CANCER GENETICS, INC Form S-1/A October 17, 2013 Table of Contents

As filed with the Securities and Exchange Commission on October 17, 2013

Registration No. 333-191633

# UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

# Amendment No. 1 to Form S-1 REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

# CANCER GENETICS, INC.

(Exact name of registrant as specified in its charter)

Delaware 8071 04-3462475 (State or other jurisdiction of (Primary Standard Industrial (I.R.S. Employer

incorporation or organization) Classification Code Number) Identification No.)

201 Route 17 North 2<sup>nd</sup> Floor

Rutherford, NJ 07070

(201) 528-9200

(Address, including zip code, and telephone number, including area code, of registrant s principal executive offices)

Panna L. Sharma

**Chief Executive Officer** 

Cancer Genetics, Inc.

201 Route 17 North 2<sup>nd</sup> Floor

Rutherford, NJ 07070

(201) 528-9200

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Alan Wovsaniker Yvan-Claude Pierre

Meredith Prithviraj Daniel I. Goldberg

Jared Heady Reed Smith LLP

Lowenstein Sandler LLP 599 Lexington Ave

65 Livingston Avenue New York, NY 10022

Roseland, NJ 07068 (212) 521-5400

(973) 597-2564

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after this Registration Statement becomes effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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

Accelerated filer

Registration Fee(2)

\$7,406

Offering Price(1)

\$57,500,000

Large accelerated filer Non-accelerated filer " (Do not check if a smaller reporting company) Smaller reporting company x CALCULATION OF REGISTRATION FEE Proposed Maximum Title of Each Class of Amount of Aggregate

(1) Estimated solely for the purpose of calculating the Registration Fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(2) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price. The registrant previously paid \$5,924.80 in connection with the original filing on October 8, 2013 and has paid \$1,481.20 in connection with the filing of this amendment.

(3) Includes shares of common stock the underwriters have the option to purchase to cover over-allotments, if any.

Securities to be Registered

Common Stock, \$0.0001 par value per share(3)

The Registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the Registration Statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PRELIMINARY PROSPECTUS

SUBJECT TO COMPLETION

**DATED OCTOBER 17, 2013** 

\$50,000,000 of Shares

## Common Stock

We are offering \$50,000,000 of shares of our common stock pursuant to this prospectus.

Our common stock is listed on The NASDAQ Capital Market under the symbol CGIX . On October 16, 2013, the last reported sale price of our common stock on The NASDAQ Capital Market was \$17.98 per share.

We are an emerging growth company as that term is used in the Jumpstart Our Business Startups Act of 2012 (the JOBS Act ) and, as such, we elected to comply with certain reduced public company reporting requirements.

Investing in our common stock involves risk. See <u>Risk Factors</u> beginning on page 10 of this prospectus for a discussion of information that should be considered in connection with an investment in 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 is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public offering price	\$	\$
Discounts and commissions to underwriters <sup>(1)</sup>	\$	\$
Offering proceeds to us, before expenses	\$	\$

<sup>(1)</sup> The underwriters will receive compensation in addition to the underwriting discount. See Underwriting beginning on page 150 of this prospectus for a description of compensation payable to the underwriters.

The underwriters expect to deliver the shares against payment therefor on or about

Table of Contents 4

, 2013.

We have granted a 45-day option to the representative of the underwriters to purchase up to \$7,500,000 of additional shares of common stock solely to cover over-allotments, if any.

Sole Book-Running Manager

# **Aegis Capital Corp**

Co-Managers

Feltl & Company

**Cantor Fitzgerald & Co.** 

**Dougherty & Company** 

#### TABLE OF CONTENTS

	Page
<u>SUMMARY</u>	1
RISK FACTORS	10
SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS	42
<u>USE OF PROCEEDS</u>	44
MARKET FOR COMMON EQUITY AND RELATED STOCKHOLDER MATTERS	45
<u>CAPITALIZATION</u>	46
<u>DILUTION</u>	48
SELECTED HISTORICAL FINANCIAL DATA	50
MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS	52
DESCRIPTION OF THE BUSINESS	78
<u>MANAGEMENT</u>	118
EXECUTIVE COMPENSATION	126
CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS	137
PRINCIPAL STOCKHOLDERS	142
DESCRIPTION OF CAPITAL STOCK	144
<u>UNDERWRITING</u>	150
<u>LEGAL MATTERS</u>	158
EXPERTS	158
WHERE YOU CAN FIND MORE INFORMATION	158
GLOSSARY OF TERMS	159
INDEX TO FINANCIAL STATEMENTS	F-1

You should rely only on the information contained in this prospectus. We have not, and the underwriters have not, authorized anyone to provide you with different information. We are not making an offer of these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus is accurate as of the date on the front of this prospectus only. Our business, financial condition, results of operations and prospects may have changed since that date.

Information contained in our website does not constitute part of this prospectus.

We use  $MatBA^{\otimes}$ , UroGenRA, UGenRA, FHACT, FReCAD,  $Expand\ DX$ , Select Sume mation Report and the Cancer Genetics logo as trademarks in the United States and elsewhere. All other trademarks or trade names referred to in this prospectus are the property of their respective owners.

This prospectus includes statistical and other industry and market data that we obtained from industry publications and research, surveys and studies conducted by third parties. Industry publications and third-party research, surveys and studies generally indicate that they have gathered their information from sources they believe to be reliable, although they do not guarantee the accuracy or completeness of such information. While we believe that these industry publications and third-party research, surveys and studies are reliable, we have not independently verified such data.

#### **SUMMARY**

This summary highlights information contained elsewhere in this prospectus. This summary does not contain all of the information you should consider before investing in our common stock. You should read this entire prospectus carefully, especially the Risk Factors section of this prospectus and the consolidated financial statements and related notes appearing at the end of this prospectus before making an investment decision.

Unless the context provides otherwise, all references in this prospectus to Cancer Genetics, CGI, we, us, our, the Company, or similar terms, refer to Cancer Genetics, Inc. and its wholly owned subsidiary, Cancer Genetics Italia, S.r.L.

#### **Our Company**

We are an early-stage diagnostics company focused on developing and commercializing proprietary genomic tests and services to improve and personalize the diagnosis, prognosis and response to treatment (theranosis) of cancer. Our proprietary tests target cancers that are complicated to prognose and for which it is difficult to predict treatment outcomes using currently available mainstream techniques. These cancers include hematological, urogenital and HPV-associated cancers. We provide our proprietary tests and services along with a comprehensive range of non-proprietary oncology-focused tests and laboratory services, to oncologists and pathologists at hospitals, cancer centers, reference laboratories and physician offices, as well as to biopharmaceutical companies and clinical research organizations for their clinical trials. To date, we have engaged in only limited sales and marketing activities and have generated most of our revenue through sales of our non-proprietary testing services to a limited number of oncologists, pathologists, community hospitals and biotechnology and pharmaceutical companies located mostly in the eastern and midwestern United States. Our non-proprietary laboratory testing services include molecular testing, sequencing, mutational analysis, flow cytometry testing, histology testing and cytology testing. We are currently offering our tests and laboratory services in our 17,936 square foot state-of-the-art laboratory located in Rutherford, New Jersey, which has been accredited by the College of American Pathologists, which is one of six approved accreditation methods under the Clinical Laboratory Improvement Amendments of 1988 ( CLIA ), to perform high complexity testing.

Our proprietary tests are based principally on our expertise in specific cancer types, test development methodologies and proprietary algorithms correlating genetic events with disease specific information. During the first quarter of 2011, we received CLIA approval for, and commercially launched, MatBA®-CLL, our first proprietary microarray test for chronic lymphocytic leukemia ( CLL ) for use in our CLIA-accredited clinical laboratory. In January 2012, we received CLIA approval for MatBA®-SLL, our proprietary microarray for risk stratification in small lymphocytic lymphoma ( SLL ), and we are currently offering MatBA®-LL in our laboratory. In 2013, we received CLIA approval for MatBA®-DLBCL, our proprietary microarray for diagnosis, prognosis and patient monitoring in diffuse large B cell lymphoma ( DLBCL ), MatBA®-MCL, our proprietary microarray for diagnosis, prognosis and patient monitoring in mantle cell lymphoma ( MCL ) and UroGenRA -Kidney, our proprietary microarray for patient management and treatment protocols in kidney cancer ( UroGenRA -Kidney). In addition, we are developing a series of other proprietary genomic tests in our core oncology markets.

We have established collaborative relationships with key thought leaders in oncology, which enable us to develop and validate the effectiveness and utility of our tests in a clinical setting and which provide us access to clinically robust patient data. For example, we formed a joint venture in 2013 with Mayo Foundation for Medical Education and Research (Mayo), which will focus on developing oncology diagnostic services and tests utilizing next-generation sequencing. Additionally, we have research collaborations with Memorial Sloan-Kettering Cancer Center and the Cleveland Clinic to validate our kidney-cancer microarray UroGenRA -Kidney.

We believe that we can be successful by offering cancer professionals a fully-integrated menu of oncology-focused proprietary and non-proprietary tests and customized laboratory services. Based on our

discussions with leading researchers in the oncology field and our interactions with our collaborators, as well as information we learn through performing the nonproprietary genetic diagnostic testing services, which are focused on the specific oncology categories where we are developing our proprietary tests, we provide to our customers, we believe that our proprietary tests provide superior diagnostic and prognostic values than currently available tests and services. We believe our ability to rapidly translate research insights about the genetics and molecular mechanisms of cancer into the clinical setting will improve patient treatment and management and that this approach will become a key component in the standard of care for personalized cancer treatment.

#### **Market Overview**

Despite many advances in the treatment of cancer, it remains one of the greatest areas of unmet medical need. The World Health Organization attributed 7.6 million deaths worldwide to cancer-related causes in 2008. In addition to the human toll, the financial cost of cancer is overwhelming. An independent study published in 2010 and conducted jointly by the American Cancer Society and LIVESTRONG ranked cancer as the most economically devastating cause of death in the world estimated to be as high as \$895 billion globally in 2008.

Cancer constitutes a heterogeneous class of diseases characterized by uncontrollable cell growth and results from a combination of environmental and hereditary risk factors. It has only been in recent years that technology has sufficiently advanced to enable researchers to understand many cancers at a molecular level and attribute specific cancers to genetic mechanisms.

#### Limitations of Traditional Cancer Diagnostics

Cancer is difficult to diagnose due to its varying morphology and genetic complexity. Traditional methods of diagnosis, routinely used as the initial step in cancer detection, involve a pathologist examining a thin slice of potentially cancerous tissue under a microscope. A relatively new tissue sample must be used along with chemical staining techniques to view the biopsy. Through visual inspection, the pathologist determines whether the biopsy contains normal or cancerous cells. Cells that are deemed cancerous are graded on a level of progression of disease and aggressiveness.

#### Use of Genomic-Based Analysis in Cancer Diagnosis and Treatment

Molecular diagnostic tests for cancer aim to remove subjectivity from the diagnostic phase, and add prognostic information, thereby enabling personalized treatments based on cancer analysis at its most basic genetic level. These tests both define the cancer subtype and help determine the best course of treatment by detecting genetic mutations, gene fusions and DNA copy number changes, all of which are possible causes of or precursors to malignant growth. An important method of measuring changes in the genomic profile of cancer cells is copy number variation. This method measures the gain or loss of DNA within specific regions of chromosomes and is commonly performed using DNA microarrays and probes.

#### **Our Proprietary Genomic Tests and Services**

Our clinical laboratory is accredited under CLIA to perform our first proprietary test, MatBA®-CLL, which is also, to our knowledge based on our informal communications with New York State Department of Health personnel, the first oncology microarray to be approved by the New York State Department of Health, one of the only state governmental agencies that reviews the clinical utility of new laboratory developed tests (LDTs). The test has been validated by us in a clinical study using over 320 CLL specimens in conjunction with a leading CLL thought leader, Dr. Kanti Rai at Long Island Jewish / North Shore Hospital. Another data set of over 200 DLBCL specimens is being analyzed for additional biomarkers in conjunction with Dr. Julie Teruya-Feldstein at Memorial Sloan-Kettering Cancer Center. There are approximately 14,500 new cases of CLL diagnosed in the United States each year, and these cases require risk stratification and guidance on patient

management and treatment issues at multiple points during the course of the disease. Prior to the introduction of MatBA®-CLL, clinicians had to rely on diagnostic tests that provided limited information on the genetic abnormalities associated with CLL. In contrast, MatBA®-CLL identifies a much broader range of genomic markers associated with CLL, providing improved diagnostic and prognostic value and critical information for clinicians to consider in planning patient treatment. The MatBA® platform was developed by us under the guidance of Dr. Raju Chaganti, our Chairman and one of our founders. Dr. Chaganti founded one of the earliest comprehensive clinical cytogenetic laboratories focused on cancer in the United States at Memorial Sloan-Kettering Cancer Center, where he is on the faculty of the Department of Medicine and Cell Biology Program and the incumbent of the William E. Snee Chair.

In collaboration with Memorial Sloan-Kettering Cancer Center and Long Island Jewish / North Shore Hospital, we have completed the validation of MatBA®-SLL and are now offering MatBA®-SLL in our laboratory. Also in collaboration with Memorial Sloan-Kettering Cancer Center, we recently completed the validation of MatBA®-DLBCL and MatBA®-MCL and are now offering both in our laboratory. We are also validating the MatBA® microarray in follicular lymphoma ( FL ). Collectively, these lymphomas represent over 70% of the mature B cell cancers (neoplasms) and over 66,000 newly diagnosed cancer cases each year in the United States. Our MatBA® array has been designed to measure genetic markers at 80 specific genomic sites where genetic alterations are associated with mature B cell neoplasms.

We are also developing microarray tests for the diagnosis, prognosis and theranosis of a range of urogenital cancers. These include the UroGenRA microarray for kidney, prostate and bladder cancers and the UGenRA microarray for endometrial (lining of the uterus), ovarian and cervical cancers. UroGenRA detects genomic changes in over 100 regions of the human genome with potential diagnostic and/or prognostic value in one or more of these types of cancer. We have validated UroGenRA for kidney cancer and initiated clinical validation for UroGenRA targeting prostate cancer, both in collaboration with Memorial Sloan-Kettering Cancer Center. In addition, we completed a clinical validation for UroGenRA targeting kidney cancer in collaboration with the Cleveland Clinic. Our UGenRA microarray has been designed as a platform to detect genomic changes occurring in 83 regions of the human genome that have been linked to endometrial, ovarian and cervical cancers. In addition, we develop and manufacture a portfolio of fluorescence *in situ* hybridization (FISH) based DNA probes focused on blood-based and solid cancers that we currently sell outside the United States. We have filed three patent applications with the U.S. Patent and Trademark Office (two of which have been allowed), a European application, a Canadian application, and an Indian application covering our microarrays. We also have two issued U.S. patents, three U.S. patent applications and a European application covering our other proprietary probe products.

We are an early-stage company and only have recently begun launching our proprietary microarray tests for use in our CLIA-accredited clinical laboratory. To date, we have engaged in only limited sales and marketing activities and have generated most of our revenue through sales of our non-proprietary oncology testing services to a limited number of oncologists, pathologists and community hospitals located mostly in the eastern and midwestern United States. In 2012, we generated approximately 85% of our revenue from laboratory services, approximately 13% from government grants and 2% from sales of our DNA probes, which are currently only sold outside the United States. In 2011, we generated approximately 87% of our revenue from laboratory services, approximately 10% from government grants and approximately 3% from sales of our DNA probes. Our non-proprietary laboratory testing services include molecular testing, sequencing, mutational analysis, flow cytometry testing, histology testing and cytology testing and they are described in more detail in the section entitled Description of the Business-Laboratory Services. We also utilize our clinical laboratory to provide clinical trial services to biopharmaceutical companies and clinical research organizations to improve the efficiency and economic viability of their clinical trials. This service was branded Select One in December 2011.

The non-proprietary testing services offered by us are entirely focused on specific oncology categories where we are developing our proprietary arrays and probe panels. We believe that there is significant synergy in

-3-

developing and marketing a complete set of tests and services that are disease-focused and delivering those tests and services in a comprehensive manner to help with treatment decisions. The insights that we develop in delivering the non-proprietary services are often leveraged in the development of our proprietary programs and now increasingly in the validation of our proprietary programs (such as MatBA®) for clinical use.

In this prospectus, we use the terms microarray test, oncology microarray and DNA microarray interchangeably to refer to DNA-based tests that focus on multiple targets in the genomic sequence of a cancer cell. We use the terms probe, DNA probe or FISH-based DNA probe interchangeably to refer to DNA-based tests that focus on a single genomic abnormality. Finally, the terms tests and tests and services are used throughout this prospectus to refer to all of our laboratory tests, whether microarrays, probes, other genomic-based tests or other laboratory tests or services that we offer in our laboratory.

#### **Our Strategy**

Our objective is to be a leader in the development and commercialization of proprietary genomic tests and services. We aim to provide a full service solution for oncology professionals to improve the diagnosis, prognosis, theranosis and treatment of hematological, urogenital and HPV-associated cancers. To achieve this objective, we intend to:

continue investing in our portfolio by developing and commercializing additional proprietary genomic tests and services;

continue our focus on rapidly applying genomic research to routine clinical cancer diagnostics (translational oncology) and drive innovation and cost efficiency in diagnostics by developing next generation sequencing offerings through our joint venture with Mayo Clinic;

enhance our efforts to partner with community hospitals;

increase our focus on providing biopharmaceutical companies and clinical research organizations with our proprietary genomic tests and services through our SelectOne offering;

increase our geographic coverage by expanding our scalable sales and marketing capabilities; and

continue to reduce costs associated with the development, manufacture and interpretation of our proprietary genomic tests and services and to work with healthcare providers and other payers to demonstrate the value of our testing in providing cost efficient and accountable care.

We will continue offering our proprietary tests in the United States as LDTs and internationally as CE-marked in vitro diagnostic products. In addition, as part of our long term strategy, we plan to seek Food and Drug Administration (FDA) clearance or approval to expand the commercial use of our tests to other laboratories and testing sites. Once commenced, we believe it would likely take two years or more to conduct the studies and trials necessary to obtain approval from FDA to commercially launch MatBA®-CLL, MatBA®-SLL, MatBA®-DLBCL, MatBA®-MCL and UroGenRA -Kidney outside of our clinical laboratory. Our sales strategy is focused on direct sales to oncologists and pathologists at hospitals, cancer centers and physician offices in the United States, and expanding our relationships with leading distributors and medical facilities in emerging markets. We intend to emphasize partnering with community hospitals, where approximately 85% of all cancer patients in the United States are initially diagnosed, through our program called Expand Dx, which was specifically designed to meet the needs of community hospitals. We believe our proprietary tests and services will enable community hospitals to optimize and expand their oncology services to better serve their cancer patients and reduce costs associated with cancer care. We are also focused on developing relationships with biopharmaceutical companies and clinical research organizations who can leverage our proprietary genomic tests and services to increase efficiency of their clinical trials.

-4-

#### Risks That We Face

An investment in our common stock involves a high degree of risk. You should carefully consider the risks summarized below. The risks are discussed more fully in the Risk Factors section of this prospectus immediately following this prospectus summary. These risks include, but are not limited to, the following:

we are an early-stage company with a cumulative net loss through June 30, 2013 of approximately \$55.7 million and we may never achieve sustained profitability;

our business depends upon our ability to increase sales of our laboratory tests and services;

we need additional financing, through this offering or otherwise, to meet our liquidity needs, including approximately \$6.0 million to repay outstanding indebtedness due on April 1, 2014 and depending on the results of this offering, we may need additional capital to fund our operations thereafter;

we need to clinically validate our pipeline of microarray tests currently in development;

our business depends on our ability to continually develop and commercialize novel and innovative diagnostic cancer tests and services:

our business depends on executing on our sales and marketing strategy for our proprietary tests and gaining acceptance of our tests in the market:

our business depends on satisfying United States (including FDA) and international regulatory requirements with respect to our tests and services and many of these requirements are new and still evolving;

our business depends on being able to obtain adequate reimbursement from governmental and other third-party payors for our tests and services (for the year ended December 31, 2012, approximately 18% of our revenues came from Medicare or Medicaid, approximately 37% of our revenue came from direct bill customers and 30% of our revenues came from private insurance carriers and other third party payors);

our business depends on our ability to effectively compete with other genomic-based diagnostic tests and services that now exist or may hereafter be developed;

we need to maintain our clinical collaborations and enter into new collaboration agreements with highly regarded organizations in the cancer field in order to, among other things, have access to both thought leaders in the field and samples to validate our proprietary tests;

we depend on our ability to attract and retain scientists, clinicians and sales personnel with extensive experience in oncology, who are in short supply; and

we need to obtain or maintain patents or other appropriate protection for the intellectual property utilized in our proprietary tests and services.

#### **Company Information**

We maintain our principal executive offices at 201 Route 17 North, 2nd Floor, Rutherford, New Jersey 07070. Our telephone number is (201) 528-9200 and our website address is www.cancergenetics.com. The information contained in, and that can be accessed through, our website is not incorporated into and is not part of this prospectus.

#### The Offering

Common stock offered by us \$50,000,000 of shares of our common stock

Over-allotment option We have granted the underwriters a 45-day option to purchase up to \$7,500,000 of

additional shares of our common stock from us at the public offering price less

underwriting discounts and commissions.

Common stock outstanding after this offering 8,746,207

Use of Proceeds We estimate that the net proceeds from our sale of shares of our common stock in this

offering will be approximately \$45.9 million, or approximately \$52.9 million if the underwriters exercise their over-allotment option in full, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

We currently expect to use the net proceeds from this offering as follows:

\$2.0 million to fund our 2014 contributions to our joint venture with Mayo;

approximately \$15.0 million to hire additional sales and marketing personnel and

support increased sales and marketing activities;

approximately \$5.0 million to fund further research and development, potential regulatory submissions and the potential commercial launch of our proprietary

tests and potential collaborations; and

the balance for general corporate purposes and to fund ongoing operations and expansion of the business. We may also use up to \$6.0 million to repay indebtedness due to Wells Fargo Bank on April 1, 2014 unless an extension to

that credit facility satisfactory to us can be negotiated.

Risk Factors See the section entitled Risk Factors beginning on page 10 of this prospectus for a

discussion of factors you should carefully consider before deciding to invest in our

common stock.

NASDAQ Capital Market symbol CGIX

The number of shares of our common stock that will be outstanding immediately after this offering is based on 5,965,340 shares of common stock outstanding as of September 30, 2013, and assumes the issuance and sale of \$50,000,000 of shares of our common stock in this offering, at an assumed public offering price of \$17.98 per share, which was the closing price of our common stock on The NASDAQ Capital Market on October 16, 2013, and excludes:

506,294 shares of our common stock issuable upon the exercise of stock options as of September 30, 2013, with a weighted average exercise price of \$7.60 per share, which includes 458,294 shares of our common stock issuable upon the exercise of stock options issued under our equity incentive plans and 48,000 shares of our common stock issuable upon the exercise of stock options issued outside of our equity incentive plans;

-6-

1,843,582 additional shares of our common stock issuable upon the exercise of outstanding warrants as of September 30, 2013, at a weighted average exercise price of \$12.30 per share;

441,706 additional shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2013, of which 381,412 shares are subject to option grants awarded subsequent to September 30, 2013; and

10,000 shares of our common stock issuable to Mayo pursuant to our affiliation agreement with Mayo. Except for historical financial information or as otherwise indicated herein, all information in this prospectus, including the number of shares that will be outstanding after this offering, assumes no exercise by the underwriters of their option to purchase up to \$7,500,000 of additional shares of our common stock from us in this offering.

We effected a 1-for-2 reverse stock split on February 8, 2013 and a 1-for-2.5 reverse stock split on March 1, 2013. Unless we indicate otherwise, all references to share numbers in this prospectus reflect the effects of these reverse stock splits.

Unless otherwise stated, all information contained in this prospectus reflects an assumed public offering price of \$17.98 per share, which was the last reported sale price of our common stock on The NASDAQ Capital Market on October 16, 2013.

#### SUMMARY CONSOLIDATED FINANCIAL DATA

The following table sets forth our summary statement of operations data for the years ended December 31, 2012, 2011 and 2010 derived from our audited consolidated financial statements and related notes included elsewhere in this prospectus. The unaudited selected consolidated statements of operations data for the six months ended June 30, 2013 and 2012, and the unaudited consolidated balance sheet data as of June 30, 2013, are derived from our unaudited consolidated financial statements, which are included elsewhere in this prospectus. Our financial statements are prepared and presented in accordance with generally accepted accounting principles in the United States. Our unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements and, in the opinion of management, include all adjustments, consisting of normal recurring adjustments necessary for a fair presentation of our financial condition as of such dates and our results of operations for such periods. Our historical results are not necessarily indicative of the results to be expected for any future periods and our interim results are not necessarily indicative of the full fiscal year.

Pro forma net loss per share of common stock for the six months ended June 30, 2013 reflects the sale of 690,000 shares of common stock in our initial public offering, the automatic conversion of all outstanding shares of our preferred stock into 1,287,325 shares of common stock upon completion of our initial public offering and the conversion of promissory notes and accrued interest in the amount of \$9.6 million, at a conversion price of \$10.00 per share, which was our initial public offering price, into an aggregate of 963,430 shares of our common stock, and our sale of 1,605,000 shares of common stock in our August 2013 public offering, all as if they were outstanding for the entire six-month period. Pro forma net loss per share of common stock for the year ended December 31, 2012, reflects the sale of 690,000 shares of common stock in our initial public offering, the automatic conversion of all outstanding shares of our preferred stock into 1,287,325 shares of common stock upon completion of our initial public offering, the conversion of promissory notes and accrued interest in the amount of \$9.6 million, at a conversion price of \$10.00 per share, which was our initial public offering price, into an aggregate of 963,430 shares of our common stock, and our sale of 1,605,000 shares of common stock in our August 2013 public offering, all as if they were outstanding for the entire year, and the resulting recognition of unamortized debt discount and fees of \$3.5 million, financing fees of \$0.4 million and a contingently recognizable beneficial conversion feature in the converted debt of \$3.0 million.

The pro forma balance sheet data reflects the pro forma balance sheet data at June 30, 2013 as adjusted to reflect our receipt of the net proceeds from the sale by us in the August 2013 public offering of 1,605,000 shares of common stock at the public offering price of \$10.00 per share, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, and the repayment of outstanding indebtedness of approximately \$3.5 million resulting in fees and prepayment penalties of \$0.2 million.

The pro forma as adjusted balance sheet data reflects the pro forma balance sheet data at June 30, 2013 as adjusted to reflect our receipt of the net proceeds from the sale by us in this offering of \$50,000,000 of shares of our common stock at the assumed public offering price of \$17.98 per share, which was the closing price of our common stock on The NASDAQ Capital Market on October 16, 2013, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this information together with the sections entitled Capitalization, Selected Consolidated Financial Data, Management solutions and Analysis of Financial Condition & Results of Operations and our consolidated financial statements and related notes included elsewhere in this prospectus.

-8-

	Six Months Ended June 30,			Year Ended December 31,		
	2013	2012	2012	2011	2010	
(dollars in thousands, except share and per share data)						
STATEMENT OF OPERATIONS DATA:						
Revenue	\$ 3,050	\$ 1,983	\$ 4,302	\$ 3,019	\$ 2,522	
Cost of revenues	2,349	1,909	3,929	3,117	3,516	
Gross Profit	701	74	373	(98)	(995)	
Operating Expenses						
Research and development	951	1,050	2,112	2,074	1,167	
General and administrative	2,961	2,329	4,503	4,439	3,446	
Sales and marketing	832	716	1,399	1,574	716	
Total operating expenses	4,744	4,095	8,014	8,087	5,329	
(Loss) income from operations	(4,043)					