4 of this prospectus supplement and page 2 of the accompanying prospectus to read about risks that you should consider before buying shares of our common stock. You should read this prospectus supplement and the accompanying prospectus, together with the documents we incorporate by reference, before you invest in shares of our common stock.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

---

The underwriter has agreed to purchase the shares of our common stock from the selling stockholder at a price of \$ per share, which will result in approximately \$ of proceeds to the selling stockholder. The underwriter proposes to offer the shares of common stock from time to time for sale in one or more transactions on the NASDAQ Capital Market, in the over-the-counter market, through negotiated transactions or otherwise at market prices prevailing at the time of sale, at prices related to prevailing market prices or at negotiated prices, subject to receipt and acceptance by it and subject to its right to reject any order in whole or in part. The underwriter may receive reimbursement for certain expenses in addition to the underwriting discounts and commissions. See “Underwriter” beginning on page S-11 of this prospectus supplement for more information.

The underwriter expects to deliver the shares of common stock to purchasers on or about December , 2018.

Bookrunner  
Morgan Stanley

December , 2018

---

TABLE OF CONTENTS

Prospectus Supplement

<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	ii
<u>TRADEMARKS</u>	ii
<u>SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS</u>	ii
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	S-1
<u>THE OFFERING</u>	S-2
<u>RISK FACTORS</u>	S-3
<u>USE OF PROCEEDS</u>	S-5
<u>MARKET PRICE OF OUR COMMON STOCK; DIVIDENDS</u>	S-6
<u>SELLING STOCKHOLDER</u>	S-7
<u>DESCRIPTION OF SECURITIES</u>	S-7
<u>MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS FOR NON-U.S. HOLDERS</u>	S-8
<u>UNDERWRITER</u>	S-11
<u>LEGAL MATTERS</u>	S-15
<u>EXPERTS</u>	S-15
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	S-16
<u>INCORPORATION BY REFERENCE</u>	S-16

Prospectus

<u>ABOUT THIS PROSPECTUS</u>	ii
<u>PROSPECTUS SUMMARY</u>	1
<u>RISK FACTORS</u>	2
<u>FORWARD-LOOKING STATEMENTS</u>	3
<u>USE OF PROCEEDS</u>	4
<u>DESCRIPTION OF CAPITAL STOCK</u>	6
<u>PLAN OF DISTRIBUTION</u>	8
<u>LEGAL MATTERS</u>	10
<u>EXPERTS</u>	10
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	11
<u>INCORPORATION BY REFERENCE</u>	11

We are responsible for the information contained and incorporated by reference in this prospectus supplement, the accompanying prospectus or any related free writing prospectus we prepare or authorize. Neither we, the selling stockholder nor the underwriter have authorized any other person to provide you with information, that is different from that contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus or any free writing prospectus prepared by us or on our behalf. The selling stockholder is not and the underwriter is not making an offer of these securities in any jurisdiction where the offer is not permitted. The information in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference and any written communication from us specifying the final terms of the offering is only accurate as of the date of the respective documents in which the information appears. Our business, financial condition, results of operations and prospects may have changed since those dates. Information in this prospectus supplement updates and modifies the information in the accompanying prospectus.

#### ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 (File No. 333-228-743) that we filed with the Securities and Exchange Commission, or SEC, and that became effective on December 11, 2018. 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, updates and changes information contained in the accompanying prospectus and the documents incorporated herein by reference. The second part is the prospectus, which gives more general information, some of which may not apply to this offering of common stock. If the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or any document incorporated herein by reference, you should rely on the information in this prospectus supplement. Before investing in our common stock, you should read this prospectus supplement and the accompanying prospectus, as well as the additional information incorporated by reference herein described under “Incorporation by Reference” on page S-16 of this prospectus supplement.

Unless otherwise stated, information in this prospectus supplement assumes that no other person will exercise any other outstanding options to purchase shares of our common stock.

#### TRADEMARKS

NeoGenomics is our registered trademark. Any other trademarks, registered marks, service marks and trade names appearing in this prospectus supplement, the accompanying prospectus or the documents incorporated by reference herein are the property of their respective holders.

#### SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

Information included or incorporated by reference in this prospectus supplement, the accompanying prospectus and the documents incorporated herein by reference contain forward-looking statements. These forward-looking statements include, but are not limited to, statements concerning this offering, 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,” “may,” “plans,” “projects,” “will,” “would” and similar expressions are used 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 under “Risk Factors” and in our other filings with the SEC.

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

- this offering:
  - our ability to integrate acquisitions and costs related to such acquisitions, including our acquisition of the parent company of Genoptix, Inc.;
  
- 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, or CLIA;
  
  - food and Drug Administration, or FDA, regulation of Laboratory Developed Tests;
  
  - failure to timely or accurately bill for our services;
  
  - 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 manage our indebtedness;
  
  - our ability to protect our intellectual property from infringement;
  
  - the impact of internalization of testing by customers;
  
  - our ability to maintain service levels and 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;
  
  - the accuracy of our estimates regarding reimbursement, expenses, future revenues and capital requirements;

- our ability to manage expenses and risks associated with international operations, including anti-corruption and trade sanction laws and other regulations, and economic, political, legal and other operational risks associated with foreign jurisdictions; and
- other factors discussed under the caption “Risk Factors” in this prospectus supplement, the accompanying prospectus and in our 2017 Annual Report on Form 10-K for the year ended December 31, 2017, or the 2017 Annual Report, which is incorporated by reference in this prospectus supplement.

These forward-looking statements represent our management’s beliefs and assumptions only as of the date made. You should read this prospectus supplement, including any documents incorporated herein by reference, completely and with the understanding that our actual future results may be materially different from what we expect. Except as required by law, we assume no obligation to update these forward-looking statements publicly, 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.

## PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere, or incorporated by reference, in this prospectus supplement. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should carefully read this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein, including the risks of investing in our securities discussed under the heading “Risk Factors” contained herein and in the accompanying prospectus, and under a similar heading in other documents that are incorporated by reference into this prospectus supplement. You also should carefully read the information incorporated by reference into this prospectus supplement, including our financial statements and the exhibits to the registration statement of which this prospectus supplement is a part. Unless otherwise indicated, “common stock” means our common stock, offered by this prospectus supplement. Unless the context otherwise requires, NeoGenomics, Inc. is referred to herein, collectively with all of its subsidiaries, as the “Company,” “NeoGenomics,” or “we,” “us,” or “our.”

### Overview

NeoGenomics operates a network of cancer-focused genetic testing laboratories in the United States as well as a laboratory in Switzerland. We believe the Company provides one of the most comprehensive oncology-focused testing menus in the industry for physicians to help diagnose and treat cancer. The Company’s Pharma Services division serves pharmaceutical clients in clinical trials and drug development. Our mission is to improve patient care through exceptional genetic and molecular testing services. Our vision is to become the world’s leading cancer testing and information company by delivering uncompromising quality, exceptional service and innovative solutions. Headquartered in Fort Myers, FL, NeoGenomics operates laboratories in Aliso Viejo and Fresno, California; Tampa and Fort Myers, Florida; Houston, Texas; Nashville, Tennessee; Atlanta, Georgia; and Rolle, Switzerland. NeoGenomics serves the needs of pathologists, oncologists, academic centers, hospital systems, pharmaceutical firms, integrated service delivery networks, and managed care organizations throughout the United States.

Our principal executive offices are located at 12701 Commonwealth Drive, Suite 9, Fort Myers, Florida 33913. Our telephone number is (239) 768-0600. Our principal website can be accessed at [www.neogenomics.com](http://www.neogenomics.com). The information on or accessible through any of our websites is deemed not to be incorporated in this prospectus supplement or to be part of this prospectus supplement.

### Recent Development

On December 10, 2018, NeoGenomics Laboratories, Inc. (“NeoGenomics Labs”), a wholly owned subsidiary of NeoGenomics, completed the previously announced acquisition of Genesis Acquisition Holdings Corp. (“Genesis”), pursuant to an Agreement and Plan of Merger dated October 23, 2018 (the “Merger Agreement”), by and among NeoGenomics Labs, Genoptix Merger Sub, Inc. (“Merger Sub”), Genesis and Ampersand 2014 Limited Partnership, solely in its capacity as stockholders’ representative. At the closing, Merger Sub merged with and into Genesis (the “Merger”) with Genesis surviving the Merger as the surviving corporation and as a wholly owned subsidiary of NeoGenomics Labs. The total aggregate consideration for the transaction was \$125 million in cash, as adjusted by working capital and other adjustments, and 1,000,000 shares of NeoGenomics’ common stock.

## THE OFFERING

Common stock offered by the selling stockholder 10,835,145 shares of our common stock.

Common stock to be outstanding after this offering 93,455,113 shares of our common stock

Use of proceeds All of the shares of common stock being offered under this prospectus supplement are being sold by the selling stockholder. Accordingly, we will not receive any proceeds from the sale of shares of our common stock by the selling stockholder in this offering.

Exchange listing Our common stock is listed on the NASDAQ Capital Market under the symbol "NEO."

Risk factors You should read the "Risk Factors" section of this prospectus supplement and the accompanying prospectus, our 2017 Annual Report, and our quarterly reports filed on form 10-Q which are incorporated by reference in this prospectus supplement and the accompanying prospectus, for a discussion of certain of the factors to consider carefully before deciding to purchase any shares of our common stock.

Unless otherwise stated, all applicable share, per share and related information in this prospectus supplement is as of November 30, 2018 and includes unvested restricted stock held by directors but excludes shares subject to outstanding stock options and shares reserved for issuance under our equity incentive plan and the 1,000,000 shares issued to the shareholders of Genesis in connection with the Merger.



## RISK FACTORS

An investment in our securities involves risks. You should carefully consider the risks described herein and those described under “Risk Factors” in Part I, Item IA of our Annual Report on Form 10-K for the fiscal year ended December 31, 2017 and under “Risk Factors” in Part II, Item IA of our Quarterly Report on Form 10-Q for the quarter ended September 30, 2018, as well as all other information contained or incorporated by reference into this prospectus supplement, before making an investment decision. Our business, results of operations, cash flows and financial condition could be materially adversely affected by any of these risks. The market or trading price of our securities could decline due to any of these risks. In addition, please read “Special Note About Forward-Looking Statements” in this prospectus supplement, where we describe additional uncertainties associated with our business and the forward-looking statements included or incorporated by reference in this prospectus supplement. Please note that additional risks not presently known to us or that we currently deem immaterial may also impair our business and operations.

### Additional Risks Relating to this Offering

A substantial number of shares of common stock may be sold in the market following this offering, which may depress the market price for our common stock.

The shares of common stock sold in this offering may be resold in the public market at any time. Under our amended and restated certificate of incorporation, we are authorized to issue up to 250 million shares of common stock, of which 93,455,113 shares of common stock were outstanding as of November 30, 2018. Of these shares, 89,936,697 shares have previously been sold to the public in registered public offerings and are freely transferable without restriction or further registration under the Securities Act of 1933, as amended (the “Securities Act”) by persons other than “affiliates”, as that term is defined in Rule 144 under the Securities Act. On December 11, 2018, we registered 10,835,145 shares of our common stock, including the shares being offered in this offering, with the SEC on a resale registration statement of which this prospectus supplement is a part. In addition, certain shares of our common stock that are currently outstanding but the sale of which has not been registered for resale may currently be sold under Rule 144 under the Securities Act. Sales of a substantial number of these shares in the public market following this offering, or the perception that those sales may occur, could cause the market price of our common stock to decline.

We may sell additional equity or debt securities to fund our operations, which may result in dilution to our stockholders and impose restrictions on our business.

In order to raise additional funds to support our operations, we may sell additional equity or debt securities, which would result in dilution to all of our stockholders or impose restrictive covenants that adversely impact our business. Public or private financing may not be available in amounts or on terms acceptable to us, if at all. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in restrictive covenants, such as limitations on our ability to incur additional debt and certain operating restrictions that could adversely impact our ability to conduct our business. If we are unable to expand our operations or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected.

We have a substantial amount of indebtedness. This level of indebtedness could adversely affect our flexibility in operating our business and our ability to react to changes in the economy or our industry.

On June 25, 2018, we entered into a second amendment to our senior secured credit facility, which now provides for \$105 million in a senior secured term loan facility and a \$75 million revolving credit facility. We currently have approximately \$98,000,000 million of indebtedness outstanding under the senior secured term loan facility, zero outstanding under the revolving credit facility and approximately \$72,000,000 million of available borrowing capacity under our revolving credit facility. The revolving credit facility allows for additional borrowings as long as the debt to Adjusted EBITDA ratio remains below 4.0:1.0 for the quarters ending December 31, 2018 and March 31, 2019 and 3.75:1.0 for the quarters ending June 30, 2019 and September 30, 2019, and as

S-3

---

specified in the credit agreement for future periods. Our substantial indebtedness could have significant consequences for our business and financial condition. For example:

We could be required to dedicate a greater percentage of our cash flows to payments on our debt, thereby reducing the availability of cash flow to fund capital expenditures, pursue other acquisitions or investments in new technologies, make stock repurchases and fund other general corporate purposes. If we fail to meet our payment obligations or otherwise fail to comply with the covenants in our debt, including failure as a result of events beyond our control, it could result in an event of default on our debt. Upon an event of default, the lenders of that debt could elect to cause all amounts outstanding with respect to that debt to become immediately due and payable and we would be unable to access our revolving credit facility. Our debt imposes operating and financial covenants and restrictions on us, and compliance with such covenants and restrictions may adversely affect our ability to adequately finance our operations or capital needs, pursue attractive business opportunities that may arise, redeem or repurchase capital stock, pay dividends, sell assets, and make capital expenditures.

We may experience increased vulnerability to general adverse economic conditions, including increases in interest rates for those borrowings that bear interest at variable rates or if such indebtedness is refinanced at a time when interest rates are higher.

We may experience limited flexibility in planning for, or reacting to, changes in or challenges relating to our businesses and industry, creating competitive disadvantages compared to other competitors with lower debt levels and borrowing costs.

We cannot assure you that cash flows, combined with additional borrowings under the revolving credit facility or any future credit facility, will be available in an amount sufficient to enable us to repay our indebtedness, or to fund other liquidity needs.

In addition, we may incur substantial additional indebtedness in the future, which could cause the related risks to intensify. We may need to refinance all or a portion of our indebtedness on or before their respective maturities. We cannot assure you that we will be able to refinance any of our indebtedness on commercially reasonable terms or at all. If we are unable to refinance our debt, we may default under the terms of our indebtedness, which could lead to an acceleration of the debt. We do not expect that we could repay all of our outstanding indebtedness if the repayment of such indebtedness was accelerated.

**USE OF PROCEEDS**

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholder in this offering. See “Selling Stockholder.”

S-5

---

### MARKET PRICE OF OUR COMMON STOCK; DIVIDENDS

Our common stock is quoted on the NASDAQ Capital Market under the symbol “NEO.” The following table sets forth, for each of the quarterly periods indicated, the range of high and low sales prices in U.S. dollars of our common stock on the NASDAQ Capital Market.

	Price Range	
	High	Low
Year December 31, 2018		
Fourth Quarter (through December 10)	\$19.04	\$12.75
Third Quarter	\$15.49	\$11.87
Second Quarter	\$14.18	\$7.71
First Quarter	\$9.33	\$7.08
Year December 31, 2017		
Fourth Quarter	\$11.47	\$7.82
Third Quarter	\$11.63	\$8.62
Second Quarter	\$9.22	\$7.12
First Quarter	\$9.06	\$7.50
Year December 31, 2016		
Fourth Quarter	\$9.88	\$6.90
Third Quarter	\$9.54	\$7.79
Second Quarter	\$9.17	\$6.56
First Quarter	\$8.00	\$5.49

On December 10, 2018, the closing sale price of our common stock as reported on the NASDAQ was \$13.94 per share. On November 30, 2018, the number of our stockholders of record was 944 and the number of outstanding shares of common stock was 93,455,113 which includes unvested restricted stock held by directors and officers but excludes shares subject to outstanding stock options, shares reserved for issuance under our equity incentive plan and the 1,000,000 shares issued to the stockholders of Genesis on December 10, 2018.

We have never declared or paid cash dividends on our common stock. We intend to retain all future earnings to finance operations and future growth and therefore we do not anticipate paying any cash dividends in the foreseeable future. Our financing arrangements contain certain restrictions on our ability to pay dividends on our common stock.

**SELLING STOCKHOLDER**

The selling stockholder is offering to sell 10,835,145 shares of our common stock.

The table below is based on information provided to us by the selling stockholder. The following table sets forth the name of the selling stockholder, the number of shares of our common stock beneficially owned by the selling stockholder as of the date of this prospectus supplement, and the number of shares that may be offered by the selling stockholder pursuant to this prospectus supplement. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our common stock.

We believe, based on information supplied by the selling stockholder, that the selling stockholder and its affiliates have sole voting and dispositive power with respect to the common stock reported as beneficially owned.

Name of Selling Stockholder	Prior to the Offering		After the Offering	
	Number of Shares of Common Stock Beneficially Owned	Percent of Shares of Common Stock Outstanding (2)	Number of Shares of Common Stock Being Registered for Resale	Number of Shares of Common Stock Outstanding Beneficially Owned
GE Medical Systems Information Technologies, Inc. (1)	10,835,145	11.6 %	10,835,145	—

(1) GE Medical Systems Information Technologies, Inc. is a wholly owned subsidiary of General Electric Company. The principal address of GE Medical Systems Information Technologies, Inc. is 8200 West Tower Avenue, Milwaukee, Wisconsin 53223. The principal address of General Electric Company is 41 Farnsworth Street, Boston, Massachusetts 02210.

(2) Based on 93,455,113 shares outstanding as of November 30, 2018.

**DESCRIPTION OF SECURITIES**

See “Description of Capital Stock—Common Stock” of the accompanying base prospectus.

## MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS FOR NON-U.S. HOLDERS

The following discussion summarizes the material U.S. federal income and estate tax considerations relating to the acquisition, ownership and disposition of our common stock purchased in this offering by a non-U.S. holder (as defined below). This discussion is based on the provisions of the Internal Revenue Code of 1986, as amended, or the Code, final, temporary and proposed U.S. Treasury regulations promulgated thereunder and current administrative rulings and judicial decisions, all as in effect as of the date hereof. All of these authorities may be subject to differing interpretations or repealed, revoked or modified, possibly with retroactive effect, which could materially alter the tax consequences to non-U.S. holders described in this prospectus supplement.

There can be no assurance that the Internal Revenue Service (“IRS”) will not take a contrary position to the tax consequences described herein or that such position will not be sustained by a court. No ruling from the IRS has been obtained with respect to the U.S. federal income or estate tax consequences to a non-U.S. holder of the purchase, ownership or disposition of our common stock.

This discussion is for general information only and is not tax advice. All prospective non-U.S. holders of our common stock should consult their own tax advisors with respect to the U.S. federal, state, local and non-U.S. tax consequences of the purchase, ownership and disposition of our common stock.

As used in this discussion, a “non-U.S. holder” is, for U.S. federal income tax purposes, a beneficial owner of our common stock that is not a U.S. holder. A “U.S. holder” means a beneficial owner of our common stock that is, for U.S. federal income tax purposes, (a) an individual who is a citizen or resident of the United States, (b) a corporation or other entity treated as a corporation for U.S. federal income tax purposes created or organized in or under the laws of the United States, any state thereof or the District of Columbia, (c) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (d) a trust if it (1) is subject to the primary supervision of a court within the United States and one or more “United States persons” (within the meaning of the Code) have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable U.S. Treasury regulations to be treated as a United States person.

An individual may be treated, for U.S. federal income tax purposes, as a resident of the United States in any calendar year by being present in the United States on at least 31 days in that calendar year and for an aggregate of at least 183 days during a three-year period ending in that calendar year. The 183-day test is determined by counting all of the days the individual is treated as being present in the current year, one-third of such days in the immediately preceding year and one-sixth of such days in the second preceding year. Residents of the United States are subject to U.S. federal income tax as if they were U.S. citizens.

This discussion assumes that a prospective non-U.S. holder will hold shares of our common stock as a capital asset within the meaning of the Code (generally, property held for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder’s individual circumstances. In addition, this discussion does not address any aspect of the U.S. federal alternative minimum tax, the Medicare contribution tax, U.S. state or local or non-U.S. taxes, or the special tax rules applicable to particular non-U.S. holders, such as:

• insurance companies and financial institutions;

• tax-exempt organizations;

• pension plans;

• controlled foreign corporations;

• passive foreign investment companies;

• brokers and dealers in securities

• persons that hold our common stock as part of a straddle, conversion transaction, or other integrated investment; and  
• former citizens or residents of the United States subject to tax as expatriates.

If a partnership or other entity treated as a partnership for U.S. federal income tax purposes is an owner of our common stock, the treatment of a partner in the partnership generally will depend on the status of the partner and the activities of the partnership. We urge any owner of our common stock that is a partnership and partners in that partnership to consult their tax advisors regarding the U.S. federal income and estate tax consequences of purchasing, owning and disposing of our common stock.

S-8

---



### Distributions on Our Common Stock

Any distribution on our common stock paid to non-U.S. holders will generally constitute a dividend for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions in excess of our current and accumulated earnings and profits will generally constitute a return of capital to the extent of the non-U.S. holder's adjusted tax basis in our common stock, and will be applied against and reduce the non-U.S. holder's adjusted tax basis. Any remaining excess will be treated as capital gain, subject to the tax treatment described below in "Gain on Sale, Exchange or Other Disposition of Our Common Stock."

Subject to the discussions below regarding backup withholding and the Foreign Account Tax Compliance Act, dividends paid to a non-U.S. holder that are not treated as effectively connected with the non-U.S. holder's conduct of a trade or business in the United States generally will be subject to withholding of U.S. federal income tax at a rate of 30% on the gross amount paid, unless the non-U.S. holder is entitled to an exemption from or reduced rate of withholding under an applicable income tax treaty. In order to claim the benefit of an income tax treaty, a non-U.S. holder must provide a properly executed IRS Form W-8BEN or W-8BEN-E, as applicable (or successor form to either), certifying under penalties of perjury that such non-U.S. holder is entitled to benefits under the applicable income tax treaty and has complied with any special certification requirements prior to the payment of dividends. A non-U.S. holder eligible for a reduced rate of withholding pursuant to an income tax treaty may be eligible to obtain a refund of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS. Non-U.S. holders should consult their tax advisors regarding possible entitlements to benefits under any income tax treaty.

Dividends paid to a non-U.S. holder that are treated as effectively connected with a trade or business conducted by the non-U.S. holder within the United States (and, if an applicable income tax treaty so provides, are also attributable to a permanent establishment or a fixed base maintained within the United States by the non-U.S. holder) are generally exempt from the 30% withholding tax. To establish the exemption, a non-U.S. holder must provide a properly executed IRS Form W-8ECI (or successor form) prior to the payment of the dividend. Dividends received by a non-U.S. holder that are treated as effectively connected with a U.S. trade or business generally are subject to U.S. federal income tax at rates applicable to U.S. persons. A non-U.S. holder that is a corporation may, under certain circumstances, be subject to an additional "branch profits tax" imposed at a rate of 30%, or such lower rate as specified by an applicable income tax treaty between the United States and such non-U.S. holder's country of residence.

### Gain On Sale, Exchange or Other Disposition of Our Common Stock

Subject to the discussions below regarding backup withholding and the Foreign Account Tax Compliance Act, a non-U.S. holder will generally not be subject to any U.S. federal income tax or withholding on any gain realized from the non-U.S. holder's sale, exchange or other disposition of shares of our common stock unless: the gain is effectively connected with a U.S. trade or business (and, if an applicable income tax treaty so provides, is also attributable to a permanent establishment or a fixed base maintained within the United States by the non-U.S. holder), in which case the gain will be taxed on a net-income basis, generally in the same manner as if the non-U.S. holder were a U.S. person, and, if the non-U.S. holder is a corporation, the additional branch profits tax described above in "Distributions on Our Common Stock" may also apply;

the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of the disposition and certain other conditions are met, in which case the non-U.S. holder will be subject to a 30% tax on the net gain derived from the disposition, which may be offset by U.S.-source capital losses of the non-U.S. holder, if any; or

we are, or have been at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter), a "United States real property holding corporation" under Section 897 of the Code.

Generally, we will be a "United States real property holding corporation" ("USRPHC") if the fair market value of our U.S. real property interests equals or exceeds 50% of the sum of the fair market values of our worldwide real property interests and other assets used or held for use in a trade or business, all as determined under applicable U.S. Treasury regulations. We believe that we have not been and are not currently, and do not anticipate becoming in the future, a USRPHC for U.S. federal income tax purposes. However, because the determination of whether we are a USRPHC

depends on the fair market value of our United States real property relative to the fair market value of our other business assets, there can be no assurance that we will not

S-9

---

become a USRPHC in the future. Even if we become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, such common stock will be treated as a United States real property interest only if a non-U.S. holder actually or constructively holds more than five percent of such regularly traded common stock at any time during the shorter of the five-year period ending on the date of the sale or other taxable disposition and the non-U.S. holder's holding period.

#### Information Reporting and Backup Withholding

The applicable withholding agent must report annually to the IRS and to each non-U.S. holder the amount of distributions paid to such non-U.S. holder and the amount of tax withheld, if any. Copies of the information returns filed with the IRS to report the distributions and withholding may also be made available to the tax authorities in a country in which the non-U.S. holder is a resident under the provisions of an applicable income tax treaty or agreement.

The United States imposes backup withholding, currently at a rate of 24%, on the gross amount of dividends and certain other types of payments. Dividends paid to a non-U.S. holder will not be subject to backup withholding if proper certification of foreign status (usually on IRS Form W-8BEN or W-8BEN-E, as applicable) is provided, and the payor does not have actual knowledge or reason to know that the non-U.S. holder is a U.S. person. In addition, no backup withholding or information reporting will be required regarding the proceeds of a disposition of our common stock made by a non-U.S. holder within the United States or conducted through certain U.S. financial intermediaries if the payor receives the certification of foreign status described in the preceding sentence and does not have actual knowledge or reason to know that such non-U.S. holder is a U.S. person or the non-U.S. holder otherwise establishes an exemption. Non-U.S. holders should consult their tax advisors regarding the application of the information reporting and backup withholding rules to them.

Backup withholding is not an additional tax. Rather, amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that certain required information is furnished to the IRS in a timely manner.

#### U.S. Federal Estate Tax

An individual non-U.S. holder who is treated as the owner, or who has made certain lifetime transfers, of an interest in our common stock will be required to include the value of the common stock in his or her gross estate for U.S. federal estate tax purposes and may be subject to U.S. federal estate tax, unless an applicable estate or other tax treaty provides otherwise.

#### Foreign Account Tax Compliance Act

In addition to the withholding described above, legislation enacted in 2010, known as the Foreign Account Tax Compliance Act, or FATCA, imposes a 30% withholding tax on dividend payments made by a U.S. person to a foreign financial institution or non-financial foreign entity (including, in some cases, when a foreign financial institution or nonfinancial foreign entity is acting as an intermediary), and on the gross proceeds received by a foreign financial institution or non-financial foreign entity as a result of a sale or other disposition of shares of stock issued by a U.S. person (on or after January 1, 2019), unless (i) in the case of a foreign financial institution, such institution enters into (or is deemed to have entered into) an agreement with the U.S. Treasury Department to withhold on certain payments, and to collect and provide to the U.S. Treasury Department substantial information regarding U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners), (ii) in the case of a non-financial foreign entity, such entity provides the withholding agent with a certification identifying the direct and indirect substantial U.S. owners of the entity, or (iii) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. An intergovernmental agreement between the United States and an applicable foreign country may modify these requirements.

Non-U.S. holders should consult their tax advisors regarding the possible implications of FATCA to them in connection with the purchase, ownership and disposition of our common stock.



## UNDERWRITER

Subject to the terms and conditions set forth in the underwriting agreement, dated December , 2018, among us, Morgan Stanley & Co. LLC, as underwriter, and the selling stockholder, the selling stockholder has agreed to sell to the underwriter, and the underwriter has agreed to purchase from the selling stockholder 10,835,145 shares of common stock.

The underwriting agreement provides that the obligations of the underwriter are subject to certain conditions precedent such as the receipt by the underwriter of officers' certificates and legal opinions and approval of certain legal matters by its counsel. The underwriting agreement provides that the underwriter will purchase all of the shares of common stock if any of them are purchased. If the underwriter defaults, the underwriting agreement provides that the underwriting agreement may be terminated. We and the selling stockholder have agreed to indemnify the underwriter and certain of its controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriter may be required to make in respect of those liabilities.

The underwriter has advised us that, following the completion of this offering, it currently intends to make a market in the common stock as permitted by applicable laws and regulations. However, the underwriter is not obligated to do so, and the underwriter may discontinue any market-making activities at any time without notice in its sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for the common stock, that you will be able to sell any of the common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriter is offering the shares of common stock subject to its acceptance of the shares of common stock from the selling stockholder and subject to prior sale. The underwriter reserves the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part. In addition, the underwriter has advised us that it does not intend to confirm sales to any account over which it exercises discretionary authority.

### Commissions and Discounts

The underwriter has agreed to purchase the shares of our common stock from the selling stockholder at a price of \$ per share, which will result in approximately \$ of proceeds to the selling stockholder. The underwriter proposes to offer the shares of common stock for sale from time to time in one or more transactions on the NASDAQ Capital Market, in the over-the-counter market, through negotiated transactions or otherwise at market prices prevailing at the time of sale, at prices related to prevailing market prices or at negotiated prices, subject to receipt and acceptance by it and subject to its right to reject any order in whole or in part. In connection with the sale of the shares of common stock offered hereby, the underwriter may be deemed to have received compensation in the form of underwriting discounts. The underwriter may effect such transactions by selling the shares of common stock to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from the underwriter and/or purchasers of shares of common stock for whom it acts as agents or to whom it sells as principal.

We estimate expenses payable by us in connection with this offering, including expenses incurred by the selling stockholder but not including any underwriting discounts and commissions referred to above, will be approximately \$143,503. We also have agreed to reimburse the underwriter for the FINRA counsel fee, if any. In accordance with FINRA Rule 5110, this reimbursed fee, if any is deemed underwriting compensation for this offering.

### No Sales of Similar Securities

We, and the selling stockholder have agreed not to sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for 90 days after the date of this prospectus supplement, and our executive officers and directors have agreed not to sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for 75 days after the date of this prospectus supplement, without first obtaining the written consent of the underwriter. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, pledge, sell or contract to sell any common stock;
- sell any option or contract to purchase any common stock;
- purchase any option or contract to sell any common stock;
- grant any option, right or warrant for the sale of any common stock;

S-11

---

• otherwise dispose of or transfer any common stock;  
• request or demand that we file a registration statement related to the common stock; or  
• enter into any swap or other agreement or any transaction that transfers, in whole or in part, the economic  
• consequence of ownership of any common stock, whether any such swap, agreement or transaction is to be settled by  
delivery of shares or other securities, in cash or otherwise.

This lock-up provision applies to common stock and to securities convertible into or exchangeable or exercisable for common stock. It also applies to common stock owned now or acquired later by the person executing the agreement or for which the person executing the agreement later acquires the power of disposition. This lock-up provision does not prevent any person from establishing a trading plan that complies with Rule 10b5-1 under the Exchange Act or from amending such plan so long as there are no sales of common stock under such trading plan during the lock-up period.

#### NASDAQ Capital Market Listing

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

#### Price Stabilization, Short Positions and Penalty Bids

The underwriter has advised us that, pursuant to Regulation M under the Exchange Act, certain persons participating in the offering may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of the common stock at a level above that which might otherwise prevail in the open market. Establishing short sales positions may involve “naked” short sales.

“Naked” short sales are sales made without the option to purchase additional shares of our common stock. The underwriter must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriter is concerned that there may be downward pressure on the price of shares in the open market after pricing that could adversely affect investors who purchase in this offering.

A stabilizing bid is a bid for the purchase of shares of common stock on behalf of the underwriter for the purpose of fixing or maintaining the price of the common stock. A syndicate covering transaction is the bid for or the purchase of shares of common stock on behalf of the underwriter to reduce a short position incurred by the underwriter in connection with the offering. Similar to other purchase transactions, the underwriter’s purchases to cover the syndicate short sales 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. A penalty bid is an arrangement permitting the underwriter to reclaim the selling concession otherwise accruing to a syndicate member in connection with the offering if the common stock originally sold by such syndicate member is purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

Neither we, the selling stockholder nor the underwriter 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. The underwriter is not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriter may also engage in passive market making transactions in our common stock on NASDAQ 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.

#### Electronic Distribution

In connection with the offering, the underwriter or securities dealers may distribute prospectuses by electronic means, such as e-mail.

### Other Relationships

The underwriter and certain of its 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 underwriter and certain of its affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us and our affiliates, for which it may in the future receive customary fees, commissions and expenses. In addition, in the ordinary course of its business activities, the underwriter and its 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 its own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriter and its affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

### Selling Restrictions

#### Notice to Prospective Investors in the 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”), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, no offer of shares may be made to the public in that Relevant Member State other than:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
  - (b) to fewer than 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 underwriter; or
  - (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive,
- provided that no such offer of shares shall require the Company or the underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive or supplement a prospectus pursuant to Article 16 of the Prospectus Directive. Each person in a Relevant Member State who initially acquires any shares or to whom any offer is made will be deemed to have represented, acknowledged and agreed that it is a “qualified investor” within the meaning of the law in that Relevant Member State implementing Article 2(1)(e) of the Prospectus Directive. In the case of any shares being offered to a financial intermediary as that term is used in Article 3(2) of the Prospectus Directive, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares to the public other than their offer or resale in a Relevant Member State to qualified investors as so defined or in circumstances in which the prior consent of the underwriter has been obtained to each such proposed offer or resale.

We, the underwriter and each of our and the underwriter’s affiliates will rely upon the truth and accuracy of the foregoing representations, acknowledgements and agreements.

This prospectus supplement has been prepared on the basis that any offer of shares in any Relevant Member State will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of shares. Accordingly, any person making or intending to make an offer in that Relevant Member State of shares which are the subject of the offering contemplated in this prospectus supplement may only do so in circumstances in which no obligation arises for the Company or the underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive in relation to such offer. Neither the Company nor the underwriter have authorized, nor do they authorize, the making of any offer of shares in circumstances in which an obligation arises for the Company or the underwriter to publish a prospectus for such offer.

For the purpose of the above provisions, the expression “an offer to the public” in relation to any shares 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 the





shares to be offered so as to enable an investor to decide to purchase or subscribe the shares, as the same may be varied in the Relevant Member State by any measure implementing the Prospectus Directive in the Relevant Member State and the expression “Prospectus Directive” means Directive 2003/71/EC (including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member States) and includes any relevant implementing measure in the Relevant Member State and the expression “2010 PD Amending Directive” means Directive 2010/73/EU.

#### MiFID II Product Governance

Any person offering, selling or recommending the shares (a “distributor”) should take into consideration the manufacturers’ target market assessment; however, a distributor subject to MiFID II is responsible for undertaking its own target market assessment in respect of the shares (by either adopting or refining the manufacturers’ target market assessment) and determining appropriate distribution channels.

#### Notice to Prospective Investors in the United Kingdom

In addition, in the United Kingdom, this document is being distributed only to, and is directed only at, and any offer subsequently made may only be directed at persons who are “qualified investors” (as defined in the Prospectus Directive) (i) who have professional experience in matters relating to investments falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended (the “Order”) and/or (ii) who are high net worth companies (or persons to whom it may otherwise be lawfully communicated) falling within Article 49(2)(a) to (d) of the Order (all such persons together being referred to as “relevant persons”) or otherwise in circumstances which have not resulted and will not result in an offer to the public of the shares in the United Kingdom within the meaning of the Financial Services and Markets Act 2000.

Any person in the United Kingdom that is not a relevant person should not act or rely on the information included in this document or use it as basis for taking any action. In the United Kingdom, any investment or investment activity that this document relates to may be made or taken exclusively by relevant persons.

#### Notice to Prospective Investors in Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriter is not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

## LEGAL MATTERS

The validity of the shares of common stock being offered by this prospectus supplement will be passed upon for us by Snell & Wilmer L.L.P., Reno, Nevada. Certain legal matters relating to this offering will be passed upon for the underwriter by Davis Polk & Wardwell LLP, Menlo Park, California.

Certain legal matters relating to this offering will be passed upon for the selling stockholder by Paul Hastings, LLP, New York, New York, and Godfrey & Kahn, S.C., Milwaukee, Wisconsin.

## EXPERTS

The consolidated financial statements as of December 31, 2017 and 2016, and for each of the years in the three-year period ended December 31, 2017 incorporated into this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2017 have been so incorporated in reliance on the report of Crowe LLP, independent registered public accounting firm, given on authority of said firm as experts in auditing and accounting. The financial statements of Genesis Acquisition Holdings Corp. and subsidiaries (the “Successor Company”) as of and for the period March 1, 2017 to December 31, 2017, and Genoptix, Inc. and subsidiaries (the “Predecessor Company”) as of and for the period January 1, 2017 to February 28, 2017 and the year ended December 31, 2016 incorporated in this prospectus supplement by reference, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report, which is incorporated herein by reference (which report expresses an unqualified opinion and contains emphasis-of-matters paragraphs that describes (1) that the financial statements for the Successor Company and Predecessor Company do not purport to be comparable to other periods as a result of the business combination on March 1, 2017 and (2) that the separate accounts and records maintained by the Predecessor Company have been prepared by Novartis Finance Corporation (“Novartis”) and include certain allocations of costs from Novartis that may not necessarily be indicative of the conditions that would have existed or the results of operations if the Predecessor Company had been operated as a separate entity apart from Novartis). Such financial statements have been incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

#### WHERE YOU CAN FIND MORE INFORMATION

We file reports and other information with the SEC as required by the Exchange Act. You can review our electronically filed reports and other information that we file with the SEC on the SEC's web site at <http://www.sec.gov>.

This prospectus supplement is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus supplement regarding us and the securities, including exhibits and schedules. You can obtain a copy of the registration statement from the SEC at any address listed above or from the SEC's web site.

#### INCORPORATION 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 to those documents. The information incorporated by reference is an important part of this prospectus supplement, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the following documents and all documents we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) pursuant to the Exchange Act on or after the date of this prospectus supplement and prior to the termination of the offering under this prospectus supplement (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules): our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on March 13, 2018;

our Proxy Statement on Schedule 14A filed on April 20, 2018 (excluding those portions that are not incorporated by reference into our Annual Report on Form 10-K);

our Quarterly Report on Form 10-Q for the period ended March 31, 2018, filed on May 8, 2018, our Quarterly Report on Form 10-Q for the period ended June 30, 2018, filed on August 6, 2018, and our Quarterly Report on Form 10-Q for the period ended September 30, 2018, filed on November 6, 2018;

our Current Reports on Form 8-K filed on March 20, 2018, March 23, 2018, April 19, 2018, May 7, 2018, May 25, 2018 (containing Item 8.01 disclosure), June 1, 2018, June 6, 2018, June 25, 2018, August 10, 2018, October 26, 2018 and December 10, 2018 (other than Item 7.01); and

the description of our common stock contained in the registration statement on Form 8-A (Registration No. 000-54384), filed with the SEC under Section 12(g) of the Exchange Act on May 2, 2011, as updated by the description of our common stock set forth in the Prospectus Supplement to our Registration Statement No. 333-186067 filed with the SEC pursuant to Rule 424(b)(5) on February 28, 2013.

Any statement contained herein or in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this prospectus supplement to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or replaces such statement. Any such statement so modified or superseded shall not be deemed to constitute a part of this prospectus supplement, except as so modified or superseded.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom a copy of this prospectus supplement is delivered, upon written or oral request of any such person, a copy of any and all of the information that has been incorporated by reference in this prospectus supplement, other than exhibits to such documents, unless such exhibits have been specifically incorporated by reference thereto. Requests for such copies should be directed to our Investor Relations department, at the following address:

PROSPECTUS

NeoGenomics, Inc.  
10,835,145 Shares  
Common Stock

---

This prospectus relates to the resale of up to 10,835,145 shares of our common stock, par value \$0.001 per share, which may be offered for resale from time to time by the selling stockholder, GE Medical Systems Information Technologies, Inc. (“GE Info Tech”). The selling stockholder received these shares from us in a transaction exempt from registration under the Securities Act of 1933, as amended (the “Securities Act”), pursuant to the terms and subject to the conditions of a stock purchase agreement, dated as of October 20, 2015, as amended on December 28, 2015, by and among us, our wholly owned subsidiary NeoGenomics Laboratories, Inc. and GE Medical Holding AB (“GE Medical”), a wholly owned subsidiary of GE Info Tech.

The shares of common stock may be offered by the selling stockholder in any manner described under “Plan of Distribution” beginning on page 8 of this prospectus. The selling stockholder may sell the shares of common stock described in this prospectus through public or private transactions, at market prices prevailing at the time of sale or negotiated prices, directly to purchasers or through underwriters, broker-dealers or agents, who may receive compensation in the form of discounts, concessions or commissions. We will not receive any proceeds from the sale of shares of our common stock by the selling stockholder.

We may amend or supplement information contained in this prospectus from time to time. You should carefully read this prospectus and any amendments or supplements before you invest in shares of our common stock.

Our common stock is listed on the NASDAQ Capital Market under the symbol “NEO.” On December 10, 2018, the last reported sale price of our common stock on the NASDAQ Capital Market was \$13.94 per share.

**INVESTING IN OUR SECURITIES INVOLVES RISKS. SEE “RISK FACTORS” ON PAGE 2 OF THIS PROSPECTUS, AS WELL AS RISK FACTORS DESCRIBED UNDER THE HEADING “RISK FACTORS” IN OUR MOST RECENT ANNUAL REPORT ON FORM 10-K AND EACH SUBSEQUENT QUARTERLY REPORT ON FORM 10-Q (WHICH DOCUMENTS ARE INCORPORATED BY REFERENCE HEREIN), BEFORE YOU INVEST IN SHARES OF OUR COMMON STOCK.**

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.

The date of this prospectus is December 11, 2018.

---

TABLE OF CONTENTS

ABOUT THIS PROSPECTUS	ii
PROSPECTUS SUMMARY	1
RISK FACTORS	8
FORWARD-LOOKING STATEMENTS	9
USE OF PROCEEDS	10
SELLING STOCKHOLDER	11
DESCRIPTION OF CAPITAL STOCK	12
PLAN OF DISTRIBUTION	21
LEGAL MATTERS	23
EXPERTS	23
WHERE YOU CAN FIND MORE INFORMATION	24
INCORPORATION BY REFERENCE	24

## ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission (the “SEC”) using a “shelf” registration process. Under this shelf registration process, the selling stockholder named in this prospectus may offer and sell the securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the securities the selling stockholder may offer. Each time the selling stockholder offers the securities described in this prospectus, the selling stockholder is required to provide the offeree with this prospectus, and in certain cases, a prospectus supplement. A prospectus supplement may add, update or change information contained in this prospectus. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement, you should rely on the prospectus supplement. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement, together with the additional information described under the heading “Incorporation by Reference.”

This prospectus does not contain all the information provided in the registration statement filed with the SEC. You should carefully read both this prospectus and any prospectus supplement together with the additional information described below under “Where You Can Find More Information” before you make an investment decision. Neither we nor the selling stockholder have authorized any other person to provide you with information that is different from that contained in or incorporated by reference herein, in any related prospectus supplement or in any related free writing prospectus. We and the selling stockholder do not take any responsibility for, and can provide no assurance as to the reliability of, any other information, that others may give you. You should assume that the information appearing in this prospectus and the applicable prospectus supplement to this prospectus is accurate as of the date on its respective cover, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates.

## PROSPECTUS SUMMARY

This summary highlights selected information contained elsewhere, or incorporated by reference, in this prospectus. This summary does not contain all of the information that you should consider before deciding to invest in our securities. You should carefully read the entire prospectus, any accompanying prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained herein and in any accompanying prospectus supplement and any related free writing prospectus, and under a similar heading in other documents that are incorporated by reference into this prospectus. You also should carefully read the information incorporated by reference into this prospectus, including our financial statements and the exhibits to the registration statement of which this prospectus is a part. Unless the context otherwise requires, NeoGenomics, Inc. is referred to herein, collectively with all of its subsidiaries, as the “Company”, “NeoGenomics”, or “we”, “us”, or “our”.

### The Company

We operate a network of cancer-focused genetic testing laboratories in the United States as well as a laboratory in Switzerland. We believe the Company provides one of the most comprehensive oncology-focused testing menus in the industry for physicians to help diagnose and treat cancer. The Company’s Pharma Services division serves pharmaceutical clients in clinical trials and drug development. Our mission is to improve patient care through exceptional genetic and molecular testing services. Our vision is to become the world’s leading cancer testing and information company by delivering uncompromising quality, exceptional service and innovative solutions. Headquartered in Fort Myers, FL, NeoGenomics operates laboratories in Aliso Viejo and Fresno, California; Tampa and Fort Myers, Florida; Houston, Texas; Nashville, Tennessee; Atlanta, Georgia; and Rolle, Switzerland. NeoGenomics serves the needs of pathologists, oncologists, academic centers, hospital systems, pharmaceutical firms, integrated service delivery networks, and managed care organizations throughout the United States.

### 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 principal website can be accessed at [www.neogenomics.com](http://www.neogenomics.com). The information on or accessible through, any of our websites is deemed not to be incorporated in this prospectus or to be part of this prospectus.



## RISK FACTORS

An investment in any securities offered pursuant to this prospectus and the applicable prospectus supplement involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K we file after the date of this prospectus, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and the risk factors and other information contained in the applicable prospectus supplement before acquiring any of such securities. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

If the selling stockholder sells all or a portion of the shares of our common stock covered by this prospectus, it could cause our common stock price to decline.

The sale by the selling stockholder of the shares of our common stock covered by this prospectus could depress the market price for our common stock. Such sales may also make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate to raise funds through future equity offerings of our common stock.

## FORWARD-LOOKING STATEMENTS

The information in this prospectus, including information in documents incorporated by reference in this prospectus contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 relating to NeoGenomics, Inc., a Nevada corporation and its subsidiaries, NeoGenomics Laboratories, Inc., a Florida corporation (“NeoGenomics Laboratories”), NeoGenomics Bioinformatics Inc., a Florida corporation, and Clariant, Inc., a Delaware corporation and its wholly owned subsidiary, Clariant Diagnostic Services, Inc. (together “Clariant”) (collectively referred to as “we”, “us”, “our”, “NeoGenomics”, or the “Company” which are subject to the “safe harbor” created by those sections.

These 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”, “may”, “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 under “Risk Factors” herein and in Part I, Item 1A, “Risk Factors” contained in our Annual Report on Form 10-K as filed with the SEC on March 13, 2018 and any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K.

Any forward-looking statement speaks only as of the date on which such statement is made, and the Company undertakes no obligation to update any forward-looking statement or statements to reflect events or circumstances after the date on which such statement is made or to reflect the occurrence of unanticipated events. New factors emerge from time to time and it is not possible for management to predict all of such factors, nor can it assess the impact of each such factor on the business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

**USE OF PROCEEDS**

We will not receive any proceeds from the sale of the shares of common stock sold from time to time by the selling stockholder under this prospectus. The selling stockholder will receive all of the net proceeds from the sale of any shares of our common stock under this prospectus. The selling stockholder will pay any expenses incurred by the selling stockholder for brokerage, accounting, tax, legal services or any other expenses incurred by the selling stockholder in disposing of these shares. We will pay certain costs and fees related to the registration of the shares of common stock covered by this prospectus.

4

---

## SELLING STOCKHOLDER

We are registering for resale by the selling stockholder 10,835,145 shares of our common stock. As previously described in reports filed with the SEC, on October 20, 2015, GE Medical Holding AB, a private limited company (privat aktiebolag) organized under the laws of the Kingdom of Sweden (Reg. No. 556648-9315) (“GE Medical”), entered into a Stock Purchase Agreement (the “Purchase Agreement”) with us and NeoGenomics Laboratories. Pursuant to the Purchase Agreement, NeoGenomics (through NeoGenomics Laboratories) acquired from GE Medical all of the issued and outstanding shares of common stock of Clariant, Inc. (“Clariant”), a wholly owned subsidiary of GE Medical, for a purchase price consisting of (i) cash consideration of approximately \$74.0 million, (ii) 15,000,000 shares of our common stock (“Common Shares”) and (iii) 14,666,667 shares of our Series A convertible preferred stock (“Preferred Shares”) (collectively, the “Transaction”). The Transaction closed on December 30, 2015. As permitted by the Purchase Agreement, GE Medical transferred its right to receive the Common Shares and the Preferred Shares issued in the Transaction to its parent company, GE Medical Systems Information Technologies, Inc., a Wisconsin corporation (“GE InfoTech”).

On December 30, 2015, in accordance with the terms of the Purchase Agreement and concurrent with the closing of the Transaction, we entered into an Investor Board Rights, Lockup and Standstill Agreement (the “Investor Rights Agreement”) with GE InfoTech and General Electric Company (“General Electric”). Pursuant to the Investor Rights Agreement, GE InfoTech is entitled to appoint a designee to our board of directors (the “Board”), provided that such designee meets the director qualification requirements set forth in the Investor Rights Agreement. Thereafter, for so long as GE InfoTech, General Electric and the subsidiaries of General Electric (collectively, the “GE Parties”) continue to beneficially own in the aggregate at least 10% of our then-outstanding voting stock, GE InfoTech is entitled to designate for nomination one director for election at each annual or special meeting of our stockholders at which directors of the Board are to be elected and at which the seat held by GE InfoTech’s designee is subject to election. Subject to the terms of the Investor Rights Agreement, we are required to support the election of such nominee and GE InfoTech is required to vote all of our voting stock beneficially owned by it in favor of the director slate nominated by management. Stephen Kanovsky is currently the GE Info Tech designee on our Board.

On December 30, 2015, in accordance with the terms of the Purchase Agreement and concurrent with the closing of the Transaction, we and GE InfoTech entered into a Registration Rights Agreement (the “Registration Rights Agreement”). Pursuant to the terms of the Registration Rights Agreement, we are required to file a shelf registration statement for the offer and sale of the Common Shares acquired in the Transaction and any shares of common stock issuable upon conversion of the Preferred Shares. The Registration Rights Agreement also provides GE InfoTech with customary demand and piggyback registration rights with respect to such shares. NeoGenomics is required to pay all registration expenses relating to any shelf, demand or piggyback registration, including the fees and expenses of one counsel for the GE Parties, but not including underwriting fees, discounts or commissions. The Registration Rights Agreement also contains customary cross-indemnification provisions. We are filing the registration statement of which this prospectus is a part in accordance with the terms of the Registration Rights Agreement.

On December 22, 2016, we redeemed directly from GE InfoTech 8,066,667 Preferred Shares at a redemption price of approximately \$6.8182 per share. In December 2017, the Company issued 264,000 additional shares of Preferred Stock as a PIK dividend resulting in a balance of 6,864,000 shares outstanding as of December 31, 2017. On June 25, 2018, NeoGenomics redeemed from GE InfoTech the remaining 6,864,000 Preferred Shares at a redemption price of \$7.30 per share. Such redemptions and the PIK dividend occurred pursuant to the terms of the Preferred Shares. After the redemption on June 25, 2018, there were no Preferred Shares outstanding. On November 9, 2018, GE InfoTech sold 4,164,855 of the Common Shares at a price per share of \$16.75 pursuant to Rule 144 under the Securities Act. The table below is based on information provided to us by the selling stockholder. The following table sets forth the name of the selling stockholder, the number of shares of our common stock beneficially owned by the selling stockholder as of the date of this prospectus, and the number of shares that may be offered by the selling stockholder pursuant to this prospectus. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our common stock. We do not know when or in what



amounts the selling stockholder may sell or otherwise dispose of the shares covered hereby and therefore cannot estimate the number of the shares that will be held by the selling stockholder after completion of the offering. We have, therefore, assumed for the purposes of the following table, that the selling stockholder will sell all of the shares owned beneficially that are covered by this prospectus.

We believe, based on information supplied by the selling stockholder, that the selling stockholder and its affiliates have sole voting and dispositive power with respect to the common stock reported as beneficially owned.

Name of Selling Stockholder	Prior to the Offering		After the Offering	
	Number of Shares of Common Stock Beneficially Owned	Percent of Shares of Common Stock Outstanding (2)	Number of Shares of Common Stock Being Registered for Resale	Percent of Shares of Common Stock Outstanding (3)
GE Medical Systems Information Technologies, Inc. (1)	10,835,145	11.6 %	10,835,145	— %

(1) GE Medical Systems Information Technologies, Inc. is a wholly owned subsidiary of General Electric Company. The principal address of GE Medical Systems Information Technologies, Inc. is 8200 West Tower Avenue, Milwaukee, Wisconsin 53223. The principal address of General Electric Company is 41 Farnsworth Street, Boston, Massachusetts 02210.

(2) Based on 93,455,113 shares outstanding as of November 30, 2018.

(3) Assumes that the selling stockholder disposes of all of the shares of common stock covered by this prospectus and does not acquire beneficial ownership of any additional shares. The registration of these shares does not necessarily mean that the selling stockholder will sell all or any portion of the shares covered by this prospectus.

#### DESCRIPTION OF CAPITAL STOCK

The following summary description of our capital stock is based on the provisions of our articles of incorporation, as amended (“Articles of Incorporation”), as well as our amended and restated bylaws, as amended (“Bylaws”), and the applicable provisions of Chapter 78 of the Nevada Revised Statutes. This information is qualified entirely by reference to the applicable provisions of our Articles of Incorporation, Bylaws and Chapter 78 of the Nevada Revised Statutes. For information on how to obtain copies of our Articles of Incorporation and Bylaws, which are exhibits to the registration statement of which this prospectus is a part, see “Where You Can Find More Information.” As of the date of this prospectus, our authorized capital stock consists of 250,000,000 shares of common stock, \$0.001 par value and 50,000,000 shares of preferred stock, \$0.001 par value. No shares of preferred stock are currently outstanding.

#### Common Stock

As of November 30, 2018, we had 93,455,113 shares of common stock outstanding.

**Voting Rights.** 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.

**Dividends.** The holders of common stock are entitled to share equally in dividends, if, as and when declared by our Board of Directors (the “Board”), out of funds legally available therefore, subject to the priorities given to any class of preferred stock which may be issued.

**Liquidation.** Upon liquidation, dissolution or winding-up of NeoGenomics, 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.



Other Rights and Preferences. 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 to redeem or purchase their shares.

Fully Paid and Non-assessable. The outstanding shares of our common stock are fully paid and non-assessable.

7

---



## PLAN OF DISTRIBUTION

The selling stockholder may, from time to time, sell or otherwise dispose of any or all of the shares of common stock pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods or through underwriters or dealers, through agents and/or directly to one or more purchasers. The shares of common stock may be sold in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; 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;

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

The selling stockholder may use any one or more of the following methods when selling the shares offered hereby:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- one or more block trades in which the broker-dealer will attempt to sell such shares as agent or principal of all of such shares held by the selling stockholder;
- purchases by a broker-dealer as principal and resale by such broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales;
- sales pursuant to Rule 144;
- agreements between broker-dealers and the selling stockholder to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted pursuant to applicable law.

If the selling stockholder effects such transactions by selling shares of common stock offered hereby to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholder or commissions from purchasers of the shares of common stock offered hereby for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved). In connection with sales of the shares of common stock offered hereby or otherwise, the selling stockholder may enter into hedging transactions with broker-dealers, which may in turn engage in short sales of the shares of common stock offered hereby in the course of hedging in positions they assume. The selling stockholder may also sell shares of common stock offered hereby short, and deliver shares of common stock covered by this prospectus to close out short positions and to return borrowed shares in connection with such short sales. The selling stockholder may also loan or pledge shares of common stock offered hereby to broker-dealers that in turn may sell such shares.

The selling stockholder may pledge or grant a security interest in some or all of the shares of common stock offered hereby and owned by it and, if it defaults in the performance of its secured obligations, the pledgees or secured parties may offer and sell such shares of common stock from time to time pursuant to this prospectus or any amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act. The selling stockholder also may transfer and donate the shares of common stock offered hereby in other circumstances, in which case the transferees, donees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

The selling stockholder and any broker-dealer participating in the distribution of the shares of common stock offered hereby may be deemed to be “underwriters” within the meaning of the Securities Act, and any commission paid, or any discounts or concessions allowed to, any such broker-dealer may be deemed to be underwriting commissions or discounts under the Securities Act. At the time a particular offering of the shares of common stock offered hereby is made, a prospectus supplement, if required, will be distributed which will set forth the aggregate amount of shares of common stock being offered and the terms of the offering, including the name or names of any broker-dealers or agents, any discounts, commissions and other terms constituting compensation from the selling stockholders and any discounts, commissions or concessions allowed or re-allowed or paid to broker-dealers.

Under the securities laws of some states, the shares of common stock offered hereby may be sold in such states only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock offered hereby may not be sold unless such shares have been registered or qualified for sale in such state or an exemption from registration or qualification is available and is complied with.

There can be no assurance that the selling stockholder will sell any or all of the shares of common stock registered pursuant to the registration statement of which this prospectus forms a part.

The selling stockholder and any other person participating in such distribution will be subject to applicable provisions of the Exchange Act, and the rules and regulations thereunder, including, without limitation, Regulation M of the Exchange Act, which may limit the timing of purchases and sales of any of the shares of common stock offered hereby by the selling stockholder and any other participating person. Regulation M may also restrict the ability of any person engaged in the distribution of the shares of common stock offered hereby to engage in market-making activities with respect to the shares of common stock offered hereby. All of the foregoing may affect the marketability of the shares of common stock offered hereby and the ability of any person or entity to engage in market-making activities with respect to the shares of common stock offered hereby.

We will pay all expenses of the registration of the shares of common stock pursuant to the registration rights agreement, estimated to be \$143,503 in total, including, without limitation, SEC filing fees and expenses of compliance with state securities or “blue sky” laws; provided, however, that the selling stockholder will pay all underwriting discounts and selling commissions, if any. We will indemnify the selling stockholder against liabilities, including some liabilities under the Securities Act, in accordance with the registration rights agreement, or the selling stockholder will be entitled to contribution. We may be indemnified by the selling stockholder against civil liabilities, including liabilities under the Securities Act, that may arise from any written information furnished to us by the selling stockholder specifically for use in this prospectus, in accordance with the related registration rights agreement, or we may be entitled to contribution.

Once sold under the registration statement of which this prospectus forms a part, the shares of common stock offered hereby will be freely tradable in the hands of persons other than our affiliates.

#### LEGAL MATTERS

The validity of the shares of common stock offered by this prospectus has been passed upon for us by Snell & Wilmer L.L.P., Reno, Nevada.

#### EXPERTS

The consolidated financial statements of NeoGenomics, Inc. as of December 31, 2017, and for each of the years in the three-year period ended December 31, 2017 incorporated in this prospectus by reference to the Annual Report on Form 10-K for the year ended December 31, 2017 have been incorporated in reliance on the report of Crowe LLP, independent registered public accounting firm, given on authority of said firm as experts in auditing and accounting. The financial statements of Genesis Acquisition Holdings Corp. and subsidiaries (the "Successor Company") as of and for the period March 1, 2017 to December 31, 2017, and Genoptix, Inc. and subsidiaries (the "Predecessor Company") as of and for the period January 1, 2017 to February 28, 2017 and the year ended December 31, 2016 incorporated in this prospectus by reference, have been audited by Deloitte & Touche LLP, independent auditors, as stated in their report, which is incorporated herein by reference (which report expresses an unqualified opinion and contains emphasis-of-matters paragraphs that describes (1) that the financial statements for the Successor Company and Predecessor Company do not purport to be comparable to other periods as a result of the business combination on March 1, 2017 and (2) that the separate accounts and records maintained by the Predecessor Company have been prepared by Novartis Finance Corporation ("Novartis") and include certain allocations of costs from Novartis that may not necessarily be indicative of the conditions that would have existed or the results of operations if the Predecessor Company had been operated as a separate entity apart from Novartis). Such financial statements have been incorporated in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

#### WHERE YOU CAN FIND MORE INFORMATION

We file reports and other information with the SEC as required by the Exchange Act. You can review our electronically filed reports and other information that we file with the SEC on the SEC's web site at <http://www.sec.gov>.

This prospectus is part of a registration statement that we filed with the SEC. The registration statement contains more information than this prospectus regarding us and the securities, including exhibits and schedules. You can obtain a copy of the registration statement from the SEC at any of the sources listed above.

#### INCORPORATION 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 to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference the following documents and all documents we file with the SEC pursuant to Section 13(a), 13(c), 14 or 15(d) pursuant to the Exchange Act on or after the date of this prospectus and prior to the termination of the offering under this prospectus or any prospectus supplement (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

our Annual Report on Form 10-K for the fiscal year ended December 31, 2017, filed with the SEC on March 13, 2018;

our Proxy Statement on Schedule 14A filed on April 20, 2018 (excluding those portions that are not incorporated by reference into our Annual Report on Form 10-K);

our Quarterly Reports on Form 10-Q for the periods ending March 31, 2018, filed with the SEC on May 8, 2018; June 30, 2018, filed with the SEC on August 6, 2018; September 30, 2018, filed with the SEC on November 6, 2018;

our Current Reports on Form 8-K filed with the SEC on March 20, 2018, March 23, 2018, April 19, 2018, May 7, 2018, May 25, 2018 (containing Item 8.01 disclosure), June 1, 2018, June 6, 2018, June 25, 2018, August 10, 2018, October 26, 2018 and December 10, 2018 (other than Item 7.01); and

the description of our common stock contained in the registration statement on Form 8-A (Registration No. 000-54384), filed with the SEC under Section 12(g) of the Exchange Act on May 2, 2011, as updated by the description of our common stock set forth in the Prospectus Supplement to our Registration Statement No. 333-186067 filed with the SEC pursuant to Rule 424(b)(5) on February 28, 2013.

Any statement contained herein or in any document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for the purposes of this prospectus to the extent that a statement contained herein or in any other subsequently filed document which also is or is deemed to be incorporated by reference herein modifies or replaces such statement. Any such statement so modified or superseded shall not be deemed to constitute a part of this prospectus, except as so modified or superseded.

We hereby undertake to provide without charge to each person, including any beneficial owner, to whom a copy of this prospectus is delivered, upon written or oral request of any such person, a copy of any and all of the information that has been incorporated by reference in this prospectus, other than exhibits to such documents, unless such exhibits have been specifically incorporated by reference thereto. Requests for such copies should be directed to our Investor Relations department, at the following address:

NeoGenomics, Inc.  
12701 Commonwealth Drive, Suite 9  
Fort Myers, Florida 33913  
(239) 768-0600

---

10,835,145 shares

Common Stock  
PRELIMINARY PROSPECTUS SUPPLEMENT

---

Morgan Stanley

December , 2018

---