UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☐ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2020

Or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 001-35817

CANCER GENETICS, INC.

(Exact name of registrant as specified in its charter)

Delaware	**04-3462475**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

201 Route 17 North 2nd Floor
Rutherford, NJ 07070
(201) 528-9200
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, $0.0001 par value per share	**CGIX**	**NASDAQ Capital Market**

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes: ☐ No: ☐

Indicate by check mark if the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes: ☐ No: ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes: ☐ No: ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

Indicate by check mark if the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes: ☐ No: ☐

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant was $ 6.6 million on June 30, 2020, the last business day of the registrant's most recently completed second fiscal quarter, based on the closing price of $3.03 on that date.

Indicate the number of shares outstanding of each of the registrant's classes of common equity, as of March 26, 2021:

Class	Number of Shares
Common Stock, $.0001 par value	11,007,186

Documents incorporated by reference

None.

TABLE OF CONTENTS

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential,” or the negative of those terms, and similar expressions and comparable terminology intended to identify forward-looking statements. These statements reflect the Company's current views with respect to future events and are based on assumptions and subject to risks and uncertainties including those set forth below and under Part I, Item 1A, “Risk Factors” in this annual report on Form 10-K. Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent the Company's estimates and assumptions only as of the date of this annual report on Form 10-K and, except as required by law, the Company undertakes no obligation to update or review publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this annual report on Form 10-K. You should read this annual report on Form 10-K and the documents referenced in this annual report on Form 10-K and filed as exhibits completely and with the understanding that the Company's actual future results may be materially different from what the Company expects. The Company qualifies all of its forward-looking statements by these cautionary statements. Such statements may include, but are not limited to, statements concerning the following:

- the expected benefits of, and potential value, including synergies, created by, the proposed merger transaction between the Company and StemoniX, Inc. (“StemoniX”) for the stockholders of CGI;
- likelihood of the satisfaction of certain conditions to the completion of the merger with StemoniX, and whether and when the merger will be consummated;
- CGI’s ability to control and correctly estimate its operating expenses and its expenses associated with the StemoniX merger;
- the Company’s ability to adapt its business for future developments in light of the global outbreak of COVID-19, which continues to rapidly evolve;
- the Company’s ability to achieve profitability by increasing sales of the Company’s preclinical CRO services focused on oncology and immuno-oncology;
- the Company’s ability to raise additional capital to meet its long term liquidity needs;
- the Company’s ability to execute on its marketing and sales strategy for its preclinical research services and gain acceptance of its services in the market;
- the Company’s ability to keep pace with rapidly advancing market and scientific developments;
- the Company’s ability to satisfy U.S. (including FDA) and international regulatory requirements with respect to its services;
- the Company’s ability to maintain its present customer base and obtain new customers;
- competition from preclinical CRO services companies, many of which are much larger than the Company in terms of employee base, revenues and overall number of customers and related market share;
- the Company’s ability to maintain the Company’s clinical and research collaborations and enter into new collaboration agreements with highly regarded organizations in the field of oncology so that, among other things, the Company has access to thought leaders in advanced preclinical and translational science;
- potential product liability or intellectual property infringement claims;
- the Company’s dependency on third-party manufacturers to supply it with instruments and specialized supplies;
- the Company’s ability to attract and retain a sufficient number of scientists, clinicians, sales personnel and other key personnel with extensive experience in oncology and immuno-oncology, who are in short supply;
- the Company’s ability to obtain or maintain patents or other appropriate protection for the intellectual property in its proprietary tests and services;
- the Company’s ability to effectively manage its international businesses in Australia and Europe, including the expansion of its customer base and volume of new contracts in these markets;
- the Company’s dependency on the intellectual property licensed to the Company or possessed by third parties; and
- the Company’s ability to adequately support future growth.

PART I

Summary of Risk Factors

Our business is subject to a number of risks, as fully described in "Item 1A. Risk Factors" in this Annual Report. The principal factors and uncertainties include, among others:

- We may not realize the expected benefits of our merger with StemoniX, Inc. ("StemoniX");
- The total number of shares of CGI Common Stock that StemoniX security holders will be entitled to receive pursuant to the Merger Agreement, in the aggregate, is not fully adjustable based on the market price of CGI common stock, so the merger consideration at the closing may have a greater value than at the time the Merger Agreement was signed;
- The post-merger company will need to raise additional capital by issuing securities or debt or through licensing arrangements, which may cause dilution to the post-merger company's stockholders or restrict the post-merger company's operations or proprietary rights. CGI and StemoniX have recurring losses from operations which in the past have raised substantial doubt regarding their respective abilities to continue as a going concern;
- The merger may be completed even though material adverse changes may result from the announcement of the merger, industry-wide changes or other causes;
- The lack of a public market for StemoniX shares makes it difficult to determine the fair market value of the StemoniX shares, and CGI may pay more than the fair market value of the StemoniX shares;
- If the conditions to the merger are not met, the merger may not occur;
- The COVID-19 (also referred to as novel coronavirus) outbreak, which has been declared a global pandemic by the World Health Organization, has significantly and negatively impacted financial markets and economic conditions in the United States and globally. As a result, CGI's operations have been, and may be further, negatively impacted;
- CGI is the target, and may in the future be the target, of securities class action and derivative lawsuits, which could result in substantial costs and may delay or prevent the completion of the merger;
- If the Company is unable to increase sales, the Company revenues will be insufficient to achieve profitability;
- The potential loss or delay of the Company's large contracts or of multiple contracts could adversely affect results;
- The Company's financial results may be adversely affected if it underprices contracts, overruns cost estimates or fails to receive approval for or experience delays in documenting change orders;
- There is a scarcity of experienced professionals in the Company's industry. If the Company is not able to retain and recruit personnel with the requisite technical skills, the Company may be unable to successfully execute the business strategy;
- CGI's business operations are more limited than prior to the sale of its Clinical Services business and the sale of its BioPharma Services business, and thus the costs of maintaining itself as a publicly traded corporation are proportionally higher as a percentage of total revenue and will be more burdensome to CGI going forward. If CGI is unable to increase sales, CGI's revenues will be insufficient to achieve profitability;
- If CGI fails to perform the services in accordance with contractual requirements, regulatory standards and ethical considerations, CGI could be subject to significant costs or liability and CGI's reputation could be harmed. A small number of customers account for most of the sales of CGI's services. If any of these customers require fewer services from CGI for any reason, revenues could decline;
- If the Company's laboratory facilities become damaged or inoperable, or the Company is required to vacate any facility, the ability to provide services may be jeopardized;
- The Company depends on information technology and telecommunications systems, and any failure of these systems could harm the Company's business; and

- The price of the Company's common stock has been and could remain volatile, and the market price of common stock may decrease.

Item 1. Business.

The share numbers throughout this Annual Report on Form 10-K reflect a 1-for-30 reverse stock split that the Company effected October 24, 2019.

Overview

Cancer Genetics, Inc. (the "Company" or "CGI") supports the efforts of the biotechnology and pharmaceutical industries to develop innovative new drug therapies. Following the Business Disposals, the Company currently has an extensive set of anti-tumor referenced data based on predictive xenograft and syngeneic tumor models from the acquisition of vivoPharm, Pty Ltd. ("vivoPharm") in 2017. vivoPharm is a contract research organization ("CRO") that specializes in planning and conducting unique, specialized studies to guide drug discovery and development programs with a concentration in oncology and immuno-oncology. These studies range from early compound selection to developing comprehensive sets of in vitro and in vivo data, as needed for FDA Investigational New Drug ("IND") applications.

The Company offers preclinical services such as predictive tumor models, human orthotopic xenografts and syngeneic immuno-oncology relevant tumor models in its Hershey, PA facility, and is a leader in the field of immuno-oncology preclinical services in the United States. This service is supplemented with GLP toxicology and extended bioanalytical services in the Company's Australian-based facilities in Clayton, Victoria, and Gilles Plains, South Australia (effective in February 2020).

Our business is based on demand for preclinical and discovery services from biotechnology and pharmaceutical companies, academia and the research community. Biotechnology and pharmaceutical companies engaged in designing and running clinical trials to determine the safety and effectiveness of treatments and therapeutics continuously benefit from our services. In particular our preclinical development of biomarker detection methods, response to immuno-oncology directed novel treatments and early prediction of clinical outcome is supported by our extended portfolio of orthotopic, xenografts and syngeneic tumor test systems as a specialized service offering in the immuno-oncology space.

vivoPharm has developed industry recognized capabilities in early phase development and discovery, especially in immuno-oncology models, tumor micro-environment studies, and specialized pharmacology services that support basic discovery, preclinical and phase 1 clinical trials. vivoPharm's studies have been utilized to support over 250 IND submissions to date across a range of therapeutic indications, including lymphomas, leukemia, GI-cancers, liver cancer, pancreatic cancer, non-small cell lung cancer, and other non-cancer rare diseases. vivoPharm is presently serving over 50 biotechnology and pharmaceutical companies across four continents in over 100 studies and trials with highly specialized development, clinical and preclinical research. Over the past 17 years, vivoPharm has also generated an extensive library of human xenograft and syngeneic tumor models, including subcutaneous, orthotopic and metastatic models. vivoPharm offers its expertise in small and bio-molecules.

The Company continues to leverage vivoPharm's international presence to access global market opportunities. vivoPharm's headquarters in Australia specializes in safety and toxicology studies, including mammalian, genetic and in vitro, along with bioanalytical services including immune-analytical capabilities. The Company operates from multiple locations in Victoria and South Australia. vivoPharm's U.S.-based laboratory, located at the Hershey Center for Applied Research in Hershey, Pennsylvania, primarily focuses on screening and efficacy testing for a wide range of pharmaceutical and chemical products. The third location, in Munich, Germany, hosts project management and business development personnel.

Pending Merger with StemoniX

The Company, CGI Acquisition, Inc., a wholly-owned subsidiary of CGI ("Merger Sub"), and StemoniX, Inc., a Minnesota corporation ("StemoniX"), have entered into an Agreement and Plan of Merger and Reorganization, as amended (the "Merger Agreement"), pursuant to which Merger Sub will merge (the "merger") with and into StemoniX, with StemoniX surviving the merger as a wholly-owned subsidiary of CGI following the merger. It is expected that the shareholders of StemoniX will become the majority owners of CGI's outstanding common stock upon the closing of the merger. The Company has filed an effective registration statement on Form S-4, as amended, dated February 12, 2021, as supplemented by a proxy supplement filed on February 26, 2021, describing StemoniX and the terms of the Merger Agreement. The merger with StemoniX is subject to certain closing conditions including listing by Nasdaq, and no assurance can be given that the closing conditions will be satisfied or that the merger with StemoniX will occur.

StemoniX develops and manufactures human induced pluripotent stem cell (iPSC) based neural, cardiac and pancreatic screening platforms for drug discovery and development. Engineered from human skin and blood cells, iPSCs are made with in-licensed patented processes discovered by 2012 Nobel Prize recipient Dr. Shinya Yamanaka. StemoniX's iPSC innovations are made from living human cells and have organ-like, or organoid, characteristics; referred to as microOrgans®. StemoniX has industrialized these microOrgans into standard multi-well plate formats that are sufficiently robust and reproducible to enable drug screening and optimization activities.

StemoniX combines its microOrgan platform with software analytics and augmented intelligence, referred to as AnalytiX™. StemoniX's integrated approach provides a compelling value proposition to pharmaceutical companies and other entities because StemoniX enables standardized, high-throughput screening of drug candidates on complex human organoids prior to human clinical studies, mitigating or in some cases avoiding the inadequacies of testing in clonal cell lines or rodents. StemoniX and its customers and collaborators believe that StemoniX's technologies will permit drug discovery in human disease areas that are difficult to address using current methodologies, accelerate preclinical drug discovery and development, reduce risk of clinical failure, predict with greater degrees of confidence and ultimately, reduce the cost of discovering new therapeutic agents.

StemoniX's business model combines both collaborations with integrated pharmaceutical companies on the derivation and subsequent supply of iPSC-based disease models and screens, and internal drug discovery efforts to identify drug candidates for licensure or clinical development. In StemoniX's disease model effort, StemoniX creates novel models per the specifications of its partners, then either sells microOrgan plates to them or performs Discovery as a Service ("DaaS") on their behalf in its facilities. StemoniX strives to receive a mixture of upfront payments, including licensing fees, milestone-based fees, and ongoing royalty payments in addition to any charges for microOrgan plates and services. While the revenue from StemoniX's disease model and screening activities represents an important component of its business, StemoniX's long-term strategy is to leverage its iPSC technology to pursue partnered and wholly-owned drug discovery projects that yield higher value assets. In its current drug discovery efforts, StemoniX typically collaborates with a partner by pooling its expertise in iPSC biology and screening analytics with the partner's medicinal chemistry capabilities.

StemoniX was incorporated in 2014 in Minnesota with headquarters in Maple Grove, Minnesota, and a research and development team located in La Jolla, California. StemoniX focuses on new iPSC differential protocols, plating procedures, and expansion techniques. StemoniX's Maple Grove manufacturing facility focuses on the growth, differentiation, plating, and shipping of its microOrgan platforms in a highly standardized and rigorous process. The Maple Grove facility includes clean-room and biohazard safe environments to house its incubators, biological safety cabinets, liquid handling machines, refrigerators, and office space. Both facilities also have diagnostic equipment for quality control and assurance. The majority of StemoniX's DaaS revenue is generated from its Maple Grove facility.

StemoniX is a development stage company, and it had net losses of $8.7 million (unaudited) and $9.0 million for the years ended December 31, 2020 and 2019, respectively.

Historical Business and Key Strategic Divestitures

The Company was founded in 1999 to conduct critical research and development of innovative diagnostic tests for the benefit of helping physicians treat complicated cancer cases for patients with blood-borne disease. Upon becoming a publicly-traded company through an initial public offering in 2013, the Company completed a series of acquisitions which expanded the footprint of the business globally, and enlarged the Company's capabilities to offer unique diagnostic tests and services to biotechnology and pharmaceutical companies, and extended the Company's development and patient care expertise to solid tumor cancers. Until the consummation of the Business Disposals (as defined below) in July 2019, the Company was focused on enabling precision medicine in oncology by providing multi-disciplinary diagnostic and data solutions, facilitating individualized therapies through the Company's diagnostic tests, services and molecular markers.

The Company utilized relatively the same proprietary and nonproprietary diagnostic tests, laboratory developed tests (LDTs) and technologies across all of its service offerings to deliver results-oriented information important to cancer treatment and patient management. The Company's portfolio primarily included comparative genomic hybridization (CGH) microarrays, gene expression tests, next generation sequencing (NGS) panels, and DNA fluorescent in situ hybridization (FISH) probes. The Company provided testing services from its Clinical Laboratory Improvement Amendments ("CLIA") - certified and College of American Pathologists ("CAP") - accredited laboratories in Rutherford, NJ and Morrisville, NC.

siParadigm, Inc.

On July 5, 2019, the Company entered into an asset purchase agreement (the "Clinical Agreement") by and among the Company and siParadigm, LLC ("siParadigm"), pursuant to which the Company sold to siParadigm certain assets associated with the Company's clinical laboratory business (the "Clinical Business," and such assets, the "Designated Assets") and agreed to cease operating the Clinical Business. The Designated Assets include intellectual property, equipment and customer lists associated with the Clinical Business, and for a period the Company was providing certain transitional services to siParadigm pursuant to the Clinical Agreement. The cash consideration paid by siParadigm at closing was approximately $747 thousand, which included a $1.0 million advance payment of an earn out, less adjustments and costs of approximately $253 thousand. The Clinical Business sale (together with the BioPharma Disposal, the "Business Disposals") was completed on July 8, 2019.

Interpace Biosciences, Inc.

On July 15, 2019, the Company entered into a secured creditor asset purchase agreement (the "BioPharma Agreement") by and among the Company, Gentris, LLC, a wholly-owned subsidiary of the Company, Partners for Growth IV, L.P. ("PFG"), Interpace Biosciences, Inc. (formerly known as Interpace Diagnostics Group, Inc.) ("IDXG") and a newly-formed subsidiary of IDXG, Interpace BioPharma, Inc. ("Buyer"). The BioPharma Agreement provided for a consensual private foreclosure sale by PFG of all assets relating to the Company's BioPharma Business (as defined in the BioPharma Agreement) to Buyer (the "BioPharma Disposal"). The BioPharma Disposal was consummated on July 15, 2019.

Pursuant to the BioPharma Agreement, Buyer purchased from PFG certain assets and assumed certain liabilities of the Company relating to the BioPharma Business, providing as gross consideration $23.5 million, less certain closing adjustments totaling $2.0 million, of which $7.7 million was paid in the form of a promissory note issued by Buyer to the Company (the "Excess Consideration Note") and the remainder was paid to PFG in cash. PFG utilized the cash proceeds to satisfy the outstanding balances of the Silicon Valley Bank ("SVB") asset-based revolving line of credit ("ABL") and the $6.0 million term note to PFG ("PFG Term Note"), and to satisfy certain transaction expenses. The balance of approximately $2.3 million was delivered to the Company along with the Excess Consideration Note. The Excess Consideration Note was settled on October 24, 2019 for $6.0 million. The Buyer withheld from the settlement of the Excess Consideration Note approximately $775 thousand for a net worth adjustment (assets less liabilities) of the BioPharma business ("Net Worth"), $153 thousand to secure collection of certain older accounts receivable of the Company purchased by Buyer ("AR Holdback") and an additional $735 thousand as security for indemnification obligations of the Company ("Indemnification Holdback"). The Company received the full amounts of the AR Holdback and the Indemnification Holdback in April and May 2020, respectively

The Company and Buyer also entered into a transition services agreement (the "TSA") pursuant to which the Company and Buyer are providing certain services to each other to accommodate the transition of the BioPharma Business to Buyer. In particular, the Company agreed to provide to Buyer, among other things, certain personnel services, payroll processing, administration services and benefit administration services, for a period not to exceed six months from July 15, 2019, subject to the terms and conditions of the TSA, in exchange for payment or reimbursement, as applicable, by Buyer for the costs related thereto, including salaries and benefits for certain of the Company's BioPharma employees during the transition period. The Buyer paid for certain costs of the Company under the TSA with respect to a limited number of employees and professionals. Such shared services amounted to $208 thousand and $186 thousand for the years ended December 31, 2020 and 2019, respectively. In addition, the Buyer was reimbursing the Company, in part, for the salaries and benefits of John A. Roberts, the Company's Chief Executive Officer, and Glenn Miles, the Company's former Chief Financial Officer through July 2020. The reimbursed portion of such salaries and benefits amounted to $155 thousand and $188 thousand for the years ended December 31, 2020 and 2019, respectively.

The Business Disposals have been classified as discontinuing operations in conformity with US GAAP. Accordingly, BioPharma and Clinical operations and balances have been reported as discontinuing operations and removed from all financial disclosures of continuing operations for the years ended December 31, 2020 and 2019.

Continuing Operations

With the acquisition of *vivo*Pharm on August 15, 2017, the Company enhanced its Discovery Services capabilities. The Company is currently executing a strategy of partnering with pharmaceutical and biotech companies, academic institutions and governmental research centers as oncology diagnostic specialists by supporting therapeutic discovery. The Company's customers are increasingly attracted to working with it on preclinical development of biomarker detection methods, response to immuno-oncology directed novel treatments and early prediction of clinical outcomes which is supported by its extended portfolio of orthotopic, xenografts and syngeneic tumor test systems as a unique service offering in the immuno-oncology space.

Strategy

The Company's market strategy is to focus on developing innovative new drug discoveries in partnership with pharmaceutical and biotechnology companies and academic and governmental research facilities. The Company's current Discovery Services include preclinical anti-tumor efficacy, GLP compliant toxicity studies and small and bio-molecule analytical services, and the Company provides the tools and testing methods for companies and researchers seeking to identify and to develop new compounds and molecular-based biomarkers for diagnostics and therapeutics. With the proposed merger with StemoniX, the Company will be able to extend its capabilities to include standardized, high-throughput screening of drug candidates on complex human organoids prior to human clinical studies, to de-risk translational decision making and accelerate the time it takes to identify both novel and repurposed compounds and bring relevant data to investigational new drug applications before regulatory agencies around the globe. By combining StemoniX' microOrgan platform with software analytics and augmented intelligence, referred to as AnalytiX™, StemoniX's integrated approach provides a compelling value proposition to pharmaceutical companies and for the combined companies own discovery programs.

The Company currently offers preclinical services such as predictive tumor models, human orthotopic xenografts and syngeneic immuno-oncology relevant tumor models in its Hershey, PA facility and continues to work toward being a leader in the field of immuno-oncology preclinical services in the United States. This service is supplemented with GLP toxicology and extended bioanalytical services in its Australian-based facilities in Clayton, VIC and Gilles Plains, SA.

In 2019, until the Business Disposals, the Company utilized relatively the same proprietary and nonproprietary molecular diagnostic tests and technologies across all of its service offerings outside of Discovery Services to deliver results-oriented information important to cancer treatment and patient management.

Market Overview

United States Clinical Oncology Market Overview

Despite many advances in the treatment of cancer, it remains one of the greatest areas of unmet medical need. In 2019, the World Health Organization attributed 9.6 million deaths globally to cancer, which is about 1 in 6 deaths. Within the United States, cancer is the second most common cause of death, exceeded only by heart disease, accounting for nearly one out of every four deaths. The Agency for Healthcare Research and Quality estimated that the direct medical treatment costs of cancer in the United States for 2015 were $80.2 billion. The incidence, deaths and economic loss caused by cancer are staggering. In the United States in 2020, it is expected that in total there will be approximately 1.8 million new cancer cases diagnosed, which is the equivalent of approximately 4,950 new cases each day, according to the North American Association of Central Cancer Registries (NAACCR) 2019 data. Although overall cancer death rates continue to decline, incidence rates are leveling off among males and are increasing slightly among females. These trends reflect population changes in cancer risk factors, screening test use, diagnostic practices, and treatment advances. Many cancers can be prevented or treated effectively if they are found early. Population-based cancer incidence and mortality data can be used to inform efforts to decrease the cancer burden in the United States and regularly monitor progress toward goals.

United States and International Clinical Trials Market Overview

The global clinical trials market size is expected to reach USD $69.8 billion by 2027, exhibiting a 5.1% compound annual growth rate (CAGR) during the forecast period, according to a February 2020 report published by Grand View Research, Inc. The United States is currently a world leader in biopharmaceutical research and development and manufacturing. In Fiscal Year 2020, the National Cancer Institute received a budget of $6.44 billion, an increase of $297 million over FY 2019, to issue grants to support research, with a targeted investment in enhanced and early detection of disease through the analysis of circulating biomarkers using minimally invasive methods, as well as a focused investment in cancer prevention and treatment including research on new vaccines to prevent cancer-causing infections and investigational immuno-oncology drugs and drug combinations. The Pharmaceutical Research and Manufacturers of America (PhRMA) reports that the average cost to develop a drug, including trial failures can be as high as $2.6 billion and the approval process from development to market may be as long as 15 years. According to the National Cancer Institute, since the 1990s, cancer death rates in the United States have declined 23%, and approximately 83% of life expectancy increases in cancer patients are due to new treatments and oncology medications.

Outside of the United States, growth in the pharmaceuticals and clinical trials market is continuing, and trials are increasingly becoming more complex. Growth in the European pharma market is anticipated to be driven largely by the United Kingdom, Germany, Spain, France and Italy. The size of this market is expected to grow 25% between 2017 and 2022, accounting for nearly 70% of the European pharma market by 2022.

While oncology drugs have the potential to be among the most personalized therapeutics, very few successfully make it to market. The application of pharmacogenomics to oncology clinical trials enables researchers to better predict differences, initially driven by data derived in preclinical research. The Company believes a growing demand for faster development of personalized medicines and more effective clinical trials are growth drivers of this market, and its core expertise is preclinical efficacy, toxicity and bioanalytical services.

More specific to the Company's targeted markets around the world, according to Market Insight Reports (October 2019) the global oncology-based in-vivo CRO market was valued at over $799 million in 2018 and is projected to reach $1.47 billion by 2026, growing at a CAGR of 7.9% from 2019 to 2026. The major factors contributing to the growth of this market include the rising incidence of cancer cases worldwide, the rise in the geriatric population, the increasing number of specific therapies in the oncology pipeline and the presence of large numbers of pipeline drugs. The number of late-stage pipeline therapies rose from 711 in 2017 to 849 in 2018, representing an increase of 19%, and the use of oncology-based in-vivo CRO helps in deriving the novel therapies for the diagnosis, prevention, and treatment to patients. Oncology is one of the most studied indication areas, as per the statistics available from government agencies around the world. Other factors that are playing a key role in driving growth in the oncology-based in-vivo CRO business include greater federal funding for research studies and increasing research expertise in the industry.

The Company has a particularly strong set of experiences working in the preclinical area of checkpoint inhibitors and specifically immunotherapies. Drug development is continuing to attract biotech companies transforming scientific innovation into practice-changing cancer drugs, thereby driving demand for the Company's services. When considering druggable targets within the different immuno-oncology drug classes, T cell immunomodulators and cell therapies had the largest increase in new targets in the past 2 years, which suggests that more innovation is going into these drug classes than the other IO drug classes. According to Nature Reviews December 2019, active drugs in development have grown from 2,030 to 3,876, a 91% increase in just two years, resulting in more than 3,400 active clinical trials evaluating such agents, 66% of all active immuno-oncology drugs in development.

The Company's Strategy

With the Business Disposal transactions completed in 2019, the Company embarked on a transformative strategy to focus on drug discovery and introducing an innovative approach toward biotechnology, from target identification to Investigational New Drug (IND) applications. Since entering into the Merger Agreement with StemoniX, if consummated, the Company intends to collaborate with industry partners to offer a unique, multiple modality approach to incorporate in silico, in vitro and in vivo derived data while combining deep biology and data science. The Company expects to partner with biotech and pharmaceutical drug developers in neurology, cardiac and oncology to provide licensed access to our technology platforms.

Human biology is complex and the Company believes its challenges must be met with technology that can help researchers see critical patterns and connections to unlock actionable insights. By reimagining drug discovery, the Company is focused on playing a pivotal role in providing better treatments to patients faster by maximizing the time and resources of researchers and medical scientists. The Company expects to realize synergies from the merger by taking a human-first approach to discovery through the convergence of biology, chemistry and data analytics. StemoniX functional models, deep scientific expertise, and advanced analytical algorithms converge to provide the right biology, effective workflows, and actionable results that move our partners forward and get medications to patients faster. Human spheroids derived from induced pluripotent stem cells (iPSC) create highly functional and standardized screening for high-throughput data outputs that are predictive of viable target compounds to de-risk and accelerate decision making for biopharma partners and the Company's own pipeline of therapeutics later in 2021.

The Company is currently focused on delivering its pre-clinical CRO and drug discovery services to a diverse group of market participants, including:

- biotechnology companies;
- pharmaceutical companies;
- governmental agencies; and
- academic research centers.

These participants require syngeneic and xenograft tumor models to support the development of novel biomarkers and increasing technological expertise to collect key data sets for their clinical trials, understand and manage therapeutic development and design customized therapy choices. The Company believes that its approach to rapidly translate research insights about the genetics and molecular mechanisms of cancer into the research community will lead to innovative products

being developed, particularly in the area of immuno-oncology therapies. To achieve this, and in order of its focus and priority, the Company intends to:

- *Leverage its specialized, disease-focused genomic and molecular knowledge, insights and service portfolio to secure additional collaborations or partnerships with leading biotech and pharmaceutical companies and clinical research organizations through its vivoPharm business. This will deepen its relationships with its existing clients and expand its unique portfolio of Discovery Service offerings in the United States, Europe, Australia and the rest of the world. B*iotech and Pharmaceutical companies engaged in the identification of therapeutic targets and novel oncology and immuno-oncology treatments often require support in trial design, assay development, preclinical research and clinical research and trial management. vivoPharm's suite of oncology-focused services, including proprietary tumor models, enables the Company to increase its market share in drug identification, drug rescue and drug repurposing studies. The Company believes vivoPharm's capabilities provide it with opportunities to deepen its relationships with existing customers through additional discovery and downstream molecular work.

- *Leverage its growing preclinical business to influence sales relationships with its former biopharma business in the U.S., Europe and Australia, to provide its integrated service offerings.* The Company believes that by combining the efforts of its business development teams inside of its existing and prospective Discovery clients, which entail many biopharma companies, the Company can leverage its capabilities from preclinical development of biomarker detection methods, responses to immuno-oncology directed novel treatments and early prediction of clinical outcomes, supported by its extended portfolio of orthotopic, xenografts and syngeneic tumor test systems, to help drive its access to support other translational oncology initiatives.

- *Continue its focus on translational oncology and drive innovation and cost efficiency in drug discovery by continuing to develop unique offerings independently and through collaborations with academic and cancer research centers and other key opinion leaders and their organizations.* Translational oncology refers to the focus of bringing novel research insights that characterize cancer treatments to predict clinical outcomes with the overall goal of improving value to patients in the treatment and management of disease. The Company believes that continuing to develop its existing platforms and tumor models will enable growth and efficiencies within its business.

- *Engage key strategic partners in the U.S. and abroad to leverage its remaining intellectual property portfolio and unique capabilities to grow its revenue*The Company entered into a strategic partnership in China to license its Tissue of Origin® test in that region and the Company intends to monetize this asset in 2021 through the sale to a Chinese or U.S. based diagnostic laboratory.

- *Continue to aggressively manage its cost structure.* The Company continues to focus on managing its operating costs while continuing to seek additional revenue growth opportunities. The Company is implementing measures to streamline costs across its laboratory facilities, and integrating administrative functions across its global operations, along with key financial enterprise resource planning and human resource systems that enable greater efficiency.

The Company believes that the pending merger with StemoniX, if consummated, will be beneficial in furthering the business of the Company for a number of reasons:

- The Company believes that the merger will position the post-merger company to harness the synergies between two critical modalities of drug discovery and development - advanced animal models and relevant human high-throughput organoid platforms;

- The Company believes in the scientific and clinical value of the StemoniX business and that the resulting integration of scientific and technology-based expertise, skilled management teams, and ability to offer customers an end-to-end platform will de-risk and accelerate discovery and development of preclinical and clinical pipelines for biopharma partners as well as for the proprietary pipeline of the post-merger company;

- The Company believes that the post-merger company will be able to create partnership engagements with pharmaceutical and biotechnology companies that will yield significant revenue opportunities, based on the combined technology and scientific expertise to the combined professional staff;

- The Company believes that the resulting integration of scientific capabilities from the merger provides the best opportunity to improve upon CGI's cash position and historic substantial doubt about CGI's ability to continue as a going concern; and

- The Company expects that the post-merger company will include experienced members from the senior management team of StemoniX who have expertise in drug discovery that is valued by potential pharmaceutical and biotechnology partners.

The Company's Service Offerings

Prior to the Business Disposals, the Company's business was based on demand for molecular- and biomarker-based characterization of cancers from three main sectors: (1) biotechnology and pharmaceutical companies, (2) cancer centers and hospitals, and (3) the research community. With the Company's continued focus on the preclinical market, its services are primarily sought by biotechnology and pharmaceutical companies engaged in designing and preparing to run clinical trials, for their value and efficacy in oncology and immuno-oncology treatments and therapeutics. The Company believes trial participants' likelihood of experiencing either favorable or adverse responses to the trial treatment can be determined first by its extended portfolio of orthotopic, xenografts and syngeneic tumor test systems, and in early development through biomarker identification and development, thereby increasing trial efficiency, participant safety and trial success rates. Biotechnology and pharmaceutical companies also seek the Company's services in preclinical trial design and drug development, in order to effectively and efficiently select those therapeutic candidates most likely to progress to clinical treatment options. The Company's services are also sought by researchers and research groups seeking to identify biomarkers and panels and develop methods for diagnostic technologies and tests for disease.

Discovery Services

The Company offers proprietary preclinical test systems valued by the pharmaceutical industry, biotechnology companies and academic research centers. In particular, the Company's preclinical development of biomarker detection methods, response to immuno-oncology directed novel treatments and early prediction of clinical outcome is supported by its extended portfolio of orthotopic, xenografts and syngeneic tumor test systems. *vivo*Pharm specializes in conducting studies tailored to guide drug development, starting from compound libraries and ending with a comprehensive set of in vitro and in vivo data and reports, as needed for Investigational New Drug filing. *vivo*Pharm operates in AAALAC accredited and GLP-compliant audited facilities. The Company provides its preclinical services, with a focus on efficacy models, from its Hershey, PA facility for the U.S. and European markets, and supplemented with GLP toxicology and extended bioanalytical services in its Australia-based facility in Clayton, VIC and Gilles Plains, SA (effective in February 2020).

The Company's Discovery Services provide the tools and testing methods for companies and researchers seeking to identify new molecular- and biomarker-based indicators for disease and to determine the pharmacogenomics, safety and effectiveness of potential therapeutic candidate compounds. Discovery Services offered include development of both xenograft and syngeneic animal models, toxicology and genetic toxicology services, pharmacology testing, pathology services, and validation of biomarkers for diseases including cancers. The Company also provides consulting, guidance and preparation of samples and clinical trial design. The Company believes the ability to analyze variations in biomarkers, tumor cells and compounds, and to interpret results into meaningful predictors of disease or indicators of therapeutic success is essential to discovering new molecular markers for cancer, new therapeutics, and targets for therapies.

We execute on our market strategy by delivering results-oriented information and insights which we believe is or will become important to drug discovery and development and ultimately to accelerated therapy approvals and commercialization. Our Discovery Services aim to accelerate the development of novel treatment candidates and precision medicine, with a current focus in oncology. We believe the level of personalized treatment required to optimize a patient's treatment regimen and to maximize clinical trial success rates may be significantly improved through the use of molecular- and biomarker-based characterization.

The following table lists our market strategy by customer category:

Customer Category	Types of Customers	Nature of Services
Discovery Services	• Pharmaceutical and Biotech companies • Academic Institutions • Government-Sponsored Research Institutions	Discovery services, including preclinical anti-tumor efficacy, GLP compliant toxicity studies, small molecular and biologics analytical services, provide the tools and testing methods for companies and researchers seeking to identify and to develop new compounds and molecular-based biomarkers for diagnostics and treatment of disease.

Retained Tests

The Company continues to own a portfolio of proprietary disease-focused tests, which are currently available for licensing to the biopharma industry and diagnostic companies. The Company currently has a Chinese laboratory company offering its Tissue of Origin test in China. The Company intends to monetize this asset in 2021 through the sale to a Chinese or U.S. based diagnostic laboratory.

Solid Tissue Cancers

The term "solid tumors" encompasses abnormal masses of cells that do not include fluid areas (e.g. blood) or cysts. Solid tumors are composed of abnormal cell growths that originate in organs or soft tissue and are normally named after the types of cells that form them. Examples of solid tumors include breast cancer, lung cancer, ovarian cancer and melanoma. Solid tumors may be benign (not cancerous) or malignant (cancerous) and may spread from their primary tissue of origin to other locations in the body (metastasis). There are over 200 individual chemotherapeutic drugs available for combating solid tumor cancers. Selection of an appropriate course of treatment for a patient may depend on identification of the gene mutation or mutations present in their particular cancer and on determining the cancer's tissue of origin. Metastatic tumors with an uncertain primary site can be a difficult clinical problem. In tens of thousands of oncology patients every year, no confident diagnosis is ever issued, making standard-of-care treatment impossible.

The Company's Proprietary Tests for Solid Tissue Cancers

Test	Targeted Cancers	Technology & Advantages
Tissue of Origin®	• Solid Tissue Cancers – Thyroid – Breast – Non-Small Cell Lung Cancer (NSCLC) – Gastric – Pancreas – Colorectal – Liver – Bladder – Kidney – Non-Hodgkin's Lymphoma – Melanoma – Ovarian – Sarcoma – Testicular Germ Cell – Prostate	• Tissue of Origin® (TOO®) is FDA-cleared, Medicare-reimbursed, and provides extensive analytical and clinical validation for statistically significant improvement in accuracy over other methods. • TOO® is a gene expression test that is used to identify the origin in cancer cases that are metastatic and/or poorly differentiated and unable to be typed by traditional testing methods. • TOO® increases diagnostic accuracy and confidence in site-specific treatment decisions, and leads to a change in patient treatment based on results 65% of the time it is used. • TOO® assesses 2,000 genes, covering 15 of the most common tumor types and 90% of all solid tumors. • In the fourth quarter of 2015, the Company acquired the TOO® test through its acquisition of substantially all of the assets of Response Genetics, Inc.

Tissue of Origin® Test. The Company continues to own and maintain its FDA-cleared Tissue of Origin® test, or TOO®, a gene expression test that is indicated when there is clinical uncertainty about a poorly differentiated or undifferentiated, or a metastatic tumor where the primary tissue of cancer development is unknown. The Tissue of Origin® test the Company believes is currently the only FDA-cleared test of its kind on the market, and can determine the most likely tissue of origin of a patient tumor sample from the fifteen most common tumor types - including thyroid, breast, pancreas, colon, ovarian and prostate - which account for ninety percent of all incidences of solid tissue tumors, by measuring the expression levels of 2,000 individual genes. TOO® is supported by extensive analytical and clinical validation data from robust, multi-center clinical studies. The Company believes TOO® can reduce the need for repeated testing, examinations, imaging and biopsy procedures by providing clinicians with the primary tissue type with greater certainty than traditional diagnostic techniques. This in turn empowers physicians to select the correct type of treatment earlier in the course of the patient's therapy. The Company is holding the patent for sale.

Discontinued Services

Biopharma Services

Until the Business Disposals, the Company's Biopharma Services included laboratory and testing services performed for biotechnology and pharmaceutical companies engaged in clinical trials. The Company's focus was on providing these clients

with oncology specific and non-oncology genetic testing services for phase I-IV trials along with critical support of ancillary services. These services included: biorepository, clinical trial logistics, clinical trial design, bioinformatics analysis, customized assay development. DNA and RNA extraction and purification, genotyping, gene expression and biomarker analyses. The Company also sought to apply its expertise in laboratory developed tests ("LDTs") to assist in developing and commercializing drug-specific companion diagnostics. The Company established business relationships with key instrument manufacturers to support their platforms in the market, and to drive acceptance among biopharmaceutical sponsors developing innovative immuno-oncology therapies.

In addition to the tests and services the Company provided to biotech and pharmaceutical companies, the Company developed Next Generation Sequencing (NGS) panels focused on pharmacogenomics and oncology that will inform researchers of trial subjects' drug sensitivities.

The Company also utilized its laboratories to provide clinical trial services to biotech and pharmaceutical companies and clinical research organizations to improve the efficiency and economic viability of clinical trials. The Company's clinical trials services leveraged its knowledge of clinical oncology and molecular diagnostics and its laboratories' fully integrated capabilities.

From a laboratory infrastructure standpoint, the Company possessed capabilities in histology, immunohistochemistry (IHC), flow cytometry, cytogenetics and fluorescent *in-situ* hybridization (FISH), as well as sophisticated molecular analysis techniques, including next generation sequencing. This allowed for comprehensive esoteric testing within one lab enterprise, with a CAP-accredited biorepository serving as a central hub for specimen tracking. Using this approach, the Company was able to support demanding clinical trial protocols requiring multiple assays and techniques aimed at capturing data on multiple biomarkers. The Company's suite of available testing platforms allowed for highly customized clinical trial design which was supported by a dedicated group of development scientists and technical personnel.

The Company also provided genetic testing for drug metabolism to aid biotech and pharmaceutical companies identify subjects' likely responses to treatment, allowing these companies to conduct more efficient and safer clinical trials. The Company believes pharmacogenomics drug metabolism testing helps deliver the promise of personalized medicine by enabling researchers to tailor therapies in development to differences in patients' genomic profiles.

Clinical Services

Until the Business Disposals, the Company provided its oncology and immuno-oncology tests and services to oncologists and pathologists at hospitals, cancer centers, and physician offices. The Company's portfolio contains proprietary tests to target cancers that are difficult to prognose and predict treatment outcomes through currently available mainstream techniques. The Company utilized an expansive range of non-proprietary tests and technologies to provide a comprehensive profile for each patient it serves. Clinical testing was available through anatomic pathology, flow cytometry, karotype, FISH, liquid biopsy and molecular diagnostics (including next generation sequencing and gene expression panels).

Sales and Marketing

The Company's sales and marketing efforts consist of both direct and indirect efforts, with the majority of efforts focused on direct sales in the United States, Europe and Australia. The Company collaborates with preclinical development and translational science teams at pharmaceutical and biotech companies on studies involving tumor models and therapeutic candidate compound testing.

The Company's U.S. and European business development and sales professionals have scientific backgrounds in hematology, pathology, and laboratory services, with many years of experience in biopharmaceutical and clinical oncology sales, esoteric laboratory sales from leading biopharmaceutical, pharmaceutical or specialty reference laboratory companies. The Company currently has a team of four business development and sales professionals in the United States and Europe.

The Company also promotes its services through marketing channels commonly used by the biopharma and pharmaceutical industries, such as internet, medical meetings and broad-based publication of its scientific and economic data. In addition, the Company provides easy-to-access information to its customers over the internet through dedicated websites. The Company's customers value easily accessible information in order to quickly review patient or study information.

Competition

(US), MD Biosciences (US)., IQVIA (US), PAREXEL International Corporation (US), Envigo (US), Charles River (US), ICON PLC (Dublin), PRA Health Sciences (US), Medpace (US), Laboratory Corporation of America Holdings (US), WuXi AppTec (China) and Eurofins Scientific (Luxembourg). The players operating in the global preclinical CRO market are focusing on product unveilings, along with intensifying their global presence by entering untouched markets.

Projects related to the molecular mechanisms driving cancer development have received increased government funding, both in the United States and internationally. The National Cancer Institutes' Cancer Moonshot is anticipated to increase both patient awareness and federal government funding for research and clinical trials. The Federal Government has committed $1.8 billion over a 7-year period to fund the 21st Century Cures Act. As more information regarding cancer genomics and biomarkers becomes available to the public, the Company anticipates that more products aimed at identifying targeted treatment options will be developed and that these products may compete with its products.

Third-Party Suppliers

The Company currently relies on third-party suppliers for its specialized research and scientific instrumentation and related supplies of reagents, tumor cell lines, and other inventory for it to successfully perform its CRO services for its customers. In addition, the Company relies on contracted manufacturers and collaborative partners to produce materials necessary for its FHACT® and FDA-cleared Tissue of Origin® tests. The Company plans to continue to rely on these manufacturers and collaborative partners to manufacture these materials. The Company does not believe a short-term disruption from any one of these suppliers would have a material effect on its business, nor has the Company experienced any disruptions due to COVID-19.

Patents and Proprietary Technology

The Company has proprietary tests that enable oncologists and pathologists at hospitals, cancer centers, and physician offices to properly diagnose and inform cancer treatment. The Company relies on a combination of patents, patent applications, trademarks, trade secrets, know-how, as well as various contractual arrangements, in order to protect the proprietary aspects of its technology. The Company may also license its technology to others. The Company believes that no single patent, technology, trademark, intellectual property asset or license is material to its business as a whole.

Until the Business Disposals, the Company's patent portfolio consisted of 20 issued U.S. patents, 5 pending U.S. applications, and more than 40 foreign patents. Most of this intellectual property was transferred to those parties the Company entered into to complete the Business Disposals. The Company's key remaining patents currently include:

- Hematological cancers. The Company has two U.S. patents (U.S. Patent Nos. 8,580,713 and 8,557,747), directed to MatBA®, a microarray for detecting (and distinguishing) particular types of mature B cell neoplasms present in typical non-Hodgkin's lymphoma, Hodgkin's lymphoma and chronic lymphocytic leukemia. These patents cover the Company's trademarked MatBA® microarray and are directed to both the microarray itself as well as associated methodologies designed to detect the particular type of mature B cell neoplasm present in a patient. The MatBA® microarray patents issued from the first of the Company's family of applications in the microarray space. The term of these patents runs through 2030.

- The Company has four U.S. patents (U.S. Patent Nos. 8,977,506, 8,321,137, 7,747,547 and 8,473,217) covering its Tissue of Origin® Test. These patents are directed at systems and methods for detecting biological features in solid tumors. The term of these patents run through 2030.

- HPV-Associated Cancers. The Company has three U.S. patents (U.S. Patent Nos. 9,157,129, 8,865,882 and 8,883,414) that cover methods for detecting HPV-associated cancers used in its FHACT® test. The term of these patents run through 2031.

- FISH Probes. The Company has two patents covering its FISH probes. These patents cover probes and methodologies designed to detect and analyze particular chromosomal translocations (genetic lesions) associated with a wide range of cancers using a technique known as FISH and serve as the backbone for several of its other pending patent applications, which are more specifically geared towards other probes (and methodologies). The term of these patents run through 2022.

Until the Business Disposals, the Company held twenty-six U.S. registered trademarks, including a federal registration for the term "CGI" as well as three U.S. trademark applications and one foreign trademark registration for certain of its proprietary tests and services. The Company transferred the ownership of these trademarks to the Buyer, subject to a royalty-free license to

use such intellectual property for six months after following the closing, and subject to its right to request an additional six months, which request has been made. The Company also owns the trademark for the *vivo*Pharm trade name, which is the primary revenue-generating business unit.

Operations and Production Facilities

As a preclinical oncology contract research organization (CRO), the Company's leased facilities are built to house immunocompromised animals and specialized models. They incorporate surgical suites, gowning rooms, and holding rooms. In order to ensure an environment of utmost sterility, while also minimizing the workload by negating dependency on cage-wash infrastructure, the Company relies on its landlords and licensors to manage the vivarium's at its animal facilities. This allows for more investment of time and energy into scientific endeavors.

Quality Assurance

We are committed to maintaining a standard of excellence and to providing reliable and accurate laboratory services to our customers. To that goal, our independent Quality Assurance Unit (QAU) has implemented a comprehensive and integrated Quality Management System (QMS) designed to drive consistent high quality testing services while ensuring the highest ethical standards across our enterprise.

Our QMS documents quality assurance policies as well as the quality control procedures that are necessary to ensure we offer a consistently high quality of testing services. Our quality management program is designed to satisfy all the requirements necessary for local, state, and federal regulations in order to maintain licensures, permits and regulatory approvals applicable to our business. In addition, our QMS satisfies the Food and Drug Administration (FDA) requirements for nonclinical studies conduct and content, computer systems validation, electronic records and signatures, and Good Laboratory Practice (GLP). For additional information on our laboratory licensure and permitting, please review our Risk Factors.

Quality indicators, which are metrics related to ensuring accurate and reliable test results, are routinely tracked at each of our facilities and are compared to previously determined benchmarks. These indicators are reviewed periodically by our scientific management team and include key performance indicators, non-conformance indicators (deviations, corrective and preventives actions), proficiency testing reports, and customer satisfaction surveys. We leverage third-party provided proficiency testing whenever practicable to provide objective analysis of our QMS and procedures, and we implement internal review protocols for assays for which third-party proficiency testing is not available.

Our facilities and QMS are audited internally on a periodic basis for compliance with applicable regulations, policies, analytical plans and internal standard operating procedures. Any needed revisions to the QMS that are identified through these audits are made to ensure continued compliance with applicable standards, and we believe that we meet State and Federal regulations in the geographies where we operate.

Customer satisfaction is another key to successful implementation of our QMS. We routinely monitor customer input and complaints, and take necessary actions to assure their satisfaction. Our management team encourages employees to communicate any concerns they may have with respect to scientific misconduct, quality and safety.

In addition to maintaining a robust QMS, we have defined a plan that covers a wide range of disaster recovery and business continuity issues including data recovery. Both the business continuity and disaster recovery plans are reviewed on an annual basis.

Governmental Regulations

The Company's Pennsylvania and Australia research laboratory facilities comply with Good Laboratory Practices ("GLP") to the extent required by the FDA, Environmental Protection Agency, USDA, Organization for Economic Co-operation and Development (OECD), as well as other international regulatory agencies. Furthermore, the Company's early-stage discovery work, which is not subject to GLP standards, is typically carried out under a quality management system or internally developed quality systems. The Company's facilities are regularly inspected by U.S. and other regulatory compliance monitoring authorities, its clients' quality assurance departments, and its own internal quality assessment program. The Company is also accredited by AAALAC International, a private, nonprofit organization that promotes the humane treatment of animals in science through voluntary accreditation and assessment programs. The Company volunteers to participate in the AAALAC's program to demonstrate its commitment to responsible animal care and use, in addition to its compliance with local, state and federal laws that regulate animal research.

FDA

The U.S. Food and Drug Administration ("FDA") regulates the sale or distribution, in interstate commerce, of medical devices under the Federal Food, Drug, and Cosmetic Act ("FDCA"), including in vitro diagnostic test kits, reagents and instruments used to perform diagnostic testing. Certain of such devices must undergo premarket review by FDA prior to commercialization unless the device is of a type exempted from such review by statute or pursuant to FDA's exercise of enforcement discretion. FDA, to date, has not exercised its authority to actively regulate the development and use of LDTs, such as the Company's, as medical devices and therefore the Company does not believe that its LDTs currently require premarket clearance or approval.

Post-market Regulation

The Company's Tissue of Origin® test obtained clearance under section 510(k) of the FDCA. After a device, such as its Tissue of Origin® test, is cleared or approved for marketing, numerous and pervasive regulatory requirements continue to apply once the test is marketed, including FDA's current good manufacturing practice requirements. Since the Company does not offer its FDA-approved product in the European Economic Area ("EEA") the Company is not currently subject to post-market regulation in the EEA or any member state. The FDA has broad regulatory compliance and enforcement powers. If the FDA determines that a company has failed to comply with applicable regulatory requirements, it can take a variety of compliance or enforcement actions, which may result in any of the following sanctions:

- warning letters, untitled letters, fines, injunctions, consent decrees and civil penalties;
- recalls, withdrawals, or administrative detention or seizure of products;
- operating restrictions or partial suspension or total shutdown of production;
- refusing or delaying requests for 510(k) marketing clearance or PMA approvals of new products or modified products;
- reconsideration of 510(k) clearances or PMA approvals that have already been granted;
- refusal to grant export approvals for products; and/or
- criminal prosecution.

In addition, FDA could publicly issue a safety notice related to the Company's test or request updates to its product labeling, including the addition of warnings, precautions, or contraindications.

Health Insurance Portability and Accountability Act, as amended by the Health Information Technology for Economic and Clinical Health Act ("HITECH Act")

Under the administrative simplification provisions of HIPAA, as amended by the HITECH Act, the United States Department of Health and Human Services has issued regulations which establish uniform standards governing the conduct of certain electronic health care transactions and protecting the privacy and security of Protected Health Information used or disclosed by health care providers and other covered entities. For further discussion of HIPAA and the impact on the Company's business, see the section entitled *"Risk Factors-Risks Related to its Business-The Company is required to comply with laws governing the transmission, security and privacy of health information that require significant compliance costs, and any failure to comply with these laws could result in material criminal and civil penalties."*

European General Data Protection Regulation

The collection and use of personal health data in the European Union had previously been governed by the provisions of the Data Protection Directive, which has been replaced by the General Data Protection Regulation ("GRPR") which became effective on May 25, 2018 While the Data Protection Directive did not apply to organizations based outside the EU, the GDPR has expanded its reach to include any business, regardless of its location, that provides goods or services to residents in the EU. This expansion would incorporate the Company's clinical trial activities in EU members states. The GDPR imposes strict requirements on controllers and processors of personal data, including special protections for "sensitive information" which includes health and genetic information of data subjects residing in the EU. GDPR grants individuals the opportunity to object to the processing of their personal information, allows them to request deletion of personal information in certain circumstances, and provides the individual with an express right to seek legal remedies in the event the individual believes his or her rights have been violated. Further, the GDPR imposes strict rules on the transfer of personal data out of the European

Union to the United States or other regions that have not been deemed to offer "adequate" privacy protections. Failure to comply with the requirements of the GDPR and the related national data protection laws of the European Union Member States, which may deviate slightly from the GDPR, may result in fines of up to 4% of global revenues, or € 20,000,000, whichever is greater. As a result of the implementation of the GDPR, the Company may be required to put in place additional mechanisms ensuring compliance with the new data protection rules.

The Company's research activities in the EU are currently limited to non-human preclinical studies, and as such, the Company does not collect, store, maintain, process, or transmit any Personal Data (as that term is defined under the GDPR) of trial subjects. However, since the Company currently has three employees located in the EU, its processing and transfer for employee Personal Data is subject to GDPR requirements. The Company has implemented a privacy and security program that is designed to adhere to the requirements of the GDPR in order to protect employee Personal Data, and in the event the Company progresses to research or clinical trials involving humans, to protect participant Personal Data. However, there is significant uncertainty related to the manner in which data protection authorities will seek to enforce compliance with GDPR. For example, it is not clear if the authorities will conduct random audits of companies doing business in the EU, or if the authorities will wait for complaints to be filed by individuals who claim their rights have been violated. Enforcement uncertainty and the costs associated with ensuring GDPR compliance be onerous and adversely affect the Company's business, financial condition, results of operations and prospects. As a result, the Company cannot predict the impact of the GDPR regulations on its current or future business, either in the US or the EU.

Federal, State and Foreign Fraud and Abuse Laws

The federal Anti-Kickback Statute prohibits, among other things, knowingly and willfully offering, paying, soliciting or receiving remuneration to induce or in return for purchasing, leasing, ordering or arranging for the purchase, lease or order of any health care item or service reimbursable under a governmental payor program. The definition of "remuneration" has been broadly interpreted to include anything of value, including gifts, discounts, credit arrangements, payments of cash, waivers of co-payments, ownership interests and providing anything at less than its fair market value. Recognizing that the Anti-Kickback Statute is broad and may technically prohibit many innocuous or beneficial arrangements within the health care industry, the Department of Health and Human Services has issued a series of regulatory "safe harbors." These safe harbor regulations set forth certain provisions, which, if met, will assure health care providers and other parties that they will not be prosecuted under the federal Anti- Kickback Statute. Although full compliance with these provisions ensures against prosecution under the federal Anti-Kickback Statute, the failure of a transaction or arrangement to fit within a specific safe harbor does not necessarily mean that the transaction or arrangement is illegal or that prosecution under the federal Anti-Kickback Statute will be pursued. For further discussion of the impact of federal and state health care fraud and abuse laws and regulations on the Company's business, see the section entitled *"Risk ."*

Additionally, in Europe various countries have adopted anti-bribery laws providing for severe consequences, in the form of criminal penalties and/or significant fines, for individuals and/or companies committing a bribery offense. Violations of these anti-bribery laws, or allegations of such violations, could have a negative impact on the Company's business, results of operations and reputation. For instance, in the United Kingdom, under the new Bribery Act 2010, which went into effect in July 2011, a bribery occurs when a person offers, gives or promises to give a financial or other advantage to induce or reward another individual to improperly perform certain functions or activities, including any function of a public nature. Bribery of foreign public officials also falls within the scope of the Bribery Act 2010. Under the new regime, an individual found in violation of the Bribery Act of 2010 faces imprisonment of up to 10 years. In addition, the individual can be subject to an unlimited fine, as can commercial organizations for failure to prevent bribery.

Other Regulatory Requirements

The Company's laboratory is subject to federal, state and local regulations relating to the handling and disposal of regulated medical waste, hazardous waste and biohazardous waste, including chemical, biological agents and compounds, blood and bone marrow samples and other human tissue. Typically, the Company uses outside vendors who are contractually obligated to comply with applicable laws and regulations to dispose of such waste. These vendors are licensed or otherwise qualified to handle and dispose of such waste.

OSHA has established extensive requirements relating to workplace safety for health care employers, including requirements to develop and implement programs to protect workers from exposure to blood-borne pathogens by preventing or minimizing any exposure through needle stick or similar penetrating injuries.

Segment and Geographical Information

The Company operates in one reportable business segment and derive revenue from multiple countries, with 61% and 80% of its continuing operations revenue coming from the United States in fiscal year 2020 and 2019, respectively.

Employees

As of December 31, 2020, the Company had a total of approximately 40 full time employees, with 4 employees in business development, 31 employees in clinical services and 5 employees in general and administrative. None of its employees are represented by a labor union, and the Company considers its employee relations to be good.

Corporate and Available Information

The Company was incorporated in the State of Delaware on April 8, 1999. On July 16, 2014, the Company purchased substantially all of the assets of Gentris Corporation ("Gentris"), a laboratory specializing in pharmacogenomics profiling for therapeutic development, companion diagnostics and clinical trials. On October 9, 2015, the Company acquired substantially all the assets and assumed certain liabilities of Response Genetics, Inc.

On August 15, 2017, the Company purchased all of the outstanding stock of vivoPharm, with its principal place of business in Victoria, Australia.

On July 5, 2019, the Company entered into an asset purchase agreement with siParadigm, LLC, pursuant to which the Company sold to siParadigm certain assets associated with the Company's clinical laboratory business and agreed to cease operating the Clinical Business. On July 15, 2019, the Company entered into commercial agreements with the Company's senior lenders to divest all of the assets relating to the BioPharma Business.

The Company's principal executive offices are located at 201 Route 17 North, 2nd Floor, Rutherford, New Jersey 07070. The Company's telephone number is (201) 528-9200 and the corporate website address is www.cancergenetics.com. The Company included the website address in this annual report on Form 10-K only as an inactive textual reference and does not intend it to be an active link to the Company website. The information on the website is not incorporated by reference in this annual report on Form 10-K.

This annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports, as well as other documents the Company files with the U.S. Securities and Exchange Commission ("SEC"), are available free of charge through the Investors section of the Company website as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. The public can obtain documents that the Company files with the SEC at *www.sec.gov*.

This report includes the following trademarks, service marks and trade names owned by the Company: MatBA®, FHACT®, Tissue of Origin®, TOO®. These trademarks, service marks and trade names are the property of Cancer Genetics, Inc. and its affiliates.

Item 1A. Risk Factors.

An investment in the Company's common stock involves a high degree of risk including the risk of a loss of your entire investment. You should carefully consider the risks and uncertainties described below and the other information contained in this report and the other Company reports filed with the Securities and Exchange Commission. For instance, if our pending merger with StemoniX occurs, there are risks associated with the StemoniX business described in our prospectus/proxy statement included in our Form S-4/A filed with the Securities and Exchange Commission on February 12, 2021. The risks set forth below are not the only ones facing the Company. Additional risks and uncertainties may exist that could also adversely affect the Company's business, operations and financial condition. If any of the following risks actually materialize, the Company's business, financial condition and/or operations could suffer. In such event, the value of the Company's common stock could decline, and you could lose all or a substantial portion of the money that you pay for the Company's common stock.

Risks Related to the StemoniX Merger and the Post-Merger Company

We may not realize the expected benefits of our merger with StemoniX

While we anticipate certain benefits from our pending merger with StemoniX, if consummated, we may not be able to realize the expected benefits. We may not be able to integrate the two businesses successfully, and we could assume unknown or contingent liabilities. The StemoniX intellectual property may not have the scientific value and commercial potential which we envision. Any failure of the acquisition to meet our expectations could have a material negative effect on our results of operations.

The total number of shares of CGI Common Stock that StemoniX securityholders will be entitled to receive pursuant to the Merger Agreement, in the aggregate, is not fully adjustable based on the market price of CGI common stock, so the merger consideration at the closing may have a greater value than at the time the Merger Agreement was signed.

The Merger Agreement has set the Exchange Ratio (as defined in the Merger Agreement) for the StemoniX Common Stock, which governs most but not all of the consideration to be paid by CGI in the merger, and the Exchange Ratio is only adjustable upward or downward based on (i) increases or decreases in the number of shares of StemoniX's issued and outstanding capital stock and the number of shares of StemoniX capital stock issuable upon the exercise or conversion of other StemoniX securities, (ii) increases or decreases in the number of shares of CGI's issued and outstanding capital stock and the number of shares of CGI capital stock issuable on a net exercise basis under in-the-money CGI warrants and in-the-money CGI options (in each case excluding securities issued in the CGI PIPE (as defined below) and (iii) if the net cash of either CGI or StemoniX changes in relation to each other. Any changes in the market price of CGI common stock before the closing of the merger will have limited effect on the total number of shares of CGI common stock that most historical StemoniX security holders will be entitled to receive (or will be entitled to receive upon the exercise of options to purchase CGI common stock issued in exchange for StemoniX options). Therefore, if before the closing of the merger the market price of CGI common stock increases from the market price on the date of the Merger Agreement, then such StemoniX shareholders could receive merger consideration with substantially more value.

The amount of CGI Common Stock to be issued to the Series C Investors upon conversion of the Series C Preferred Stock in the merger is based on the market price per share of CGI Common Stock at the closing of the Merger, subject to a valuation cap.

Pursuant to the Merger Agreement, each share of StemoniX Series C Preferred Stock ("Series C Preferred Stock") issued and outstanding immediately prior to the effective time of the merger (the "Effective Time") will be converted in the merger into the right to receive a number of shares of CGI common stock (the "Series C Conversion Shares") equal to the price per share paid for the Series C Preferred Stock divided by a conversion price (the "Series C Conversion Price") equal to 85% of the weighted average share price of CGI common stock over the five trading days prior to the closing of the merger, which conversion price is subject to a valuation cap (the "Series C Valuation Cap") based on a $85,000,000 valuation of CGI, after giving effect to the issuance of all shares of CGI common stock at or prior to the closing of the merger (excluding the Series C Conversion Shares and out-of-the-money options and warrants to purchase shares of CGI Common Stock, but including in-the-money options and warrants to purchase shares of CGI common stock on a net exercise basis). Therefore, if before the closing of the merger the market price of CGI common stock declines, then the Series C investors could receive more shares of CGI common stock at closing for no additional consideration, resulting in additional dilution to the other equity holders of the post-merger company. Alternatively, if the market price of CGI common stock increases to a level representing a valuation at or above the Series C Valuation Cap, the Series C Conversion Price will only increase up to a price based on the Series C Valuation Cap, and the other stockholders of CGI will suffer dilution. As of February 1, 2021, the Series C Valuation Cap would be reached if CGI's stock prices resulted in a 5 day value weighted average price of CGI's common stock of $4.39 or

more. There is expected to be an aggregate of $2 million of Series C Preferred Stock outstanding immediately prior to the merger.

The post-merger company may need to raise additional capital by issuing securities or debt or through licensing arrangements, which may cause dilution to the post-merger company's stockholders or restrict the post-merger company's operations or proprietary rights. CGI and StemoniX have recurring losses from operations which in the past have raised substantial doubt regarding their respective abilities to continue as a going concern.

Although management of CGI and StemoniX believe that, assuming the merger and the transactions related thereto are consummated, the post-merger company's cash reserves and cash flows from operations will be adequate to fund operations for at least the 12 months from the closing of the merger, such estimate may prove to be wrong, and we could use our available capital resources sooner than we currently expect. Accordingly, the post-merger company may be required to raise funds sooner than currently planned.

The post-merger company's ability to continue as a going concern will depend upon (among other things) the availability and terms of future funding. Additional financing may not be available to the post-merger company when it needs it or may not be available on favorable terms. To the extent that the post-merger company raises additional capital by issuing equity securities, such an issuance may cause significant dilution to the post-merger company's stockholders' ownership and the terms of any new equity securities may have preferences over the post-merger company's common stock. Any debt financing the post-merger company enters into may involve covenants that restrict its operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of the post-merger company's assets, as well as prohibitions on its ability to create liens, pay dividends, redeem its stock or make investments. In addition, if the post-merger company raises additional funds through licensing arrangements, it may be necessary to grant licenses on terms that are not favorable to the post-merger company.

Failure to complete the merger may result in CGI or StemoniX paying an expense reimbursement to the other party and could harm the common stock price of CGI and future business and operations of each company.

If the merger is not completed, CGI and StemoniX are subject to the following risks:

- if the Merger Agreement is terminated under certain circumstances and certain events occur, CGI or StemoniX will be required to pay the other party an amount equal to all reasonable and documented out-of-pocket fees and expenses incurred by such other party in connection with the preparation and negotiation of the Merger Agreement, due diligence efforts by the party or otherwise in connection with the merger; provided, however, that the amount payable may be up to and will in no event exceed $500,000;

- the price of CGI stock may decline; and

- costs related to the merger, such as legal, accounting and investment banking fees must be paid even if the merger is not completed.

In addition, if the Merger Agreement is terminated and the CGI or StemoniX board of directors determines to seek another business combination, there can be no assurance that CGI or StemoniX will be able to find a partner willing to provide equivalent or more attractive consideration than the consideration to be provided by each party in the merger.

If the conditions to the merger are not met, the merger may not occur.

There are a number of conditions to the merger, including but not limited to approval by Nasdaq for listing of the shares, and certain other conditions. We cannot assure you that all of the conditions will be satisfied or waived. If the conditions are not satisfied or waived, the merger may not occur or will be delayed, and CGI may lose some or all of the intended benefits of the merger.

CGI is the target, and may in the future be the target, of securities class action and derivative lawsuits, which could result in substantial costs and may delay or prevent the completion of the merger.

Securities class action lawsuits and derivative lawsuits are often brought against companies that have entered into merger agreements in an effort to enjoin the relevant merger or seek monetary relief. CGI is currently the defendant in eight lawsuits, and CGI may in the future be defendants in one or more lawsuits, relating to the Merger Agreement and the merger and, even if the pending or any future lawsuits are without merit, defending against these claims can result in substantial costs and divert

management time and resources. CGI cannot predict the outcome of these lawsuits, or others, nor can it predict the amount of time and expense that will be required to resolve such litigation. An unfavorable resolution of any such litigation surrounding the merger could delay or prevent its consummation. In addition, the costs of defending the litigation, even if resolved in CGI's favor, could be substantial and such litigation could distract CGI from pursuing the consummation of the merger and other potentially beneficial business opportunities.

No fairness opinion was obtained in connection with the merger.

While CGI engaged H.C. Wainwright & Co., LLC ("Wainwright") as its exclusive financial advisor with respect to considering strategic alternatives including finding a merger partner, neither Wainwright nor any other independent investment banker or other professional was requested to provide a fairness opinion in connection with the merger. The consideration to be received by the holders of StemoniX securities in the merger was reached through negotiation by CGI and Wainwright, on one hand, and StemoniX and Northland Securities ("Northland"), its investment banker, on the other, and was found to be fair to the stockholders of CGI by CGI's board of directors. In determining whether to obtain a fairness opinion in connection with consideration of the merger, CGI's board considered the cost of such an opinion as well as, among other factors, the search process leading to the Business Disposals (as defined elsewhere herein), the extensive search process conducted by CGI and Wainwright thereafter seeking a merger partner or other strategic alternative for CGI, the absence of any offers to purchase *vivo*Pharm for other than a nominal sum, the extensive negotiations with StemoniX by CGI and Wainwright, the board's assessment of the prospects for StemoniX based on its evaluation of its medical and scientific intellectual property and the valuation of StemoniX implicit in its prior financings, when compared to and in light of CGI's current market value and its financial position.

The merger may be completed even though material adverse changes may result from the announcement of the merger, industry-wide changes or other causes.

In general, either CGI or StemoniX can refuse to complete the merger if there is a material adverse change affecting the other party prior to closing. However, certain types of changes do not permit either party to refuse to complete the merger, even if such change could be said to have a material adverse effect on CGI or StemoniX, including:

- any adverse effect that results from general economic, business, financial or market conditions (unless such adverse effect affects CGI or StemoniX in a disproportionate manner as compared to their respective industry peers);
- any adverse effect that results from conditions in any of the industries or industry sectors in which CGI or StemoniX operates (unless such adverse effect affects CGI or StemoniX in a disproportionate manner as compared to their respective industry peers);
- any adverse effect resulting from any epidemic, pandemic or disease outbreak (including COVID-19), act of terrorism, war, national or international calamity or any other similar event (unless such adverse effect affects CGI or StemoniX in a disproportionate manner as compared to their respective industry peers);
- the taking of any action required to be taken by the Merger Agreement; or
- with respect to CGI, any change in the stock price or trading volume of CGI Common Stock.

If adverse changes occur and CGI and StemoniX still complete the merger, the post-merger company stock price may suffer. This in turn may reduce the value of the merger to the stockholders of CGI.

The market price of the post-merger company's common stock following the merger may decline as a result of the merger.

The market price of the post-merger company's common stock may decline as a result of the merger for a number of reasons including if:

- investors react negatively to the prospects of the post-merger company's business and prospects from the merger;
- the effect of the merger on the post-merger company's business and prospects is not consistent with the expectations of financial or industry analysts; or
- the post-merger company does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts.

CGI stockholders may not realize a benefit from the merger commensurate with the ownership dilution they will experience in connection with the merger.

If the post-merger company is unable to realize the full strategic and financial benefits currently anticipated from the merger, CGI securityholders will have experienced substantial dilution of their ownership interests in CGI without receiving any commensurate benefit, or only receiving part of the commensurate benefit to the extent the post-merger company is able to realize only part of the strategic and financial benefits currently anticipated from the merger.

The lack of a public market for StemoniX shares makes it difficult to determine the fair market value of the StemoniX shares, and StemoniX shareholders may receive consideration in the merger that is less than the fair market value of the StemoniX shares and/or CGI may pay more than the fair market value of the StemoniX shares.

StemoniX is privately held and its capital stock is not traded in any public market. The lack of a public market makes it extremely difficult to determine StemoniX's fair market value. Because the percentage of CGI equity to be issued to StemoniX stockholders was determined based on negotiations between the parties, it is possible that the value of the CGI Common Stock to be received by StemoniX shareholders will be less than the fair market value of StemoniX, or CGI may pay more than the aggregate fair market value for StemoniX.

The pendency of the merger could have an adverse effect on the trading price of CGI Common Stock and CGI's business, financial condition, results of operations or business prospects.

While there have been no significant adverse effects to date, the pendency of the merger could disrupt CGI's businesses in the following ways, including:

- the attention of CGI's management may be directed toward the closing of the merger and related matters and may be diverted from the day-to-day business operations; and
- third parties may seek to terminate or renegotiate their relationships with CGI as a result of the merger, whether pursuant to the terms of their existing agreements with CGI or otherwise.

Should they occur, any of these matters could adversely affect the trading price of CGI Common Stock or harm CGI's financial condition, results of operations or business prospects.

Risks Relating to the Company's Financial Condition and Capital Requirements

The Company has a history of net losses; the Company expects to incur net losses in the future, and the Company may never achieve sustained profitability.

The Company has historically incurred substantial net losses. The Company incurred losses of $8.0 million and $6.7 million for the fiscal years ended December 31, 2020 and 2019, respectively. From the Company's inception in April 1999 through December 31, 2020, the Company had an accumulated deficit of $172 million. The Company expects losses to continue. These losses have had, and will continue to have, an adverse effect on working capital, total assets and stockholders' equity. Because of the numerous risks and uncertainties associated with the Company's revenue growth and costs associated with being a public company, the Company is unable to predict when the Company will become profitable, and the Company may never become profitable. Even if the Company does achieve profitability, the Company may not be able to sustain or increase profitability on a quarterly or annual basis. The Company's inability to achieve and then maintain profitability would negatively affect business, financial condition, results of operations and cash flows.

Prior to the closing of the CGI PIPE and CGI RD Financing, the Company's recurring losses from operations raised substantial doubt regarding the Company's ability to continue as a going concern.

The Company believes that its cash at December 31, 2020, together with net proceeds of (i) $8.9 million from the issuance and sale of CGI securities in the CGI PIPE (ii) $15.8 million from the issuance and sale of CGI securities in the CGI RD Financing (as defined below), and (iii) $4.0 million from three warrant exercises between February 10, 2021 and March 23, 2021, will be sufficient to fund normal operations for the 24 months from the date of this filing.

Nevertheless, the Company can provide no assurance that, given its history of losses, it will continue as a going concern, including after the merger.

The Company's sources of funds are uncertain.

The Company earns revenue and generates cashflow from its Discovery Business through its *vivo*Pharm subsidiary. For the twelve-month period ended December 31, 2020, the Company had a net loss from continuing operations of $8.0 million, cash used in continuing operations of $4.9 million and revenues from the Discovery Services business unit of $5.8 million in the period. For the year period ended December 31, 2019, the Company had a net loss from continuing operations of $6.9 million, had cash used in continuing operations of $3.2 million and revenues from the Discovery Services business unit of $7.3 million in the period. No assurances can be given as to whether the Company will ever be profitable.

The Company's business operations are more limited than prior to the sale of its Clinical Services business and the sale of its BioPharma Services business, and thus the costs of maintaining itself as a publicly traded corporation are proportionally higher as a percentage of total revenue and will be more burdensome to the Company going forward.

As a public company, the Company has incurred and will continue to incur significant legal, accounting and other expenses. The Company is subject to the reporting requirements of the Securities Exchange Act of 1934, as amended, the other rules and regulations of the Securities and Exchange Commission, or SEC, and the rules and regulations of The Nasdaq Stock Market, or Nasdaq. Compliance with the various reporting and other requirements applicable to public companies requires considerable time and attention of management. For example, the Sarbanes-Oxley Act and the rules of the SEC and national securities exchanges have imposed various requirements on public companies, including requiring establishment and maintenance of effective disclosure and financial controls. Management and other personnel are devoting and will continue to need to devote a substantial amount of time and money to these compliance obligations. The board may view these costs to be disproportionately expensive when viewed in light of the Company's reduced revenues and overall operations following the Business Disposals.

As a result of the above, the board of directors elected to pursue the merger transaction with StemoniX and may elect to pursue other strategic transactions, to attempt to expand the business and create additional value for shareholders, or in light of the time, costs and uncertainties inherent in seeking such a strategic transaction, and the costs in remaining as a public company, the Company's board may decide to pursue a dissolution and liquidation of the Company. If the Company's board of directors were to approve and recommend, and the Company's stockholders were to approve, a dissolution and liquidation of the Company, the Company would be required under Delaware corporate law to pay the Company's outstanding obligations, as well as to make reasonable provision for contingent and unknown obligations, prior to making any distributions in liquidation to the Company's stockholders. The Company's commitments and contingent liabilities may include severance obligations related to the recent asset sales. As a result of this requirement, a portion of the Company's assets may need to be reserved pending the resolution of such obligations. If a dissolution and liquidation were pursued, the board of directors, in consultation with its advisors, would need to evaluate these matters and make a determination about a reasonable amount to reserve. Accordingly, holders of the Company's common stock could lose all or a significant portion of their investment in the event of a liquidation, dissolution or winding up of the company.

The Company identified a material weakness in its internal control over financial reporting. If the Company is not able to remediate the material weakness and otherwise maintain an effective system of internal control over financial reporting, the reliability of its financial reporting, investor confidence in the Company and the value of its common stock could be adversely affected.

As a public company, the Company is required to maintain internal control over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes-Oxley Act ("Section 404"), requires that the Company evaluate and determine the effectiveness of internal controls over financial reporting and provide a management report on internal control over financial reporting. A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of annual or interim financial statements will not be prevented or detected and corrected on a timely basis.

During the audit for the 2020 fiscal year, the Company identified a material weakness in internal control over financial reporting related to the Company's accounting for the potential impairment of intangible assets. This accounting requires the Company to record an impairment charge if the carrying amount of the asset group is not recoverable and is in excess of the fair value of the asset group. The Company's calculation of undiscounted future cashflows resulted in a conclusion that no impairment was necessary, however, the Company could not supply supporting evidence that its calculation was accurate.

Management is committed to remediating the material weakness. The Company began the process of implementing changes to its internal control over intangible assets to remediate the control deficiencies that gave rise to the material weakness, including

further improvements in processes and analyses that support the recording of possible impairment of intangible assets. The Company expects this deficiency to be corrected by May 15, 2021.

If the Company's steps are insufficient to successfully remediate the material weaknesses and otherwise establish and maintain an effective system of internal control over financial reporting, the reliability of its financial reporting, investor confidence in the Company and the value of its common stock could be materially and adversely affected. Effective internal control over financial reporting is necessary for the Company to provide reliable and timely financial reports and, together with adequate disclosure controls and procedures, are designed to reasonably detect and prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause the Company to fail to meet its reporting obligations. For as long as the Company is a "smaller reporting company" under the U.S. securities laws, the Company's independent registered public accounting firm will not be required to attest to the effectiveness of its internal control over financial reporting pursuant to Section 404. An independent assessment of the effectiveness of internal control over financial reporting could detect problems that management's assessment might not. Undetected material weaknesses in its internal control over financial reporting could lead to financial statement restatements and require the Company to incur the expense of remediation.

Moreover, the Company does not expect that disclosure controls or internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. Failure of its control systems to prevent error or fraud could materially adversely impact the Company.

Risks Relating to the Company's Business and Strategy

If the Company is unable to increase sales, the Company revenues will be insufficient to achieve profitability.

The Company currently derives substantially all revenues from testing services, laboratory services and CRO at the premarket stage. Discovery Services are services that include proprietary preclinical test systems supporting clinical diagnostic and prognostic offerings at early stages, supporting the pharmaceutical industry, biotechnology companies and academic research centers. In particular, the Company's preclinical development of biomarker detection methods, response to immuno-oncology directed novel treatments and early prediction of clinical outcome is supported by the Company's extended portfolio of orthotopic, xenografts and syngeneic tumor test systems. It is unclear whether the Company will be able to maintain and grow the number of pharmaceutical and biotech companies and clinical research organizations who will avail themselves of the Company's services.

If the Company is unable to increase sales of tests and services, the Company will not produce sufficient revenues to become profitable.

The Company's business is subject to risks arising from epidemic diseases, such as the recent global outbreak of COVID-19.

The outbreak of COVID-19, which has been declared by the World Health Organization to be a pandemic, has spread across the globe and is impacting worldwide economic activity. A pandemic, including COVID-19 or other public health epidemic, poses the risk that the Company or its employees, contractors, suppliers, courier delivery services and other partners may be prevented from conducting business activities for an indefinite period of time, including due to spread of the disease within these groups or due to shutdowns that may be requested or mandated by governmental authorities. While it is not possible at this time to estimate the impact that COVID-19 has had and may have on the Company's business, the COVID-19 pandemic and mitigation measures have had and may continue to have an adverse impact on global economic conditions which could have an adverse effect on the Company's business and financial condition.

The continued spread of COVID-19 and the measures taken by the governments of countries affected could disrupt the supply chain of material needed for the Company's Discovery Services and could delay future projects from commencing due to COVID-19 related impacts on the demand for Company services and therefore have a material adverse effect on business, financial condition and results of operations.

In addition, the Company's corporate and accounting functions are located in New Jersey and were previously subject to a stay-at-home order, and are currently subject to social distancing orders and guidelines. The Company's preclinical laboratories located in the United States were subject to a stay-at-home order until June 2020, and are now subject to social distancing

orders, and its Australia laboratories remain subject to stay-at-home orders. Many of the Company's customers worldwide are similarly impacted. As a healthcare provider, the Company has been allowed to remain open in compliance with the shelter-in-place and stay-at-home mandates and continue to provide critical services in the development of new therapies and the fight against cancer and other diseases. The Company is still providing Discovery Services, and began to experience a slowdown in project work as a result of the COVID-19 pandemic during the second and third quarters of 2020 and expects the future of many projects may be delayed. The global outbreak of COVID-19 continues to rapidly evolve, and the extent to which COVID-19 may impact business, results of operations and financial position will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease.

Also, it may hamper the Company's efforts to provide its investors with timely information and comply with its filing obligations with the Securities and Exchange Commission.

If pharmaceutical and biotech companies and clinical research organizations decide not to use the Company's preclinical CRO services in connection with their clinical trials, the Company may be unable to generate sufficient revenue to sustain the Company's business.

To generate demand for its Discovery Services, the Company needs to educate pharmaceutical and biotech companies and clinical research organizations on the utility of the Company's tests and services to improve the outcomes of clinical trials for new oncology drugs and more rapidly advance targeted therapies through the clinical development process through published papers, presentations at scientific conferences and one-on-one education sessions by members of the Company's sales force. The Company may need to hire additional commercial, scientific, technical and other personnel to support this process. If the Company cannot convince pharmaceutical and biotech companies or clinical research organizations to order its diagnostic tests or other future tests the Company develops, the Company will likely be unable to create demand for tests in sufficient volume for it to achieve sustained profitability.

The potential loss or delay of the Company's large contracts or of multiple contracts could adversely affect results.

Most of the Company's Discovery Services customers can terminate the contracts upon 30 to 90 days' notice. These customers may delay, terminate or reduce the scope of the contracts for a variety of reasons beyond the Company's control, including but not limited to:

- decisions to forego or terminate a particular clinical trial;
- lack of available financing, budgetary limits or changing priorities;
- failure of products being tested to satisfy safety requirements or efficacy criteria;
- unexpected or undesired clinical results for products; or
- shift of business to a competitor or internal resources.

As a result, contract terminations, delays and alterations are a possible outcome in the Company's Discovery Services business. In the event of termination, the contracts often provide for fees for winding down the project, but these fees may not be sufficient for the Company to maintain margins, and termination may result in lower resource utilization rates. In addition, the Company may not realize the full benefits of the backlog of contractually committed services if customers cancel, delay or reduce their commitments under the Company's contracts with them, which may occur if, among other things, a customer decides to shift its business to a competitor or revoke the Company's status as a preferred provider. Thus, the loss or delay of a large contract or the loss or delay of multiple contracts could adversely affect Company revenues and profitability. The Company believes the risk of loss or delay of multiple contracts potentially has greater effect where the Company is party to broader partnering arrangements with global biopharmaceutical companies.

The Company's quarterly operating results may be subject to significant fluctuations and may be difficult to forecast.

The timing, size and duration of the Company's contracts with pharmaceutical and biotech companies and clinical research organizations depend on the size, pace and duration of such customer's clinical trial, over which the Company has no control and sometimes limited visibility. In addition, expense levels are based, in part, on expectation of future revenue levels. A

shortfall in expected revenue could, therefore, result in a disproportionate decrease in the Company's net income. As a result, quarterly operating results may be subject to significant fluctuations and may be difficult to forecast.

If the market for the Company's services does not experience significant growth or if services do not achieve broad acceptance, operations will suffer.

The Company cannot accurately predict the future growth rate or the size of the market for the Company's services. The expansion of this market depends on a number of factors, such as:

- the cost, performance and reliability of the Company's services, and the services offered by competitors;
- customers' perceptions regarding the benefits of the Company's services;
- customers' satisfaction with the Company's services; and
- marketing efforts and publicity regarding the Company's services.

The Company's financial results may be adversely affected if it underprices contracts, overruns cost estimates or fails to receive approval for or experience delays in documenting change orders.

Most of the Discovery Services contracts are either fee for service contracts or fixed-fee contracts. The Company's past financial results have been, and future financial results may be, adversely impacted if the Company initially underprices contracts or otherwise overrun cost estimates and is unable to successfully negotiate a change order. Change orders can occur when the scope of work the Company performs needs to be modified from that originally contemplated by the contract with the customer and are typically treated as new projects. Modifications can occur, for example, when there is a change in a key clinical trial assumption or parameter or a significant change in timing. Where the Company is not successful in converting out-of-scope work into change orders under current contracts, the Company bears the cost of the additional work. Such underpricing, significant cost overruns or delay in documentation of change orders could have a material adverse effect on business, results of operations, financial condition or cash flows.

If the Company fails to perform the services in accordance with contractual requirements, regulatory standards and ethical considerations, the Company could be subject to significant costs or liability and the Company's reputation could be harmed.

In connection with the Discovery Services business, the Company contracts with biopharmaceutical companies to provide specialized services to assist them in planning and conducting unique, specialized studies to guide drug discovery and development programs with a concentration in oncology and immuno-oncology. The Company's services include managing pre-clinical trials, data and laboratory analysis, electronic data capture and other related services. Such services are complex and subject to contractual requirements, regulatory standards and ethical considerations. If the Company fails to perform the services in accordance with these requirements, regulatory agencies may take action against the Company for failure to comply with applicable regulations governing clinical trials. Customers may also bring claims against the Company for breach of contractual obligations. Any such action could have a material adverse effect on results of operations, financial condition and reputation.

Such consequences could arise if, among other things, the following occur:

Improper performance of the Company's services. The performance of clinical development services is complex and time-consuming. For example, the Company may make mistakes in conducting a clinical trial that could negatively impact or obviate the usefulness of the clinical trial or cause the results of the clinical trial to be reported improperly. If the clinical trial results are compromised, the Company could be subject to significant costs or liability, which could have an adverse impact on the ability to perform services. As examples:

- non-compliance generally could result in the termination of ongoing clinical trials or sales and marketing projects or the disqualification of data for submission to regulatory authorities;
- compromise of data from a particular clinical trial, such as failure to verify that informed consent was obtained from patients, could require the Company to repeat the clinical trial under the terms of the contract at no further cost to the customer, but at a substantial cost to the Company; and

- breach of a contractual term could result in liability for damages or termination of the contract.

While the Company endeavors to contractually limit exposure to such risks, improper performance of the Company's services could have an adverse effect on the Company's financial condition, damage reputation and result in the cancellation of current contracts by or failure to obtain future contracts from the affected customer or other customers.

Any investigation of our customers could damage our business.

From time to time, one or more of the Company's customers are audited or investigated by regulatory authorities or enforcement agencies with respect to regulatory compliance of their clinical trials, programs or the marketing and sale of their drugs. There is a risk that either the Company's customers or regulatory authorities could claim that the Company performed services improperly or that the Company is responsible for clinical trial or program compliance. If the Company's customers or regulatory authorities make such claims against the Company and prove them, the Company could be subject to damages, fines or penalties. In addition, negative publicity regarding regulatory compliance of customers' clinical trials, programs or drugs could have an adverse effect on the Company's business and reputation.

Business or economic disruptions or global health concerns could seriously harm the Company's development efforts and increase costs and expenses.

Broad-based business or economic disruptions could adversely affect the Company's business and ongoing or planned research and development activities of customers. For example, in December 2019 an outbreak of a novel strain of coronavirus originated in Wuhan, China and has since spread to a number of other countries, including the United States. Global health concerns, such as coronavirus, could also result in social, economic, and labor instability in the countries in which the Company or Company customers operate. The Company cannot presently predict the scope and severity of any potential business shutdowns or disruptions, but if the Company or any of its customers, suppliers, regulators and other third parties with whom the Company conducts business, were to experience shutdowns or other business disruptions, the ability to conduct business in the manner and on the timelines presently planned could be materially and negatively impacted. It is also possible that global health concerns such as this one could disproportionately impact the healthcare-related facilities in which Company customers conduct studies, which could have a material adverse effect on the Company's business and results of operation and financial condition.

If the Company is unable to manage growth in business, prospects may be limited and the Company's future results of operations may be adversely affected.

The Company intends to continue with sales and marketing programs and other activities as needed to meet future demand. Any significant expansion may strain managerial, financial and other resources. If the Company is unable to manage such growth, business, operating results and financial condition could be adversely affected. The Company will need to improve continually the operations, financial and other internal systems to manage growth effectively, and any failure to do so may lead to inefficiencies and redundancies, and result in reduced growth prospects and diminished operational results.

The Company may acquire other businesses or make investments in other companies or technologies that could harm operating results, dilute its stockholders' ownership, increase debt or cause the Company to incur significant expense.

As part of the Company's business strategy, the Company may pursue other mergers or acquisitions of businesses and assets. For example, the Company has an acquisition of StemoniX pending, and it acquired *vivo*Pharm in 2017, Response Genetics, Inc. in 2015 and Gentris Corporation in 2014, and entered into a joint venture in May 2013 with Mayo Foundation for Education and Research. The Company subsequently shut down Response Genetics operations in California and moved them to New Jersey and North Carolina and in February 2020 completed the commitments thereby ending the need for the Company's joint venture with Mayo. The Company also sold the Clinical Business and BioPharma Business in two transactions in July 2019 (the "Business Disposals"). The Company has developed experience with acquiring other companies and forming strategic alliances and joint ventures. The Company may not be able to find suitable partners or merger or acquisition candidates, and may not be able to complete such transactions on favorable terms, if at all. If the Company makes any acquisitions, the Company may not be able to integrate these acquisitions successfully into existing business, and could assume unknown or contingent liabilities. Any future acquisitions also could result in significant write-offs or the incurrence of debt and contingent liabilities, any of which could have a material adverse effect on the Company's financial condition, results of operations and cash flows. Integration of an acquired company also may disrupt ongoing operations and require management resources that would otherwise focus on developing existing business. The Company may experience losses related to investments in other companies, which could have a material negative effect on the results of operations. The Company may not

identify or complete these transactions in a timely manner, on a cost-effective basis, or at all, and may not realize the anticipated benefits of any acquisition, technology license, strategic alliance or joint venture.

To finance any mergers or acquisitions, the Company may choose to issue shares of common stock as consideration, which would dilute the ownership of its stockholders. If the price of the Company's common stock is low or volatile, the Company may not be able to acquire other companies using stock as consideration. Alternatively, it may be necessary for the Company to raise additional funds for acquisitions through public or private financings. Additional funds may not be available on terms that are favorable to the Company, or at all.

There is a scarcity of experienced professionals in the Company's industry. If the Company is not able to retain and recruit personnel with the requisite technical skills, the Company may be unable to successfully execute the business strategy.

The specialized nature of the Company's industry results in an inherent scarcity of experienced personnel in the field. The Company's future success depends upon the ability to attract and retain highly skilled personnel (including medical, scientific, technical, commercial, business, regulatory and administrative personnel) necessary to support anticipated growth, develop business and perform certain contractual obligations. Given the scarcity of professionals with the scientific knowledge that the Company requires and the competition for qualified personnel among life science businesses, the Company may not succeed in attracting or retaining the personnel required to continue and grow operations. The loss of a key employee, the failure of a key employee to perform in his or her current position or the Company's inability to attract and retain skilled employees could result in the inability to continue to grow the Company's business or to implement business strategy.

The loss or transition of any member of the Company's senior management team or the inability to attract and retain highly skilled scientists, clinicians, and salespeople could adversely affect Company business.

The Company's success depends on the skills, experience, and performance of key members of the senior management team. The individual and collective efforts of these employees will be important as the Company continues to develop tests and services, and as the Company expands commercial activities. The loss or incapacity of existing members of the senior management team could adversely affect operations if the Company experiences difficulties in hiring qualified successors.

The complexity inherent in integrating a new key member of the senior management team with existing senior management may limit the effectiveness of any such successor or otherwise adversely affect the Company's business. Leadership transitions can be inherently difficult to manage and may cause uncertainty or a disruption to business or may increase the likelihood of turnover of other key officers and employees. Specifically, a leadership transition in the commercial team may cause uncertainty about or a disruption to the Company's commercial organization, which may impact the ability to achieve sales and revenue targets.

The Company's inability to attract, hire and retain a sufficient number of qualified sales professionals would hamper the ability to increase demand for the Company's services and to expand geographically.

The Company's success in selling Discovery Services could require the Company to expand the sales force in the United States and internationally by recruiting additional sales representatives with extensive experience in the Company's field. To achieve the Company's marketing and sales goals, the Company will need to continue to expand sales and commercial infrastructure. Sales professionals with the necessary technical and business qualifications are in high demand, and there is a risk that the Company may be unable to attract, hire and retain the number of sales professionals with the right qualifications, scientific backgrounds and relationships with decision-makers at potential customers needed to achieve sales goals. The Company may face competition from other companies in the industry, some of whom are much larger than the Company and who can pay greater compensation and benefits than the Company can, in seeking to attract and retain qualified sales and marketing employees. If the Company is unable to hire and retain qualified sales and marketing personnel, business will suffer.

If the Company's laboratory facilities become damaged or inoperable, or the Company is required to vacate any facility, the ability to provide services may be jeopardized.

The Company currently derives substantially all revenues from preclinical services. The Company's facilities and equipment could be harmed or rendered inoperable by natural or man-made disasters, including fire, flooding and power outages, which may render it difficult or impossible for the Company to perform tests or provide laboratory services for some period of time. The inability to perform services or the backlog of projects that could develop if any of the Company's facilities is inoperable for even a short period of time may result in the loss of customers or harm to the Company's reputation or relationships with key researchers, collaborators, and customers, and the Company may be unable to regain those customers or repair the

Company's reputation in the future. Furthermore, the Company's facilities and the equipment used to perform research and development work could be costly and time-consuming to repair or replace.

If the Company cannot compete successfully with competitors, the Company may be unable to increase or sustain revenues or achieve and sustain profitability.

The Company faces competition from companies that offer or are developing animal models for tumors and that have capabilities in toxicology and pharmacology testing. The competitors in the Company's Discovery Services business include Covance, Champions Oncology, Crown BioScience (recently acquired by JSR Life Sciences), Eurofins Scientific, Charles River, Jackson Labs and Explora Biolabs.

The Company's competitors may succeed in selling their products to pharmaceutical and biotech customers more effectively than the Company sells products. In addition, academic institutions, hospitals, governmental agencies, and other public and private research organizations also may conduct similar research, seek patent protection, and may develop and commercially introduce competing products or technologies on their own or through joint ventures. If one or more of the Company's competitors succeeds in developing similar technologies and products that are more effective or successful than any of those that the Company currently sells or will develop, results of operations will be significantly adversely affected.

A small number of customers account for most of the sales of the Company's services. If any of these customers require fewer services from the Company for any reason, revenues could decline.

Due to the early-stage nature of the Company's business and the limited sales and marketing activities to date, the Company has historically derived a significant portion of revenue from a limited number of customers, although the customers that generate a significant portion of Company revenue may change from period to period. The Company's customers are largely pharmaceutical and biotech companies as part of a clinical trial. During the twelve months ended December 31, 2020, four customers accounted for approximately 61% of the Company's consolidated revenue from continuing operations. During the year ended December 31, 2019, three customers accounted for approximately 61% of the Company's consolidated revenue from continuing operations. As a healthcare provider, the Company is still providing Discovery Services and has yet to experience a slowdown in its project work; however, the future of many projects may be delayed. The Company continues to vigilantly monitor the situation with its primary focus on the health and safety of its employees and clients.

If the Company uses biological and hazardous materials in a manner that causes injury, the Company could be liable for damages.

The Company's activities currently require the controlled use of potentially harmful biological materials and hazardous materials and chemicals. The Company cannot eliminate the risk of accidental contamination or injury to employees or third parties from the use, storage, handling or disposal of these materials. In the event of contamination or injury, the Company could be held liable for any resulting damages, and any liability could exceed the Company's resources or any applicable insurance coverage the Company may have. Additionally, the Company is subject to, on an ongoing basis, federal, state and local laws and regulations governing the use, storage, handling and disposal of these materials and specified waste products. The cost of compliance with these laws and regulations may become significant and could have a material adverse effect on the financial condition, results of operations and cash flows. In the event of an accident or if the Company otherwise fails to comply with applicable regulations, the Company could lose permits or approvals or be held liable for damages or penalized with fines.

The Company's Discovery Services customers face intense competition from lower cost generic products, which may lower the amount that they spend on the Company's services.

The Company's Discovery Services customers face increasing competition from lower cost generic products, which in turn may affect their ability to pursue research and development activities with the Company. In the United States, EU and Japan, political pressure to reduce spending on prescription drugs has led to legislation and other measures which encourages the use of generic products. In addition, proposals emerge from time to time in the United States and other countries for legislation to further encourage the early and rapid approval of generic drugs. Loss of patent protection for a product typically is followed promptly by generic substitutes, reducing customers' sales of that product and their overall profitability. Availability of generic substitutes for the Company's customers' drugs may adversely affect their results of operations and cash flow, which in turn may mean that they would not have surplus capital to invest in research and development and drug commercialization, including in the Company's services. If competition from generic products impacts customers' finances such that they decide to curtail the Company's services, revenues may decline and this could have a material adverse effect on the Company's business.

The Company depends on information technology and telecommunications systems, and any failure of these systems could harm the Company's business.

The Company depends on information technology and telecommunications systems for significant aspects of operations. These information technology and telecommunications systems support a variety of functions, including test processing, sample tracking, quality control, customer service and support, billing, and general and administrative activities. Information technology and telecommunications systems are vulnerable to damage from a variety of sources, including telecommunications or network failures, malicious human acts and natural disasters. Moreover, despite network security and back-up measures, some of the Company's servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Any disruption or loss of information technology or telecommunications systems on which critical aspects of the Company's operations depend could have an adverse effect on business.

The Company's results of operations may be adversely affected if the Company fails to realize the full value of goodwill and intangible assets.

The Company assesses the realizable condition of indefinite-lived intangible assets and goodwill annually and conducts an interim evaluation whenever events or changes in circumstances, such as operating losses or a significant decline in earnings associated with the acquired business or asset, indicate that these assets may be impaired. The Company's ability to realize the value of the goodwill and indefinite-lived intangible assets will depend on the future cash flows of the businesses the Company has acquired, which in turn depend in part on how well the Company has integrated these businesses into the Company's own business. If the Company is not able to realize the value of the goodwill and indefinite-lived intangible assets, the Company may be required to incur material charges relating to the impairment of those assets. During the year ended December 31, 2019, the Company recognized goodwill impairment of $2.9 million after considering the effects of the Business Disposals and declines in stock price. Such impairment charges could materially and adversely affect the Company's operating results and financial condition.

The Company's operations are subject to environmental, health and safety laws and regulations, with which compliance may be costly

The Company's business is subject to federal, state, and local laws and regulations relating to the protection of the environment, worker health and safety and the use, management, storage, and disposal of hazardous substances and wastes. Failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions. In addition, environmental laws and regulations could require the Company to pay for environmental remediation and response costs, or subject the Company to third party claims for personal injury, natural resource or property damage, relating to environmental contamination. Liability may be imposed whether or not the Company knew of, or were responsible for, such environmental contamination. The cost of defending against environmental claims, of compliance with environmental, health and safety regulatory requirements or of remediating contamination could materially adversely affect the Company's business, assets or results of operations.

Intellectual Property Risks Relating to the Company's Business

The Company's rights to use technologies licensed from third parties are not within the Company's control, and the Company may not be able to sell products if the Company loses existing rights or cannot obtain new rights on reasonable terms.

The Company's ability to market certain of services, domestically and/or internationally, is in part derived from licenses to intellectual property which is owned by third parties. As such, the Company may not be able to continue selling services if the Company loses existing licensed rights or sell new services if the Company cannot obtain such licensed rights on reasonable terms. As may be expected, the Company's business may suffer if (i) these licenses terminate; (ii) if the licensors fail to abide by the terms of the license, properly maintain the licensed intellectual property or fail to prevent infringement of such intellectual property by third parties; (iii) if the licensed patents or other intellectual property rights are found to be invalid or (iv) if the Company is unable to enter into necessary licenses on reasonable terms or at all. In return for the use of a third-party's technology, the Company may agree to pay the licensor royalties based on sales of products as well as other fees. Such royalties and fees are a component of cost of product revenues and will impact the margins on the Company's tests.

If the Company is unable to maintain intellectual property protection, competitive position could be harmed.

The Company's ability to protect proprietary discoveries and technologies affects the Company's ability to compete and to achieve sustained profitability. Currently, the Company relies on a combination of copyrights, trademarks and trademark applications, confidentiality or non-disclosure agreements, material transfer agreements, licenses, work-for-hire agreements and

invention assignment agreements to protect intellectual property rights. The Company also maintains as trade secrets certain company know-how and technological innovations designed to provide the Company with a competitive advantage in the marketplace. Currently, including both U.S. and foreign patent applications, the Company has only two issued U.S. patents and twelve pending patent applications relating to various aspects of the Company's technology. While the Company does not currently intend to pursue additional patent applications, it is possible that pending patent applications and any future applications may not result in issued patents. Even if patents are issued, third parties may independently develop similar or competing technology that avoids the Company's patents. Further, the Company cannot be certain that the steps that have been taken will prevent the misappropriation of the Company's trade secrets and other confidential information and technology, particularly in foreign countries where the Company does not have intellectual property rights.

The Company may become involved in lawsuits or other proceedings to protect or enforce patents or other intellectual property rights, which could be time-consuming and costly to defend, and could result in loss of significant rights and the assessment of treble damages.

From time to time the Company may face intellectual property infringement (or misappropriation) claims from third parties. Some of these claims may lead to litigation. The outcome of any such litigation can never be guaranteed, and an adverse outcome could affect the Company negatively. For example, were a third-party to succeed on an infringement claim against the Company, the Company may be required to pay substantial damages (including up to treble damages if such infringement were found to be willful). In addition, the Company could face an injunction, barring the Company from conducting the allegedly infringing activity. The outcome of the litigation could require the Company to enter into a license agreement which may not be pursuant to acceptable or commercially reasonable or practical terms or which may not be available at all. It is also possible that an adverse finding of infringement against the Company may require the Company to dedicate substantial resources and time in developing non-infringing alternatives, which may or may not be possible. In the case of diagnostic tests, the Company would also need to include non-infringing technologies which would require the Company to re-validate tests. Any such re-validation, in addition to being costly and time consuming, may be unsuccessful.

Furthermore, the Company may initiate claims to assert or defend intellectual property against third parties. Any intellectual property litigation, irrespective of whether the Company is the plaintiff or the defendant, and regardless of the outcome, is expensive and time-consuming, and could divert management's attention from the Company's business and negatively affect operating results or financial condition. The Company may not be able to prevent, alone or with third-party collaborators or suppliers, misappropriation of the Company's proprietary rights, particularly in countries where the laws may not protect those rights as fully as in the United States. In addition, interference proceedings brought by the USPTO may be necessary to determine the priority of inventions with respect to patents and patent applications or those of the Company's current or future collaborators, suppliers or customers.

Finally, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of the Company's confidential and proprietary information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the Company's financial condition.

Risks Relating to the Company's International Operations

International expansion of the Company's business exposes the Company to business, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States.

The Company's business strategy incorporates international expansion, including recent acquisitions which have provided facilities in Australia, and the possibility of establishing and maintaining other locations outside of the United States and expanding relationships with biopharmaceutical, academic and governmental research organizations. Doing business internationally involves a number of risks, including:

- multiple, conflicting and changing laws and regulations such as tax and transfer pricing laws, export and import restrictions, employment laws, regulatory requirements and other governmental approvals, permits and licenses;
- being subject to additional privacy and cybersecurity laws, including the Australian Privacy Act of 1988;
- failure by the Company or distributors to obtain regulatory approvals for the sale or use of tests in various countries, including failure to achieve "CE Marking", a conformity mark which is required to market in vitro diagnostic medical devices in the European Economic Area and which is broadly accepted in other international markets;

- difficulties in managing foreign operations;
- financial risks, such as longer payment cycles, difficulty enforcing contracts and collecting accounts receivable and exposure to foreign currency exchange rate fluctuations;
- reduced protection for intellectual property rights;
- natural disasters, political and economic instability, including wars, terrorism and political unrest, outbreak of disease, boycotts, curtailment of trade and other business restrictions; and
- failure to comply with the Foreign Corrupt Practices Act, including its books and records provisions and its anti-bribery provisions, by maintaining accurate information and control over sales and distributors' activities.

Any of these risks, if encountered, could significantly harm future international expansion and operations and, consequently, have a material adverse effect on the Company's financial condition, results of operations and cash flows.

The Company's operating results may be adversely affected by fluctuations in foreign currency exchange rates and restrictions on the deployment of cash across global operations.

Although the Company reports operating results in U.S. dollars, a portion of the Company's revenues and expenses are or will be denominated in currencies other than the U.S. dollar, particularly in Australia and Europe. Fluctuations in foreign currency exchange rates can have a number of adverse effects on the Company. Because the Company's consolidated financial statements are presented in U.S. dollars, the Company must translate revenues, expenses and income, as well as assets and liabilities, into U.S. dollars at exchange rates in effect during or at the end of each reporting period. Therefore, changes in the value of the U.S. dollar against other currencies will affect revenues, income from operations, other income (expense), net and the value of balance sheet items originally denominated in other currencies. There is no guarantee that the Company's financial results will not be adversely affected by currency exchange rate fluctuations. In addition, in some countries the Company could be subject to strict restrictions on the movement of cash and the exchange of foreign currencies, which could limit the Company's ability to use these funds across its global operations.

The Company could be adversely affected by violations of the U.S. Foreign Corrupt Practices Act and other worldwide anti-bribery laws.

The FCPA and anti-bribery laws in other jurisdictions generally prohibit companies and their intermediaries from making improper payments for the purpose of obtaining or retaining business or other commercial advantage. The Company's policies mandate compliance with these anti-bribery laws, which often carry substantial penalties, including criminal and civil fines, potential loss of export licenses, possible suspension of the ability to do business with the federal government, denial of government reimbursement for products and exclusion from participation in government health care programs. The Company may operate in jurisdictions that have experienced governmental and private sector corruption to some degree, and, in certain circumstances, strict compliance with anti-bribery laws may conflict with certain local customs and practices. The Company cannot assure that the internal control policies and procedures always will protect the Company from reckless or other inappropriate acts committed by affiliates, employees or agents. Violations of these laws, or allegations of such violations, could have a material adverse effect on the Company's business, financial position and results of operations.

Risks Relating to the Company's Common Stock

The price of the Company's common stock has been and could remain volatile, and the market price of common stock may decrease.

The market price of the Company's common stock has historically experienced and may continue to experience significant volatility. From January 2015 through March 18, 2021, the market price of the Company's common stock has fluctuated from a high of $382.50 per share in the third quarter of 2015, to a low of $1.92 per share in the first quarter of 2020. In the month of February 2021, the market price of the Company's stock fluctuated from a low of $3.52 per share to a high of $17.50 per share. Market prices for securities of development-stage life sciences companies have historically been particularly volatile. The factors that may cause the market price of the Company's common stock to fluctuate include, but are not limited

- progress, or lack of progress, in developing and commercializing the Company's proprietary tests;

- the Company's ability to recruit and retain qualified regulatory and research and development personnel;
- changes in the relationship with key collaborators, suppliers, customers and third parties;
- changes in the market valuation or earnings of competitors or companies viewed as similar to the Company;
- changes in key personnel;
- depth of the trading market in the Company's common stock;
- changes in the Company's capital structure, such as future issuances of securities or the incurrence of additional debt;
- the granting or exercise of employee stock options or other equity awards;
- realization of any of the risks described under this section titled "Risk Factors"; and
- general market and economic conditions.

In addition, the equity markets have experienced significant price and volume fluctuations that have affected the market prices for the securities of newly public companies for a number of reasons, including reasons that may be unrelated to business or operating performance. These broad market fluctuations may result in a material decline in the market price of the Company's common stock and you may not be able to sell your shares at prices you deem acceptable. In the past, following periods of volatility in the equity markets, securities class action lawsuits have been instituted against public companies. Such litigation, if instituted against the Company, could result in substantial cost and the diversion of management attention.

Reports published by securities or industry analysts, including projections in those reports that exceed actual results, could adversely affect the Company's common stock price and trading volume.

Securities research analysts establish and publish their own periodic projections for the Company's business. These projections may vary widely from one another and may not accurately predict the results the Company actually achieves. The Company's stock price may decline if the actual results do not match securities research analysts' projections. Similarly, if one or more of the analysts who writes reports on the Company downgrades the Company's stock or publishes inaccurate or unfavorable research about the Company's business, stock price could decline. If one or more of these analysts ceases coverage of the Company or fails to publish reports on the Company regularly, the Company's stock price or trading volume could decline. While the Company expects securities research analyst coverage, if no securities or industry analysts begin to cover the Company, the trading price for the Company's stock and the trading volume could be adversely affected.

The Company is incurring significant costs and devotes substantial management time as a result of operating as a public company.

As a public company, the Company is incurring significant legal, accounting and other expenses. For example, in addition to being required to comply with certain requirements of the Sarbanes-Oxley Act of 2002, the Company is required to comply with certain requirements of the Dodd Frank Wall Street Reform and Consumer Protection Act, as well as rules and regulations subsequently implemented by the SEC, including the establishment and maintenance of effective disclosure and financial controls and changes in corporate governance practices. The Company expects that compliance with these requirements will continue to increase legal and financial compliance costs and will make some activities more time consuming and costly. In addition, the Company expects that management and other personnel will continue to need to divert attention from operational and other business matters to devote substantial time to these public company requirements.

The Sarbanes-Oxley Act requires, among other things, that the Company maintains effective internal control over financial reporting and disclosure controls and procedures. In particular, the Company must perform system and process evaluation and testing of internal control over financial reporting to allow management to report on the effectiveness of internal control over financial reporting, as required by Section 404 of the Sarbanes-Oxley Act. In addition, if the Company loses status as a "non-accelerated filer," the Company will be required to have the Company's independent registered public accounting firm attest to the effectiveness of internal control over financial reporting. The Company's compliance with Section 404 of the Sarbanes-Oxley Act, as applicable, requires the Company to incur substantial accounting expense and expend significant management efforts. The Company currently does not have an internal audit group, and the Company will need to continue to hire additional accounting and financial staff with appropriate public company experience and technical accounting knowledge. If the Company or the independent registered public accounting firm identify deficiencies in the Company's internal control over

financial reporting that are deemed to be material weaknesses, the market price of the Company's stock could decline and the Company could be subject to sanctions or investigations by the NASDAQ, the SEC or other regulatory authorities, which would require additional financial and management resources.

The Company's ability to successfully implement the Company's business plan and maintain compliance with Section 404, as applicable, requires the Company to be able to prepare timely and accurate financial statements. The Company expects that the Company will need to continue to improve existing, and implement new operational and financial systems, procedures and controls to manage the Company's business effectively. Any delay in the implementation of, or disruption in the transition to, new or enhanced systems, procedures or controls, may cause operations to suffer and the Company may be unable to conclude that internal control over financial reporting is effective. If the Company fails to maintain an effective system of internal control over financial reporting, the Company may not be able to accurately report financial results, and current and potential stockholders may lose confidence in the Company's financial reporting. This, in turn, could have an adverse impact on trading prices for the Company's common stock, and could adversely affect the Company's ability to access the capital markets.

Anti-takeover provisions of the Company's certificate of incorporation, bylaws and Delaware law could make an acquisition of the Company, which may be beneficial to the Company's stockholders, more difficult and may prevent attempts by the Company's stockholders to replace or remove the current members of the board and management.

Certain provisions of the Company's amended and restated certificate of incorporation and bylaws could discourage, delay or prevent a merger, acquisition or other change of control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. Furthermore, these provisions could prevent or frustrate attempts by the Company's stockholders to replace or remove members of the board of directors. These provisions also could limit the price that investors might be willing to pay in the future for the Company's common stock, thereby depressing the market price of the Company's common stock. Stockholders who wish to participate in these transactions may not have the opportunity to do so. These provisions, among other things:

- authorize the board of directors to issue, without stockholder approval, preferred stock, the rights of which will be determined at the discretion of the board of directors and that, if issued, could operate as a "poison pill" to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that the board of directors does not approve;

- establish advance notice requirements for stockholder nominations to the board of directors or for stockholder proposals that can be acted on at stockholder meetings; and

- limit who may call a stockholder meeting.

In addition, the Company is governed by the provisions of Section 203 of the Delaware General Corporation Law, or DGCL, which may, unless certain criteria are met, prohibit large stockholders, in particular those owning 15% or more of the voting rights on the Company's common stock, from merging or combining with the Company for a prescribed period of time.

Because the Company does not expect to pay cash dividends for the foreseeable future, you must rely on appreciation of the Company's common stock price for any return on your investment. Even if the Company changes that policy, the Company may be restricted from paying dividends on the Company's common stock.

The Company does not intend to pay cash dividends on shares of common stock for the foreseeable future. Any determination to pay dividends in the future will be at the discretion of the board of directors and will depend upon results of operations, financial performance, contractual restrictions, restrictions imposed by applicable law and other factors the board of directors deems relevant. Accordingly, you will have to rely on capital appreciation, if any, to earn a return on your investment in the Company's common stock. Investors seeking cash dividends in the foreseeable future should not purchase the Company's common stock.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

As of December 31, 2020, the Company had leases for 5,800 square feet in Hershey, Pennsylvania and 1,959 square feet in Bundoora, Australia and a license to use 994 square feet of laboratory facilities in Clayton, Australia. The lease agreements have escalating lease payments and expire in January 2022 and July 2021, respectively, and the license agreement has a flat license fee subject to Consumer Price Index-based adjustment and expires in October 2024.

In 2020, the Company began leasing a laboratory in Gilles Plains, SA and an administrative office in Modbury, SA. These leases expire in January 2023 and February 2023, respectively.

Item 3. Legal Proceedings

On November 13, 2020, a purported stockholder of CGI filed a complaint against CGI, the chief executive officer of CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Scott Sawin v. Cancer Genetics, Inc. et al.* The complaint (the "Sawin Complaint") alleges that CGI's Registration Statement on Form S-4, as filed with the SEC on October 16, 2020 related to the merger (the "Prior Registration Statement"), omitted to disclose certain material information allegedly necessary to make statements made in the Prior Registration Statement not misleading and/or false, in violation of Section 14(a) and Section 20(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Rule 14a-9 promulgated thereunder, and alleges breach of fiduciary duty of candor/disclosure. The complaint seeks injunctive relief, enjoining the merger until the defendants to the applicable lawsuit disclose the alleged omitted material information, and costs, among other remedies.

On November 19, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Carlos Juan Pastrana v. Cancer Genetics, Inc. et al.* On November 19, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Joshua Dunn v. Cancer Genetics, Inc. et al.* On November 23, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Matthew Haller v. Cancer Genetics, Inc. et al.* On November 25, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Steve Prentiss v. Cancer Genetics, Inc. et al.* On December 1, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Virginia Weiderman v. Cancer Genetics, Inc. et al.* On December 18, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Jason Kauffman v. Cancer Genetics, Inc. et al.* On January 27, 2021, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Joseph Sheridan v. Cancer Genetics, Inc. et al.* Each of the foregoing seven complaints allege facts and seek relief substantially similar to the Sawin Complaint.

CGI believes that the claims asserted in the lawsuits described above are without merit and intends to vigorously defend CGI, CGI Acquisition, Inc. and the director and officer defendants against these claims, as applicable, however, there can be no assurance that the defendants will prevail in such lawsuits. CGI is not able to estimate any possible loss from these litigations at this time. It is possible that additional lawsuits may be filed in connection with the merger.

In November 2020 vivoPharm Pty Ltd received a letter from counsel for a customer of vivoPharm alleging entitlement to a refund of prepayments made under a master services agreement in the sum of approximately $306 thousand. Counsel for vivoPharm responded and denied any liability. In February 2021 counsel for the customer repeated its claim,and stated its intent to commence litigation if the matter were not resolved. Counsel for vivoPharm responded by repeating its denial of any liability but offering to pay $60 thousand to resolve the matter. No litigation has been commenced to date.

Item 4. Mine Safety Disclosures

Not applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

The Company's common stock trades on The NASDAQ Capital Market under the symbol "CGIX."

Holders

As of December 31, 2020, the Company had approximately 45 holders of record of the Company's common stock. The number of record holders was determined from the records of the transfer agent and does not include beneficial owners of common stock whose shares are held in the names of various security brokers, dealers, and registered clearing agencies. The transfer agent of the Company's common stock is Continental Stock Transfer & Trust, 17 Battery Place, 8th Floor, New York, New York, 10004

Dividends

The Company has never declared dividends on the Company's equity securities, and currently does not plan to declare dividends on shares of the Company's common stock in the foreseeable future. The Company expects to retain future earnings, if any, for use in the operation and expansion of the Company's business. The payment of cash dividends in the future, if any, will be at the discretion of the board of directors and will depend upon such factors as earnings levels, capital requirements, overall financial condition and any other factors deemed relevant by the board of directors.

Item 6. Selected Financial Data.

Not applicable.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

As used herein, the "Company" refers to Cancer Genetics, Inc. and its wholly owned subsidiaries: Cancer Genetics Italia, S.r.l., Gentris, LLC, and vivoPharm Pty, Ltd., except as expressly indicated or unless the context otherwise requires. The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is intended to help facilitate an understanding of the Company's financial condition and its historical results of operations for the periods presented. This MD&A should be read in conjunction with the audited consolidated financial statements and notes thereto included in this annual report on Form 10-K. This MD&A may contain forward-looking statements that involve risks and uncertainties. For a discussion on forward-looking statements, see the information set forth in the Introductory Note to this Annual Report under the caption "Forward Looking Statements", which information is incorporated herein by reference. The share numbers in the following discussion reflect a 1-for-30 reverse stock split that the Company effected October 24, 2019.

Overview

Cancer Genetics, Inc. supports the efforts of the biotechnology and pharmaceutical industries to develop innovative new drug therapies. Following the Business Disposals, the Company currently has an extensive set of anti-tumor referenced data based on predictive xenograft and syngeneic tumor models from the acquisition of vivoPharm, Pty Ltd. ("vivoPharm") in 2017, to provide Discovery Services such as contract research services, focused primarily on unique specialized studies to guide drug discovery and development programs in the oncology and immuno-oncology fields. vivoPharm is a contract research organization ("CRO") that specializes in planning and conducting unique, specialized studies to guide drug discovery and development programs with a concentration in oncology and immuno-oncology. These studies range from early compound selection to developing comprehensive sets of in vitro and in vivo data, as needed for U.S. Food and Drug Administration ("FDA") Investigational New Drug ("IND") applications.

The Company offers preclinical services such as predictive tumor models, human orthotopic xenografts and syngeneic immuno-oncology relevant tumor models in its Hershey, PA facility, and is a leader in the field of immuno-oncology preclinical services in the United States. This service is supplemented with GLP toxicology and extended bioanalytical services in the Company's Australian-based facilities in Clayton, Victoria, and Gilles Plains, South Australia (effective in February 2020).

Net cash used in operating activities from continuing operations was $4.9 million and $3.2 million for the years ended December 31, 2020 and 2019, respectively, and the Company had unrestricted cash and cash equivalents of $2.4 million at December 31, 2020, a decrease of $1.4 million from December 31, 2019. The Company has working capital from continuing operations at December 31, 2020 of $0.5 million. In addition, the Company has $0.7 million of current liabilities associated with its discontinuing operations that will be funded primarily from its continuing operations.

Merger with StemoniX

The Company, CGI Acquisition, Inc., a wholly-owned subsidiary of CGI ("Merger Sub"), and StemoniX, Inc., a Minnesota corporation ("StemoniX"), have entered into an Agreement and Plan of Merger and Reorganization, as amended (the "Merger Agreement"), pursuant to which Merger Sub will merge (the "merger") with and into StemoniX, with StemoniX surviving the merger as a wholly-owned subsidiary of CGI following the merger. It is expected that the shareholders of StemoniX will become the majority owners of CGI's outstanding common stock upon the closing of the merger. The Company has filed an effective registration statement on Form S-4, as amended, dated February 12, 2021, as supplemented by a proxy supplement filed on February 26, 2021, describing StemoniX and the terms of the Merger Agreement. The merger with StemoniX is subject to certain closing conditions including listing by Nasdaq, and no assurance can be given that the closing conditions will be satisfied or that the merger with StemoniX will occur.

StemoniX develops and manufactures human induced pluripotent stem cell (iPSC) based neural, cardiac and pancreatic screening platforms for drug discovery and development. Engineered from human skin and blood cells, iPSCs are made with in-licensed patented processes discovered by 2012 Nobel Prize recipient Dr. Shinya Yamanaka. StemoniX's iPSC innovations are made from living human cells and have organ-like, or organoid, characteristics; referred to as microOrgans®. StemoniX has industrialized these microOrgans into standard multi-well plate formats that are sufficiently robust and reproducible to enable drug screening and optimization activities.

November 2020 Offering

On October 28, 2020 the Company entered into an underwriting agreement with H.C. Wainwright & Co., LLC ("Wainwright"), relating to an underwritten public offering (the "November 2020 Offering") of approximately 1.6 million shares of common

stock, including approximately 0.2 million shares subject to an option to purchase additional shares, which option was exercised in full on October 30, 2020, at a price to the public of $2.20 per share. The Company received gross proceeds from the offering of approximately $3.5 million, less underwriting discounts and commissions and estimated offering expenses payable by the Company of approximately $534 thousand. In addition, Wainwright received warrants to purchase approximately 94 thousand shares of common stock at $2.42 per share.

ATM Offering

On December 2, 2020, the Company entered into an At The Market Offering Agreement (the "ATM Agreement") with Wainwright, as sales agent, pursuant to which the Company may offer and sell (the "ATM Offering"), from time to time through Wainwright, shares of CGI Common Stock, for aggregate gross proceeds of up to $2.4 million (the "ATM Shares"). The Company suspended the offering of shares under the ATM Agreement on February 10, 2021. Prior to the suspension, the Company sold an aggregate of 50 thousand shares under the ATM Agreement for net proceeds of approximately $159 thousand in December 2020. In January 2021, the Company sold an additional 200 thousand shares for net proceeds of approximately $798 thousand.

CGI PIPE

On January 28, 2021, CGI entered into a Securities Purchase Agreement (the "CGI PIPE Securities Purchase Agreement") with certain institutional and accredited investors (the "CGI PIPE Purchasers"), pursuant to which CGI issued and sold to the CGI PIPE Purchasers in a private placement (the "CGI PIPE") an aggregate of (i) 2.8 million shares of CGI Common Stock and (ii) common warrants to purchase up to an aggregate of 2.8 million shares of CGI Common Stock, at a combined offering price of $3.625 per CGI PIPE Share and accompanying CGI PIPE Warrant to purchase one share of CGI Common Stock, for gross proceeds of approximately $10 million. The net proceeds to CGI from the CGI PIPE were approximately $8.9 million, after deducting placement agent fees and expenses and estimated offering expenses payable by CGI. The net proceeds are expected to be available to the post-merger company upon the closing of the merger. The Private Placement closed on February 1, 2021. Between February 10 and March 22, 2021 a total of approximately 1.1 million of the warrants were exercised for common stock resulting in proceeds to the Company of approximately $4.0 million.

CGI RD Financing

On February 10, 2021, CGI issued and sold to certain institutional investors an aggregate of 2.8 million shares of CGI Common Stock in a registered direct offering at an offering price of $6.30 per share for gross proceeds of approximately $17.5 million, or $15.8 million of net proceeds, after deducting placement agent fees and expenses and estimated offering expenses payable by CGI and issued warrants to purchase an aggregate of 167 thousand shares of CGI Common Stock to Wainwright as placement agent compensation.

Business Disposals - Discontinuing Operations

siParadigm, Inc.

On July 5, 2019, the Company entered into an asset purchase agreement (the "Clinical Agreement") by and among the Company and siParadigm, LLC ("siParadigm"), pursuant to which the Company sold to siParadigm, certain assets associated with the Company's clinical laboratory business (the "Clinical Business," and such assets, the "Designated Assets"), and agreed to cease operating its Clinical Business. The Designated Assets include intellectual property, equipment and customer lists associated with the Clinical Business, and for a period the Company was providing certain transitional services to siParadigm pursuant to the Clinical Agreement. The cash consideration paid by siParadigm at closing was approximately $747 thousand, which included approximately $45 thousand for certain equipment plus a $1.0 million advance payment of the Earn-Out (as defined below), less adjustments and costs of approximately $298 thousand. The Clinical Business sale (together with the BioPharma Disposal, the "Business Disposals") was completed on July 8, 2019.

The Earn-Out, to be paid over the 24 months post-closing, is based on fees for all tests performed by siParadigm for the Company's clinical customers during the 12-month period following the closing (the "Earn-Out"). The Company has netted the Earn-out and Advance from siParadigm as of December 31, 2020 as all amounts are fixed and determinable and the Company and siParadigm intend to offset. At December 31, 2020, the Earn-Out from siParadigm was approximately $91 thousand.

Interpace Biosciences, Inc.

On July 15, 2019, the Company entered into a secured creditor asset purchase agreement (the "BioPharma Agreement") by and among the Company, Gentris, LLC, a wholly owned subsidiary of the Company, Partners for Growth IV, L.P. ("PFG"), Interpace Biosciences, Inc. ("IDXG") and a newly-formed subsidiary of IDXG, Interpace BioPharma, Inc. ("Buyer"). The BioPharma Agreement provided for a consensual private foreclosure sale by PFG of all assets relating to the Company's BioPharma Business (as defined in the BioPharma Agreement) to Buyer (the "BioPharma Disposal"). The BioPharma Disposal was consummated on July 15, 2019.

Pursuant to the BioPharma Agreement, Buyer purchased from PFG certain assets and assumed certain liabilities of the Company relating to the BioPharma Business, providing as gross consideration $23.5 million, less certain closing adjustments totaling $2.0 million, of which $7.7 million was settled in the form of a promissory note issued by Buyer to the Company (the "Excess Consideration Note") and the remainder was paid to PFG in cash. PFG utilized the cash proceeds to satisfy the outstanding balances of the Silicon Valley Bank ("SVB") asset-based revolving line of credit ("ABL") and the $6.0 million term note to PFG ("PFG Term Note"), and to satisfy certain transaction expenses. The balance of $2.3 million was delivered to the Company in addition to the Excess Consideration Note. The Excess Consideration Note which required interest-only quarterly payments at a rate of 6% per year, was settled on October 24, 2019 for $6.0 million, including interest of $24 thousand. The Buyer withheld from the settlement of the Excess Consideration Note $775 thousand for a net worth adjustment (assets less liabilities) of the BioPharma business ("Net Worth"), $153 thousand to secure collection of certain older accounts receivable of the Company purchased by Buyer ("AR Holdback") and an additional $735 thousand as security for indemnification obligations of the Company for any breaches of certain limited warranties and covenants of the Company and other specified items, subject to agreed-upon caps, baskets and survival periods as set forth in the BioPharma Agreement ("Indemnification Holdback"). The Company received the full amounts of the AR Holdback and the Indemnification Holdback in April and May 2020, respectively.

The Company and Buyer also entered into a transition services agreement (the "TSA") pursuant to which the Company and Buyer are providing certain services to each other to accommodate the transition of the BioPharma Business to Buyer. In particular, the Company agreed to provide to Buyer, among other things, certain personnel services, payroll processing, administration services and benefit administration services, for a period not to exceed six months from July 15, 2019, subject to the terms and conditions of the TSA, in exchange for payment or reimbursement, as applicable, by Buyer for the costs related thereto, including salaries and benefits for certain of the Company's BioPharma employees during the transition period. The Buyer paid for certain costs of the Company under the TSA with respect to a limited number of employees and professionals. Such shared services amounted to $208 thousand and $186 thousand for the years ended December 31, 2020 and 2019, respectively. In addition, the Buyer was reimbursing the Company, in part, for the salaries and benefits of John A. Roberts, the Company's Chief Executive Officer, and Glenn Miles, the Company's former Chief Financial Officer through July 2020. The reimbursed portion of such salaries and benefits amounted to $155 thousand and $188 thousand for the years ended December 31, 2020 and 2019, respectively. Including the amounts due under the TSA described above, the net amount due to the Buyer is approximately $15 thousand at December 31, 2020.

The above business disposals have been classified as discontinuing operations in conformity with accounting principles generally accepted in the United States of America. Accordingly, the operations and balances of BioServe and the Company's BioPharma and Clinical operations have been reported as discontinuing operations. Unless otherwise indicated, information in the MD&A relates to continuing operations.

2019 Offerings

In January 2019, the Company closed two public offerings and issued an aggregate of 952 thousand shares of common stock for $5.4 million, net of expenses and discounts of $1.1 million. The Company also issued 67 thousand warrants to its underwriters in conjunction with these offerings.

Note Payable to Atlas Sciences, LLC

On October 21, 2019, the Company issued an unsecured promissory note to Atlas Sciences, LLC ("Atlas Sciences"), an affiliate of Iliad Research and Trading, L.P. ("Iliad"), for $1.3 million (the "Atlas Sciences Note"). The Company received consideration of $1.3 million, reflecting an original issue discount of $88 thousand and expenses payable by the Company of $10 thousand. The Atlas Sciences Note had a 12-month term and accrued interest at 10% per annum. The proceeds from the Note Payable were utilized to partially repay the Convertible Note (see Note 6 to the audited consolidated financial statements included in Part II Item 8 of this Annual Report on Form 10-K).

Between June 3, 2020 and September 23, 2020, the Company issued an aggregate of approximately 399 thousand shares of the Company's common stock, with a fair value of $1.6 million, to Atlas Sciences in exchange for the return to the Company of the

remaining principal and interest from its unsecured promissory note. As such the Note Payable balance on December 31, 2020 was $0.

Key Factors Affecting the Company's Results of Operations and Financial Condition

The Company's wholly-owned subsidiary, *vivo*Pharm, provides proprietary preclinical oncology and immuno-oncology services, offering integrated services in different disease areas to the biotechnology and pharmaceutical industries. *vivo*Pharm is a leader in orthotopic and metastases tumor models. The Company provides all services including toxicology testing and bioanalytical analysis to GLP. *vivo*Pharm specializes in conducting studies tailored to guide drug development, starting from compound libraries and ending with a comprehensive set of *in vitro* and *in vivo* data and reports, as needed for Investigational New Drug (IND) filing.

The Company's ability to complete such studies is dependent upon its ability to leverage its collaborative relationships with pharmaceutical and biotechnology companies and leading institutions to facilitate its research and obtain data for its quality assurance and test validation efforts.

The Company believes that the factors discussed in the following paragraphs have had and are expected to continue to have a material impact on its results of operations and financial condition.

Revenues from Continuing Operations

Revenue from the Company's Discovery Services comes from preclinical oncology and immuno-oncology services offered to its biotechnology and pharmaceutical customers. The Company is a leader in orthotopic and metastases tumor models and offer whole body imaging, in addition to toxicology testing and bioanalytical analysis. Discovery Services are designed to specialize in conducting studies tailored to guide drug development, starting from compound libraries and ending with a comprehensive set of *in vitro* and *in vivo* data and reports, as needed for Investigational New Drug (IND) filing.

During the year ended December 31, 2020, four customers accounted for approximately 61% of the consolidated revenue from continuing operations. During the year ended December 31, 2019, three customers accounted for approximately 61% of the consolidated revenue from continuing operations.

Cost of Revenues from Continuing Operations

The Company's cost of revenues consists principally of internal personnel costs, including non-cash stock-based compensation, laboratory consumables, shipping costs, overhead and other direct expenses, such as specimen procurement and third-party validation studies. The Company continues to pursue various strategies to control its cost of revenues, including automating the Company's processes through more efficient technology and attempting to negotiate improved terms with its suppliers.

Operating Expenses from Continuing Operations

The Company classifies its operating expenses into four categories: sales and marketing, general and administrative, impairment of goodwill and merger costs. The Company's operating expenses principally consist of personnel costs, including non-cash stock-based compensation, outside services, laboratory consumables and overhead, development costs, marketing program costs and legal and accounting fees.

General and Administrative Expenses. General and administrative expenses consist principally of personnel-related expenses, professional fees, such as legal, accounting and business consultants, occupancy costs, bad debt and other general expenses.

Sales and Marketing Expenses. The Company's sales and marketing expenses consist principally of personnel and related overhead costs for its business development team and their support personnel, travel and entertainment expenses, and other selling costs including sales collaterals and trade shows. The Company expects its sales and marketing expenses to remain relatively flat as it continues to operate and grow its Discovery Services business.

Impairment of Goodwill: During 2019, the Company recorded a goodwill impairment charge of $2.9 million after considering the effects of the Business Disposals and declines in its stock price. No impairment was recognized during the year ended December 31, 2020. If the Company is not successful in executing its strategic business plans, there may be further impairments in the future.

Impairment of Intangible Assets. Based upon the actual results for the first two months of the 2021 fiscal year, the Company updated the forecasted operating results for the period from 2021 through 2026, the amortization period of the Company's intangible assets and determine that the fair value of the intangible assets which was calculated using the present value of future cashflows, did not support its carrying value resulting in an impairment charge of $2.2 million, which was recorded in operating expenses for the year ended December 31, 2020.

Merger Costs. In the pursuit of various strategic options for the Company, legal and other professional costs are incurred while evaluating, negotiating, executing and implementing merger and acquisition alternatives.

Coronavirus (COVID-19) Pandemic. On March 11, 2020 the World Health Organization declared the novel strain of coronavirus ("COVID-19") a global pandemic and recommended containment and mitigation measures worldwide. In addition, as the Company is located in New Jersey, the Company is currently under a shelter-in-place mandate and many of its customers worldwide are similarly impacted. The global outbreak of COVID-19 continues to rapidly evolve, and the extent to which COVID-19 may impact the Company's business will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. As a healthcare provider, the Company is still providing Discovery Services and has yet to experience a slowdown in its project work, however, the future of many projects may be delayed. The Company continues to vigilantly monitor the situation with its primary focus on the health and safety of its employees and clients.

Results of Operations

Years Ended December 31, 2020 and 2019

The following table sets forth certain information concerning the Company's results of continuing operations for the periods shown (in thousands):

	Year Ended December 31,		Change	
	2020	2019	**$**	**%**
Revenue	**$ 5,751**	$ 7,305	$ (1,554)	-21 %
Cost of revenues	**3,353**	3,701	(348)	-9 %
General and administrative	**6,595**	5,171	1,424	28 %
Sales and marketing	**1,246**	1,146	100	9 %
Impairment of goodwill	**—**	2,873	(2,873)	-100 %
Impairment of intangible assets	**2,201**	—	2,201	100 %
Merger costs	**539**	117	422	361 %
Loss from continuing operations	**(8,183)**	(5,703)	(2,480)	43 %
Interest expense, net	**(272)**	(1,329)	1,057	-80 %
Change in fair value of acquisition note payable	**4**	4	—	— %
Change in fair value of other derivatives	**—**	86	(86)	-100 %
Change in fair value of warrant liability	**167**	70	97	139 %
Change in fair value of siParadigm Earn-Out	**(66)**	(935)	869	-93 %
Change in fair value of Excess Consideration Note	**—**	93	(93)	-100 %
Gain on troubled debt restructuring	**—**	258	(258)	-100 %
Other expense	**307**	59	248	420 %
Loss before income taxes	**(8,043)**	(7,397)	(646)	9 %
Income tax benefit	**—**	512	(512)	-100
Net loss from continuing operations	**$ (8,043)**	$ (6,885)	$ (1,158)	17 %

Non-GAAP Financial Information

In addition to disclosing financial results in accordance with United States generally accepted accounting principles ("GAAP"), the table below contains non-GAAP financial measures that the Company believes are helpful in understanding and comparing its past financial performance and its future results, and are reflected as "Adjusted EBITDA." The Company uses Adjusted EBITDA to normalize its operations. The Company defined adjusted EBITDA as earnings before (1) net interest expense, (2) taxes, (3) depreciation and amortization, (4) non-cash stock-based compensation, (5) goodwill impairment, (7) gain on troubled debt restructuring and (6) changes in fair value of various assets and liabilities that are remeasured on a recurring basis. These non-GAAP financial measures should not be considered a substitute for, or superior to, financial measures calculated in accordance with GAAP, and the financial results calculated in accordance with GAAP and reconciliations from these results should be carefully evaluated. Management believes that these non-GAAP measures provide useful information about the Company's core operating results and cash flow performance and thus are appropriate to enhance the overall understanding of the Company's past financial performance and its prospects for the future. The non-GAAP financial measures are included in the table below.

Reconciliation from GAAP to Non-GAAP Results (in thousands):

	Year Ended December 31,	
	2020	2019
Reconciliation of net loss from continuing operations:		
Net loss from continuing operations	**$ (8,043)**	$ (6,885)
Adjustments:		
Interest expense, net	**272**	1,329
Depreciation	**166**	159
Amortization	**462**	454
Stock-based compensation	**179**	263
Impairment of goodwill	**—**	2,873
Impairment of intangible assets	**2,201**	—
Merger costs	**539**	117
Change in fair value of acquisition note payable	**(5)**	(4)
Change in fair value of other derivatives	**—**	(86)
Change in fair value of warrant liability	**(167)**	(70)
Change in fair value of siParadigm Earn-Out	**65**	935
Change in fair value of Excess Consideration Note	**—**	(93)
Gain on troubled debt restructuring	**—**	(258)
Income tax benefit	**—**	(512)
Adjusted EBITDA (loss) from continuing operations	**$ (4,331)**	$ (1,778)

Adjusted EBITDA loss from continuing operations increased 143% to $4.3 million during the year ended December 31, 2020, from an Adjusted EBITDA loss of $1.8 million during the year ended December 31, 2019.

Revenue from Continuing Operations

Revenue from continuing operations decreased 21%, or $1.6 million, to $5.8 million for the year ended December 31, 2020, from $7.3 million for the year ended December 31, 2019, principally due to a decrease in the number of clinical studies conducted in the Company's U.S. operations from sponsors based in the U.S. and Europe, which resulted in a lower volume of active projects as the demand for its CRO services decreased.

Cost of Revenues from Continuing Operations

Cost of revenues from continuing operations decreased 9%, or $348 thousand, to $3.4 million for the year ended December 31, 2020, from $3.7 million for the year ended December 31, 2019, principally due to decreased usage of lab supplies of $340 thousand, payroll costs and benefits of $355 thousand, offset by an increase in outsourcing of $317 thousand. Gross margin decreased from 49% to 42% during the year ended December 31, 2020. The decrease in gross margin was caused by the increase in the use of outsourcing on studies which have lower margins then studies performed in house.

Operating Expenses from Continuing Operations

General and Administrative Expenses. General and administrative expenses from continuing operations increased 28%, or $1.4 million, to $6.6 million for the year ended December 31, 2020, from $5.2 million for the year ended December 31, 2019 principally due to a $1.2 million increase in audit and professional services (of which $619 thousand represent one-time costs) related to increased financial consulting incurred to prepare discontinued operations for audit, $580 thousand increase in legal expense primarily due to large refunds negotiated and recorded in the fourth quarter of 2019, $416 thousand increase in taxes and insurance related to a significant increase in Directors & Officers insurance, a $180 thousand increase in board of director fees, offset in part by a $748 thousand decrease in salaries related to the reversal of discretionary bonus accruals in 2020, and $99 thousand decrease in stock based compensation.

Impairment of Goodwill. During the year ended December 31, 2020 and December 31 2019, the Company recorded impairment of goodwill of $0 and $2.9 million respectively, after considering the effects of the Business Disposals and declines in its stock price.

Impairment of Intangible Assets. Based upon the actual results for the first two months of the 2021 fiscal year, the Company updated the forecasted operating results for the period from 2021 through 2026, the amortization period of the Company's intangible assets and determine that the fair value of the intangible assets which was calculated using the present value of future cashflows, did not support its carrying value resulting in an impairment charge of $2.2 million, which was recorded in operating expenses for the year ended December 31, 2020.

Merger Costs. During the year ended December 31, 2020, the Company recognized $539 thousand of merger costs associated with the pending merger with Stemonix, as compared to $117 thousand during the year ended December 31, 2019 related to its terminated merger with NovellusDx, Ltd. ("NDX").

Interest Expense, Net

Net interest expense from continuing operations decreased by $1.1 million during the year ended December 31, 2020 due to the payoff of various debt agreements that were previously in place during the year ended December 31, 2019. During the fourth quarter of 2019 the Company entered into a Settlement Agreement with NDX that reduced the outstanding balance of the Advance from NDX (as defined below) by $1.1 million dollars and put in place a $450 thousand interest free note payable in monthly installments of $50 thousand. The note was paid in full in July 2020. The Convertible Note with Iliad of approximately $2.3 million was replaced by a note payable to Atlas Sciences in October 2019. The note payable to Atlas Sciences was settled though the exchange of common stock in 2020 and was fully paid off as of September 30, 2020.

Change in Fair Value of Warrant Liability

Changes in fair value of some of the Company's common stock warrants may impact its results. Accounting rules require the Company to record certain of its warrants as a liability, measure the fair value of these warrants each quarter and record changes in that value in earnings. As a result of changes in the Company's stock price, it recognized non-cash income of $167 thousand and non-cash expense of $70 thousand during the years ended December 31, 2020 and 2019, respectively. The Company may be exposed to non-cash charges, or the Company may record non-cash income, as a result of this warrant exposure in future periods.

Change in Fair Value of siParadigm Earn-Out

The siParadigm Earn-Out relates to the disposal of the Company's Clinical Business in July 2019. During the years ended December 31, 2020 and 2019, the Company recognized a $66 thousand and $935 thousand reduction in the fair value of the siParadigm Earn-Out due to a decrease in expected future payments.

Change in Fair Value of Excess Consideration Note

The Excess Consideration Note relates to the disposal of the Company's Biopharma Business in July 2019. During the years ended December 31, 2020 and 2019, the Company recognized $0 and $93 thousand gain related to the increase in fair value of the Excess Consideration Note due to changes in the expected settlement of the AR Holdback and the Indemnification Holdback. The Excess Consideration Note was paid off in May 2020.

Gain on Troubled Debt Restructuring

During the year ended December 31, 2019, the Company recognized a $258 thousand gain on troubled debt restructuring related to a settlement agreement reached with NDX ("NDX Settlement Agreement") covering $1.5 million in funds advanced to the Company prior to the failed merger in 2018 ("Advance from NDX"). The NDX Settlement Agreement required the Company to repay $1.1 million of principal and interest on the Advance from NDX. Upon receipt of these payments, the Advance from NDX was reduced to $450 thousand. The remaining amount due was interest-free and payable in monthly installments of $50 thousand, which began in November 2019. The Settlement Agreement was paid in full in July 2020.

Income Tax Benefit

On April 4, 2019, the Company sold $11.6 million of gross State of New Jersey NOLs relating to the 2017 tax year as well as $72 thousand of state research and development tax credits. The sale resulted in the net receipt by the Company of $512 thousand. The Company did not sell any NOLs during 2020. The Company's effective rate for the years ended December 31, 2020 and 2019 was 0% and 7.1%, respectively.

Liquidity and Capital Resources

Sources and Uses of Liquidity

The primary sources of the Company's liquidity have been cash collections from customers, funds generated from debt financings and equity financings, and cash received from the Business Disposals. The Company expects to continue generating additional cash from its customers in the future.

The Company expects to continue to incur operating losses in the future, as the costs of being public have significant effect on losses that keep the Company from being profitable. The Company expects losses to continue, only to the extent that the business does not outpace the public company-related expenses, such as legal and audit fees and director's and officer's liability insurance. These losses have had, and will continue to have, an adverse effect on the Company's working capital, total assets and stockholders' equity. Because of the numerous risks and uncertainties associated with its revenue growth and costs associated with being a public company, the Company is unable to predict when it will become profitable, and it may never become profitable. Even if the Company does achieve profitability, it may not be able to sustain or increase profitability on a quarterly or annual basis. The Company's inability to achieve and then maintain profitability would negatively affect its business, financial condition, results of operations and cash flows.

On October 28, 2020 the Company entered into an underwriting agreement with Wainwright relating to an underwritten public offering of approximately 1.6 million shares of common stock, including approximately 0.2 million shares subject to an option to purchase additional shares, which option was exercised in full on October 30, 2020, at a price to the public of $2.20 per share. The Company received gross proceeds from the offering of approximately $3.5 million, less underwriting discounts and commissions and estimated offering expenses payable by the Company of approximately $534 thousand. In addition, Wainwright received warrants to purchase approximately 94 thousand shares of common stock at $2.42 per share.

On December 2, 2020, the Company entered into an At The Market Offering Agreement (the "ATM Agreement") with Wainwright, as sales agent, pursuant to which the Company may offer and sell, from time to time through Wainwright, shares of CGI Common Stock, for aggregate gross proceeds of up to $2.4 million (the "ATM Shares"). Pursuant to the ATM Agreement, Wainwright may sell the ATM Shares in sales deemed to be "at-the-market" equity offerings as defined in Rule 415 promulgated under the Securities Act, including sales made directly on or through the Nasdaq Capital Market. The Company suspended the offering of shares under the ATM Agreement on February 10, 2021. Prior to the suspension, the Company has sold an aggregate of 250 thousand shares under the ATM Agreement for net proceeds of approximately $957 thousand.

On January 28, 2021, CGI entered into a Securities Purchase Agreement with certain institutional and accredited investors (the "CGI PIPE Purchasers"), pursuant to which CGI issued and sold to the CGI PIPE Purchasers in a private placement an aggregate of (i) 2.8 million shares of CGI Common Stock and (ii) common warrants to purchase up to an aggregate of 2.8 million shares of CGI Common Stock, at a combined offering price of $3.625 per CGI PIPE Share and accompanying CGI PIPE Warrant to purchase one share of CGI Common Stock, for gross proceeds of approximately $10 million. The net proceeds to CGI from the CGI PIPE were approximately $8.9 million, after deducting placement agent fees and expenses and estimated offering expenses payable by CGI.

On February 10, 2021, CGI issued and sold to certain institutional investors an aggregate of 2.8 million shares of CGI Common Stock in a registered direct offering at an offering price of $6.30 per share for gross proceeds of approximately $17.5 million, or $15.8 million of net proceeds, after deducting placement agent fees and expenses and estimated offering expenses payable by

CGI and issued warrants to purchase an aggregate of 167 thousand shares of CGI Common Stock to Wainwright as placement agent compensation.

Between February 10, 2021 and March 22, 2021, the Company received proceeds of $4.0 million from four warrant exercises for an aggregate of 1.1 million shares of common stock.

The primary uses of the Company's liquidity have been cash used to fund the Company's operations, as detailed in the cash flows section below, as well as cash used to repay the Company's lenders.

From June through September 2020, the Company settled all principal and interest on the note payable to Atlas Sciences through the exchange of shares of common stock.

The Company believes that its cash at December 31, 2020, together with net proceeds of (i) $797 thousand from post year end sales pursuant to its At The Market Offering Agreement dated December 2, 2020 (the "CGI ATM"), (ii) $8.9 million from the issuance and sale of CGI securities in the CGI PIPE, (iii) $15.8 million from the issuance and sale of CGI securities in the CGI RD Financing and (iv) $4.0 million from warrant exercises will be sufficient to fund normal operations for at least the next 24 months from the date of this filing. These conditions no longer raise substantial doubt about the Company's ability to continue as a going concern.

Cash Flows from Continuing Operations

The Company's net cash flow from operating, investing and financing activities from continuing operations for the periods below were as follows (in thousands):

	Year Ended December 31,	
	2020	2019
Cash provided by (used in) continuing operations:		
Operating activities	**$ (4,908)**	$ (3,239)
Investing activities	**885**	(28)
Financing activities	**2,640**	3,420
Effect of foreign currency exchange rates on cash and cash equivalents and restricted cash	**(68)**	(17)
Net increase in cash and cash equivalents and restricted cash from continuing operations	**$ (1,451)**	$ 136

The Company had cash and cash equivalents and restricted cash of $2.4 million and $4.2 million at December 31, 2020 and 2019, respectively. Restricted cash of $350 thousand at December 31, 2019 was released from restriction in May 2020.

Cash Used in Operating Activities from Continuing Operations

Net cash used by continuing operating activities was $4.9 million for the year ended December 31, 2020, consisting of a net loss from continuing operations of $5.9 million, positive non-cash adjustments of $1.2 million and a decrease in cash relating to changes in working capital items of $288 thousand.

During the year ended December 31, 2019, cash used in operating activities from continuing operations was $3.2 million, consisting of net loss from continuing operations of $6.9 million, positive non-cash adjustments of $5.4 million and additional uses of cash relating to changes in working capital items of $1.7 million. Changes in cash flows from working capital items were primarily driven by a net increase in other current assets of $279 thousand, a net decrease in accounts payable, accrued expenses and deferred revenue of $1.3 million, and a decrease in obligations under operating leases of $189 thousand. These uses of cash were partially offset by a net decrease in accounts receivable of $81 thousand.

Cash Provided by Investing Activities from Continuing Operations

Net cash provided by continuing investing activities was $885 thousand for the year ended December 31, 2020, relating primarily to the collection of the Excess Consideration Note of $888 thousand.

Net cash used in continuing investing activities was $28 thousand for the year ended December 31, 2019, relating to purchases of fixed assets.

Cash Provided by Financing Activities from Continuing Operations

Net cash provided by continuing financing activities was $2.6 million for the year ended December 31, 2020 and principally resulted from net proceeds received from the November 2020 Offering and the ATM Offering of an aggregate of $3.1 million, offset, in part, by principal payments of $350 thousand on the Convertible Note and the Advance from NDX, respectively, as well as $84 thousand of payments on finance leases.

Net cash provided by continuing financing activities was $3.4 million for the year ended December 31, 2019 and resulted from proceeds of $5.4 million offset by principal payments of $1.0 million and $892 thousand on the Convertible Note and the Advance from NDX, respectively, as well as $72 thousand of payments on finance leases.

Capital Resources and Expenditure Requirements

The Company expects to continue to incur operating losses in the future, as the costs of being public have significant effect on losses that keep the Company from being profitable. The Company expects losses to continue, only to the extent that the business does not outpace the public company-related expenses, such as legal and audit fees and director's and officer's liability insurance. These losses have had, and will continue to have, an adverse effect on the Company's working capital, total assets and stockholders' equity. Because of the numerous risks and uncertainties associated with its revenue growth and costs associated with being a public company, the Company is unable to predict when it will become profitable, and it may never become profitable. Even if the Company is successful in acquiring StemoniX, StemoniX is not profitable and the Company is not able to predict when the combined business would become profitable, and it may never become profitable, thereby increasing the Company's needs for additional financing. Even if the Company does achieve profitability, with or without consummating the StemoniX acquisition, it may not be able to sustain or increase profitability on a quarterly or annual basis. The Company's inability to achieve and then maintain profitability would negatively affect its business, financial condition, results of operations and cash flows. As a result, it may need to raise additional capital to fund its current operations and to fund its business to meet its long-term business objectives through public or private equity offerings, debt financings, borrowings or strategic partnerships coupled with an investment in the Company or a combination thereof. If the Company raises additional funds through the issuance of convertible debt securities, or other debt securities, these securities could be secured and could have rights senior to those of its common stock. In addition, any new debt incurred by the Company could impose covenants that restrict its operations and increase its interest expense. The issuance of any new equity securities will also dilute the interest of current stockholders.

The Company's forecast of the period of time through which its current financial resources will be adequate to support its operations and its expected operating expenses are forward-looking statements and involve risks and uncertainties. Actual results could vary materially and negatively as a result of a number of factors, including:

- the expected benefits of, and potential value, including synergies, created by, the proposed merger transaction between the Company and StemoniX, Inc. ("StemoniX") for the stockholders of CGI;
- likelihood of the satisfaction of certain conditions to the completion of the merger with StemoniX, and whether and when the merger will be consummated;
- CGI's ability to control and correctly estimate its operating expenses and its expenses associated with the StemoniX merger;
- the Company's ability to adapt its business for future developments in light of the global outbreak of the novel coronavirus, which continues to rapidly evolve;
- the Company's ability to achieve profitability by increasing sales of the Company's preclinical CRO services focused on oncology and immuno-oncology;
- the Company's ability to raise additional capital to repay its indebtedness and meet its liquidity needs;
- the Company's ability to execute on its marketing and sales strategy for its preclinical research services and gain acceptance of its services in the market;
- the Company's ability to keep pace with rapidly advancing market and scientific developments;
- the Company's ability to satisfy U.S. (including FDA) and international regulatory requirements with respect to its services;
- the Company's ability to maintain its present customer base and obtain new customers;
- competition from preclinical CRO services companies, many of which are much larger than the Company in terms of employee base, revenues and overall number of customers and related market share;

- the Company's ability to maintain the Company's clinical and research collaborations and enter into new collaboration agreements with highly regarded organizations in the field of oncology so that, among other things, the Company has access to thought leaders in advanced preclinical and translational science;
- potential product liability or intellectual property infringement claims;
- the Company's dependency on third-party manufacturers to supply it with instruments and specialized supplies;
- the Company's ability to attract and retain a sufficient number of scientists, clinicians, sales personnel and other key personnel with extensive experience in oncology and immuno-oncology, who are in short supply;
- the Company's ability to obtain or maintain patents or other appropriate protection for the intellectual property in its proprietary tests and services;
- the Company's ability to effectively manage its international businesses in Australia and Europe, including the expansion of its customer base and volume of new contracts in these markets;
- the Company's dependency on the intellectual property licensed to the Company or possessed by third parties;
- the Company's ability to adequately support future growth; and
- other risks discussed in the section entitled “Risk Factors.”

The consolidated financial statements for the year ended December 31, 2020 were prepared on the basis of a going concern, which contemplates that the Company will be able to realize assets and discharge liabilities in the normal course of business. Accordingly, they do not give effect to adjustments that would be necessary should the Company be required to liquidate its assets. The ability of the Company to meet its obligations, and to continue as a going concern is dependent upon the availability of future funding and the continued growth in revenues. The consolidated financial statements do not include any adjustments that might result from the outcome of these uncertainties.

Future Contractual Obligations

The following table reflects a summary of the Company's estimates of future contractual obligations as of December 31, 2020. The information in the table reflects future unconditional payments and is based on the terms of the relevant agreements, appropriate classification of items under U.S. GAAP as currently in effect and certain assumptions, such as the interest rate on the Company's variable debt that was in effect as of December 31, 2020. Future events could cause actual payments to differ from these amounts.

	Payments Due by Period				
Contractual Obligations	**Total**	**Less than 1 Year**	**1-3 Years**	**3-5 Years**	**More than 5 years**
(dollars in thousands)					
Finance lease obligations, including interest, for equipment	121	41	80	—	—
Operating lease obligations relating to administrative offices and laboratories	266	234	32	—	—
Total	$ 387	$ 275	$ 112	$ —	$ —

Income Taxes

Over the past several years the Company has generated operating losses in all jurisdictions in which it may be subject to income taxes. As a result, the Company has accumulated significant net operating losses and other deferred tax assets. Because of the Company's history of losses and the uncertainty as to the realization of those deferred tax assets, a full valuation allowance has been recognized. The Company does not expect to report a benefit related to the deferred tax assets until it has a history of earnings, if ever, that would support the realization of its deferred tax assets.

Off-Balance Sheet Arrangements

Since inception, the Company has not engaged in any off-balance sheet activities as defined in Item 303(a)(4) of Regulation S-K.

Critical Accounting Policies and Significant Judgment and Estimates

The Company's management’s discussion and analysis of financial condition and results of operations is based on its consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, the Company

evaluates its estimates based on historical experience and makes various assumptions, which management believes to be reasonable under the circumstances, which form the basis for judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The notes to the Company's audited consolidated financial statements contain a summary of its significant accounting policies. Management considers the following accounting policies critical to the understanding of the results of the Company's operations:

- Revenue recognition;
- Accounts receivable and bad debts;
- Warrant liabilities and other derivatives;
- Stock-based compensation;
- Income taxes; and
- Impairment of intangibles and long-lived assets.

Recent Accounting Pronouncements

The notes to the Company's audited consolidated financial statements contain a summary of recent accounting pronouncements.

Item 7A. Qualitative and Quantitative Disclosures about Market Risk

The Company has exposure to financial market risks, including changes in foreign currency exchange rates, and risk associated with how it invests its cash.

Foreign Exchange Risk

The Company conducts business in foreign markets through its subsidiary in Australia (vivoPharm Pty Ltd.). For the years ended December 31, 2020 and 2019, approximately 39% and 20%, respectively, of the Company's continuing revenues were earned outside the United States and collected in local currency. The Company is subject to risk for exchange rate fluctuations between such local currencies and the United States dollar and the subsequent translation of the Australia Dollar or Euro to United States dollars. The Company currently does not hedge currency risk. The translation adjustments for the years ended December 31, 2020 and 2019 were not significant.

Investment of Cash

The Company invests its cash primarily in money market funds. Because of the short-term nature of these investments, the Company does not believe it has material exposure due to market risk. The impact to the Company's financial position and results of operations from likely changes in interest rates is not material.

Item 8. Financial Statements and Supplementary Data

INDEX TO FINANCIAL STATEMENTS

Cancer Genetics, Inc. and Subsidiaries

Consolidated Financial Report December 31, 2020

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of
Cancer Genetics, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Cancer Genetics, Inc. (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of operations and other comprehensive loss, changes in stockholders' equity and cash flows for each of the two years in the period ended December 31, 2020, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2020, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

As discussed in Note 2 to the consolidated financial statements, the Company has determined that revenue is recorded at the amount expected to be collected. The Company's performance obligations are specific to the services included within each revenue contract which requires subjective judgment regarding the satisfaction of the performance obligation criteria for revenue recognition. Performance obligations are satisfied over time and as study data is transmitted to the customer. Revenue from the Company's Discovery Services is recognized using the time elapsed method and at a point in time as the Company delivers study results to the customers. We identified management's determination of when the satisfaction of the performance obligation was met on the contracts as a critical audit matter.

The primary procedures we performed to address this critical audit matter included the following:

- Tested the completeness of the contracts' population as of year-end;

- Obtained an understanding of the Company's revenue recognition process, including processes over the determination of performance obligations for contract arrangements;
- Read the contracts to obtain an understanding of the contractual requirements and deliverables;
- Bifurcated the population of total contracts and performed additional audit procedures for open contracts; and
- Inspected correspondence between the Company and the customer regarding actual and expected contract performance to date and compared to the estimate to complete its performance obligations.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2019.

Houston, Texas
March 31, 2021

CANCER GENETICS, INC. AND SUBSIDIARIES

Consolidated Balance Sheets
(in thousands, except par value)

	December 31, 2020	December 31, 2019
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	**$ 2,444**	$ 3,880
Restricted cash	**—**	350
Accounts receivable	**779**	696
Earn-Out from siParadigm, current portion	**91**	747
Excess Consideration Note	**—**	888
Patent held for sale	**156**	—
Other current assets	**637**	546
Current assets of discontinuing operations	**—**	71
Total current assets	**4,107**	7,178
FIXED ASSETS, net of accumulated depreciation	**448**	558
OTHER ASSETS		
Operating lease right-of-use assets	**248**	94
Earn-Out from siParadigm, less current portion	**—**	356
Patents and other intangible assets, net of accumulated amortization	**—**	2,895
Investment in joint venture	**—**	92
Goodwill	**2,977**	3,090
Other	**568**	641
Total other assets	**3,793**	7,168
Total Assets	**$ 8,348**	$ 14,904
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	**$ 2,333**	$ 2,072
Obligations under operating leases, current portion	**223**	193
Obligations under finance leases, current portion	**35**	68
Deferred revenue	**1,013**	1,217
Note payable, net	**—**	1,277
Advance from NovellusDx, Ltd., net	**—**	350
Advance from siParadigm, current portion	**—**	566
Current liabilities of discontinuing operations	**659**	1,229
Total current liabilities	**4,263**	6,972
Obligations under operating leases, less current portion	**32**	10
Obligations under finance leases, less current portion	**72**	107
Advance from siParadigm, less current portion	**—**	252
Warrant liability	**1**	178
Total Liabilities	**4,368**	7,519
STOCKHOLDERS' EQUITY		
Preferred stock, authorized 9,764 shares $0.0001 par value, none issued	**—**	—
Common stock, authorized 100,000 shares, $0.0001 par value, 4,135 and 2,104 shares issued and outstanding as of December 31, 2020 and 2019, respectively	**—**	—
Additional paid-in capital	**176,628**	171,783
Accumulated other comprehensive income (loss)	**(223)**	26
Accumulated deficit	**(172,425)**	(164,424)
Total Stockholders' Equity	**3,980**	7,385
Total Liabilities and Stockholders' Equity	**$ 8,348**	$ 14,904

See Notes to Consolidated Financial Statements.

CANCER GENETICS, INC. AND SUBSIDIARIES

Consolidated Statements of Operations and Other Comprehensive Loss
(in thousands, except per share amounts)

	Years Ended December 31,	
	2020	2019
Revenue	**$ 5,751**	$ 7,305
Cost of revenues	**3,353**	3,701
Gross profit	**2,398**	3,604
Operating expenses:		
General and administrative	**6,595**	5,171
Sales and marketing	**1,246**	1,146
Impairment of goodwill	**—**	2,873
Impairment of intangible assets	**2,201**	—
Merger costs	**539**	117
Total operating expenses	**10,581**	9,307
Loss from continuing operations	**(8,183)**	(5,703)
Other income (expense):		
Interest expense	**(272)**	(1,437)
Interest income	**—**	108
Change in fair value of acquisition note payable	**4**	4
Change in fair value of other derivatives	**—**	86
Change in fair value of warrant liability	**167**	70
Change in fair value of siParadigm Earn-Out	**(66)**	(935)
Change in fair value of Excess Consideration Note	**—**	93
Gain on troubled debt restructuring	**—**	258
Other income	**307**	59
Total other income (expense)	**140**	(1,694)
Loss before income taxes	**(8,043)**	(7,397)
Income tax benefit	**—**	512
Loss from continuing operations	**(8,043)**	(6,885)
Income from discontinuing operations, including a gain on disposal of business of $8,370 during the year ended December 31, 2019	**42**	177
Net loss	**(8,001)**	(6,708)
Foreign currency translation loss	**(249)**	(34)
Comprehensive loss	**$ (8,250)**	$ (6,742)
Basic and diluted net loss per share from continuing operations	**$ (3.18)**	$ (3.57)
Basic and diluted net income per share from discontinuing operations	**0.02**	0.09
Basic and diluted net loss per share	**$ (3.16)**	$ (3.48)
Basic and diluted weighted-average shares outstanding	**2,532**	1,928

See Notes to Consolidated Financial Statements.

CANCER GENETICS, INC. AND SUBSIDIARIES

Consolidated Statements of Changes in Stockholders' Equity
Years Ended December 31, 2020 and 2019
(in thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total
	Shares	Amount				
Balance, December 31, 2018	924	$ —	$ 164,458	$ 60	$ (157,716)	$ 6,802
Stock based compensation—employees	—	—	370	—	—	370
Issuance of common stock with warrants for cash - 2019 Offerings, net of expenses and discounts	952	—	5,412	—	—	5,412
Issuance of common stock - Iliad Research and Trading, L.P. conversions and exchanges	225	—	962	—	—	962
Increase in fair value of embedded conversion option	—	—	547	—	—	547
Fractional shares settlement	(2)	—	(5)	—	—	(5)
Issuance of common stock to vendor	5	—	39	—	—	39
Unrealized loss on foreign currency translation	—	—	—	(34)	—	(34)
Net loss	—	—	—	—	(6,708)	(6,708)
Balance, December 31, 2019	2,104	—	171,783	26	(164,424)	7,385
Stock based compensation—employees	—	—	173	—	—	173
Issuance of common stock—VentureEast settlement	3	—	12	—	—	12
Fair value of common stock exchanged to settle note payable	399	—	1,577	—	—	1,577
Issuance of common stock for cash net of offering costs	1,618	—	3,074	—	—	3,074
Warrant exchange	11	—	10	—	—	10
Oncospire retirement	—	—	(1)	—	—	(1)
Unrealized loss on foreign currency translation	—	—	—	(249)	—	(249)
Net loss	—	—	—	—	(8,001)	(8,001)
Balance, December 31, 2020	4,135	$ —	$ 176,628	$ (223)	$ (172,425)	$ 3,980

See Notes to Consolidated Financial Statements.

CANCER GENETICS, INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows
(in thousands)

	Years Ended December 31,	
	2020	2019
CASH FLOWS FROM OPERATING ACTIVITIES		
Net loss	**$ (8,001)**	$ (6,708)
Income from discontinuing operations	**(42)**	(177)
Net loss from continuing operations	**(8,043)**	(6,885)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	**166**	159
Amortization	**462**	454
Stock-based compensation	**179**	263
Amortization of operating lease right-of-use assets	**216**	144
Change in fair value of warrant liability, acquisition note payable and other derivatives	**(171)**	(160)
Amortization of discount of debt and debt issuance costs	**181**	497
Issuance of common stock to vendor	**—**	39
Interest added to Convertible Note	**—**	268
Change in fair value of siParadigm Earn-Out	**66**	935
Change in fair value of Excess Consideration note	**—**	(93)
Gain on troubled debt restructuring	**—**	(258)
Loss on extinguishment of debt	**119**	256
Goodwill impairment	**—**	2,873
Intangible asset impairment	**2,201**	—
Change in working capital components:		
Accounts receivable	**(89)**	81
Other current assets	**(40)**	(279)
Other non-current assets	**72**	(2)
Accounts payable, accrued expenses and deferred revenue	**(3)**	(1,342)
Obligations under operating leases	**(239)**	(189)
Due to Interpace Biosciences, Inc.	**15**	—
Net cash used in operating activities, continuing operations	**(4,908)**	(3,239)
Net cash used in operating activities, discontinuing operations	**(463)**	(5,421)
Net cash used in operating activities	**(5,371)**	(8,660)
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of fixed assets	**(39)**	(28)
Distributions from Joint Venture	**36**	—
Receipts from Excess Consideration Note	**888**	—
Net cash used in investing activities, continuing operations	**885**	(28)
Net cash provided by investing activities, discontinuing operations	**128**	9,119
Net cash provided by investing activities	**1,013**	9,091
CASH FLOWS FROM FINANCING ACTIVITIES		
Principal payments on obligations under finance leases	**(84)**	(72)
Proceeds from offerings of common stock, net of certain offering costs	**3,074**	5,412
Principal payments on Convertible Note	**—**	(1,023)
Principal payments on Advance from NovellusDx, Ltd.	**(350)**	(892)
Fractional shares settlement paid in cash	**—**	(5)
Net cash provided by financing activities, continuing operations	**2,640**	3,420
Net cash used in financing activities, discontinuing operations	**—**	(115)
Net cash provided by financing activities	**2,640**	3,305
Effect of foreign currency exchange rates on cash and cash equivalents and restricted cash	**(68)**	(17)
Net increase (decrease) in cash and cash equivalents and restricted cash	**(1,786)**	3,719
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH		
Beginning	**4,230**	511
Ending	**$ 2,444**	$ 4,230

RECONCILIATION OF CASH AND CASH EQUIVALENTS AND RESTRICTED		
CASH TO THE CONSOLIDATED BALANCE SHEETS:		
Cash and cash equivalents	**$ 2,444**	$ 3,880
Restricted cash	**—**	350
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH	**$ 2,444**	$ 4,230
SUPPLEMENTAL CASH FLOW DISCLOSURE		
Cash paid for interest	**$ 11**	$ 1,501
SUPPLEMENTAL DISCLOSURE OF NONCASH		
INVESTING AND FINANCING ACTIVITIES		
Common stock issued in VenturEast settlement	**$ 12**	$ —
Fair value of common stock exchanged to settle Note Payable	**1,577**	—
Right of use asset obtained through operating leases	**27**	—
Issuance of common stock in exchange for warrants	**10**	—
Retirement of common stock - Oncospire	**1**	—
Lease remeasurement	**264**	—
Fixed assets acquired through finance lease arrangements	**17**	145
Conversion of debt and accrued interest into common stock	**—**	350
Increase in fair value of conversion option	**—**	547
Exchanges of principal on Convertible Note for common stock	**—**	612
Partial pay-off of Convertible Note through note payable to Atlas Sciences, LLC	**—**	1,250

See Notes to Consolidated Financial Statements.

CANCER GENETICS, INC. AND SUBSIDIARIES

Notes to Consolidated Financial Statements

Note 1. Organization, Description of Business, Reverse Stock Split, Business Disposals, Offerings and Merger

Cancer Genetics, Inc. (the "Company" or "CGI") supports the efforts of the biotechnology and pharmaceutical industries to develop innovative new drug therapies. Currently, the Company has an extensive set of anti-tumor referenced data based on predictive xenograft and syngeneic tumor models to provide Discovery Services such as contract research services, focused primarily on unique specialized studies to guide drug discovery and development programs in the oncology and immuno-oncology fields.

The Company was incorporated in the State of Delaware on April 8, 1999 and has laboratories in Pennsylvania and Australia. The Company's corporate headquarters are in Rutherford, New Jersey. The Company offers preclinical services such as predictive tumor models, human orthotopic xenografts and syngeneic immuno-oncology relevant tumor models in its Hershey PA facility, and is a leader in the field of immuno-oncology preclinical services in the United States. This service is supplemented with GLP toxicology and extended bioanalytical services in its Australian-based facilities in Clayton, Victoria. Beginning in February 2020, the Company also has an animal testing facility and laboratory in Gilles Plains, South Australia, Australia.

Merger Agreement

On August 24, 2020, the Company announced the entry into an Agreement and Plan of Merger and Reorganization originally dated August 21, 2020, as amended on February 8, 2021 and on February 26, 2021 ("Merger Agreement") between the Company, StemoniX, Inc., a Minnesota corporation ("StemoniX"), and CGI Acquisition, Inc., a Minnesota corporation and wholly-owned subsidiary of the Company ("Merger Sub"), pursuant to which Merger Sub will merge with and into StemoniX, with StemoniX surviving the merger and becoming a direct, wholly-owned subsidiary of the Company (the "Merger"). The transaction is structured as a reverse merger with StemoniX as the acquirer for accounting purposes.

Pursuant to, and subject to the conditions of, the Merger Agreement, each share of common stock of StemoniX (other than Dissenting Shares (as defined in the Merger Agreement)), issued and outstanding immediately prior to the effective time of the Merger (the "Effective Time") shall be automatically converted into the right to receive an amount of shares of common stock, par value $0.0001 per share, of the Company ("CGI Common Stock") equal to the Exchange Ratio (as defined in the Merger Agreement). All options to purchase shares of StemoniX Common Stock ("StemoniX Options") outstanding immediately prior to the Effective Time, whether vested or unvested, will be converted into a stock option to purchase shares of CGI Common Stock, proportionately adjusted based on the Exchange Ratio. All warrants ("StemoniX Warrants") to purchase shares of StemoniX capital stock, excluding certain warrants that are anticipated to be issued to investors purchasing at least a minimum amount of additional StemoniX Convertible Notes (the "Convertible Note Warrants") outstanding immediately prior to the Effective Time will be cancelled and converted into the right to receive the same consideration such warrantholder would have received had they exercised the StemoniX Warrants immediately prior to the merger, based on the Exchange Ratio, net of the exercise price. All Convertible Note Warrants will be exchanged for warrants (the "Convertible Note Exchange Warrants") to purchase a number of shares of CGI Common Stock equal to 20% of the principal amount of Convertible Notes purchased divided by the weighted average share price of CGI Common Stock over the five trading days prior to the closing of the merger (the "5-Day VWAP"), with an exercise price equal to the 5-Day VWAP. In addition, each share of StemoniX Series C Preferred Stock (the "Series C Preferred Stock") issued and outstanding immediately prior to the Effective Time will be converted into the right to receive a number of shares of CGI Common Stock (the "Series C Conversion Shares") equal to the price per share paid for the Series C Preferred Stock divided by a conversion price, subject to a valuation cap set forth in the Merger Agreement, equal to 85% of the 5-Day VWAP.

Pursuant to the Merger Agreement, CGI and StemoniX have agreed that their respective equity holders' ownership in the post-merger company would be at the 22%/78% ratio described below, but that securities issued by each party in certain private placement transactions after the date of the original Merger Agreement would not be included in determining that ratio and would instead dilute the ownership of all holders proportionately. Those transactions are (a) the private offering by StemoniX of Series C Preferred Stock (the "Series C Financing") which closed on March 15, 2021, in which an aggregate of up to $2 million was raised, (b) the private offering by CGI of CGI Common Stock and warrants that closed on February 1, 2021 (the "CGI PIPE") and (c) the registered direct offering by CGI of CGI Common Stock and placement agent warrants that closed on February 16, 2021 (the "CGI RD Financing", and collectively with the Series C Financing and CGI PIPE, the "Private Placement").

As a result, immediately following the Effective Time, but excluding the proportionate dilution resulting from the Private Placement, (A) the former StemoniX equity holders (excluding the effect of those purchasing Series C Preferred Stock in the Private Placement (the "Series C Investors")) will hold approximately 78% of the "Deemed Outstanding Shares" of CGI Common Stock (defined below), and (B) the pre-merger outstanding (i) shares of CGI Common Stock (including underlying CGI options and CGI warrants on a net exercise basis but excluding the CGI securities issued in the CGI PIPE and CGI RD Financing) and (ii) November PA Warrants (as defined below) will represent approximately 22% of the Deemed Outstanding Shares (as defined below), with such percentages subject to certain closing adjustments based on the Net Cash (as defined in the Merger Agreement) held by each company before closing (such adjustment, the "Net Cash Adjustment").

The "Deemed Outstanding Shares" of CGI Common Stock means:

i. the shares of CGI Common Stock outstanding, plus
ii. any shares of CGI Common Stock issuable on a net exercise basis with respect to any in-the-money CGI options or in-the-money CGI warrants (excluding warrants issued in the CGI PIPE and CGI RD Financing and warrants to purchase an aggregate of 94,092 shares of CGI Common Stock (the "November PA Warrants") issued to CGI's placement agent in connection with a public offering on November 2, 2020), plus
iii. any shares of CGI Common Stock issuable on a net exercise basis with respect to any in-the-money StemoniX Options and in-the-money StemoniX Warrants, plus
iv. the amount of shares of CGI Common Stock issuable upon cash exercise of the November PA Warrants and Convertible Note Exchange Warrants, reduced by
v. the shares of CGI Common Stock issued in the CGI PIPE and CGI RD Financing and the Series C Conversion Shares.

The exact number of shares of CGI Common Stock that will be issued to StemoniX shareholders other than the Series C Investors will be fixed immediately prior to the Effective Time to reflect the capitalization of CGI as of immediately prior to such time as well as the Net Cash Adjustment, and the exact number of shares of CGI Common Stock that will be issued to the Series C Investors will be fixed immediately prior to the Effective Time based on the 5-Day VWAP.

Liquidity

At December 31, 2020, the Company's history of losses required management to assess its ability to continue operating as a going concern, according to ASC 205-40, Going Concern. During the year ended December 31, 2020, the Company incurred a net loss of $8.0 million, including impairment charges of $2.2 million and $539 thousand of merger-related expenses. As of December 31, 2020, the Company's accumulated deficit was $ 172.4 million. Cash used in operating activities for the year ended December 31, 2020 was $5.4 million. As of December 31, 2020, the Company had $2.4 million of available cash to fund ongoing operating activities. As discussed in Note 20, the Company raised $29.5 million subsequent to December 31, 2020. Therefore, the Company believes that with the cash available after the equity raises that the Company has sufficient cash to support its operations for at least one year from issuance of these financial statements and therefore substantial doubt as to the Company's ability to continue as a going concern has been alleviated.

The Company's ability to continue as a going concern is dependent on reduced losses and improved future cash flows. Alternatively, the Company may be required to raise additional equity or debt capital, or consummate other strategic transactions. The Company can provide no assurance that these actions will be successful or that additional sources of financing will be available on favorable terms, if at all.

On March 11, 2020 the World Health Organization declared the novel strain of coronavirus ("COVID-19") a global pandemic and recommended containment and mitigation measures worldwide. In addition, as the Company is located in New Jersey, the Company is currently under a shelter-in-place mandate and many of its customers worldwide are similarly impacted. The global outbreak of COVID-19 continues to rapidly evolve, and the extent to which COVID-19 may impact the Company's business will depend on future developments, which are highly uncertain and cannot be predicted with confidence, such as the ultimate geographic spread of the disease, the duration of the outbreak, travel restrictions and social distancing in the United States and other countries, business closures or business disruptions, and the effectiveness of actions taken in the United States and other countries to contain and treat the disease. As a healthcare provider, the Company is still providing Discovery Services and has yet to experience a slowdown in its project work, however, the future of many projects may be delayed. The Company continues to vigilantly monitor the situation with its primary focus on the health and safety of its employees and clients.

Note 2. Significant Accounting Policies

Basis of presentation: The Company prepares its financial statements on the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America.

Segment reporting: Operating segments are defined as components of an enterprise about which separate discrete information is used by the chief operating decision maker, or decision-making group, in deciding how to allocate resources and in assessing performance. The Company views its operations and manages its business in one operating segment, which is the business of developing and selling diagnostic tests and services.

Principles of consolidation: The accompanying consolidated financial statements include the accounts of Cancer Genetics, Inc. and its wholly-owned subsidiaries.

All significant intercompany account balances and transactions have been eliminated in consolidation.

Foreign currency: The Company translates the financial statements of its foreign subsidiaries, which have a functional currency in the respective country's local currency, to U.S. dollars using month-end exchange rates for assets and liabilities and average exchange rates for revenue, costs and expenses. Translation gains and losses are recorded in accumulated other comprehensive income as a component of stockholders' equity. Gains and losses resulting from foreign currency transactions that are denominated in currencies other than the entity's functional currency are included within the Consolidated Statements of Operations and Other Comprehensive Loss.

Use of estimates and assumptions: The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates made by management include, among others, realization of amounts billed, realization of long-lived assets, realization of intangible assets, accruals for litigation and registration payments, assumptions used to value stock options, warrants and goodwill and the valuation of assets and liabilities associated with the Business Disposals. Actual results could differ from those estimates.

Risks and uncertainties: The Company operates in an industry that is subject to intense competition, government regulation and rapid technological change. the Company's operations are subject to significant risk and uncertainties including financial, operational, technological, regulatory, foreign operations, and other risks, including the potential risk of business failure.

Cash and cash equivalents: Highly liquid investments with original maturities of three months or less when purchased are considered to be cash equivalents. Financial instruments which potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company maintains cash and cash equivalents with high-credit quality financial institutions. At times, such amounts may exceed insured limits. The Company has not experienced any losses in such accounts and believes it is not exposed to any significant credit risk on its cash and cash equivalents.

Restricted cash: Represents cash held at financial institutions which the Company may not withdraw and which collateralizes certain of the Company's financial commitments. All of the Company's restricted cash is invested in interest bearing certificates of deposit. At December 31, 2019 the Company's restricted cash collateralized a $350 thousand letter of credit in favor of its former landlord, pursuant to the terms of the lease for its former Rutherford facility. The letter of credit was released on May 20, 2020.

Revenue recognition: Revenue is recorded at the amount expected to be collected, which includes implicit price concessions. Performance obligations are satisfied over time and as study data is transmitted to the customer. Revenue from the Company's Discovery Services is recognized using the time elapsed method and at a point in time as the Company delivers study results to the customers. As results are delivered, the invoices are generated based on contractual rates. Some contracts have prepayments prior to services being rendered that are recorded as deferred revenue. The Company records deferred revenues (contract liabilities) when cash payments are received or due in advance of its performance, including amounts which are refundable. The Company's customer arrangements do not contain any significant financing component.

Discovery Services frequently take time to complete under their respective contacts. These times vary depending on specific contract arrangements including the length of the study and how samples are delivered to the Company for processing. However, the duration of performance obligations for Discovery Services is less than one year.

The Company excludes from the measurement of the transaction price all taxes that it collects from customers that are assessed by governmental authorities and are both imposed on and concurrent with specific revenue-producing transactions.

Accounts receivable: Accounts receivable are carried at net realizable value, which is the original invoice amount less an estimate for contractual adjustments, discounts and doubtful receivables, the amounts of which are determined by an analysis of individual accounts. The Company's policy for assessing the collectability of receivables is dependent upon the major payor

source of the underlying revenue. The Company performs an assessment of credit worthiness prior to initial engagement and reassesses it periodically. Recoveries of accounts receivable previously written off are recorded when received.

Deferred revenue: Payments received in advance of services rendered are recorded as deferred revenue and are subsequently recognized as revenue in the period in which the services are performed.

Fixed assets: Fixed assets consist of diagnostic equipment and furniture and fixtures. Fixed assets are carried at cost and are depreciated using the straight-line method over the estimated useful lives of the assets, which generally range from five to twelve years. Repairs and maintenance are charged to expense as incurred while improvements are capitalized. Upon sale, retirement or disposal of fixed assets, the accounts are relieved of the cost and the related accumulated depreciation with any gain or loss recorded to the Consolidated Statements of Operations and Other Comprehensive Loss.

Fixed assets are reviewed for impairment whenever changes in circumstances indicate that the carrying amount of an asset may not be recoverable. These computations utilize judgments and assumptions inherent in the Company's estimate of future cash flows to determine recoverability of these assets. If the Company's assumptions about these assets were to change as a result of events or circumstances, the Company may be required to record an impairment loss. No impairment loss was recognized for the years ended December 31, 2020 and 2019.

Goodwill: Goodwill resulted from the purchase of vivoPharm in 2017. In accordance with ASC 350, Intangibles - Goodwill and Other, the Company is required to test goodwill for impairment and adjust for impairment losses, if any, at least annually and on an interim basis if an event or circumstance indicates that it is likely impairment has occurred. The Company's annual goodwill impairment testing date is October 1 of each year using a market approach. No impairment losses were incurred during the year ended December 31, 2020. During the year ended December 31, 2019, the Company recognized impairment of goodwill of $2.9 million.

Goodwill (in thousands)		
Balance, January 1, 2019	$	5,963
Impairment of goodwill		(2,873)
Balance, December 31, 2019		3,090
Translation adjustment		(113)
Balance, December 31, 2020	$	2,977

Equity investment: The Company has an equity investment that does not have a readily determinable market value, with a cost basis of $200 thousand at December 31, 2020 and 2019. This investment is measured at cost, less impairment, if any, plus or minus changes resulting from observable price changes in ordinary transactions for the identical or similar investment of the same issuer. Changes in the fair value of the investment are recorded as net appreciation in fair value of investment in the Consolidated Statements of Operations and Other Comprehensive Loss. At December 31, 2020 and 2019, the equity investment was $200 thousand and is included in other assets on the Consolidated Balance Sheets. No net appreciation or depreciation in fair value of investment was recorded during the years ended December 31, 2020 and 2019, as there were no observable price changes in the stock.

Financing fees: Financing fees are amortized using the effective interest method over the term of the related debt. Debt is recorded net of unamortized debt issuance costs.

Warrant liability: The Company issued warrants during the 2016 Offerings and the 2017 Offering that contain a contingent net cash settlement feature, which are described herein as derivative warrants. The Company also issued warrants that were subject to a 20% reduction if the Company achieved certain financial milestones as part of its 2017 debt refinancing; these warrants were reclassified as equity during 2018 when the number of shares issuable under the agreement became fixed.

Derivative warrants are recorded as liabilities in the accompanying Consolidated Balance Sheets. These common stock purchase warrants do not trade in an active securities market, and as such, the Company estimated the fair value of these warrants using the binomial lattice, Black-Scholes and Monte Carlo valuation pricing models with the assumptions as follows: The risk-free interest rate for periods within the contractual life of the warrant is based on the U.S. Treasury yield curve. The expected life of the warrants is based upon the contractual life of the warrants. The Company uses the historical volatility of its common stock and the closing price of its shares on the NASDAQ Capital Market.

The Company computes the fair value of the warrant liability at each reporting period and the change in the fair value is recorded as non-cash expense or non-cash income. The key component in the value of the warrant liability is the Company's

stock price, which is subject to significant fluctuation and is not under the Company's control. The resulting effect on the Company's net loss is therefore subject to fluctuation and will continue to be so until the warrants are exercised, amended or expire. Assuming all other fair value inputs remain constant, the Company will record non-cash expense when the stock price increases and non-cash income when the stock price decreases.

Derivative liabilities: The Company evaluates its debt and equity issuances to determine if those contracts or embedded components of those contracts qualify as derivatives requiring separate recognition in the Company's financial statements. The result of this accounting treatment is that the fair value of the embedded derivative is marked-to-market each balance sheet date and recorded as a liability and the change in fair value is recorded in other income (expense) in the consolidated results of operations. In circumstances where there are multiple embedded instruments that are required to be bifurcated, the bifurcated derivative instruments are accounted for as a single, compound derivative instrument. The classification of derivative instruments, including whether such instruments should be recorded as liabilities or as equity, is reassessed at the end of each reporting period. Equity instruments that are initially classified as equity that become subject to reclassification are reclassified to liability at the fair value of the instrument on the reclassification date. Derivative instrument liabilities are classified in the balance sheet as current or non-current based on whether or not net-cash settlement of the derivative instrument is expected within twelve months of the balance sheet date.

When the Company has determined that the embedded conversion options should not be bifurcated from their host instruments, the Company records, when necessary, discounts to convertible notes for the intrinsic value of conversion options embedded in debt instruments based upon the differences between the fair value of the underlying common stock at the commitment date of the note transaction and the effective conversion price embedded in the note. Debt discounts under these arrangements are amortized over the term of the related debt to their stated date of redemption and are recorded as interest expense in the consolidated results of operations.

Income taxes: Income taxes are provided for the tax effects of transactions reported in the consolidated financial statements and consist of taxes currently due plus deferred income taxes. Deferred income taxes are recognized for temporary differences between the financial statement and tax bases of assets and liabilities that will result in taxable or deductible amounts in the future. Deferred income taxes are also recognized for net operating loss ("NOLs") carryforwards that are available to offset future taxable income and research and development credits.

Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. The Company has established a full valuation allowance on its deferred tax assets as of December 31, 2020 and 2019; therefore, the Company has not recognized any deferred tax benefit or expense in the periods presented. However, the sale of state NOLs and research and development credits are included in current income tax benefit for the period ended December 31, 2019. There were no state NOL sales for the year ended December 31, 2020.

ASC 740, Income Taxes, clarifies the accounting for uncertainty in income taxes recognized in the financial statements. ASC 740 provides that a tax benefit from uncertain tax positions may be recognized when it is more-likely-than-not that the position will be sustained upon examination, including resolutions of any related appeals or litigation processes, based on the technical merits of the position. Income tax positions must meet a more-likely-than-not recognition threshold to be recognized. ASC 740 also provides guidance on measurement, de-recognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. At December 31, 2020 and 2019 the Company had no uncertain tax positions, and the Company does not expect any changes with regards to uncertain tax positions during the year ending December 31, 2021.

The Company's policy is to recognize interest and/or penalties related to income tax matters in income tax expense. There is no accrual for interest or penalties on the Company's Consolidated Balance Sheets at December 31, 2020 or 2019, and the Company has not recognized interest and/or penalties in the Consolidated Statements of Operations and Other Comprehensive Loss for the years ended December 31, 2020 or 2019.

The Company's major taxing jurisdictions are the United States, Australia and New Jersey. The Company's tax years for 2017 through 2019 are subject to examination by the tax authorities. Generally, as of December 31, 2020, the Company is no longer subject to federal and state examinations by tax authorities for years before 2017. In Australia, the Company's tax returns are subject to examination for five years from the date of filing. However, to the extent allowed by law, the tax authorities may have the right to examine prior periods where net operating losses or tax credits were generated and carried forward, and make adjustments up to the amount of the net operating loss or credit carryforward.

Patents and other intangible assets: The Company accounts for intangible assets under ASC 350-30. Patents consisting of legal fees incurred are initially recorded at cost. The Company has also acquired patents that are initially recorded at fair value. Patents are amortized over the useful lives of the assets, which range from seven to ten years, using the straight-line method.

The Company reviews the carrying value of patents at the end of each reporting period. Based upon the Company's review, there wasno patent impairment related to continuing operations in 2019. Based upon the Company's review in 2020 it was determined that 4 of the patents are related to business areas that will no longer be pursued by the Company. The recorded value of these patents of $71 thousand was written off in 2020. In addition, a 5th patent was similarly identified and determined that it is of value to an identified third party. The Company is currently in negotiations to sell this patent and has determined that legal work of approximately $50 thousand would be necessary to prepare the patent for sale. The Company recorded a contra asset in the amount of $50 thousand related to this patent, which reduced the amount of the patent held for sale from $206 thousand to $156 thousand.

Other intangible assets consist of vivoPharm's customer list and trade name, which historically were amortized using the straight-line method over the estimated useful lives of the assets of ten years. FASB Accounting Standards Codification (ASC) Topic 360, "Property, Plant, and Equipment," provides guidance for the impairment of long-lived assets that are classified as held and used. In particular, the relevant guidance is included in the "Impairment or Disposal of Long-Lived Asset" subsections of ASC 360-10. Long-lived assets are required to be tested for impairment if events or changes in circumstances indicate the carrying amount of the asset group to which they belong may not be recoverable. If the carrying amount of the asset group is not recoverable, an impairment loss is measured based on the excess of the carrying amount of the asset group over the fair value of the asset group. VivoPharm experienced an operating loss of approximately $1.5 million for the 12 months ended December 31, 2020 which was determined to be an indicator of impairment. Based upon the actual results for the first two months of the 2021 fiscal year, the Company updated the forecasted the operating results for the period from 2021 through 2026, the amortization period of the Company's intangible assets and determine that the fair value of the intangible assets which was calculated using the present value of future cashflows, did not support its carrying value resulting in an impairment charge of $2.1 million, which was recorded in operating expenses for the year ended December 31, 2020.

Stock-based compensation: Stock-based compensation is accounted for in accordance with the provisions of ASC 718, *Compensation-Stock Compensation,* which requires the measurement and recognition of compensation expense for all stock-based awards made to employees and directors based on estimated fair values on the grant date. The Company estimates the fair value of stock-based awards on the date of grant using the Black-Scholes option pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods using the straight-line method. See additional information in Note 12.

All issuances of stock options or other issuances of equity instruments to employees as the consideration for services received by the Company are accounted for based on the fair value of the equity instrument issued.

Fair value of financial instruments: The carrying amount of cash and cash equivalents, restricted cash, accounts receivable, accounts payable and accrued expenses, approximate their estimated fair values due to the short-term maturities of those financial instruments. The fair value of warrants recorded as derivative liabilities, the note payable to VenturEast, the Earn-Out from siParadigm, and the Excess Consideration Note are described in Notes 14 and 15.

Subsequent events: The Company has evaluated potential subsequent events through the date the financial statements were issued within our Annual Report on Form 10-K.

Recent Accounting Pronouncements: In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The standard will become effective for interim and annual periods beginning after December 15, 2020, with early adoption permitted. The Company is currently evaluating whether it will early adopt. The guidance is not expected to have a material impact on the Company's consolidated financial statements.

In January 2020, the FASB issued ASU 2020-01, *Investments - Equity Securities (Topic 321), Investments - Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)*, which clarified that before applying or upon discontinuing the equity method of accounting for an investment in equity securities, an entity should consider observable transactions that require it to apply or discontinue the equity method of accounting for the purposes of applying the fair value measurement alternative. The amended guidance will become effective for the Company on January 1, 2022. Early adoption is permitted. The Company does not believe this standard will have a material impact on its financial statements.

In March 2020, the FASB issued ASU 2020-04, *Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting* which provides temporary optional guidance to ease the potential burden of accounting for reference rate reform due to the cessation of the London Interbank Offered Rate, commonly referred to as "LIBOR." The temporary guidance provides optional expedients and exceptions for applying U.S. GAAP to contracts, relationships, and

transactions affected by reference rate reform if certain criteria are met. The provisions of the temporary optional guidance are only available until December 31, 2022, when the reference rate reform activity is expected to be substantially complete. When adopted, entities may apply the provisions as of the beginning of the reporting period when the election is made. The Company does not believe this standard will have a material impact on its financial statements and has yet to elect an adoption date.

In October 2020, the FASB issued ASU 2020-10, *Codification Improvements*. For public business entities, the amendments in this update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. The amendments in this update do not change U.S. GAAP and, therefore, are not expected to result in a significant change in practice. Section A was removed from the final update of ASU 2020-10. Section B of this update contains amendments that improve the consistency of the Codification by including all disclosure guidance in the appropriate Disclosure Section (Section 50). Section C of this update contains Codification improvements that vary in nature. Management does not expect that adoption of this guidance will have a significant impact on the Company's financial statements.

Earnings (loss) per share: Basic earnings (loss) per share is computed by dividing net income (loss) available to common stockholders by the weighted average number of common shares assumed to be outstanding during the period of computation. Diluted earnings per share is computed similar to basic earnings per share except that the numerator is adjusted for the change in fair value of the warrant liability (only if dilutive) and the denominator is increased to include the number of dilutive potential common shares outstanding during the period using the treasury stock method. For all periods presented, all common stock equivalents outstanding were anti-dilutive.

The following table summarizes potentially dilutive adjustments to the weighted average number of common shares which were excluded from the calculation (in thousands):

	2020	2019
Common stock purchase warrants	**206**	279
Stock options	**56**	64
	262	343

Note 3. Revenue

The Company has remaining performance obligations as of December 31, 2020 and 2019 of $1.0 million and $1.2 million, respectively. Deferred revenue of $1.2 million from December 31, 2019 was recognized as revenue in 2020. Remaining performance obligations as of December 31, 2020 of approximately $1.0 million are expected to be recognized as revenue in 2021.

During the year ended December 31, 2020, four customers accounted for approximately61% of the Company's consolidated revenue from continuing operations. During the year ended December 31, 2019, three customers accounted for approximately 61% of the Company's consolidated revenue from continuing operations.

During the years ended December 31, 2020 and 2019, approximately39% and 20%, respectively, of the Company's continuing operations revenue was earned outside the United States and collected in local currency.

Note 4. Other Current Assets

At December 31, 2020 and 2019, other current assets consisted of the following (in thousands):

	2020	2019
Lab supplies	**$ 162**	$ 77
Prepaid expenses	**475**	469
	$ 637	$ 546

Note 5. Lease Commitments

Operating Leases

The Company leases its laboratory, research facility and administrative office space under various operating leases. Following the Business Disposals, the Company assigned its office leases in North Carolina and New Jersey to the Buyer. At

December 31, 2020, the Company has approximately 5,800 square feet in Hershey, Pennsylvania and 1,959 square feet in Bundoora, Australia. The Company has escalating lease agreements for its Pennsylvania and Australia spaces, which expire in January 2022 and June 2021, respectively. These leases require monthly rent with periodic rent increases. The terms of the Company's former New Jersey lease required that a $350 thousand security deposit for the facility be held in a stand by letter of credit in favor of the landlord (see Note 7). In addition, under the assignment of leases related to the Company's New Jersey headquarters, the Buyer became obligated to replace the $350 thousand letter of credit held by the New Jersey landlord and secured by the Company's cash collateral in August 2019; however, the letter of credit was not replaced until April 2020. The cash collateral was released on May 20, 2020.

The Company determines if an arrangement is a lease at inception. Operating leases are included in operating lease right-of-use ("ROU") assets, obligations under operating leases, current portion, and obligations under operating leases, less current portion on its Consolidated Balance Sheets.

ROU assets represent the Company's right to use an underlying asset for the lease term and lease obligations represent the Company's obligation to make lease payments arising from the lease. Operating lease ROU assets and operating lease obligations are recognized based on the present value of the future minimum lease payments over the lease term at the commencement date. As the Company's leases do not provide an implicit rate, the Company uses its incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The Company's incremental borrowing rate was determined by adjusting its secured borrowing interest rate for the longer-term nature of its leases. The Company's variable lease payments primarily consist of maintenance and other operating expenses from its real estate leases. Variable lease payments are excluded from the ROU assets and lease liabilities and are recognized in the period in which the obligation for those payments is incurred. The operating lease ROU asset also includes any lease payments made and excludes lease incentives incurred. The Company's lease terms may include options to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Lease expense for minimum lease payments is recognized on a straight-line basis over the lease term.

The Company has lease agreements with lease and non-lease components. The Company has elected to account for these lease and non-lease components as a single lease component. The Company is also electing not to apply the recognition requirements to short-term leases of twelve months or less and instead will recognize lease payments as expense on a straight-line basis over the lease term.

The Company did not enter into any significant operating leases during the year ended December 31, 2020 and 2019. The Company remeasured the remaining life of its Pennsylvania lease during 2020, resulting in an increase in its ROU asset and related lease liability of $264 thousand.

Finance Leases

The Company also leases scientific equipment under various finance leases, which have been capitalized at the present value of the minimum lease payments. Finance leases are included in fixed assets, net of accumulated depreciation and obligations under finance leases. The equipment under these finance leases had a cost of $272 thousand and accumulated depreciation of $161 thousand, as of December 31, 2020 and 2019. The amortization of equipment under finance leases is recorded in depreciation expense.

The components of operating and finance lease expense were as follows for the years ended December 31, 2020 and 2019 for continuing operations (in thousands):

	2020	2019
Finance lease cost:		
Amortization of right-of use assets	**$ 56**	$ 35
Interest on lease liabilities	**10**	13
Operating lease cost	**318**	220
Short-term lease cost	**129**	109
Variable lease cost	**60**	55
	$ 573	$ 432

Supplemental cash flow related to operating and finance leases of the Company's continuing operations was as follows for the year ended December 31, 2020 and 2019 (in thousands):

	2020	2019
Cash paid amounts included in the measurement of lease liabilities:		
Operating cash flows used for operating leases	**$ 318**	$ 220
Financing cash flows used for finance leases	**$ 94**	$ 72

Minimum future lease payments under all finance and operating leases as of December 31, 2020 are as follows (in thousands):

	Finance Leases	Operating Leases	Total
December 31,			
2021	$ 41	$ 234	$ 275
2022	35	31	66
2023	36	3	39
2024	9	—	9
Total minimum lease payments	121	268	389
Less amount representing interest	14	13	27
Present value of net minimum obligations	107	255	362
Less current obligation under finance and operating leases	35	223	258
Long-term obligation under finance and operating leases	$ 72	$ 32	$ 104

Other supplemental information related to operating and finance leases of the Company's continuing operations was as follows at December 31, 2020 and 2019:

	2020	2019
Weighted average remaining lease term (in years):		
Operating leases	**1.15**	0.99
Finance leases	**3.13**	3.35
Weighted average discount rate:		
Operating leases	**7.25 %**	7.98 %
Finance leases	**8.18 %**	8.21 %

Note 6. Financing

Advance from NDX.

On September 18, 2018, the Company entered into a merger agreement with NDX. In connection with signing the merger agreement, NDX loaned the Company $1.5 million. On October 21, 2019, the Company and NDX entered into a settlement agreement ("NDX Settlement Agreement"). The NDX Settlement Agreement required the Company to pay $100 thousand on the date of execution and $1.0 million upon receipt of proceeds from the Excess Consideration Note. The $1.0 million payment was made in October 2019. As a result of such payment, pursuant to the NDX Settlement Agreement, the balance of the Advance from NDX was reduced to $ 450 thousand and each party released the other from all claims under the original credit agreement and the Merger Agreement. The remaining amount due was to be paid in nine monthly payments of $50 thousand commencing in November 2019. The NDX Settlement Agreement adjusted the interest rate of the obligation to 0%. In July 2020, the Company paid the final $50 thousand on the Advance from NDX.

Atlas Sciences Note

On October 21, 2019, the Company issued an unsecured promissory note to Atlas Sciences, an affiliate of Iliad, for $1.3 million ("Note Payable"). The Company received consideration of $1.3 million, reflecting an original issue discount of $88 thousand and expenses payable by the Company of $10 thousand. The Note Payable has a12-month term and bears interest at 10% per annum. The proceeds from the Note Payable were utilized to partially repay the Convertible Note. Atlas Sciences may redeem any portion of the note, at any time after six months from the issuance date upon three business days' notice, subject to a monthly maximum redemption amount of $300 thousand. The Company may prepay the Note Payable at any time without penalty. Upon the occurrence of an event of default, Atlas Sciences can elect to adjust the interest rate to 22% per annum and/or apply the default effect, which increases the outstanding balance of the Note Payable by 15% on the date of default. At December 31, 2019, the Note Payable had a principal balance of $1.3 million, which is presented net of discounts and unamortized debt issuance costs of $64 thousand and $7 thousand, respectively.

Between June 3, 2020 and September 23, 2020, the Company issued an aggregate of approximately399 thousand shares of the Company's common stock, with a fair value of $1.6 million, to Atlas Sciences in exchange for the return to the Company of the remaining principal and interest from its unsecured promissory note, as such the Note Payable balance on December 31, 2020 was $0. The Company incurred a loss on extinguishment of debt of $119 thousand which is recorded as interest expense.

Note 7. Letter of Credit

The Company maintained a $350 thousand letter of credit in favor of its former landlord pursuant to the terms of the lease for its Rutherford facility. At December 31, 2019, the letter of credit was fully secured by the restricted cash disclosed on the Company's Consolidated Balance Sheets. Under the assignment of leases related to the Company's New Jersey headquarters, the Buyer became obligated to replace a $350 thousand letter of credit held by the New Jersey landlord and secured by the Company's cash collateral in August 2019; however, the letter of credit was not replaced until April 2020. The cash collateral was released on May 20, 2020.

Note 8. Fixed Assets

Fixed assets are summarized by major classifications as follows (in thousands):

	2020	2019
Equipment	**$ 1,078**	$ 1,000
Furniture and fixtures	**22**	53
	1,100	1,053
Less accumulated depreciation	**(652)**	(495)
Net fixed assets	**$ 448**	$ 558

Depreciation expense recognized during the years ended December 31, 2020 and 2018 was $166 thousand and $159 thousand, respectively.

The fixed assets in the table above include foreign currency translation adjustments that were de minimis during the years ended December 31, 2020 and 2019.

Note 9. Patents and Other Intangible Assets

Patents and other intangible assets consist of the following at December 31, 2020 and 2019 (in thousands):

	2020	2019
Patents	**$ —**	$ 981
Customer list	**—**	2,738
Trade name	**—**	477
	—	4,196
Less accumulated amortization	**—**	(1,301)
Net patent and other intangible assets	**$ —**	$ 2,895

The Company holds several patents that are considered intangible assets and are subject to amortization. During the 4th quarter of 2020 management reviewed the Company's patent portfolio and determined that four of the patents ("New Jersey patents") are related to business areas that will no longer be pursued by the Company. In addition, a fifth patent known as the TOO patent was similarly identified and determined that it would be held for sale. The Company wrote off the net book value of the New Jersey patents in the amount of $71 thousand and recorded a contra asset of $50 thousand as an estimate to prepare the TOO asset for sale. The book value of the TOO patent held for sale was $156 thousand for the year ended December 31, 2020 and is recorded as a current asset.

The customer list and trade name in the table above include foreign currency translation adjustments that were de minimis during the years ended December 31, 2020 and 2019. Other intangible assets consisted of vivoPharm's customer list and trade name, which historically were amortized using the straight-line method over the estimated useful lives of the assets of ten years. FASB Accounting Standards Codification (ASC) Topic 360, "Property, Plant, and Equipment," provides guidance for the impairment of long-lived assets that are classified as held and used. In particular, the relevant guidance is included in the "Impairment or Disposal of Long-Lived Asset" subsections of ASC 360-10. Long-lived assets are required to be tested for impairment if events or changes in circumstances indicate the carrying amount of the asset group to which they belong may not be recoverable. If the carrying amount of the asset group is not recoverable, an impairment loss is measured based on the excess of the carrying amount of the asset group over the fair value of the asset group. VivoPharm experienced an operating loss of approximately $ 1.5 million for the 12 months ended December 31, 2020 which was determined to be an indicator of impairment. Based upon the actual results for the first two months of the 2021 fiscal year, the Company updated the forecasted operating results for the period from 2021 through 2026, the amortization period of the Company's intangible assets and determine that the fair value of the intangible assets which was calculated using the present value of future cashflows, did not support its carrying value resulting in an impairment charge of $2.1 million, which was recorded in operating expenses for the year ended December 31, 2020.

Amortization expense recognized during the years ended December 31, 2020 and 2019 was $462 thousand and $454 thousand, respectively.

Note 10. Income Taxes

Loss from continuing and discontinuing operations before income tax provision (benefit) consisted of the following (in thousands):

	For the Year Ended December 31	
	2020	2019
United States	**$ (7,520)**	$ (5,619)
Foreign	**(481)**	(1,601)
Total	**$ (8,001)**	$ (7,220)

The provision (benefit) for income taxes from continuing and discontinuing operations consisted of the following (in thousands):

	For the Year Ended December 31	
	2020	2019
Current:		
State	**$ —**	$ (512)
Deferred:		
Federal	**$ (846)**	$ 687
State	**(145)**	766
Foreign	**(433)**	(167)
	(1,424)	1,286
Change in valuation allowance	**1,424**	(1,286)
Total deferred	**$ —**	$ —
Total	**$ —**	$ (512)

The provision (benefit) for income taxes from continuing and discontinuing operations for the years ended December 31, 2020 and 2019 differs from the approximate amount of income tax benefit determined by applying the U.S. federal income tax rate to pre-tax loss, due to the following:

	Year Ended December 31, 2020		Year Ended December 31, 2019	
	Amount (in thousands)	**% of Pretax Loss**	**Amount (in thousands)**	**% of Pretax Loss**
Income tax benefit at federal statutory rate	**$ (1,680)**	**21.0 %**	$ (1,516)	21.0 %
State tax provision, net of federal tax benefit	**(148)**	**1.8 %**	223	(3.1)%
Tax credits	**20**	**(0.2)%**	136	(1.9)%
Stock based compensation	**16**	**(0.2)%**	997	(13.8)%
Derivative warrants	**(41)**	**0.5 %**	(30)	0.4 %
Goodwill impairment	**—**	**— %**	604	(8.4)%
Change in valuation allowance	**1,424**	**(17.8)%**	(1,286)	17.8 %
Gain on sale of businesses	**115**	**(1.4)%**	—	— %
Merger costs	**170**	**(2.1)%**	246	(3.4)%
Foreign operations	**124**	**(1.6)%**	109	(1.5)%
Other	**—**	**— %**	5	— %
Income tax (benefit) provision	**$ —**	**— %**	$ (512)	7.1 %

On April 4, 2019, the Company sold $11.6 million of gross State of New Jersey NOL's relating to the 2017 tax year as well as $72 thousand of state research and development tax credits, resulting in the receipt of $512 thousand, net of expenses.
Approximate deferred taxes consist of the following components as of December 31, 2020 and 2019 (in thousands):

	2020	2019
Deferred tax assets:		
Net operating loss carryforwards	**$ 27,300**	$ 26,317
Accruals and reserves	**1,212**	1,544
Stock based compensation	**87**	75
Research and development tax credits	**1,780**	1,800
Derivative warrant liability	**17**	17
Interest deduction carryforward	**1,500**	**1,470**
Investment in joint venture	**—**	161
Intangible assets	**114**	**—**
Other	**6**	6
Total deferred tax assets	**32,016**	31,390
Less valuation allowance	**(31,921)**	(30,497)
Net deferred tax assets	**95**	893
Deferred tax liabilities		
Fixed assets	**(95)**	(132)
Goodwill and intangible assets	**—**	(761)
Net deferred taxes	**$ —**	$ —

Due to a history of losses the Company has generated since inception, the Company believes it is more-likely-than-not that all of the deferred tax assets will not be realized as of December 31, 2020 and 2019. Therefore, the Company has recorded a full valuation allowance on its deferred tax assets. As a result of the Tax Cuts and Jobs Act, the federal net operating losses incurred after 2017 will have an indefinite carryforward. At December 31, 2020, the Company has net operating loss carryforwards for federal income tax purposes of $120.6 million, of which $98.9 million could expire over time, beginning in 2027, if not used. At December 31, 2020, the Company has $3.7 million of Australian net operating loss carryforwards and $20.1 million of New Jersey net operating loss carryforwards. At December 31, 2020, the Company also had $1.8 million of federal research and development tax credits, which expire in varying amounts between the years 2021 and 2038. Utilization of these carryforwards is subject to limitation due to ownership changes that may delay the utilization of a portion of the carryforwards.

Note 11. Capital Stock

Reverse Stock Split

On October 24, 2019, the Company amended its Certificate of Incorporation and effected a 30-for-1 reverse stock split of its common stock. All shares and per share information referenced throughout the consolidated financial statements and footnotes have been retrospectively adjusted to reflect the reverse stock split.

2020 Offerings

On October 28, 2020, the Company entered into an underwriting agreement with H.C. Wainwright & Co., LLC ("Wainwright"), relating to an underwritten public offering of 1.6 million shares of its common stock for $2.20 per share. The Company received proceeds from the offering of $2.9 million, net of expenses and discounts of $534 thousand. The Company also issued warrants to purchase 94 thousand shares of common stock to Wainwright in connection with this offering. The warrants are exercisable for five years from the date of issuance at a per share price of $2.42.

On December 2, 2020, Cancer Genetics, Inc. entered into an At The Market Offering Agreement (the "ATM Agreement") with Wainwright, as sales agent, pursuant to which the Company may offer and sell, from time to time through Wainwright, shares of its common stock, par value $0.0001 per share, for aggregate gross proceeds of up to $2.4 million. On December 8, 2020, the Company received proceeds from the offering of $159 thousand, net of expenses and discounts of $6 thousand in exchange for 50 thousand shares. The Company suspended the offering of shares under the ATM Agreement on February 10, 2021.

2019 Offerings

On January 9, 2019, the Company entered into an underwriting agreement with H.C. Wainwright & Co., LLC ("Wainwright"), relating to an underwritten public offering of 445 thousand shares of its common stock for $6.75 per share. The Company received proceeds from the offering of $2.4 million, net of expenses and discounts of $563 thousand. The Company also issued warrants to purchase 31 thousand shares of common stock to Wainwright in connection with this offering. The warrants are exercisable for five years from the date of issuance at a per share price of $7.43. The warrants had a fair value of $168 thousand on the date of issuance and are classified as equity in the Company's Consolidated Balance Sheet.

On January 26, 2019, the Company issued 507 thousand shares of common stock at a public offering price of $6.90 per share. The Company received proceeds from the offering of $3.0 million, net of expenses and discounts of $525 thousand. The Company also issued warrants to purchase 36 thousand shares of common stock to the underwriter, Wainwright, in connection with this offering. The warrants are exercisable for five years from the date of issuance at a per share price of $7.59. The warrants had a fair value of $183 thousand on the date of issuance and are classified as equity in the Company's Consolidated Balance Sheet.

The January 9, 2019 and January 26, 2019 offerings will be referred to collectively as the "2019 Offerings." As disclosed in Note 18, certain of the Company's directors and executive officers purchased shares in the 2019 Offerings at the public offering price.

Conversions and Exchanges of Debt into Common Stock

Between June 3, 2020 and September 23, 2020, the Company issued an aggregate of approximately 399 thousand shares of the Company's common stock, with a fair value of $1.6 million, to Atlas Sciences in exchange for the return to the Company of the remaining principal and interest from its unsecured promissory note, as such the Note Payable balance on December 31, 2020 was $0.

On November 20, 2020, the Company entered into Warrant Exchange and Amendment Agreements with certain holders of warrants issued in offerings in 2016 (the "Exchange Warrants"). Pursuant to the Exchange Agreements, the Holders agreed to amend each of the Purchase Agreements so that the Company will no longer be prohibited from effecting or agreeing to affect any Variable Rate Transactions. In addition, pursuant to the Exchange Agreements, the Company offered the Holders the opportunity to exchange in full all their Exchange Warrants in exchange for 0.2 shares of the Company's common stock, par value $0.0001 per share for each share of Common Stock issuable upon exercise of an Exchange Warrant being exchanged. Further, the Company agreed not to issue or agree to issue any Common Stock or Common Stock equivalents for a period of five trading days from the effective date of the Exchange Agreements, subject to certain exceptions. The Company issued an aggregate of 11 thousand shares of common stock pursuant to the Exchange Agreements.

In May 2019, Iliad converted $350 thousand of the Convertible Note into an aggregate of 51 thousand shares of the Company's common stock at a conversion price of $6.82 per share.

During the year ended December 31, 2019, the Company issued 174 thousand shares of common stock to Iliad in exchange for the return of $612 thousand of principal amounts due under the Convertible Note using the exchange date fair market value of the Company's common stock.

Stock Issued to Vendor

On December 4, 2019, the Company issued 5 thousand shares of common stock to a vendor at a value of $7.86 per common share, using the exchange date fair market value of the Company's common stock.

Preferred Stock

The Company is currently authorized to issue up to 9.8 million shares of preferred stock. As of December 31, 2020 and 2019, no shares of preferred stock were outstanding.

Note 12. Stock-Based Compensation

The Company has two equity incentive plans: the 2008 Stock Option Plan (the "2008 Plan") and the 2011 Equity Incentive Plan (the "2011 Plan", and together with the 2008 Plan, the "Stock Option Plans"). The Stock Option Plans are meant to provide additional incentive to officers, employees and consultants to remain in the Company's employment. Options granted are generally exercisable for up to 10 years.

The 2011 Plan reserved 105 thousand shares of common stock for issuance, under several types of equity awards including stock options, stock appreciation rights, restricted stock awards and other awards defined in the 2011 Plan. At December 31, 2020, 39 thousand shares remain available for future awards under the 2011 Plan.
The 2008 Plan reserved 18 thousand shares of common stock for issuance. Effective April 9, 2018, the Company is no longer able to issue options from the 2008 Plan. Prior to April 9, 2018, the Company was authorized to issue incentive stock options or non-statutory stock options to eligible participants, as defined in the 2008 Plan.

At December 31, 2020, the Company has 1 thousand options outstanding that were issued outside of the Stock Option Plans. As of December 31, 2020,no stock appreciation rights and 12 thousand shares of restricted stock had been awarded under the Stock Option Plans.

On July 23, 2019, the Company issued 3 thousand stock options to each of its five non-employee directors. The options will vest in equal monthly installments overtwelve months and have an exercise price of $4.50 per share. On January 2, 2020, the Company issued an aggregate of20 thousand stock options to executives. The options will vest in equal monthly installments over twelve months and have an exercise price of $5.53 per share and a grant date fair value of $4.45 per share.

A summary of employee and non-employee stock option activity for the years ended December 31, 2020 and 2019 for both continuing and discontinuing employees is as follows:

	Options Outstanding			
	Number of Shares (in thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value
Outstanding January 1, 2019	100	$ 173.10	5.70	$ 4
Granted	20	5.89		
Cancelled or expired	(56)	182.37		
Outstanding December 31, 2019	64	113.63	7.48	$ 24
Granted	20	5.53		
Cancelled or expired	(28)	170.67		
Outstanding December 31, 2020	56	$ 45.92	6.31	$ —
Exercisable, December 31, 2020	52	$ 47.39	6.20	$ —

Aggregate intrinsic value represents the difference between the fair value of the Company's common stock and the exercise price of outstanding, in-the-money options. During the years ended December 31, 2020 and 2019, no options were exercised.

As of December 31, 2020, total unrecognized compensation cost related to non-vested stock options granted to employees was $2 thousand for continuing operations, which the Company expects to recognize over the next 1.08 years.

The fair value of options granted to employees is estimated on the grant date using the Black-Scholes option valuation model. This valuation model requires the Company to make assumptions and judgments about the variables used in the calculation, including the expected term (the period of time that the options granted are expected to be outstanding), the volatility of the Company's common stock, a risk-free interest rate, and expected dividends. The Company records forfeitures of unvested stock options when they occur. No compensation cost is recorded for options that do not vest. The Company used the simplified calculation of expected life described in the SEC's Staff Accounting Bulletin No. 107, Share-Based Payment, and volatility is based on the historical volatility of the Company's common stock. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant for periods corresponding with the expected life of the option. The Company uses an expected dividend yield of zero, as it does not anticipate paying any dividends in the foreseeable future.

The following table presents the weighted-average assumptions used to estimate the fair value of options granted to continuing and discontinuing employees during the periods presented:

	Year Ended December 31,	
	2020	2019
Volatility	**110.43 %**	93.86 %
Risk free interest rate	**1.68 %**	1.95 %
Dividend yield	**—**	—
Term (years)	**5.27**	5.44
Weighted-average fair value of options granted during the period	**$ 4.45**	$ 4.32

Restricted stock awards have been granted to employees, directors and consultants as compensation for services. At December 31, 2020, there wasno unrecognized compensation cost related to non-vested restricted stock.

The following table summarizes the activities for the Company's non-vested restricted stock awards for the years ended December 31, 2020 and 2019 for both continuing and discontinuing employees:

	Non-vested Restricted Stock Awards	
	Number of Shares (in thousands)	**Weighted-Average Grant Date Fair Value**
Non-vested at January 1, 2019	1	$ 102.82
Vested	(1)	102.82
Non-vested at December 31, 2020 and 2019	—	$ —

The TSA with Buyer described in Note 19 included the continued employment of individuals who will transfer to Buyer no later than six months from the closing of the transaction. Stock-based compensation related to these employees is included in discontinuing operations. The following table presents the effects of stock-based compensation related to stock option and restricted stock awards to employees and non-employees on the Company's continuing operations included in its Consolidated Statements of Operations and Other Comprehensive Loss during the periods presented:

	Year Ended December 31,	
	2020	2019
Cost of revenues	**$ 15**	$ 16
General and administrative	**164**	247
Total stock-based compensation related to continuing operations	**$ 179**	$ 263

During the years ended December 31, 2020 and 2019, the Company recognized $(6) thousand and $107 thousand, respectively, of stock-based compensation related to discontinuing operations.

Note 13. Warrants

On November 20, 2020, the Company entered into Warrant Exchange and Amendment Agreements with certain holders of Exchange Warrants. Pursuant to the Exchange Agreements, the Holders agreed to amend each of the Purchase Agreements so that the Company will no longer be prohibited from effecting or agreeing to affect any Variable Rate Transactions. In addition, pursuant to the Exchange Agreements, the Company offered the Holders the opportunity to exchange in full all their Exchange Warrants in exchange for 0.2 shares of the Company's common stock, par value $0.0001 per share for each share of Common Stock issuable upon exercise of an Exchange Warrant being exchanged. Further, the Company agreed not to issue or agree to issue any Common Stock or Common Stock equivalents for a period of five trading days from the effective date of the Exchange Agreements, subject to certain exceptions. The Company issued an aggregate of 11 thousand Exchange Shares pursuant to the Exchange Agreements. The Company recognized a gain on the exchange of $2 thousand which is recorded in change in the fair value of warrant liability at December 31, 2020.

On June 8, 2019, warrants to purchase 123 thousand shares of the Company's common stock, referred to below as the 2017 Offering, expired.

In January 2019, the Company issued warrants to purchase31 thousand and 36 thousand shares of its common stock at $7.43 and $7.59 per share, respectively, in conjunction with its 2019 Offerings described in Note 11. On October 28, 2020. the Company issued 94 thousand warrants to purchase 94 thousand shares of its common stock at $2.42 in conjunction with its October 28, 2020 offering described in note 11.

The following table summarizes the warrant activity for the years ending December 31, 2020 and 2019 (in thousands except exercise price):

Issued With / For	Exercise Price		Warrants Outstanding January 1, 2019	2019 Warrants Issued	2019 Warrants Expired	Warrants Outstanding December 31, 2019	2020 Warrants Issued	2020 Warrants Expired	2020 Warrants Exchanged	Warrants Outstanding December 31, 2020
Non-Derivative Warrants:										
Financing	300.00		8	—	—	8	—	—	—	8
Financing	450.00		9	—	—	9	—	—	—	9
2015 Offering	150.00		115	—	—	115	—	(115)	—	—
2017 Debt	27.60		15	—	—	15	—	—	—	15
2019 Offering	7.43		—	31	—	31	—	—	—	31
2019 Offering	7.59		—	35	—	35	—	—	—	35
2020 Offering	2.42		—	—	—	—	94	—	—	94
	115.54	B	147	66	—	213	94	(115)	—	192
Derivative Warrants:										
2016 Offerings	67.50	A	66	—	—	66	—	—	(52)	14
2017 Offering	70.50	A	117	—	(117)	—	—	—	—	—
2017 Offering	75.00	A	6	—	(6)	—	—	—	—	—
	67.50	B	189	—	(123)	66	—	—	(52)	14
	104.18	B	336	66	(123)	279	94	(115)	(52)	206

A These warrants are subject to fair value accounting and contain a contingent net cash settlement feature. See Note 14.
B Weighted average exercise prices are as of December 31, 2020.

Note 14. Fair Value of Warrants

The derivative warrants issued as part of the 2016 Offerings are valued using a probability-weighted Binomial model, while the derivative warrants issued as part of the 2017 Debt refinancing were valued using a Monte Carlo model. The derivative warrants issued in conjunction with the 2017 Offering were valued using a Black-Scholes model. The following tables summarize the assumptions used in computing the fair value of derivative warrants subject to fair value accounting at December 31, 2020 and 2019, and the fair value of derivative warrants reclassified to equity during the years then ended.

2016 Offerings	As of December 31, 2020	As of December 31, 2019
Exercise price	$ 67.50	$ 67.50
Expected life (years)	0.99	2.08
Expected volatility	144.59 %	150.69 %
Risk-free interest rate	0.10 %	1.58 %
Expected dividend yield	0.00 %	0.00 %

In determining the fair value of warrants outstanding at each reporting date, the Company stock price was $2.77 and $5.96 (the closing price on the NASDAQ Capital Market) at December 31, 2020 and 2019, respectively.

The following table summarizes the derivative warrant activity subject to fair value accounting for the years ended December 31, 2020 and 2019 (in thousands):

	Issued with 2016 Offerings	Issued with 2017 Offering	Total
Fair value of warrants outstanding as of January 1, 2019	$ 225	$ 23	$ 248
Change in fair value of warrants	(47)	(23)	(70)
Fair value of warrants outstanding as of December 31, 2019	178	—	178
Fair value of warrants exchanged for stock	(10)	—	(10)
Change in fair value of warrants	(167)	—	(167)
Fair value of warrants outstanding as of December 31, 2020	$ 1	$ —	$ 1

Note 15. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The Fair Value Measurements and Disclosures Topic of the FASB Accounting Standards Codification requires the use of valuation techniques that are consistent with the market approach, the income approach and/or the cost approach. Inputs to valuation techniques refer to the assumptions that market participants would use in pricing the asset or liability. Inputs may be observable, meaning those that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from independent sources, or unobservable, meaning those that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. In that regard, the Topic establishes a fair value hierarchy for valuation inputs that give the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs.

The fair value hierarchy is as follows:

Level 1: Quoted prices (unadjusted) for identical assets or liabilities in active markets that the Company has the ability to access as of the measurement date.

Level 2: Significant other observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3: Significant unobservable inputs that reflect the Company's own assumptions about the assumptions that market participants would use in pricing an asset or liability.

The following table summarizes the financial assets and liabilities measured at fair value on a recurring basis segregated by the level of valuation inputs within the fair value hierarchy utilized to measure fair value (in thousands):

	2020			
	Total	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Warrant liability	**$ 1**	**$ —**	**$ —**	**$ 1**
	$ 1	**$ —**	**$ —**	**$ 1**

	2019			
	Total	**Quoted Prices in Active Markets for Identical Assets (Level 1)**	**Significant Other Observable Inputs (Level 2)**	**Significant Unobservable Inputs (Level 3)**
Assets:				
Earn-out from siParadigm	$ 1,103	$ —	$ —	$ 1,103
	$ 1,103	$ —	$ —	$ 1,103
Liabilities:				
Warrant liability	$ 178	$ —	$ —	$ 178
Notes payable	16	—	—	16
	$ 194	$ —	$ —	$ 194

At December 31, 2020 and 2019, the warrant liability consists of stock warrants issued as part of the 2016 Offerings that contain contingent redemption features. At December 31, 2018, the warrant liability also included warrants issued as part of the 2017 Offering that contained contingent redemption features until they expired in June 2019. In accordance with derivative accounting for warrants, the Company calculated the fair value of warrants and the assumptions used are described in Note 14, “Fair Value of Warrants.” Realized and unrealized gains and losses related to the change in fair value of the warrant liability are included in other income (expense) on the Consolidated Statements of Operations and Other Comprehensive Loss.

At December 31, 2019, the Company had a note payable to VenturEast from a prior acquisition. The ultimate repayment of the note will be the value of and 3 thousand shares of common stock at the time of payment. The value of the note payable to VenturEast was determined using the fair value of the Company's common stock at the reporting date. During the years ended December 31, 2020 and 2019, the Company recognized gains of $4 thousand and $136 thousand, respectively, due to the changes in value of the note. Realized and unrealized gains and losses related to the VenturEast note are included in other income (expense) on the Consolidated Statements of Operations and Other Comprehensive Loss.

In January 2020, the Company entered into a Settlement Agreement with VenturEast to satisfy the Company’s outstanding liability, which resulted in the Company issuing 3 thousand restricted shares of common stock, and making two lump sum payments of $50 thousand each for a total cash settlement of $100 thousand.

The Earn-Out, to be paid over the24 months post-closing, is based on fees for all tests performed by siParadigm for the Company’s clinical customers during the12-month period following the closing (the “Earn-Out”). The Company has netted the Earn-out and Advance from siParadigm as of September 30, 2020 as all amounts are fixed and determinable and the Company and siParadigm intend to offset. At December 31, 2020, the net Earn-Out receivable from siParadigm was approximately $91 thousand.

The following table summarizes the activity of the notes payable to VenturEast, the Earn-Out from siParadigm, and derivative warrants, which were measured at fair value using Level 3 inputs (in thousands):

	Assets	Liabilities		
	Earn-Out from siParadigm	Note Payable to VenturEast	Warrant Liability	Other Derivatives
Fair value at January 1, 2019	$ —	$ 20	$ 248	$ 86
Change in fair value	(935)	(4)	(70)	(86)
Fair value at issuance	2,376	—	—	—
Receipts received during the period	(338)	—	—	—
Fair value at December 31, 2019	1,103	16	178	—
Fair value of warrants exchanged for stock	—	—	(10)	—
Receipts received during the period	(288)	—	—	—
Settlement of liability	—	(12)	—	—
Removed from fair value accounting	(749)	—	—	—
Change in fair value	(66)	(4)	(167)	—
Fair value at December 31, 2020	$ —	$ —	$ 1	$ —

Note 16. Contingencies

On November 13, 2020, a purported stockholder of CGI filed a complaint against CGI, the chief executive officer of CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Scott Sawin v. Cancer Genetics, Inc. et al.* The complaint (the "Sawin Complaint") alleges that CGI's Registration Statement on Form S-4, as filed with the SEC on October 16, 2020 related to the merger (the "Prior Registration Statement"), omitted to disclose certain material information allegedly necessary to make statements made in the Prior Registration Statement not misleading and/or false, in violation of Section 14(a) and Section 20(a) of the Securities Exchange Act of 1934, as amended (the "Exchange Act") and Rule 14a-9 promulgated thereunder, and alleges breach of fiduciary duty of candor/disclosure. The complaint seeks injunctive relief, enjoining the merger until the defendants to the applicable lawsuit disclose the alleged omitted material information, and costs, among other remedies.

On November 19, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Carlos Juan Pastrana v. Cancer Genetics, Inc. et al.* On November 19, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Joshua Dunn v. Cancer Genetics, Inc. et al.* On November 23, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Matthew Haller v. Cancer Genetics, Inc. et al.* On November 25, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Steve Prentiss v. Cancer Genetics, Inc. et al.* On December 1, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Virginia Weiderman v. Cancer Genetics, Inc. et al.* On December 18, 2020, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the Southern District of New York, entitled, *Jason Kauffman v. Cancer Genetics, Inc. et al.* On January 27, 2021, a purported stockholder of CGI filed a complaint against CGI and the directors of CGI in the United States District Court for the District of New Jersey, entitled, *Joseph Sheridan v. Cancer Genetics, Inc. et al.* Each of the foregoing seven complaints allege facts and seek relief substantially similar to the Sawin Complaint.

CGI believes that the claims asserted in the lawsuits described above are without merit and intends to vigorously defend CGI, CGI Acquisition, Inc. and the director and officer defendants against these claims, as applicable, however, there can be no assurance that the defendants will prevail in such lawsuits. CGI is not able to estimate any possible loss from these litigations at this time. It is possible that additional lawsuits may be filed in connection with the merger.

In November 2020, vivoPharm Pty Ltd received a letter from counsel for a customer of vivoPharm alleging entitlement to a refund of prepayments made under a master services agreement in the sum of approximately $306 thousand. Counsel for vivoPharm responded and denied any liability. In February 2021 counsel for the customer repeated its claim and stated its intent to commence litigation if the matter were not resolved. Counsel for vivoPharm responded by repeating its denial of any liability but offering to pay $60 thousand to resolve the matter. No litigation has been commenced to date.

Note 17. Joint Venture Agreement

In November 2011, the Company entered into an affiliation agreement with the Mayo Foundation for Medical Education and Research ("Mayo"), subsequently amended. Under the agreement, the Company formed a joint venture with Mayo in May 2013 to focus on developing oncology diagnostic services and tests utilizing next generation sequencing. The joint venture is a limited liability company, with each party initially holding fifty percent of the issued and outstanding membership interests of the new entity (the "JV").

The Company has a net receivable due from the JV of approximately$56 thousand at December 31, 2020, which is included in other assets in the Consolidated Balance Sheets. The JV was dissolved effective February 14, 2020, and the dissolution terms included an estimated final cash distribution from the JV to the Company of $92 thousand, to be paid as soon as practicable. The Company received the first payment of $36 thousand in April 2020, which is consistent with the dissolution terms. The remaining cash distribution of $56 thousand was received in 2021. There was no other activity during the year ended December 31, 2020 and 2019.

Note 18. Related Party Transactions

Various executives, directors and former directors purchased shares as part of the 2019 Offerings at the public offering price. On January 14, 2019, John Pappajohn, John Roberts, the Company's President and Chief Executive Officer, and Geoffrey Harris, a Director, purchased 33 thousand shares, 3 thousand shares and 3 thousand shares, respectively, at the public offering price of $6.75 per share. On January 31, 2019, John Pappajohn, John Roberts, Edmund Cannon, a Director, and M. Glenn Miles, the Company's Chief Financial Officer, purchased 33 thousand shares, 6 thousand shares, 1 thousand shares and 5 thousand shares, respectively, at the public offering price of $6.90 per share.

Note 19. Discontinuing Operations

Interpace Biosciences, Inc.

On July 15, 2019, the Company entered into a secured creditor asset purchase agreement (the "BioPharma Agreement") by and among the Company, Gentris, LLC, a wholly-owned subsidiary of the Company, Partners for Growth IV, L.P. ("PFG"), Interpace Biosciences, Inc. ("IDXG") and a newly-formed subsidiary of IDXG, Interpace BioPharma, Inc. ("Buyer"). The BioPharma Agreement provided for a consensual private foreclosure sale by PFG of all assets relating to the Company's BioPharma Business (as defined in the BioPharma Agreement) to Buyer (the "BioPharma Disposal").

Pursuant to the BioPharma Agreement, Buyer purchased from PFG certain assets and assumed certain liabilities of the Company relating to the BioPharma Business, providing as gross consideration $23.5 million, less certain closing adjustments totaling $2.0 million, of which $7.7 million was settled in the form of a promissory note issued by Buyer to the Company (the "Excess Consideration Note") and the remainder was paid to PFG in cash. PFG utilized the cash proceeds to satisfy the outstanding balances of the Silicon Valley Bank ("SVB") asset-based revolving line of credit ("ABL") and the $6.0 million term note to PFG ("PFG Term Note"), and to satisfy certain transaction expenses. The balance of $2.3 million was delivered to the Company in addition to the Excess Consideration Note.

The following is a reconciliation of the original gross sales price to the consideration received (in thousands):

Original sales price:		
Gross sales price	$	23,500
Adjustments to sales price:		
Transaction costs		(1,525)
Working capital adjustments		(2,705)
Payment of other expenses		(171)
Total adjustments to sales price		(4,401)
Consideration received	$	19,099

The BioPharma Disposal resulted in the following (in thousands):

Consideration received:		
Cash received at closing	$	2,258
Fair value of Excess Consideration Note		6,795
Repayment of ABL and accrued interest		2,906
Repayment of Term Note and accrued interest		6,250
Repayment of certain accounts payable and accrued expenses		890
Net sales price	$	19,099
Net assets sold:		
Accounts receivable	$	4,271
Other current assets		1,142
Fixed assets		2,998
Operating lease right-of-use assets		1,969
Patents and other intangible assets		42
Goodwill		10,106
Accounts payable and accrued expenses		(4,970)
Obligations under operating leases		(2,110)
Obligations under finance leases		(451)
Deferred revenue		(1,046)
	$	11,951
Gain on disposal of BioPharma Business	$	7,148

The Excess Consideration Note, which required interest-only quarterly payments at a rate of6% per year, was settled on October 24, 2019 for $6.0 million, including interest of $24 thousand. The Buyer withheld from the settlement of the Excess Consideration Note $775 thousand for a net worth adjustment (assets less liabilities) of the BioPharma business ("Net Worth"), $153 thousand to secure collection of certain older accounts receivable of the Company purchased by Buyer ("AR Holdback") and an additional $735 thousand as security for indemnification obligations of the Company for any breaches of certain limited warranties and covenants of the Company and other specified items ("Indemnification Holdback"). The Company received the full amounts of the AR Holdback and the Indemnification Holdback in April and May 2020, respectively. The fair value of the Excess Consideration Note was $888 thousand at December 31, 2019 and was paid in full in May 2020.

The Company and Buyer also entered into a transition services agreement (the "TSA") pursuant to which the Company and Buyer are providing certain services to each other to accommodate the transition of the BioPharma Business to Buyer. In particular, the Company agreed to provide to Buyer, among other things, certain personnel services, payroll processing, administration services and benefit administration services, for a period not to exceed six months from July 15, 2019, subject to the terms and conditions of the TSA, in exchange for payment or reimbursement, as applicable, by Buyer for the costs related thereto, including salaries and benefits for certain of the Company's BioPharma employees during the transition period. The Buyer paid for certain costs of the Company under the TSA with respect to a limited number of employees and professionals. Such shared services amounted to $217 thousand and $186 thousand for the years ended December 31, 2020 and 2019, respectively. In addition, the Buyer reimbursed the Company, in part, for the salaries and benefits of John A. Roberts, the Company's Chief Executive Officer, and Glenn Miles, the Company's former Chief Financial Officer through July 2020. The reimbursed portion of such salaries and benefits amounted to $155 thousand and $188 thousand for the years ended December 31, 2020 and 2019, respectively. Including the amounts due under the TSA described above, the net amount due to the Buyer is approximately $15 thousand at December 31, 2020.

In connection with the closing of the BioPharma Disposal, the SVB ABL and the PFG Term Note were terminated, and all related liens were released.

siParadigm, Inc.

On July 5, 2019, the Company entered into an asset purchase agreement (the "Clinical Agreement") by and among the Company and siParadigm, LLC ("siParadigm"), pursuant to which the Company sold to siParadigm, certain assets associated

with the Company's clinical laboratory business (the "Clinical Business," and such assets, the "Designated Assets"), and agreed to cease operating its Clinical Business. The Designated Assets include intellectual property, equipment and customer lists associated with the Clinical Business, and for a period of time the Company was providing certain transitional services to siParadigm pursuant to the Clinical Agreement. The cash consideration paid by siParadigm at closing was $747 thousand, which includes $45 thousand for certain equipment plus a $1.0 million advance payment of the Earn-Out (as defined below), less $298 thousand of supplier invoices paid directly by siParadigm, an adjustment of $11 thousand and transaction costs of $110 thousand. The Clinical Business sale (together with the sale of BioServe and the BioPharma Disposal, the "Business Disposals") was completed on July 8, 2019.

The Clinical Business disposal resulted in the following:

Consideration received:		
Cash received at closing	$	747
Fair value of Earn-Out from siParadigm		2,376
Advance from siParadigm received in cash		(1,000)
	$	2,123
Net assets sold:		
Goodwill	$	1,188
Accounts payable and accrued expenses		(287)
	$	901
Gain on disposal of Clinical Business	$	1,222

The Earn-Out, to be paid over the 24 months post-closing, is based on fees for all tests performed by siParadigm for the Company's clinical customers during the 12-month period following the closing (the "Earn-Out"). siParadigm withholds a set percentage from each monthly earn-out payment remitted to the Company as repayment of the Advance from siParadigm. The percentage withheld was 25% for earn-out payments for July through September 2019; siParadigm began withholding 75% from the earn-out payments for October 2019 and will continue withholding 75% each month until the Advance from siParadigm is paid in full. At December 31, 2019, the fair value of the current and long-term portion of the Earn-Out from siParadigm was $747 thousand and $356 thousand, respectively. In addition, the current and long-term portion of the Advance from siParadigm was $566 thousand and $252 thousand, respectively. The Company has netted the Earn-out and advance from siParadigm as December 31, 2020 as all amounts are fixed and determinable and the Company and SiParadigm intend to offset. At December 31, 2020 the net Earn-out receivable was approximately $91 thousand.

Under the Clinical Agreement, the Company agreed to certain non-competition and non-solicitation provisions, including that it will cease performing certain clinical tests and will not solicit or seek business from certain of its customers (other than for the Company's other lines of business) for a period of three years following the closing date.

The Business Disposals have been classified as discontinuing operations in conformity with accounting principles generally accepted in the United States of America. Accordingly, the operations and balances of the Company's BioPharma and Clinical operations have been reported as discontinuing operations and removed from all financial disclosures of continuing operations. As permitted by Accounting Standards Codification ("ASC") 205-20, the Company elected to allocate $ 1.5 million of interest expense from the Convertible Note to Iliad and Advance from NDX to discontinuing operations during the year ended December 31, 2019. The interest was allocated based on the ratio of net assets sold less debt required to be paid as a result of the disposal to the Company's net assets (prior to the disposal) plus the consolidated debt not repaid as a result of the disposal. Unless otherwise indicated, information in these notes to consolidated financial statements relates to continuing operations.

Summarized results of the Company's consolidated discontinuing operations are as follows for the years ended December 31, 2020 and 2019 (in thousands):

	Year Ended December 31,	
	2020	2019
Revenue	**$ —**	$ 10,066
Cost of revenues	**—**	7,554
Gross profit	**—**	2,512
Operating expenses:		
Research and development	**—**	937
General and administrative	**(42)**	4,675
Sales and marketing	**—**	1,527
Restructuring costs	**—**	194
Transaction costs	**—**	560
Impairment of patents and other intangible assets	**—**	601
Total operating expenses	**(42)**	8,494
Income (loss) from discontinuing operations	**42**	(5,982)
Other income (expense):		
Interest expense	**—**	(2,211)
Gain on disposal of Clinical Business	**—**	1,222
Gain on disposal of BioPharma Business	**—**	7,148
Total other income	**—**	6,159
Net income from discontinuing operations	**$ 42**	$ 177

Consolidated carrying amounts of major classes of assets and liabilities from discontinuing operations were as follows as of December 31, 2020 and 2019 (in thousands):

	2020	2019
Current assets of discontinuing operations:		
Accounts receivable, net of allowance for doubtful accounts of $4,536 in 2019	**$ —**	$ 71
Current assets of discontinuing operations	**$ —**	$ 71
Current liabilities of discontinuing operations		
Accounts payable and accrued expenses	**$ 659**	$ 1,137
Due to Interpace Biosciences, Inc.	**—**	92
Current liabilities of discontinuing operations	**$ 659**	$ 1,229

Cash flows used in discontinuing operations consisted of the following for the years ended December 31, 2020 and 2019:

	Years Ended December 31,	
	2020	2019
Income from discontinuing operations	**$ 42**	$ 177
Adjustments to reconcile income from discontinuing operations to net cash used in operating activities, discontinuing operations		
Depreciation	**—**	542
Amortization	**—**	613
Provision for bad debts	**(28)**	1,074
Accounts payable settlements	**(43)**	—
Stock-based compensation	**(6)**	107
Amortization of operating lease right-of-use assets	**—**	358
Amortization of discount of debt and debt issuance costs	**—**	601
Interest added to Convertible Note	**—**	343
Loss on extinguishment of debt	**—**	328
Gain on disposal of Clinical business	**—**	(1,222)
Gain on disposal of BioPharma business	**—**	(7,148)
Change in working capital components:		
Accounts receivable	**99**	845
Other current assets	**—**	398
Other non-current assets	**—**	2
Accounts payable, accrued expenses and deferred revenue	**(435)**	(2,163)
Obligations under operating leases	**—**	(217)
Deferred rent payable and other	**—**	(151)
Due to Interpace Biosciences, Inc.	**(92)**	92
Net cash used in operating activities, discontinuing operations	**$ (463)**	$ (5,421)

Note 20. Subsequent Events

ATM

In January 2021, the Company received net proceeds of $797 thousand from the issuance of 200 thousand shares of CGI Common Stock pursuant to its ATM Agreement.

CGI PIPE

On January 28, 2021, CGI entered into a Securities Purchase Agreement (the "CGI PIPE Securities Purchase Agreement") with certain institutional and accredited investors (the "CGI PIPE Purchasers"), pursuant to which CGI issued and sold to the CGI PIPE Purchasers in a private placement an aggregate of (i) 2.8 million shares of CGI Common Stock and (ii) common warrants to purchase up to an aggregate of 2.8 million shares of CGI Common Stock, at a combined offering price of $3.625 per CGI PIPE Share and accompanying CGI PIPE Warrant to purchase one share of CGI Common Stock, for gross proceeds of approximately $10 million. The net proceeds to CGI from the CGI PIPE were approximately $8.9 million, after deducting placement agent fees and expenses and estimated offering expenses payable by CGI. The net proceeds are expected to be available to the post-merger company upon the closing of the merger. The Private Placement closed on February 1, 2021.

Between February 10 and March 22, 2021 a total of 1.1 million of the warrants were exercised for common stock resulting in proceeds to the Company of approximately $4.0 million.

CGI RD Financing

On February 10, 2021, CGI issued and sold to certain institutional investors an aggregate of2.8 million shares of CGI Common Stock in a registered direct offering at an offering price of $6.30 per share for gross proceeds of approximately $17.5 million, or $15.8 million of net proceeds, after deducting placement agent fees and expenses and estimated offering expenses payable by CGI and issued warrants to purchase an aggregate of 167 thousand shares of CGI Common Stock to Wainwright as placement agent compensation.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures.

The Company evaluated, under the supervision and with the participation of its principal executive officer and principal financial officer, the effectiveness of the design and operation of its disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities and Exchange Act of 1934 ("Exchange Act"), as amended) as of December 31, 2020, the end of the period covered by this report on Form 10-K. Based on this evaluation, the principal executive officer and the principal financial officer have concluded that the Company's disclosure controls and procedures were not effective at December 31, 2020. Disclosure controls and procedures are designed to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and were operating in an effective manner for the period covered by this report, and (ii) is accumulated and communicated to management, including, the principal executive officer and principal financial officer, or the person performing similar functions as appropriate, to allow timely decisions regarding required disclosures.

Management's Report on Internal Control Over Financial Reporting.

The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rule 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934.

The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles and includes those policies and procedures that:

- Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company;
- Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of the Company's management and directors; and
- Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to risk that controls may become inadequate because of changes in conditions or because of declines in the degree of compliance with policies or procedures. . In making this assessment, the Company's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control-Integrated Framework (2013)*.

In connection with this assessment, the Company reports the material weakness, as described below, in internal control over financial reporting as of December 31, 2020. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement for the annual or interim financial statements will not be prevented or detected on a timely basis. Because of the material weakness described below, and based on management's assessment, as of December 31, 2020, the Company's internal control over financial reporting was not effective:

Changes in Internal Control over Financial Reporting.

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f)) under the Exchange Act) that occurred during the fourth quarter ended December 31, 2020, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting, except as follows:

Accounting for potential impairment of intangible assets: The Company's accounting for the potential impairment of intangible assets requires the Company to record an impairment charge if the carrying amount of the asset group is not recoverable and is in excess of the fair value of the asset group. The Company provided for audit an undiscounted cash flow analysis to support its assessment of indicators of impairment of intangible assets which included assumptions for revenue growth and expected gross margins that were inconsistent with the historical experience of the Company and could not be further supported with underlying evidence to support the Company's projections and came to the incorrect conclusion of the recoverability of the asset group. As a result of the audit the Company revised its projections and used historical evidence pertaining to the base revenue amount, growth rates, and gross margins, which resulted in negative undiscounted cash flows. The Company determined that the fair value of the asset group was less than the carrying value and recorded an impairment charge of approximately $2.1 million. If this adjustment was not identified by our auditors we believe that this adjustment would not have been detected. As a result, the Company concluded that this deficiency in our internal controls over financial reporting would give rise to the level of a material weakness.

Material Weakness Remediation

As previously reported, management recognized that the Company had material weaknesses in its internal control over financial reporting as of December 31, 2019 related to accounting for foreign currency exchange rate and accounting for the Company's investments.

Subsequent to the evaluation made in connection with the Company's annual report on Form 10-K for the year ended December 31, 2019, management implemented improvements in processes and analyses that support the recording of foreign currency exchanges and the fair value of investments, and management also implemented additional journal entry review procedures. As a result of these efforts, the Company determined that the material weaknesses were remediated.

Item 9B. Other Information.

On March 24, 2021, the Compensation Committee (the "Committee") of the Board of Directors of the Company approved a bonus of $175,000 to the Company's President and Chief Executive Officer, John A. Roberts, in consideration of his efforts in connection with the expected closing of the merger transaction with StemoniX, Inc. ("StemoniX") as well as the financings and other transactions that led to such transaction. In addition, the Committee approved a bonus of $50,000 to the Company's President of Discovery & Early Development Services, Ralf Brandt, in part in consideration of his work in support of the merger transaction with StemoniX.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Directors

The following table sets forth certain information about the current directors of the Company. Directors are elected to hold office until the next annual meeting of stockholders and until their successors are elected and qualified.

Directors	Age	Year First Became Director
Geoffrey Harris (Chairman of the Board)	58	2014
Edmund Cannon	75	2005
Franklyn G. Prendergast, M.D., Ph.D.	75	2012
Howard McLeod	54	2014

Set forth below are brief biographical descriptions of the individuals currently serving as the Company's directors, based on information furnished to the Company by such individuals.

Geoffrey Harris

Geoffrey Harris is the chairman of the Company's Board and is a managing partner of c7 Advisors (a money management and healthcare advisory firm) since April 2014. From 2011 to 2014 he served as a managing director and co-head of the healthcare investment banking group at Cantor Fitzgerald, and from 2009-2011, he held a similar position at Gleacher & Company. Mr. Harris is also currently on the board of directors of Telemynd, Inc. (formerly known as MYnd Analytics), a data analysis company focused on improving mental health care; PointRight Inc., a privately-held software company; and MoleSafe, Inc., a privately-held company focused on the early detection of melanoma. Mr. Harris graduated from MIT's Sloan School of Management with an MS in Finance Management.

Edmund Cannon

Edmund Cannon is a member of the Company's Board and is founder and President of the Clinical Research Center of Cape Cod since 2003, which specializes in finding institutional review board approved, consented specimens for the diagnostics and pharmaceutical industries, and in setting up studies to support FDA submissions for pharmaceutical and biotechnology companies. Previously, Mr. Cannon was a marketing and operations consultant for Franey Medical Labs. Mr. Cannon also formerly had the most national sales for Pharmacia Diagnostics Inc., and was a vice president and co-founder of Alletess, Inc. Mr. Canon has a degree from Boston State College and attended a Master's program at Providence College.

Howard McLeod, Pharm.D.

Dr. McLeod is a member of the Company's Board and is the Medical Director, Precision Medicine for the Geriatric Oncology Consortium and a Professor at the USF Taneja College of Pharmacy. Until February 2020, he was Chair of the Department of Individualized Cancer Management and Medical Director of the DeBartolo Family Personalized Medicine Institute at the Moffitt Cancer Center and previously a Senior Member of the Moffitt Cancer Center's Division of Population Sciences. He also chaired the Department of Individualized Cancer Management at Moffitt. He joined Moffitt Cancer Center in September 2013. Prior to joining the Moffitt Cancer Center, Dr. McLeod was a Founding Director of the University of North Carolina Institute for Pharmacogenomics and Individualized Therapy since 2006. Dr. McLeod also held the prestigious title of Fred Eshelman Distinguished Professor at the UNC Eshelman School of Pharmacy from 2006 to 2013. Dr. McLeod has published over 500 peer-reviewed papers on pharmacogenomics, applied therapeutics and clinical pharmacology. He had served as Chief Scientific Advisor and a member of the board of directors of Gentris Corporation before its acquisition by the Company in July 2014.

Franklyn G. Prendergast, M.D., Ph.D.

Franklyn G. Prendergast, M.D., Ph.D., is a member of the Company's Board and also serves as the Emeritus Edmond and Marion Guggenheim Professor of Biochemistry and Molecular Biology and Emeritus Professor of Molecular Pharmacology and Experimental Therapeutics at Mayo Medical School and the director of the Mayo Clinic Center for Individualized Medicine. He has served in other positions of leadership at the Mayo Clinic since 1989, including on the Mayo Clinic Board of

Trustees, from 1992 to 2009, and on the Mayo Clinic Board of Governors, from 1999 to 2006. He also previously held several other teaching positions at the Mayo Medical School since 1975. Dr. Prendergast has served for the National Institute of Health on numerous study section review groups; as a charter member of the Board of Advisors for the Division of Research Grants, now the Center for Scientific Review; the National Advisory General Medical Sciences Council; and the Board of Scientific Advisors of the National Cancer Institute. He held a Presidential Commission for service on the National Cancer Advisory Board. Dr. Prendergast also has served in numerous other advisory roles for the National Institute of Health and the National Research Council of the National Academy of Sciences, and he is a member of the board of directors of the Translational Genomics Research Institute and the Infectious Disease Research Institute (IDRI). Dr. Prendergast served on the board of directors of Eli Lilly & Co., and on its science and technology and public policy and compliance committees, from 1995 to 2017. He also served on the board of directors for DemeRx, Inc., a private, biotechnology drug development company from 2010 to 2012, and Ativa Medical Corporation, a private, diagnostic technology company from 2012 to 2015. Dr. Prendergast obtained his medical degree with honors from the University of West Indies and attended Oxford University as a Rhodes Scholar, earning an M.A. degree in physiology. He obtained his Ph.D. in Biochemistry at the University of Minnesota.

Executive Officers

The following table sets forth certain information about the current executive officers of the Company:

Executive Officers	Age	Position and Office
John A. Roberts	61	President and Chief Executive Officer
Ralf Brandt	53	President, Discovery & Early Development Sciences

Set forth below are brief biographical descriptions of the individuals currently serving as the Company's executive officers, based on information furnished to the Company by such individuals.

John A. Roberts

On April 30, 2018, Mr. Roberts was appointed as the Company's Chief Executive Officer and President. Prior to that, Mr. Roberts had been the Company's interim Chief Executive Officer since February 2, 2018. Mr. Roberts had previously served as the Company's Chief Operating Officer since July 11, 2016. Prior to joining us, from August 1, 2015 to June 30, 2016, Mr. Roberts served as the Chief Financial Officer for VirMedica, Inc., an innovative technology solutions company that provides an end-to-end platform that enables specialty drug manufacturers and pharmacies to optimize product commercialization and management. Prior to VirMedica, from August 1, 2011 to July 31, 2015, Mr. Roberts was the Chief Financial and Administrative Officer for AdvantEdge Healthcare Solutions, a global healthcare analytics and services organization. Prior to that, Mr. Roberts was the Chief Financial Officer and Treasurer for InfoLogix, Inc., a publicly-traded healthcare-centric mobile software and solutions provider. He has also held CFO roles at leading public medical device and healthcare services firms including Clarient, Inc., a publicly-traded provider of diagnostic laboratory services and Daou Systems, Inc., a publicly-traded healthcare IT software development and services firm. In addition, he has held key senior executive roles with MEDecision, Inc., HealthOnline, Inc. and the Center for Health Information. Mr. Roberts earned a Bachelor of Science and a Master’s degree in Business Administration from the University of Maine. He is a member of the Board of Directors and Immediate Past Chair for the Drug Information Association, a global neutral forum enabling drug developers and regulators access to education and collaboration. Mr. Roberts has also served on the Board of Directors of Cohere-Med Inc., a clinical analytics company, from February 2020 to present.

Ralf Brandt, PhD

Dr. Ralf Brandt, PhD was appointed as the Company's President of Discovery & Early Development Services following the Company's acquisition of vivoPharm Pty Ltd in August 2017. Dr. Brandt co-founded vivoPharm Pty Ltd in 2003 and served as its Chief Executive Officer and Managing Director until August 2017. Previously he was employed at research positions at the National Cancer Institute in Bethesda, MD, USA and at Schering AG, Germany. He led the Tumour Biology program at Novartis Pharma AG, Switzerland and established several transgenic mouse lines developing tumors under the control of oncogenes. He serves as a Member of the Scientific Advisory Board at Receptor Inc. in Toronto Canada. Dr. Brandt serves as a Member of Scientific Advisory Board at Propanc Health Group Corporation at Propanc Health Group Corporation. He received his Licence (BSc in Biochemistry and Animal Physiology) in 1986 and his PhD (in Biochemistry) in 1991 from the Martin-Luther University of Halle-Wittenberg, Germany.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934, as amended, requires the Company's directors and executive, officers, and persons who are beneficial owners of more than 10% of a registered class of the Company's equity securities, to file reports of ownership and changes in ownership with the SEC. These persons are required by SEC regulations to furnish the Company with copies of all Section 16(a) forms they file.

Based solely upon the Company's review of copies of Forms 3, 4 and 5 furnished to the Company, the Company believes that all of its directors, executive officers and any other applicable stockholders timely filed all reports required by Section 16(a) of the Exchange Act during the fiscal year ended December 31, 2020.

Code of Business Conduct and Ethics

The Company has adopted a Code of Business Conduct and Ethics that applies to its directors, officers and employees. The purpose of the Code of Business Conduct and Ethics is to deter wrongdoing and to provide guidance to the Company's directors, officers and employees to help them recognize and deal with ethical issues, to provide mechanisms to report unethical or illegal conduct and to contribute positively to the Company's culture of honesty and accountability. The Company's Code of Business Conduct and Ethics is publicly available on the Company's website at www.cancergenetics.com. If the Company makes any substantive amendments to the Code of Business Conduct and Ethics or grants any waiver, including any implicit waiver from a provision of the Code of Business Conduct and Ethics to its directors or executive officers, the Company will disclose the nature of such amendments or waiver on its website or in a current report on Form 8-K.

Audit Committee

The Board has established an Audit Committee currently consisting of Mr. Harris, Mr. Cannon and Dr. Prendergast. The Audit Committee's primary functions are to oversee and review: the integrity of the Company's financial statements and other financial information furnished by the Company, the Company's compliance with legal and regulatory requirements, the Company's systems of internal accounting and financial controls, the independent auditor's engagement, qualifications, performance, compensation and independence, related party transactions, and compliance with the Company's Code of Business Conduct and Ethics.

Each member of the Audit Committee is "independent" as that term is defined under the applicable rules of the Securities and Exchange Commission (the "SEC") and the applicable rules of The NASDAQ Stock Market. The Board has determined that each Audit Committee member has sufficient knowledge in financial and auditing matters to serve on the Committee. The Board determined that Mr. Harris is an "audit committee financial expert," as defined under the applicable rules of the SEC and the applicable rules of The NASDAQ Stock Market. The Company's Board has adopted an Audit Committee Charter, which is available for viewing at www.cancergenetics.com.

Item 11. Executive Compensation.

Summary Compensation Table

The following table shows the compensation awarded to or earned by each person serving as the Company's principal executive officer during fiscal year 2020, the Company's two most highly compensated executive officers who were serving as executive officers as of December 31, 2020 and up to two additional individuals for whom disclosure would have been provided but for the fact that such individuals were not serving as an executive officer as of December 31, 2020. The persons listed in the following table are referred to herein as the "named executive officers."

SUMMARY COMPENSATION TABLE

Name and Principal Position	Year	Salary ($)	Bonus ($)	Stock Awards ($) (1)	Option Awards ($) (1)	All Other Compensation ($)	Total ($)
John A. Roberts	2020	$ 279,260 (2)	$ —	$ —	$ —	$ —	$ 279,260
Chief Executive Officer and President	2019	$ 267,885 (3)	$ —	$ —	$ —	$ 1,188 (4)	$ 269,073
Ralf Brandt	2020	$ 353,179	$ —	$ —	$ 44,460	$ 38,620 (5)	$ 436,259
President, Discovery & Early Development Services	2019	$ 340,981	$ 98,490	$ —	$ —	$ 38,114 (5)	$ 477,585
M. Glenn Miles	2020	$ 193,023 (7)	$ 40,000	$ —	$ 44,460	$ 40,000 (8)	$ 317,483
Chief Financial Officer (6)	2019	$ 207,111 (9)	$ —	$ —	$ —	$ —	$ 207,111

(1) Represents the aggregate grant date fair value for grants made in 2020 and 2019 computed in accordance with FASB ASC Topic 718. This calculation does not give effect to any estimate of forfeitures related to service-based vesting, but assumes that the executive will perform the requisite service for the award to vest in full. The assumptions used in valuing options are described in Note 12 to the Company's financial statements included in this Annual Report on Form 10-K.
(2) Represents Mr. Robert's gross salary of $350,000 less reimbursements of $70,740 received from IDXG pursuant to the TSA and the disposal of the Company's biopharma services business discussed in Note 19 to the Company's financial statements included in this Annual Report on Form 10-K.
(3) Represents Mr. Robert's gross salary of $350,000 less reimbursements of $82,115 received from IDXG pursuant to the TSA.
(4) Consists of group term life insurance benefits.
(5) Consists of a monthly housing allowance.
(6) Mr. Miles' employment with the Company ceased on November 16, 2020 (the "Separation Date").
(7) Represents Mr. Miles' gross salary of $300,000 pro rated through the Separation Date less reimbursements of $69,477 received from IDXG pursuant to the TSA.
(8) Represents a one-time payment equal to $5,000 for execution of a separation agreement and mutual release of claims and a payment of $35,000 for the completion of certain tasks associated with the transition process leading up to the Separation Date.
(9) Represents Mr. Miles' gross salary of $300,000 less reimbursements of $92,889 received from IDXG pursuant to the TSA.

Narrative Disclosure to Summary Compensation Table

Employment Agreements

The material terms of each named executive officer's employment agreement or arrangement are described below.

John A. Roberts

The Company entered into an employment agreement with Mr. Roberts effective as of July 11, 2016 ("Roberts Agreement"). The Roberts Agreement provides for, among other things: (i) an annual base salary of $300,000, or such greater amount as may be determined by the Board, (ii) eligibility for an annual cash bonus of up to 35% of base salary, and (iii) the following post-termination benefits: (a) any performance bonus plan, then in effect, pro rata for his period of actual employment during the year, payable at the regular bonus payment time but only if other employees are then paid their bonus amounts, and continuation of medical/dental, disability and life benefits for a period of six months following termination of employment pursuant to certain events, and (b) monthly payments equal to his base salary immediately prior to such termination for a period of six months in the event his employment is terminated without "cause" or Mr. Roberts resigns for "good reason" not in connection with a "change of control", (c) monthly payment equal to his base salary immediately prior to such termination for a period of twelve months in the event his employment is terminated due to illness, injury or disability or (d) a lump sum payment equal to twelve months of his then base salary plus an amount equal to the prior year bonus in the event his employment is terminated for any reason within twelve months following a change of control. The Roberts Agreement further provides that Mr. Roberts will not engage in competitive activity for a period of twelve months following termination of

employment. The Roberts Agreement has an initial term of July 11, 2016 through July 10, 2017, and automatically renews for additional one-year terms.

On May 10, 2018, the Board of Directors increased Mr. Roberts' salary to $350,000 per year.

Ralf Brandt

The Company entered into an employment agreement with Dr. Brandt effective as of August 15, 2017 ("Brandt Agreement"). The Brandt Agreement provides for, among other things: (i) an annual base salary of $330,000, (ii) eligibility for an annual cash bonus of up to 30% of base salary, (iii) a one-time grant of a stock option to purchase 3,333 shares of common stock, vesting in equal quarterly increments over a two-year period beginning October 1, 2017, (iv) a one-time grant of 1,000 shares of restricted stock, vesting in equal annual increments over a three-year period beginning October 1, 2017, and the following post-termination benefits: (a) any bonus earned under any performance bonus plan then in effect, pro rata for his period of actual employment during the year, payable at the regular bonus payment time but only if other employees are then paid their bonus amounts, (b) monthly payments equal to his base salary immediately prior to such termination for a period of for three months in the event of his death or resignation other than for "good reason", (c) monthly payment equal to his base salary immediately prior to such termination for a period of four months in the event his employment is terminated due to illness, injury or disability, (d) monthly payments equal to his base salary immediately prior to such termination for the greater of six months or the remainder of his initial two-year employment period in the event his employment is terminated without "cause" or Dr. Brandt resigns for "good reason" not in connection with a "change of control", (e) a lump sum payment equal to his base salary immediately prior to such termination for the greater of six months or the remainder of his initial two-year employment period in the event his employment is terminated for any reason within twelve months following a "change of control". The Brandt Agreement further provides that Dr. Brandt will not engage in competitive activity for a period lasting the greater of six months or the remainder of his initial two-year employment period. The Brandt Agreement has an initial term of August 15, 2017 to August 14, 2019, and automatically renews for additional one-year terms.

Outstanding Equity Awards at Fiscal Year End

The following table sets forth certain information, on an award-by-award basis, concerning unexercised options to purchase common stock, restricted shares of common stock and common stock that has not yet vested for each named executive officer and outstanding as of December 31, 2020.

OUTSTANDING EQUITY AWARDS AT FISCAL YEAR END - 2020

	Option Awards			
Name	**Number of Securities Underlying Unexercised Options (#) Exercisable**	**Number of Securities Underlying Unexercised Options (#) Unexercisable**	**Option Exercise Price ($)**	**Option Expiration Date**
John A. Roberts	4,000 (1)	— (1)	$ 60.00	7/11/2026
	958 (2)	42 (2)	$ 75.00	2/22/2027
Ralf Brandt	3,333 (3)	— (3)	$ 93.00	8/15/2027
	2,583 (4)	2,417 (4)	$ 26.70	5/10/2028
	9,166 (5)	834 (5)	$ 5.53	1/2/2030
M. Glenn Miles (6)	1,278 (7)	— (7)	$ 9.00	11/16/2021
	8,333 (8)	— (8)	$ 5.53	11/16/2021

(1) 83 options vested on July 11, 2016. The remaining options vest in 15 equal quarterly installments of 250 options commencing October 11, 2016 and 167 options vesting on July 11, 2020.
(2) Options vest in 48 equal monthly installments of 21 options commencing one month after the grant date.
(3) Options vest in 8 equal quarterly installments of 417 options, commencing on October 1, 2017.
(4) 20% of the options vest one year after the grant date, with the remaining options vesting in equal monthly installments of 83 over the next 48 months.
(5) Options vest in 12 equal monthly installments of 833 options commencing one month after the grant date.

(6) In connection with Mr. Miles' departure, the Company and Mr. Miles entered into a separation agreement. The separation agreement provides, among other things, that the expiration of his options shall be extended until November 16, 2021.
(7) 20% of the options vest one year after the grant date, with the remaining options vesting in equal monthly installments of 56 over the next 48 months. On November 16, 2020, unvested options were forfeited.
(8) Options vest in 12 equal monthly installments of 833 options commencing one month after the grant date. On November 16, 2020, unvested options were forfeited.

Director Compensation

Non-Employee Director Compensation Policy

In July 2019, the Company amended its director compensation policy. The Company's amended director compensation policy provides for the following cash compensation to its non-employee directors:

- each non-employee director receives a monthly retainer fee, paid in advance, of $2,500;
- the Company's chairman of the board receives an additional monthly retainer fee of $2,500;
- the chairman of the Company's audit committee receives a monthly retainer fee of $1,000;
- other audit committee members and compensation committee members receive a quarterly retainer fee of $1,000; and
- each non-employee director receives a meeting fee of $250 for each teleconference or $750 for each in-person meeting (exclusive of all travel related reimbursement).

This policy provides for the following equity compensation to the Company's non-employee directors:

- each non-employee director receives a one-time 3,333 share stock option at fair market value on the date of grant, vesting monthly in 12 equal installments over 12 months.

On July 23, 2019, in connection with the adoption of the amended director compensation policy, the Company granted each non-employee director options to purchase 3,333 shares of common stock.

The Company also reimburses non-employee directors for reasonable expenses incurred in connection with attending Board and committee meetings.

Except as set forth in the table below, the non-employee directors did not receive any cash or equity compensation during 2020:

DIRECTOR COMPENSATION

Name	Fees Earned or Paid in Cash ($)	Stock Awards ($) (1)	Option Awards ($) (1)	All Other Compensation ($)	Total ($)
Geoffrey Harris	$ 76,500	$ —	$ —	$ —	$ 76,500
Edmund Cannon	$ 42,000	$ —	$ —	$ —	$ 42,000
Howard McLeod	$ 37,750	$ —	$ —	$ —	$ 37,750
Franklyn G. Prendergast, M.D., Ph.D.	$ 42,250	$ —	$ —	$ —	$ 42,250

(1) Represents the aggregate grant date fair value for grants made in 2020 computed in accordance with FASB ASC Topic 718. This calculation does not give effect to any estimate of forfeitures related to service-based vesting, but assumes that the executive will perform the requisite service for the award to vest in full. The assumptions used in valuing options are described in Note 12 to the Company's financial statements included in this Annual Report on Form 10-K.

Compensation Committee Interlocks and Insider Participation

The Compensation Committee of the Board of Directors is currently composed of the following two non-employee directors: Mr. Cannon and Dr. Prendergast. None of these Compensation Committee members was an officer or employee of the Company during the year. No Compensation Committee interlocks between the Company and another entity existed.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Security Ownership of Certain Beneficial Owners and Management

The following table sets forth certain information as of March 23, 2021 with respect to the beneficial ownership of common stock of the Company by the following: (i) each of the Company's current directors; (ii) each of the named executive officers; (iii) all of the current executive officers and directors as a group; and (iv) each person known by the Company to own beneficially more than five percent (5%) of the outstanding shares of the Company's common stock.

For purposes of the following table, beneficial ownership is determined in accordance with the applicable SEC rules and the information is not necessarily indicative of beneficial ownership for any other purpose. Except as otherwise noted in the footnotes to the table, the Company believes that each person or entity named in the table has sole voting and investment power with respect to all shares of the Company's common stock shown as beneficially owned by that person or entity (or shares such power with his or her spouse). Under the SEC's rules, shares of the Company's common stock issuable under options that are exercisable on or within 60 days after March 23, 2021 ("Presently Exercisable Options") are deemed outstanding and therefore included in the number of shares reported as beneficially owned by a person or entity named in the table and are used to compute the percentage of the common stock beneficially owned by that person or entity. These shares are not, however, deemed outstanding for computing the percentage of the common stock beneficially owned by any other person or entity.

The percentage of the common stock beneficially owned by each person or entity named in the following table is based on 11,007,186 shares of common stock issued and outstanding as of March 23, 2021 plus any shares issuable upon exercise of Presently Exercisable Options held by such person or entity.

Name and Address of Beneficial Owner*	Number of Shares Beneficially Owned	Percentage of Shares Beneficially Owned
Named Executive Officers, Executive Officers and Directors:		
Edmund Cannon	7,227 (1)	*
Dr. Franklyn G. Prendergast, M.D., Ph.D.	5,849 (2)	*
Geoffrey Harris	8,914 (3)	*
Howard McLeod	5,115 (3)	*
John A. Roberts	14,920 (4)	*
Ralf Brandt	73,055 (5)	*
All current executive officers and directors as a group (6 persons)	**115,080**	**1.0 %**
Glenn Miles	14,610 (6)	*
5% Holders		
Intracoastal Capital, LLC (7)	1,099,618 (9)	9.99 %
Lind Global Marco Fund, LP (8)	1,145,119 (10)	9.99 %

(*) Less than 1%.
(1) Includes 5,166 shares of common stock underlying options exercisable on or before May 22, 2021.
(2) Includes 5,433 shares of common stock underlying options exercisable on or before May 22, 2021.
(3) Includes 4,666 shares of common stock underlying options exercisable on or before May 22, 2021.
(4) Includes 5,000 shares of common stock underlying options exercisable on or before May 22, 2021.
(5) Includes 55,722 shares of common stock owned through the Brandt Family Trust. Includes 16,333 shares of common stock underlying options exercisable on or before May 22, 2021. Excludes 2,000 shares of common stock underlying options that are not exercisable on or before May 22, 2021.
(6) Includes 9,610 shares of common stock underlying options exercisable on or before May 22, 2021.
(7) Mitchell P. Kopin ("Mr. Kopin") and Daniel B. Asher ("Mr. Asher"), each of whom are managers of Intracoastal Capital LLC ("Intracoastal"), have shared voting control and investment discretion over the securities reported herein that are held by Intracoastal. As a result, each of Mr. Kopin and Mr. Asher may be deemed to have beneficial ownership (as determined under Section 13(d) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) of the securities reported herein that are held by Intracoastal.
(8) Jeff Easton is the Managing Member of Lind Global Partners, LLC, which is the General Partner of Lind Global Macro Fund, LP, and in such capacity has the right to vote and dispose of the securities held by such entity. Mr. Easton

disclaims beneficial ownership over the securities listed except to the extent of his pecuniary interest therein. The address for Lind Global Macro Fund, LP is 444 Madison Avenue, 41st Floor, New York, NY 10022.

(9) Represents 1,099,618 shares of CGI Common Stock.

(10) Represents (i) 689,656 shares of CGI Common Stock and (ii) that portion of 689,656 shares of CGI Common Stock issuable upon the exercise of CGI warrants, limited by maximum ownership provisions, in each case issued in the CGI PIPE.

Equity Compensation Plan Information

The following table provides information as of December 31, 2020 regarding shares of the Company's common stock that may be issued under the Company's existing equity compensation plans, including its 2008 Stock Option Plan (the "2008 Plan") and its 2011 Equity Incentive Plan (the "2011 Plan") as well as shares issued outside of these plans.

	Equity Compensation Plan Information			
Plan Category	(a) Number of securities to be issued upon exercise of outstanding options and rights (1)	(b) Weighted average exercise price of outstanding options and rights	(c) Number of securities remaining available for future issuance under equity compensation plan (excluding securities referenced in column (a))	
Equity compensation plans approved by security holders (2)	55,907	$ 45.92	39,440	(3)

(1) Does not include any restricted stock as such shares are already reflected in the Company's outstanding shares.

(2) Consists of the 2008 Plan and the 2011 Plan.

(3) Includes securities available for future issuance under the 2011 Plan. Effective April 9, 2018, the Company is no longer able to issue options from the 2008 Plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Other than compensation arrangements for named executive officers and directors, the Company describes below each transaction and series of similar transactions, since the beginning of fiscal year 2020, to which the Company were a party or will be a party, in which:

- the amounts involved exceeded or will exceed the lesser of $120,000 or one percent of the average of the smaller reporting company's total assets at year-end for the last two completed fiscal years; and
- any of the Company's directors, nominees for director, executive officers or holders of more than 5% of the Company's common stock, or any member of the immediate family of the foregoing persons, had or will have a direct or indirect material interest.

Compensation arrangements for the Company's named executive officers and directors are described in the section entitled "Executive Compensation".

Indemnification Agreements

The Company has entered into indemnification agreements with each of its current directors and executive officers. These agreements will require the Company to indemnify these individuals to the fullest extent permitted under Delaware law against liabilities that may arise by reason of their service to the Company, and to advance expenses incurred as a result of any proceeding against them as to which they could be indemnified. The Company also intends to enter into indemnification agreements with its future directors and executive officers.

Policies and Procedures for Related Party Transactions

The Company adopted a policy that its executive officers, directors, nominees for election as a director, beneficial owners of more than 5% of any class of the Company's common stock, any members of the immediate family of any of the foregoing persons and any firms, corporations or other entities in which any of the foregoing persons is employed or is a partner or principal or in a similar position or in which such person has a 5% or greater beneficial ownership interest (collectively, "related parties") are not permitted to enter into a transaction with the Company without the prior consent of the Company's board of

directors acting through the audit committee or, in certain circumstances, the chairman of the audit committee. Any request for the Company to enter into a transaction with a related party, in which such related party would have a direct or indirect interest in the transaction, must first be presented to the Company's audit committee, or in certain circumstances the chairman of the Company's audit committee, for review, consideration and approval. In approving or rejecting any such proposal, the Company's audit committee is to consider the material facts of the transaction, including, but not limited to, whether the transaction is on terms no less favorable than terms generally available to an unaffiliated third party under the same or similar circumstances, the extent of the benefits to us, the availability of other sources of comparable products or services and the extent of the related person's interest in the transaction.

Director Independence

The Company is currently managed by a four-member board of directors. All of the Company's current directors are "independent" as that term is defined under the rules of The NASDAQ Stock Market.

Item 14. Principal Accounting Fees and Services.

The following table summarizes the fees for professional services rendered by Marcum LLP (second quarter of 2019 and forward) and RSM US LLP (first quarter of 2019), the Company's independent registered public accounting firms, for each of the respective last two fiscal years:

Fee Category	2020	2019
Audit Fees	$ 433,964	$ 597,764
Audit-Related Fees	198,083	85,225
Tax Fees	—	63,000
Total Fees	$ 632,047	$ 745,989

Audit Fees
Represents fees for professional services provided in connection with the audit of the Company's annual financial statements and reviews of the Company's quarterly interim financial statements.

Audit-Related Fees

Fees related to review of registration statements, acquisition due diligence and statutory audits.

Tax Fees

Tax fees are associated with tax compliance, tax advice, tax planning and tax preparation services.

The Audit Committee is responsible for appointing, setting compensation and overseeing the work of the independent auditors. The Audit Committee is required to review and approve the proposed retention of independent auditors to perform any proposed auditing and non-auditing services as outlined in its charter. The Audit Committee has not established policies and procedures separate from its charter concerning the pre-approval of auditing and non-auditing related services. As required by Section 10A of the Exchange Act, our Audit Committee has authorized all auditing and non-auditing services provided by Marcum, LLP and RSM US LLP during 2020 and 2019 and the fees paid for such services. However, the pre-approval requirement may be waived with respect to the provision of non-audit services for the Company if the "de minimis" provisions of Section 10A(i)(1)(B) of the Exchange Act are satisfied

The Audit Committee has considered whether the provision of Audit-Related Fees, Tax Fees, and all other fees as described above is compatible with maintaining RSM US LLP and Marcum, LLP's independence and has determined that such services for fiscal years 2019 and 2018 were compatible. All such services were approved by the Audit Committee pursuant to Rule 2-01 of Regulation S-X under the Exchange Act to the extent that rule was applicable.

The Audit Committee is responsible for reviewing and discussing the audit financial statements with management, discussing with the independent registered public accountants the matters required by Public Company Accounting Oversight Board Auditing Standard No. 1301 *Communications with Audit Committees*, receiving written disclosures from the independent registered public accountants required by the applicable requirements of the Public Company Accounting Oversight Board

regarding the independent registered public accountants' communications with the Audit Committee concerning independence and discussing with the independent registered public accountants their independence, and recommending to the Board that the audit financial statements be included in the Company's Annual Report on Form 10-K.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a)(1) *Financial Statements*. The financial statements filed as part of this report are listed on the Index to the Consolidated Financial Statements.

(a)(2) *Financial Statement Schedules.* Schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

(a)(3) *Exhibits.* Reference is made to the Exhibit Index. The exhibits are included, or incorporated by reference, in this annual report on Form 10-K and are numbered in accordance with Item 601 of Regulation S-K.

Item 16. Form 10-K Summary.

None.

SIGNATURES

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

Cancer Genetics, Inc.
(Registrant)

Date: March 31, 2021

/s/ John A. Roberts

John A. Roberts

President and Chief Executive Officer
(Principal Executive, Financial and Accounting Officer and duly authorized signatory)

SIGNATURES AND POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints John A. Roberts, his true and lawful agent, proxy and attorney-in-fact, with full power of substitution and resubstitution, for him and in his name, place and stead, in any and all capacities, to (i) act on, sign and file with the Securities and Exchange Commission any and all amendments to this annual report on Form 10-K together with all schedules and exhibits thereto, (ii) act on, sign and file such certificates, instruments, agreements and other documents as may be necessary or appropriate in connection therewith and, (iii) take any and all actions which may be necessary or appropriate to be done, as fully for all intents and purposes as he might or could do in person, hereby approving, ratifying and confirming all that such agent, proxy and attorney-in-fact or any of his substitutes may lawfully do or cause to be done by virtue thereof.

Pursuant to the requirements of the Securities Act, this annual report on Form 10-K has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
/s/ John A. Roberts John A. Roberts	President and Chief Executive Officer *(Principal Executive, Financial and Accounting Officer)*	March 31, 2021
/s/ Geoffrey Harris Geoffrey Harris	Chairman of the Board of Directors	March 31, 2021
/s/ Edmund Cannon Edmund Cannon	Director	March 31, 2021
/s/ Howard McLeod Howard McLeod	Director	March 31, 2021
/s/ Franklyn G. Prendergast Franklyn G. Prendergast, M.D., Ph.D.	Director	March 31, 2021

INDEX TO EXHIBITS

Exhibit No.	Description
2.1#	Stock Purchase Agreement, dated as of August 14, 2017, by and among the Company, the Trustee of The Brandt Family Trust, a trust organized under the laws of Australia, Sabine Brandt, Royal Melbourne Institute of Technology, South Australian Life Science Advancement Partnership, LP, vivoPharm Pty Ltd, Dr. Ralf Brandt, as Shareholders' Representative and the Management Parties party thereto (incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K filed on August 16, 2017 with the Securities and Exchange Commission).
2.2#	Agreement and Plan of Merger, dated September 18, 2018, by and among Cancer Genetics, Inc., NovellusDx Ltd. and Wogolos Ltd. (incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 21, 2018).
2.3#	Secured Creditor Asset Purchase Agreement, dated July 15, 2019, by and among Interpace BioPharma, Inc., Cancer Genetics, Inc., Interpace Diagnostics Group, Inc. and Partners for Growth IV, L.P. (incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 19, 2019).
2.4#	Asset Purchase Agreement, dated July 5, 2019, by and among siParadigm, LLC and Cancer Genetics, Inc. (incorporated by reference to Exhibit 2.1 of the Company's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on August 19, 2019).
2.5#	Agreement and Plan of Merger and Reorganization, by and among Cancer Genetics, Inc., StemoniX, Inc., and CGI Acquisition, Inc., dated August 21, 2020 (incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 24, 2020).
2.6#	Amendment No. 1 to Agreement and Plan of Merger and Reorganization, by and among Cancer Genetics, Inc., StemoniX, Inc., and CGI Acquisition, Inc., dated February 8, 2021 (incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 8, 2021).
2.7#	Amendment No. 2 to Agreement and Plan of Merger and Reorganization, by and among Cancer Genetics, Inc., StemoniX, Inc., and CGI Acquisition, Inc., dated February 26, 2021 (incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on February 26, 2021).
3.1	Fourth Amended and Restated Certificate of Incorporation of Cancer Genetics, Inc., filed as Exhibit 3.1 to Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on May 15, 2013 and incorporated herein by reference.
3.2	Amended and Restated Bylaws of Cancer Genetics, Inc., filed as Exhibit 3.4 to Form S-1/A filed on April 30, 2012 (File No. 333-178836) and incorporated herein by reference.
4.1	Specimen Common Stock certificate of Cancer Genetics, Inc., filed as Exhibit 4.1 to Form S-1/A filed on May 16, 2012 (File No. 333-178836) and incorporated herein by reference.
4.2	Form of October 2012 Warrant issued by Cancer Genetics, Inc. to John Pappajohn and Mark Oman, filed as Exhibit 10.53 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
4.3	Share Purchase Agreement, by and among Cancer Genetics (India) Private Limited, Cancer Genetics, Inc., BioServe Biotechnologies (India) Pvt. Ltd., BioServe Biotechnologies Ltd., and each of the Selling Shareholders named therein, dated May 12, 2014 (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 18, 2014).
4.4	Stock Purchase Agreement, by and between Cancer Genetics, Inc. and BioServe Biotechnologies Ltd., dated May 12, 2014 (incorporated by reference to Exhibit 4.2 of the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on August 18, 2014).
4.5	Form of Warrant Agreement of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on November 6, 2015).
4.6	Form of Warrant Agreement of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on May 20, 2016).
4.7	Form of Warrant Agreement of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 9, 2016).

Exhibit No.	Description
4.8	Registration Rights Agreement, dated as of August 14, 2017, by and between the Company and Aspire Capital Fund, LLC (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 16, 2017).
4.9	Form of Warrant Agreement of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on December 8, 2017).
4.10	Omnibus Warrant Amendment to Warrant Issued to Lenders, dated as of June 30, 2018 (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 5, 2018).
4.11	Convertible Promissory Note, dated July 17, 2018, in favor of Iliad Research and Trading, L.P. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on July 18, 2018 with the Securities and Exchange Commission).
4.12	Form of Underwriter Warrants of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed on January 10, 2019 with the Securities and Exchange Commission).
4.13	Form of Placement Agent Warrants of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 29, 2019).
4.14*	Description of Securities
4.15	Promissory Note with Atlas Sciences (incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 25, 2019).
4.16	Form of Underwriter Warrants of Cancer Genetics, Inc., dated November 2, 2020 (incorporated herein by reference to Exhibit 4.1 to our Current Report on Form 8-K filed with the SEC on November 2, 2020).
4.17	Form of Common Warrant dated February 1, 2021 (incorporated herein by reference to Exhibit 4.1 to our Current Report on Form 8-K filed with the SEC on February 1, 2021).
4.18	Form of Placement Agent Warrant dated February 1, 2021 (incorporated herein by reference to Exhibit 43 to our Current Report on Form 8-K filed with the SEC on February 1, 2021).
4.19	Warrant dated February 16, 2021 (incorporated herein by reference to Exhibit 4.1 to our Current Report on Form 8-K filed with the SEC on February 16, 2021).
10.1	Amended and Restated 2008 Stock Option Plan, filed as Exhibit 10.1 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference. †
10.2	Form of Notice of Stock Option Grant under 2008 Stock Option Plan, filed as Exhibit 10.2 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference. †
10.3	Form of Stock Option Grant Agreement under 2008 Stock Option Plan, filed as Exhibit 10.3 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference. †
10.4	Form of Exercise Notice and Restricted Stock Purchase Agreement under 2008 Stock Option Plan, filed as Exhibit 10.4 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference. †
10.5	Form of Stock Option Grant Agreement under 2011 Stock Option Plan, filed as Exhibit 10.6 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference. †
10.6	Form of Indemnification Agreement, filed as Exhibit 10.7 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference. †
10.7	Office Lease Agreement, between Cancer Genetics, Inc. and Onyx Equities, LLC, dated October 9, 2007, filed as Exhibit 10.20 to Form S-1/A filed on April 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.8	Affiliation Agreement, between Cancer Genetics, Inc. and Mayo Foundation for Medical Education and Research dated November 7, 2011, filed as Exhibit 10.35 to Form S-1 filed on December 30, 2011 (File No. 333-178836) and incorporated herein by reference.
10.9	Letter Agreement, between Meadows Office, L.L.C. and Cancer Genetics, Inc., dated January 10, 2008, filed as Exhibit 10.44 to Form S-1/A filed on April 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.10	Amendment No. 1 to Affiliation Agreement, between Cancer Genetics, Inc. and Mayo Foundation for Medical Education and Research, dated September 29, 2012, filed as Exhibit 10.49 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.

Exhibit No.	Description
10.11	Restated Registration Rights Agreement, between Cancer Genetics, Inc., Mark Oman and John Pappajohn, dated October 17, 2012, filed as Exhibit 10.54 to Form S-1/A filed on October 23, 2012 (File No. 333-178836) and incorporated herein by reference.
10.12	Amendment No. 2 to Affiliation Agreement between Cancer Genetics, Inc. and Mayo Foundation for Medical Education and Research, dated January 4, 2013, filed as Exhibit 10.61 to Form S-1/A filed on January 8, 2013 (File No. 333-178836) and incorporated herein by reference.
10.13	Form of Letter Agreement between Cancer Genetics, Inc. and certain warrant holders waiving certain anti-dilution rights, filed as Exhibit 10.68 to Form S-1/A filed on March 4, 2013 (File No. 333-178836) and incorporated herein by reference.
10.14	Letter Amendment dated March 20, 2013 to Letter Agreement, between Meadows Office, L.L.C. and Cancer Genetics, Inc., dated April 6, 2012, filed as Exhibit 10.72 to Form S-1/A filed on March 22, 2013 (File No. 333-178836) and incorporated herein by reference.
10.15	Amendment No. 3 to Affiliation Agreement between the Company and Mayo Foundation for Medical Education and Research, dated May 21, 2013, filed as Exhibit 10.73 to Form S-1 filed on June 5, 2013 (File No. 333-189117) and incorporated herein by reference.
10.16	Limited Liability Company Agreement of OncoSpire Genomics, LLC, dated May 21, 2013, filed as Exhibit 10.74 to Form S-1/A filed on July 12, 2013 (File No. 333-189117) and incorporated herein by reference.
10.17	Joint Development Intellectual Property Agreement, among the Company, Mayo Foundation for Medical Education and Research and OncoSpire Genomics, LLC, dated May 21, 2013, filed as Exhibit 10.75 to Form S-1/A filed on July 12, 2013 (File No. 333-189117) and incorporated herein by reference.
10.18	2011 Equity Incentive Plan, as amended and restated effective May 14, 2015, filed as Exhibit 10.1 to Form S-8 filed on July 28, 2015 (File Number 333-205903) and incorporated herein by reference. †
10.19	Form of Warrant Agreement of Cancer Genetics, Inc. (corrected) (incorporated by reference to Exhibit 4.1 of the Company's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on November 9, 2015).
10.20	Office Lease, between Response Genetics, Inc. and Health Research Association, dated September 16, 2004 (incorporated by reference to the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 10, 2016).
10.21	Tenth Amendment to Office Lease, between Response Genetics, Inc. and University of Southern California, dated June 30, 2015 (incorporated by reference to the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 10, 2015).
10.22	Form of Securities Purchase Agreement, dated May 19, 2016, by and between Cancer Genetics, Inc. and various purchasers named therein (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 20, 2016).
10.23	Eleventh Amendment to Lease Agreement, dated June 10, 2016, between University of Southern California and Cancer Genetics, Inc. (incorporated by reference to Exhibit 10.1 of the Company's Quarterly Report on Form 10-Q, filed with the Securities and Exchange Commission on August 9, 2016).
10.24	Employment Agreement of John Roberts, dated June 27, 2016 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 30, 2016). †
10.25	Form of Securities Purchase Agreement, dated September 8, 2016, by and between Cancer Genetics, Inc. and various purchasers named therein (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 9, 2016).
10.26	Amendment, dated as of October 11, 2016, to Amended and Restated Cancer Genetics, Inc. 2011 Equity Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on October 12, 2016).
10.27	Form of Warrant issued to lenders dated March 22, 2017 (incorporated by reference to Exhibit 10.83 to the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on March 23, 2017).
10.28	Common Stock Purchase Agreement, dated as of August 14, 2017, by and between the Company and Aspire Capital Fund, LLC (incorporated by reference to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on August 16, 2017).
10.29	Thirteenth Amendment to Lease Agreement by and between the University of South Carolina and Cancer Genetics, Inc., dated March 29, 2018 (incorporated by reference to Exhibit 10.61 to the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on April 2, 2018).

Exhibit No.	Description
10.30	First Amendment to Lease by and between Meadows Landmark, LLC and Cancer Genetics, Inc., dated October 30, 2017 (incorporated by reference to Exhibit 10.62 to the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on April 2, 2018).
10.31	Share Purchase Agreement dated April 26, 2018 by and among BioServe Biotechnologies (India) Private Limited, Cancer Genetics, Inc. and Reprocell Incorporated (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on April 27, 2018).
10.32	Securities Purchase Agreement, dated July 17, 2018, between Cancer Genetics, Inc. and Iliad Research and Trading, L.P. (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed on July 18, 2018 with the Securities and Exchange Commission).
10.33	Credit Agreement, dated September 18, 2018, by and between Cancer Genetics, Inc. and NovellusDx Ltd. (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 21, 2018).
10.34	Promissory Note, dated September 18, 2018, in favor of NovellusDx Ltd. (incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on September 21, 2018).
10.35	Offer Letter with Glenn Miles, dated November 16, 2018 (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K/A, filed with the Securities and Exchange Commission on November 21, 2018).†
10.36	Employment Agreement with Ralf Brandt, dated August 15, 2017 (incorporated by reference to Exhibit 10.81 of the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on April 16, 2019). †
10.37	Promissory Note of Interpace BioPharma, Inc., dated July 15, 2019, in favor of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 19, 2019).
10.38	Transition Services Agreement, dated July 15, 2019, by and between Interpace BioPharma, Inc. and Cancer Genetics, Inc. (incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on July 19, 2019).
10.39	Note Purchase Agreement with Atlas Sciences (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 25, 2019).
10.40	Settlement Agreement with NovellusDx Ltd. (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K, filed with the Securities and Exchange Commission on October 25, 2019).
10.41	At The Market Offering Agreement by and between Cancer Genetics, Inc. and H.C. Wainwright & Co., LLC, dated December 2, 2020 (incorporated herein by reference to Exhibit 1.1 to our Current Report on Form 8-K filed with the SEC on December 3, 2020).
10.42	Form of Securities Purchase Agreement dated January 28, 2021 (incorporated herein by reference to Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on February 1, 2021).
10.43	Form of Registration Rights Agreement dated January 28, 2021 (incorporated herein by reference to Exhibit 10.2 to our Current Report on Form 8-K filed with the SEC on February 1, 2021).
10.44	Form of Warrant Exchange and Amendment Agreement, dated as of November 20, 2020, by and between Cancer Genetics, Inc. and the Holders (incorporated herein by reference to Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on November 20, 2020).
10.45	Form of Securities Purchase Agreement dated February 10, 2021 (incorporated herein by reference to Exhibit 10.1 to our Current Report on Form 8-K filed with the SEC on February 16, 2021).
10.46	Form of Engagement Agreement, dated September 18, 2020, as amended (incorporated herein by reference to Exhibit 10.2 to our Current Report on Form 8-K filed with the SEC on February 16, 2021).
21.1	Subsidiaries of Cancer Genetics, Inc. (incorporated by reference to Exhibit 21.1 to the Company's Annual Report on Form 10-K, filed with the Securities and Exchange Commission on April 16, 2019).
23.1*	Consent of Marcum LLP.
24.1	Power of attorney (included on the signature page).

Exhibit No.	Description
31.1*	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities and Exchange Act of 1934, as amended.
32.1**	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101*	The following financial statements from this annual report on Form 10-K of Cancer Genetics, Inc. for the year ended December 31, 2020, filed on March XX, 2021, formatted in XBRL (eXtensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations and Other Comprehensive Loss, (iii) the Consolidated Statements of Cash Flows, (iv) the Consolidated Statements of Stockholders' Equity and (v) the Notes to the Consolidated Financial Statements.

* Filed herewith.

** Furnished herewith.

† Indicates a management contract or compensation plan, contract or arrangement.

Schedules and exhibits have been omitted pursuant to Item 601(b)(2) of Regulation S-K. CGI hereby undertakes to furnish supplementally copies of any of the omitted schedules upon request by the SEC.

Exhibit 4.14

DESCRIPTION OF CANCER GENETICS INC.'S SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

As of December 31, 2020, Cancer Genetics, Inc. (the "Company") had one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended: our voting common stock, $.0001 par value per share.

DESCRIPTION OF CAPITAL STOCK

The following is a summary of information concerning capital stock of Cancer Genetics, Inc. ("us," "our," "we" or the "Company") and does not purport to be complete. The summary is subject to, and qualified in its entirety by reference to, Cancer Genetics, Inc.'s fourth amended and restated certificate of incorporation, as amended, amended and restated bylaws and the Delaware General Corporation Law (the "DGCL"). You are urged to read our fourth amended and restated certificate of incorporation, as amended, amended and restated bylaws and the applicable provisions of the DGCL for additional information.

General

Our fourth amended and restated certificate of incorporation authorizes us to issue up to 100,000,000 shares of common stock, par value $0.0001 per share, and 9,764,000 shares of preferred stock, par value $0.0001 per share. As of December 31, 2020, 4,135,303 shares of Common Stock, and no shares of our preferred stock, were outstanding. All outstanding shares of our common stock are fully paid and non-assessable.

Voting Rights. Holders of our common stock are entitled to one vote per share in the election of directors and on all other matters on which stockholders are entitled or permitted to vote. Holders of our common stock are not entitled to cumulative voting rights.

Dividend Rights. Subject to the terms of any outstanding series of preferred stock, the holders of our common stock are entitled to dividends in the amounts and at times as may be declared by the board of directors out of funds legally available therefor.

Liquidation Rights. Upon liquidation or dissolution, holders of our common stock are entitled to share ratably in all net assets available for distribution to stockholders after we have paid, or provided for payment of, all of our debts and liabilities, and after payment of any liquidation preferences to holders of our preferred stock.

Other Matters. Holders of our common stock have no redemption, conversion or preemptive rights. There are no sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to the rights of the holders of shares of any series of preferred stock that we may issue in the future.

Preferred Stock

Our board of directors has the authority to issue preferred stock in one or more classes or series and to fix the designations, powers, preferences and rights, and the qualifications, limitations or restrictions thereof, including dividend rights, conversion right, voting rights, terms of redemption, liquidation preferences and the number of shares constituting any class or series, without further vote or action by the stockholders. Although we have no present plans to issue any other shares of preferred stock, the issuance of shares of preferred stock, or the issuance of rights to purchase such shares, could decrease the amount of earnings and assets available for distribution to the holders of common stock, could adversely affect the rights and powers, including voting rights, of the common

stock, and could have the effect of delaying, deterring or preventing a change of control of us or an unsolicited acquisition proposal. The preferred stock may provide for an adjustment of the conversion price in the event of an issuance or deemed issuance at a price less than the applicable conversion price, subject to certain exceptions.

Anti-Takeover Effects of Delaware law and Our Certificate of Incorporation and Bylaws

The provisions of Delaware law, our certificate of incorporation and our bylaws described below may have the effect of delaying, deferring or discouraging another party from acquiring control of us.

Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines a "business combination" to include any merger or consolidation involving the corporation and the interested stockholder; any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder; subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or the receipt by the interested stockholder of the benefit of any loss, advances, guarantees, pledges or other financial benefits by or through the corporation.

Certificate of Incorporation and Bylaws

Our certificate of incorporation and bylaws provide that:

- the authorized number of directors can be changed only by resolution of our board of directors;
- our bylaws may be amended or repealed by our board of directors or our stockholders;
- no action can be taken by stockholders except at an annual or special meeting of the stockholders called in accordance with our bylaws, and stockholders may not act by written consent, unless the stockholders amend the certificate of incorporation to provide otherwise;
- stockholders may not call special meetings of the stockholders or fill vacancies on the board;

- our board of directors will be authorized to issue, without stockholder approval, preferred stock, the rights of which will be determined at the discretion of the board of directors and that, if issued, could operate as a "poison pill" to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that our board of directors does not approve;

- our stockholders do not have cumulative voting rights, and therefore our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors; and

- our stockholders must comply with advance notice provisions to bring business before or nominate directors for election at a stockholder meeting.

Potential Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may utilize these additional shares for a variety of corporate purposes, including future public offerings to raise additional capital, to facilitate corporate acquisitions or payment as a dividend on the capital stock.

The existence of unissued and unreserved common stock and preferred stock may enable our board of directors to issue shares to persons friendly to current management or to issue preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, the board of directors has the discretion to determine designations, rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences of each series of preferred stock, all to the fullest extent permissible under the Delaware General Corporation Law and subject to any limitations set forth in our certificate of incorporation. The purpose of authorizing the board of directors to issue preferred stock and to determine the rights and preferences applicable to such preferred stock is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing desirable flexibility in connection with possible financings, acquisitions and other corporate purposes, could have the effect of making it more difficult for a third-party to acquire, or could discourage a third-party from acquiring, a majority of our outstanding voting stock.

Exclusive Forum Charter Provision

Our certificate of incorporation requires that the Court of Chancery of the State of Delaware will, to the fullest extent permitted by applicable law, be the sole and exclusive forum for the following:

- any derivative action or proceeding brought on behalf of the Company;

- any action asserting a claim of breach of a fiduciary duty owed by, or other wrongdoing by, any director, officer, employee or agent of the Company to the Company or the Company's stockholders;

- any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law or the Company's certificate of incorporation or bylaws;

- any action to interpret, apply, enforce or determine the validity of the Company's certificate of incorporation or bylaws; or

- any action asserting a claim governed by the internal affairs doctrine, in each such case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein.

Because the applicability of the exclusive forum provision is limited to the extent permitted by applicable law, we do not intend that the exclusive forum provision would apply to suits brought to enforce any duty or liability created by the Securities Exchange Act of 1934, as amended, or any other claim for which the federal courts have

exclusive jurisdiction, and acknowledge that federal courts have concurrent jurisdiction over all suits brought to enforce any duty or liability created by the Securities Act. We note that there is uncertainty as to whether a court would enforce the provision and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Although we believe this provision benefits us by providing increased consistency in the application of Delaware law in the types of lawsuits to which it applies, the provision may have the effect of discouraging lawsuits against our directors and officers.

Transfer Agent

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company. Its address is 1 State Street, 30th Floor, New York, NY 10004.

NASDAQ Listing

Our common stock is traded on The Nasdaq Capital Market under the symbol "CGIX."

Exhibit 23.1

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM'S CONSENT

We consent to the incorporation by reference in the Registration Statement of Cancer Genetics, Inc. on Form S-8 (File Nos. 333-191520, 333-191521, 333-196198, 333-205903 and 333-214599) and on Form S-3 (File Nos. 333-252628, 333-239497 and 333-218229) and on Form S-1 (File No. 333-215284) of our report dated March 31, 2021, with respect to our audits of the consolidated financial statements of Cancer Genetics, Inc. as of December 31, 2020 and 2019 and for each of the two years in the period ended December 31, 2020, which report is included in this Annual Report on Form 10-K of Cancer Genetics, Inc. for the year ended December 31, 2020.

/s/ Marcum LLP

Marcum LLP
Houston, Texas
March 31, 2021

Exhibit 31.1

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, John A. Roberts certify that:

1. I have reviewed this annual report on Form 10-K of Cancer Genetics, Inc. (the "Registrant");

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;

4. I am responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:

a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under my supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to me by others within those entities, particularly during the period in which this report is being prepared;

b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under my supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c. evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report my conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d. disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and

5. I have disclosed, based on my most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):

a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and

b. any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: March 31, 2021

/s/ John A. Roberts

John A. Roberts
President and Chief Executive Officer
(Principal Executive, Financial and Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the annual report of Cancer Genetics, Inc. (the "Company") on Form 10-K for the year ended December 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, John A. Roberts, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 31, 2021

/s/ John A. Roberts

John A. Roberts
President and Chief Executive Officer
(*Principal Executive, Financial and Accounting Officer)*

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.