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

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended: December 31, 2018

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

Commission file number 001-35092

EXACT SCIENCES CORPORATION
(Exact name of registrant as specified in its charter)

DELAWARE (State or other jurisdiction of incorporation or organization)	**02-0478229** (IRS Employer Identification No.)
441 Charmany Drive, Madison, WI (Address of principal executive offices)	**53719** (Zip Code)

Registrant's telephone number, including area code: **(608) 284-5700**

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

Common Stock, $0.01 Par Value	**The NASDAQ Stock Market LLC**

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

None

Indicate by check mark 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 whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such report(s), 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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. (Check one):

Large accelerated filer ☒	Accelerated filer ☐	Non-accelerated filer ☐ (Do not check if a smaller reporting company)	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 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, as of the last business day of the Registrant's most recently completed second fiscal quarter was approximately $7,176,273,883 (based on the closing price of the Registrant's Common Stock on June 29, 2018 of $59.79 per share).

The number of shares outstanding of the Registrant's $0.01 par value Common Stock as of February 20, 2019 was 125,760,907.

DOCUMENT INCORPORATED BY REFERENCE

The registrant intends to file a definitive proxy statement pursuant to Regulation 14A within 120 days after the end of the fiscal year ended December 31, 2018. Portions of such proxy statement are incorporated by reference into Part III of this Form 10-K.

EXACT SCIENCES CORPORATION
ANNUAL REPORT ON FORM 10-K
YEAR ENDED DECEMBER 31, 2018

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PART I

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended, that are intended to be covered by the "safe harbor" created by those sections. Forward-looking statements, which are based on certain assumptions and describe our future plans, strategies and expectations, can generally be identified by the use of forward-looking terms such as "believe," "expect," "may," "will," "should," "would," "could," "seek," "intend," "plan," "goal," "project," "estimate," "anticipate" or other comparable terms. All statements other than statements of historical facts included in this Annual Report on Form 10-K regarding our strategies, prospects, financial condition, operations, costs, plans and objectives are forward-looking statements. Examples of forward-looking statements include, among others, statements we make regarding expected future operating results, anticipated results of our sales and marketing efforts, expectations concerning payer reimbursement and the anticipated results of our product development efforts. Forward-looking statements are neither historical facts nor assurances of future performance. Instead, they are based only on our current beliefs, expectations and assumptions regarding the future of our business, future plans and strategies, projections, anticipated events and trends, the economy and other future conditions. Because forward-looking statements relate to the future, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict and many of which are outside of our control. Our actual results and financial condition may differ materially from those indicated in the forward-looking statements. Therefore, you should not rely on any of these forward-looking statements. Important factors that could cause our actual results and financial condition to differ materially from those indicated in the forward-looking statements include, among others, the following: our ability to successfully and profitably market our products and services; the acceptance of our products and services by patients and healthcare providers; our ability to meet demand for our products and services; the willingness of health insurance companies and other payers to cover our products and services and adequately reimburse us for such products and services; the amount and nature of competition from other cancer screening and diagnostic products and services; the effects of the adoption, modification or repeal of any healthcare reform law, rule, order, interpretation or policy; the effects of changes in pricing, coverage and reimbursement for our products and services, including without limitation as a result of the Protecting Access to Medicare Act of 2014; recommendations, guidelines and quality metrics issued by various organizations such as the U.S. Preventive Services Task Force, the American Cancer Society, and the National Committee for Quality Assurance regarding cancer screening or our products and services; our ability to successfully develop new products and services; our ability to effectively utilize strategic partnerships, such as through our Promotion Agreement with Pfizer, Inc., and acquisitions; our success establishing and maintaining collaborative, licensing and supplier arrangements; our ability to maintain regulatory approvals and comply with applicable regulations; and the other risks and uncertainties described in the Risk Factors and in Management's Discussion and Analysis of Financial Condition and Results of Operations sections of this Annual Report on Form 10-K and our subsequently filed Quarterly Reports on Form 10-Q. We undertake no obligation to publicly update any forward-looking statement, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

Item 1. Busines s

Overview

Exact Sciences Corporation (together with its subsidiaries, "Exact," "we," "us," "our" or the "Company") is a molecular diagnostics company focused on the early detection and prevention of some of the deadliest forms of cancer. We have developed an accurate, non-invasive, patient-friendly screening test called Cologuard® for the early detection of colorectal cancer and pre-cancer, and we are currently working on the development of additional tests for other types of cancer, with the goal of becoming a leader in cancer screening and diagnostics.

Our Cologuard Test

Colorectal cancer is the second leading cause of cancer deaths in the United States ("U.S.") and the leading cause of cancer deaths in the U.S. among non-smokers. Each year in the U.S. there are approximately:

- 146,000 new cases of colorectal cancer
- 51,000 deaths from colorectal cancer

It is widely accepted that colorectal cancer is among the most preventable, yet least prevented cancers. Colorectal cancer can take up to 10-15 years to progress from a pre-cancerous lesion to metastatic cancer and death. Patients who are diagnosed early in the progression of the disease—with pre-cancerous lesions or polyps or early-stage cancer—are more likely to have a complete recovery and to be treated less expensively. Of the more than 85 million people between the ages of 50 and 85, who are at average-risk for colorectal cancer in the U.S., 38 percent have not been screened according to current guidelines. Internal studies have shown that approximately 50% of Cologuard users were previously unscreened for colorectal cancer. Poor compliance with screening guidelines has meant that nearly two-thirds of colorectal cancer diagnoses are made in the disease's late stages. The five-year survival rates for stages 3 and 4 are 70 percent and 13 percent, respectively. We believe the large underserved population of unscreened and inadequately screened patients represents a significant opportunity for a patient-friendly screening test.

Our Cologuard test is a non-invasive stool-based DNA ("sDNA") screening test that utilizes a multi-target approach to detect DNA and hemoglobin biomarkers associated with colorectal cancer and pre-cancer. Eleven biomarkers are targeted that have been shown to be strongly associated with colorectal cancer and pre-cancer. Methylation, mutation, and hemoglobin results are combined in the laboratory analysis through a proprietary algorithm to provide a single positive or negative reportable result.

Changes in DNA methylation, and the occurrence of mutations, alter gene expression and other mechanisms for cell cycle regulation and differentiation. As a result, the affected cells continue to proliferate, often resulting in malignancies associated with colorectal cancer and pre-cancer. Hemoglobin is the protein complex responsible for transporting oxygen in red blood cells. During the progression of cancer, the probability of bleeding into the colon increases. The presence of hemoglobin, released from red blood cells, can be detected in the stool. Using sDNA Cologuard purifies, amplifies and detects increased levels of methylation, and presence of mutations, in specific genes. By combining these DNA indicators with a test for hemoglobin, Cologuard produces a multi-marker result effective for the detection of colorectal cancer and pre-cancerous adenomas.

In August 2014 the U.S. Food and Drug Administration ("FDA") granted premarket approval ("PMA") to Cologuard for use as a colorectal cancer screening test in adults 50 years of age and older who are at average-risk for colorectal cancer. Upon approval, Cologuard became the first and only FDA-approved sDNA non-invasive colorectal cancer screening test. Our original PMA submission to the FDA for Cologuard included the results of our pivotal DeeP-C clinical trial that had over 10,000 patients enrolled at 90 sites in the U.S. and Canada. The results of our DeeP-C clinical trial for Cologuard were published in the New England Journal of Medicine in April 2014. The peer-reviewed study, "Multi-target Stool DNA Testing for Colorectal-Cancer Screening," highlighted the performance of Cologuard in the trial population:

- Cancer Sensitivity: 92%
- Stage I and II Cancer Sensitivity: 94%
- High-Grade Dysplasia Sensitivity: 69%
- Specificity: 87%

We believe the competitive advantages of sDNA screening may provide a significant market opportunity. There are 85 million people in the U.S. between the ages of 50-85 who are at average risk for colorectal cancer. At a three-year screening interval and an average revenue per test of $500 this represents a potential $14 billion market for Cologuard, of which our current share is approximately four percent.

Our Cologuard Commercialization Strategy

Our commercialization strategy includes three main elements focusing on physicians, patients, and payers.

Physicians and Patients

Our sales team actively engages with physicians and their staffs to emphasize the need for colorectal cancer screening, educate them on the value of Cologuard, and facilitate their ability to order the test. We focus on specific physicians based on a combination of Cologuard order history and ordering potential. We also focus on physician groups and larger regional and national health systems. We recently expanded our physician engagement and Cologuard marketing campaign through a Promotion Agreement ("Promotion Agreement") with Pfizer, Inc. ("Pfizer"). The Promotion Agreement is discussed in more detail below.

Securing inclusion in guidelines and quality measures is a key part of our physician engagement strategy since many physicians rely on such guidelines and quality measures when making screening recommendations. In June 2016, the U.S. Preventive Services Task Force ("USPSTF") issued an updated recommendation statement for colorectal cancer screening and gave an "A" grade to colorectal cancer screening starting at age 50 and continuing until age 75. The statement specifies seven screening methods, including FIT-DNA, and Cologuard is the only version of FIT-DNA available in the U.S.

Many professional colorectal cancer screening guidelines in the U.S., including those of the American Cancer Society ("ACS") and the National Comprehensive Cancer Network ("NCCN"), recommend regular screening using any of a variety of methods. Since 2008, joint colorectal cancer screening guidelines endorsed by the ACS have included sDNA screening technology as a screening option for the detection of colorectal cancer in average risk, asymptomatic individuals starting at age 50. In October 2014, the ACS updated its colorectal cancer screening guidelines to specifically include Cologuard as a recommended screening test and, as further discussed below, in May 2018 the ACS updated its colorectal cancer screening guidelines to recommend colorectal cancer screening begin at age 45 for people at average risk of the disease. In June 2016, the NCCN updated its Colorectal Cancer Screening Guidelines to add sDNA screening, at a once-every-three-years interval, to its list of recommended screening tests.

In May 2018, the ACS updated its guidelines to recommend colorectal cancer screening beginning at age 45, rather than 50, for people at average risk of the disease due to the rising incidence rate within the 45-49 year-old population. There are 21 million people who are within the ages of 45-49, and we estimate approximately 19 million of them are at average risk for colorectal cancer and eligible for screening. Cologuard is currently indicated for average risk individuals age 50 years or older. We intend to seek FDA approval to expand Cologuard's indication to people age 45 or older who are at average risk for colorectal cancer to align with the ASC updated guideline. We cannot be certain that FDA will grant such approval, or, if it does, when. Further, even if FDA does approve a label expansion, we cannot be certain that healthcare providers will prescribe, patients will use, or payers will reimburse Cologuard in the 45-49 age population.

In October 2016, the National Committee for Quality Assurance ("NCQA") included sDNA testing on a three-year interval as one of the methods permitted for colorectal cancer screening in the 2017 Healthcare Effectiveness Data and Information Set ("HEDIS") quality measures. More than 90 percent of America's health plans measure quality based on HEDIS. In April 2017, the Centers for Medicare & Medicaid Services ("CMS") included Cologuard in its updated 2018 Medicare Advantage Star Ratings program.

A critical part of the value proposition of Cologuard is its compliance program, which involves active engagement with patients and providers. This customer-oriented support activity is focused on encouraging and helping patients to complete Cologuard tests that have been ordered for them by their providers. We may undertake several activities to promote patient compliance including letters, text messages, emails, phone calls, and incentives such as gift cards.

After the launch of Cologuard, we initiated a significant public relations effort to engage patients in the U.S., and

launched demographically-targeted direct-to-patient advertising campaigns in digital, social, print, and other channels. In 2016, we began a national television advertising campaign, with a majority of placements in national cable and syndicated programming widely viewed by our target patient demographic. In the second quarter of 2018, we extended our television advertising campaign to highlight the accuracy, ease of use, and commercial coverage of Cologuard. In 2019 we plan to increase our television advertising efforts, accelerate our investment in digital and social media, and embark upon other marketing initiatives designed to increase awareness of Cologuard.

We are focused on strengthening our Cologuard core business by increasing the size of our nationwide salesforce. We advanced this goal in August 2018 by entering into a Promotion Agreement with Pfizer. Under the terms of the Promotion Agreement, Pfizer will promote Cologuard and provide certain sales, marketing, analytical and other commercial operations support services. We and Pfizer committed in the Promotion Agreement to invest specified amounts in the advertising and promotion of Cologuard. We agreed to pay Pfizer a service fee based on incremental gross profits over specified baselines and pay Pfizer royalties for Cologuard related revenues for a specified period after the expiration or termination of the Promotion Agreement. The initial term of the Promotion Agreement runs through December 31, 2021, but may be terminated by either party at any time on or after February 21, 2020 upon six months' written notice to the other party.

Payers

Successful commercialization of our Cologuard test depends, in large part, on adequate reimbursement from government insurance plans, managed care organizations and private insurance plans.

In October 2014, CMS issued a National Coverage Determination ("NCD") for Cologuard following a parallel review process with the FDA. Medicare covers approximately half of patients in the current screening population for Cologuard. Cologuard was the first screening test approved by the FDA and covered by CMS through a parallel process. As outlined in the NCD, Medicare Part B covers Cologuard once every three years for beneficiaries who meet all of the following criteria:

- age 50 to 85 years,
- asymptomatic (no signs or symptoms of colorectal disease including, but not limited to, lower gastrointestinal pain, blood in stool, positive guaiac fecal occult blood test or fecal immunochemical test), and
- at average risk for developing colorectal cancer (e.g., no personal history of adenomatous polyps, colorectal cancer, or inflammatory bowel disease, including Crohn's Disease and ulcerative colitis; no family history of colorectal cancers or adenomatous polyps, familial adenomatous polyposis or hereditary non-polyposis colorectal cancer).

The Clinical Laboratory Fee Schedule ("CLFS") for both 2018 and 2019 set the CMS reimbursement rate for Cologuard at $508.87. Under the Protecting Access to Medicare Act of 2014 ("PAMA"), payment rates for clinical diagnostic laboratory tests are calculated based on the volume-weighted median of private payer rates for each clinical diagnostic laboratory test based on data submitted by certain applicable laboratories. The current CMS reimbursement rate was set based on the volume-weighted median of private payer rates for Cologuard for the period from January 1, 2016 to June 30, 2016. Based on current PAMA regulations, we expect that the current CMS reimbursement rate for Cologuard will remain in place until January 2021, and then will be reset based on the volume-weighted median of private payer rates for Cologuard during the data collection period from January 1, 2019 to June 30, 2019.

Pursuant to the Budget Control Act of 2011, Medicare payments, including Medicare's $508.87 reimbursement for Cologuard, became subject to a payment reduction of up to 2% due to implementation of the automatic expense reductions (i.e., a sequestration). The reduction is made to the total claims paid to plans and providers. Sequestration does not, however, rebase or re-establish the Medicare or Medicaid reimbursement rates.

In addition to Medicare reimbursement, we seek to secure favorable coverage and in-network reimbursement agreements from commercial payers. Most commercial payers have issued positive coverage decisions for Cologuard, and we have entered into contracts with several payers to include Cologuard as an in-network service. In-network agreements with payers have varying terms and conditions, including reimbursement rate, term and termination. From time to time in the ordinary course of our business, we may enter into new agreements, certain existing agreements may expire without renewal and certain other existing agreements may be terminated early by us or the third-party payer. We

believe that commercial payers' reimbursement of Cologuard will depend on a number of factors, including payers' determination that it is: sensitive and specific for colorectal cancer; not experimental or investigational; approved or recommended by major organizations' guidelines; reliable, safe and effective; medically necessary; appropriate for the specific patient; and cost-effective. Reimbursement may also be affected by whether Cologuard is in-network for a given payer. Also, some payers may apply various medical management requirements, including a requirement that they give prior authorization for a Cologuard test before they are willing to pay for it. Other payers may perform post-payment reviews or audits, which could lead to payment recoupments. Medical management, such as prior authorizations and post-payment review or audits, may require that we, patients, or physicians provide the payer with extensive medical records and other information.

Coverage of Cologuard may also depend, in whole or in part, on whether payers determine, or courts and/or regulatory authorities determine, coverage is required under applicable federal or state laws mandating coverage of certain colorectal cancer screening services. For example, Section 2713 of the Patient Protection and Affordable Care Act ("ACA") mandates that certain health insurers cover evidence-based items or services that have in effect a rating of "A" or "B" in the current recommendations of USPSTF without imposing any patient cost-sharing ("ACA Mandate"). Similarly, federal regulations require that Medicare Advantage plans cover "A" or "B" rated preventive services without patient cost-sharing. Following the June 2016 update to the USPSTF colorectal cancer screening recommendation statement, CMS issued an updated Evidence of Coverage notice for Medicare Advantage plans that affirms such plans must include coverage of Cologuard every three years without patient cost-sharing. While we believe the ACA Mandate will require most health insurers to cover Cologuard without patient cost-sharing certain health insurers have disagreed and determined not to cover Cologuard and others may take that position in the future. It may be difficult for us or patients to enforce the ACA Mandate directly, and we may need to rely on states to take enforcement action, which they may choose not to do.

It is also possible that the ACA Mandate will be repealed , overturned or significantly modified in the future. Congress may modify or repeal all or part of the ACA, and any such modification or repeal may repeal or limit the ACA Mandate for preventive services. Additionally, t he ACA has been the subject of various legal challenges, which, if ultimately successful, could overturn the ACA Mandate. In December 2018, a federal district court in Texas held that the ACA is unconstitutional and unenforceable. The court's decision is subject to appeal.

Similarly, we believe the laws of approximately 30 states currently mandate coverage of Cologuard by certain health insurance plans. While some insurers have agreed with our interpretation regarding certain state mandates, other insurers have disagreed. In some cases, we have filed lawsuits in an effort to enforce state laws we believe require coverage of Cologuard, and we may file additional suits in the future. We may or may not be successful in any such lawsuit.

We are pursuing a variety of strategies to maximize commercial payer coverage for Cologuard, including providing cost effectiveness data to payers to make the case for Cologuard reimbursement. We are focusing our efforts on large national and regional insurers and health plans that have affiliated health systems.

We believe quality metrics may influence payers' coverage and contracting decisions, as well as physicians' cancer screening procedures. Some government and private payers are adopting pay-for-performance programs that differentiate payments for healthcare services based on the achievement of documented quality metrics, cost efficiencies or patient outcomes. Payers may look to quality measures, such as HEDIS and CMS Star Ratings, to assess quality of care. We believe Cologuard's inclusion in the HEDIS measures and Star Ratings measures positively impacts payers' willingness to reimburse Cologuard, as well as on healthcare providers' willingness to prescribe the test.

Our Clinical Laboratory and Manufacturing Facilities

As part of our commercialization strategy, we established a state-of-the-art, highly automated lab facility that is certified pursuant to federal Clinical Laboratory Improvement Amendments ("CLIA") requirements to process Cologuard tests and provide patient results. Our commercial lab operation is housed in a 55,000 square foot facility in Madison, Wisconsin. At our lab, we currently have the capacity to process approximately three million tests per year.

During the fourth quarter of 2017 we began construction of a new clinical lab facility in Madison, Wisconsin that is expected to be completed mid-2019. After the new clinical laboratory is operational, we expect our total lab capacity at both facilities will be approximately seven million tests per year by the end of 2019.

We currently manufacture the Cologuard test in a facility in Madison, Wisconsin. As we expand the commercialization of Cologuard, we believe it will be necessary to expand our manufacturing capacity. Accordingly, w e are in the process of building an additional manufacturing facility which we expect to complete in 2019. We are committed to manufacturing and providing medical devices and related products that meet customer expectations and applicable regulatory requirements. We adhere to manufacturing and safety standards required by federal, state, and local laws and regulations and operate our manufacturing facilities under a quality management system. We purchase certain components for our Cologuard test from third-party suppliers and manufacturers.

Future Product Opportunities

Enhance Cologuard

In May 2018, the ACS updated its guidelines to recommend colorectal cancer screening beginning at age 45, rather than 50, for people at average risk of the disease due to the rising incidence rate within the 45-49 year-old population. There are nearly 21 million people who are between the ages of 45-49, and we estimate approximately 19 million of them are at average risk for colorectal cancer and would be eligible for screening under the ACS guidelines. We plan to conduct clinical and other necessary work to gain FDA approval to expand Cologuard's indication to people between the ages of 45 and 49 who are at average risk for colorectal cancer.

In addition, we are seeking opportunities to improve upon Cologuard's performance characteristics. For example, we are evaluating whether new biomarkers would increase specificity while maintaining sensitivity. If we could increase the specificity of Cologuard, we believe that would enhance its adoption as a front-line screening test. We are also evaluating ways that we might make Cologuard even easier for patients to use and opportunities for lowering the cost of providing Cologuard.

The timing of any expansion of Cologuard's indication or of any such enhancements to Cologuard is unknown and would be subject to FDA approval.

Advance Liquid Biopsy

We also are focusing our research and development efforts on building a pipeline of potential future products and services with a focus on blood-based ("liquid biopsy") tests. We will continue to advance liquid biopsy through biomarker discovery and validation in tissue and blood. We have identified proprietary biomarkers for several cancers, including liver cancer and lung cancer. We have successfully performed validation studies on tissue samples for thirteen cancers and on blood samples for eight cancers.

The ACS estimates that liver cancer will be diagnosed in 42,000 Americans and cause 32,000 deaths in 2019, three-fourths of which will be hepatocellular carcinoma ("HCC"). Incidence and mortality rates are both increasing at approximately 3 percent per year. People who have been diagnosed with cirrhosis of the liver or Hepatitis B are at high risk of developing HCC. Evidence shows that HCC testing in these high-risk groups leads to earlier detection and improved outcomes. The NCCN and American Association for the Study of Liver Diseases ("AASLD") guidelines recommend that these two groups be tested for HCC every six months using ultrasound and the blood-based biomarker alpha-fetoprotein ("AFP"). However, ultrasound and AFP are documented to have poor sensitivity for early stage cancer, which is the primary target of testing. We are currently seeking to develop a blood-based biomarker test to serve as an alternative to ultrasound and AFP for use in HCC testing, and our goal is to develop a patient-friendly test that performs better than this current standard of care. We are currently enrolling a case control study of at least 1,500 patients to finalize the development of our liver cancer test.

The ACS estimates that, in the U.S. in 2019, lung cancer will be diagnosed in 228,000 people and cause 143,000 deaths. Currently, more than half of lung cancer cases are diagnosed at an advanced stage, after symptoms appear, when the five-year survival rate is in the low single digits. We are currently seeking to develop a blood-based biomarker test to aid in the early detection of lung cancer in individuals with lung nodules discovered through a computerized tomography ("CT")

or other scan. Such a test may help reduce the number of follow-up procedures, and thereby reduce costs and improve health outcomes.

Research and Development

Research and development costs account for a material portion of our operating expenses. As we seek to enhance Cologuard and expand our product pipeline by developing additional cancer screening and diagnostic tests, we expect that our research and development expenditures will continue to increase.

Competition

The U.S. market for colorectal cancer and pre-cancer screening is large, consisting of more than 85 million individuals between the ages of 50 and 85. If the screening population includes 45-49 year olds, as recommended by the ACS, the colorectal cancer screening market would increase by approximately 19 million people to approximately 104 million people. Given the large market for colorectal cancer screening, we face numerous competitors, some of which possess significantly greater financial and other resources and development capabilities than us. Our Cologuard test faces competition from procedure-based detection technologies such as colonoscopy, flexible sigmoidoscopy, and "virtual" colonoscopy, a radiological imaging approach that visualizes the inside of the bowel by CT scan (spiral computerized axial tomography), as well as other common screening tests, such as the fecal occult blood test ("FOBT") and the fecal immunochemical test ("FIT"), and newer screening technologies such as pill-based imaging solutions like PillCam COLON, cleared by the FDA in February 2014, and C-Scan, which obtained a CE Mark in early 2019. Our competitors may also be developing additional methods of detecting colorectal cancer and pre-cancer that have not yet been announced.

In addition, some companies and institutions are developing liquid biopsy tests based on the detection of proteins, tumor cells, nucleic acids, epigenetic markers, or other biomarkers in the blood. These tests could represent significant competition for Cologuard and other tests we may develop. We are aware of at least 13 companies—Epigenomics AG, EDP Biotech Corporation, Freenome Inc., GRAIL, Inc., CellMax, Inc., Volition Diagnostics, Cambridge Epigenetix Limited, Nucleix Ltd., Singlera Genomics, DiaCarta, Genomictree, Bioprognos, and PapGene, Inc. — that have developed, or are developing, liquid biopsy tests for the detection of colorectal cancer. Epigenomics AG received FDA approval for its liquid biopsy screening test for colorectal cancer, Epi proColon, in April 2016, and began offering the test commercially in May 2016. We also are aware of at least two companies, DiaTech and Geneoscopy, that have launched outside the U.S., or are seeking to develop, stool-based colorectal cancer tests based on the detection of nucleic acids.

We believe other companies are also working on liquid biopsy tests using next-generation sequencing or other technologies, and these tests could represent significant competition for Cologuard and other tests we may develop.

Notwithstanding that the market for colorectal cancer screening is highly competitive, we believe that Cologuard, as the first and only sDNA-based non-invasive colorectal cancer screening test on the market today, compares favorably to other available products and services. All other colorectal cancer detection methods in use today are constrained by some combination of poor sensitivity, poor compliance, and high cost. For example, colonoscopy requires advance dietary restrictions and bowel cleansing and can be uncomfortable, time-consuming, hazardous, and expensive. Colonoscopy requires sedation, potential lost time from work, and someone to drive the patient home from the procedure. A 2010 study shows that seven out of 10 people age 50 and older who were told they should get a colonoscopy did not do so primarily due to fears. Fecal blood testing, including FIT testing, suffers from poor sensitivity, with only a 74 percent detection rate for cancer and 24 percent detection rate for pre-cancers. The blood-based DNA tests currently available are also disadvantaged by relatively low sensitivity. Epigenomics AG has reported that the Epi proColon test has an overall cancer sensitivity rate of 68 percent, and only 59 percent for early-stage cancer. Additionally, FIT testing suffers from low adherence over time. One study published in the American Journal of Managed Care demonstrated that only three out of every 1,000 patients studied adhered to fecal test screening guidelines during a continuous 10-year observation period.

Beyond our Cologuard test, as we seek to develop other tests to detect cancer and pre-cancer, we expect to compete with a broad range of organizations in the U.S. and other countries that are engaged in the development, production and commercialization of cancer screening and diagnostic products and services. These competitors include:

- biotechnology, diagnostic and other life science companies;
- academic and scientific institutions;
- governmental agencies; and
- public and private research organizations.

We may be unable to compete effectively against our competitors either because their products and services are superior or because they may have more expertise, experience, financial resources, or stronger business relationships. These competitors may have broader product lines and greater name recognition than we do. We have limited experience developing tests for detecting non-colorectal cancers and cannot guarantee that our research and development activities will be successful in developing any marketable testing products or services. Furthermore, even if we do develop new marketable products or services, our current and future competitors may develop products and services that are more commercially attractive than ours, and they may bring those products and services to market earlier or more effectively than us.

Seasonality

We are in the early stages of Cologuard's commercialization and are continuing to learn how seasonal factors may affect our business. Based on our experience to date, we expect some seasonal variations in our financial results due to a variety of factors, such as the year-end holiday period and other major holidays, vacation patterns of both patients and physicians, climate and weather conditions in our markets , seasonal conditions that may affect medical practices and provider activity, including for example influenza outbreaks that may reduce the percentage of patients that can be seen for preventive care such as colorectal cancer screening, and other factors relating to the timing of patient deductibles and co-insurance limits.

Government Regulation

Certain of our activities are subject to regulatory oversight by the FDA under provisions of the Federal Food, Drug, and Cosmetic Act ("FDCA") and regulations thereunder, including regulations governing the development, marketing, labeling, promotion, manufacturing, distribution, and export of diagnostic products. Our clinical laboratory facilities are subject to oversight by CMS pursuant to CLIA, as well as agencies in various states, including New York. We are subject to many other federal and state laws, including anti-fraud and abuse, anti-kickback and patient privacy. Failure to comply with applicable requirements can lead to sanctions, including withdrawal of products from the market, recalls, refusal to authorize government contracts, product seizures, exclusion from participation in federal and state healthcare programs, civil money penalties, injunctions, and criminal prosecution.

U.S. Food and Drug Administration

The FDA granted premarket approval ("PMA") for Cologuard in August 2014. Devices subject to FDA regulation must undergo premarket review prior to commercialization unless the device is exempt from such review. The regulations governing Cologuard's approval place substantial restrictions on how Cologuard is marketed and sold, specifically, by prescription only. In addition, as a condition of our FDA approval, we are required to conduct a post-approval study. A final report on this study is due to FDA in 2020. There can be no assurance that the results of this study will be satisfactory and will not cause the FDA to modify or withdraw our approval for Cologuard.

Additionally, manufacturers of medical devices must comply with various regulatory requirements under the FDCA and regulations thereunder, including, but not limited to, quality system regulations, unless they are exempt, facility registration, product listing, labeling requirements, and certain post-market surveillance requirements. Entities that fail to comply with FDA requirements can be liable for criminal or civil penalties, such as recalls, detentions, orders to cease manufacturing, and restrictions on labeling and promotion, among other potential sanctions. In 2017, we recalled one of the components of our Cologuard test kit and circumstances may arise that cause us to recall other products or components used in connection with our Cologuard test.

We may develop new diagnostic products and services that are regulated by the FDA as medical devices. The regulatory review and approval process for medical devices can be costly, timely, and uncertain. This process may involve, among other things, successfully completing additional clinical trials and submitting a premarket clearance notice or filing a premarket approval application with the FDA. If premarket review is required by the FDA, there can be no assurance that our tests will be cleared or approved on a timely basis, if at all. In addition, there can be no assurance

that the labeling claims cleared or approved by the FDA will be consistent with our current claims or adequate to support continued adoption of and reimbursement for our products. Ongoing compliance with FDA regulations could increase the cost of conducting our business, subject us to FDA inspections and other regulatory actions, and potentially subject us to penalties in the event we fail to comply with such requirements.

We may also develop diagnostic products or services that, under today's laws, would be regulated as laboratory developed tests ("LDTs") under CLIA. However, as noted below, the regulation of LDTs may be in flux, as the FDA retracted a proposal for increased LDT oversight in January 2017 and continues to apply enforcement discretion.

Laboratory Developed Tests ("LDTs")

LDTs are clinical laboratory tests that are developed and validated by a laboratory for its own use. Historically, LDTs have been regulated under CLIA while the FDA has exercised enforcement discretion and not required approvals or clearances for many LDTs performed by CLIA-certified laboratories. The FDA has traditionally chosen not to exercise its authority to regulate LDTs because LDTs were limited in number, were relatively simple tests, and were typically used to diagnose rare disease and uncommon conditions.

In October 2014, the FDA published two draft guidance documents describing a proposed risk-based framework under which the FDA might regulate LDTs. The FDA's draft framework proposed, among other things, premarket review for higher-risk LDTs, such as those that have the same intended use as FDA-approved or cleared diagnostics currently on the market. In November 2015, the FDA issued a report citing evidence for the need for additional regulation of LDTs and stated the FDA is continuing to work to finalize premarket review requirements for LDTs. However, in November 2016 the FDA announced it would not issue a final guidance for LDTs. In January 2017, the FDA issued a Discussion Paper on LDTs, which confirmed it would not finalize its guidance on the regulation of LDTs to allow more time for public discussion and time for the congressional authorizing committees to develop a legislative solution. It is unclear at this time if or when the FDA end enforcement discretion for LDTs. It is also unclear whether the FDA may decide to regulate certain LDTs on a case-by-case basis at any time. Action by the FDA to exercise enforcement discretion over LDTs, may materially impact our development and commercialization of LDTs.

Laboratory Certification, Accreditation and Licensing

We are also subject to U.S. and state laws and regulations regarding the operation of clinical laboratories. CLIA requirements and laws of certain states, including those of California, New York, Maryland, Pennsylvania, Rhode Island and Florida, impose certification requirements for clinical laboratories, and establish standards for quality assurance and quality control, among other things. CLIA provides that a state may adopt different or more stringent regulations than federal law and permits states to apply for exemption from CLIA if the state's laboratory laws are equivalent to, or more stringent than, CLIA. For example, the State of New York's clinical laboratory regulations, which have received an exemption from CLIA, contain provisions that are in certain respects more stringent than federal law. Therefore, as long as New York maintains a licensure program that is CLIA-exempt, we will need to comply with New York's clinical laboratory regulations in order to offer our clinical laboratory products and services in New York.

We have current certificates to perform clinical laboratory testing. Clinical laboratories are subject to inspection by regulators and to sanctions for failing to comply with applicable requirements. Sanctions available under CLIA and certain state laws include prohibiting a laboratory from running tests, requiring a laboratory to implement a corrective plan, and imposing civil monetary penalties. If we fail to meet any applicable requirements of CLIA or state law, that failure could adversely affect any future CMS consideration of our technologies, prevent their approval entirely, and/or interrupt the commercial sale of any products and services and otherwise cause us to incur significant expense.

HIPAA and Other Privacy Laws

The Health Insurance Portability and Accountability Act of 1996, as amended by the Health Information Technology for Economic and Clinical Health Act ("HIPAA") established comprehensive protection for the privacy and security of health information. The HIPAA standards apply to three types of organizations, or "Covered Entities": health plans, healthcare clearinghouses, and healthcare providers that conduct certain healthcare transactions electronically. Covered Entities and their business associates must have in place administrative, physical, and technical standards to guard against the misuse of individually identifiable health information. We perform activities that may implicate HIPAA, such as providing clinical laboratory testing services and entering into specific kinds of relationships with

Covered Entities and business associates of Covered Entities. Penalties for violations of HIPAA include civil money and criminal penalties.

Our activities must also comply with other applicable privacy laws, which impose restrictions on the access, use and disclosure of personal information. More state and international privacy laws are being adopted. Many state laws are not preempted by HIPAA because they are more stringent or are broader in scope than HIPAA. Beginning in 2020 we will also need to comply with the California Consumer Privacy Act of 2018, which protects personal information other than health information covered by HIPAA. In the E.U., the General Data Protection Regulation ("GDPR") took effect in May 2018 and imposes increasingly stringent data protection and privacy rules. All of these laws may impact our business and may change periodically, which could have an effect on our business operations if compliance becomes substantially costlier than under current requirements. Our failure to comply with these privacy laws or significant changes in the laws restricting our ability to obtain stool, blood and other patient samples and associated patient information could significantly impact our business and our future business plans.

Federal and State Billing and Fraud and Abuse Laws

Antifraud Laws/Overpayments. We are subject to numerous federal and state antifraud and abuse laws, including the Federal False Claims Act. Many of these antifraud laws are broad in scope, and neither the courts nor government agencies have extensively interpreted these laws. Prohibitions under some of these laws include:

- the submission of false claims or false information to government programs;
- the retention of any overpayments by governmental payers;
- deceptive or fraudulent conduct;
- excessive or unnecessary services or services at excessive prices; and
- defrauding private sector health insurers.

We may be subject to substantial penalties for violations of anti-fraud and abuse laws, including denial of payment and refunds or recoupments, suspension of payments from Medicare, Medicaid or other federal healthcare programs, and exclusion from participation in federal and state healthcare programs, as well as civil monetary and criminal penalties and imprisonment. Numerous federal and state agencies enforce the antifraud and abuse laws. In addition, private insurers may also bring private actions. In some circumstances, private whistleblowers are authorized to bring fraud suits on behalf of the government against providers and are entitled to receive a portion of any final recovery.

In addition, amendments to the False Claims Act impose severe penalties for the knowing and improper retention of overpayments collected from governmental payers. Within 60 days of identifying and quantifying an overpayment, a provider is required to notify CMS or the Medicare contractor of the overpayment and the reason for it and return the overpayment. These amendments could subject our procedures for identifying and processing payments to greater scrutiny. Overpayments may occur from time to time in the healthcare industry without any fraudulent intent. For example, overpayments may result from mistakes in reimbursement claim forms or from improper processing by governmental payers. We maintain protocols intended to identify any overpayments. From time to time we may identify overpayments and be required to refund those amounts to government payers.

To avoid liability, we must carefully and accurately code claims for reimbursement, proactively monitor the accuracy and appropriateness of Medicare claims and payments received, diligently investigate any credible information indicating that we may have received an overpayment, and promptly return any overpayments.

Federal and State "Self-Referral" and "Anti-Kickback" Restrictions

If we or our operations are found to be in violation of applicable laws and regulations prohibiting improper referrals for healthcare services or products, we may be subject to penalties, including civil and criminal penalties, damages, fines, exclusion from participation in U.S. federal or state healthcare programs, and the curtailment or restructuring of our operations.

Anti-Kickback Statute. The federal Anti-Kickback Statute prohibits persons from knowingly and willfully soliciting, receiving, offering or paying remuneration, directly or indirectly, to induce either the referral of an individual, or the furnishing, recommending, or arranging for a good or service, for which payment may be made under a federal healthcare program, such as the Medicare and Medicaid programs, unless an exception applies. The term "remuneration"

is not defined in the federal Anti-Kickback Statute and has been broadly interpreted to include anything of value, including for example, gifts, discounts, the furnishing of supplies or equipment, credit arrangements, payments of cash, waivers of payment, ownership interests and providing anything at less than its fair market value. Sanctions for violations of the federal Anti-Kickback Statute may include imprisonment and other criminal penalties, civil monetary penalties and exclusion from participation in federal healthcare programs. Many states have also adopted laws similar to the federal Anti-Kickback Statute, some of which apply to the referral of patients for healthcare items or services reimbursed by any source, not only the Medicare and Medicaid programs, and do not contain identical safe harbors.

Self-Referral Law. The federal "self-referral" law, commonly referred to as the "Stark" law, provides that physicians who, personally or through a family member, have ownership interests in or compensation arrangements with a laboratory are prohibited from making a referral to that laboratory for laboratory tests reimbursable by Medicare, and also prohibits laboratories from submitting a claim for Medicare payments for laboratory tests referred by physicians who, personally or through a family member, have ownership interests in or compensation arrangements with the testing laboratory. The Stark law contains a number of specific exceptions which, if met, permit physicians who have ownership or compensation arrangements with a testing laboratory to make referrals to that laboratory and permit the laboratory to submit claims for Medicare payments for laboratory tests performed pursuant to such referrals. We are subject to comparable state laws, some of which apply to all payers regardless of source of payment, and do not contain identical exceptions to the Stark law.

Any action against us for violation of these or similar foreign laws, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business.

Sunshine Act

In 2010, Congress enacted a statute commonly known as the Sunshine Act, which aims to promote transparency. The Sunshine Act requires manufacturers of drugs, devices, biologicals and medical supplies covered by Medicare, Medicaid or the Children's Health Insurance Program, or CHIP, to report annually to CMS any payments or other transfers of value made to physicians and teaching hospitals, unless an exception applies. Manufacturers must also disclose to CMS any physician ownership or investment interests. Some states have similar transparency laws. Our failure to comply with any applicable transparency reporting requirements may subject us to substantial penalties.

Other Laws

Occupational Safety and Health. In addition to its comprehensive regulation of health and safety in the workplace in general, the Occupational Safety and Health Administration has established extensive requirements aimed specifically at laboratories and other healthcare-related facilities. In addition, because our operations require employees to use certain hazardous chemicals, we also must comply with regulations on hazard communication and hazardous chemicals in laboratories. These regulations require us, among other things, to develop written programs and plans, which must address methods for preventing and mitigating employee exposure, the use of personal protective equipment, and training.

Specimen Transportation. Our commercialization activities for Cologuard subject us to regulations of the Department of Transportation, the United States Postal Service, and the Centers for Disease Control and Prevention that apply to the surface and air transportation of clinical laboratory specimens.

Environmental . The cost of compliance with federal, state and local provisions related to the protection of the environment has had no material effect on our business. There were no material capital expenditures for environmental control facilities in the year ended December 31, 2018, and there are no material expenditures planned for such purposes for the year ended December 31, 2019.

Intellectual Property

We have intellectual property rights pertaining to sample type, sample preparation, sample preservation, biomarkers, and related methods and formulations.

Our success depends to a significant degree upon our ability to protect our technologies through patent coverage. As of December 31, 2018, we owned 43 issued patents and 42 pending patent applications in the United States, and 87 issued patents and 67 pending patent applications in foreign jurisdictions.

As further described in the " *License Agreements"* section below, we acquired certain patents related to Cologuard from MDxHealth ("MDx") on April 25, 2017 as part of a royalty buy-out agreement and patent purchase agreement.

In December 2017, we entered into an asset purchase agreement (the "Armune Purchase Agreement") with Armune BioScience, Inc. ("Armune"), pursuant to which we acquired intellectual property and certain other assets underlying Armune's APIFINY®, APIFINY® PRO and APIFINY® ACTIVE SURVEILLANCE prostate cancer diagnostic tests. The portfolio of Armune assets we acquired is expected to complement our product pipeline. The total consideration was comprised of an up-front cash payment of $12.0 million and $17.5 million in contingent payment obligations that will become payable upon our achievement of development and commercial milestones using the acquired intellectual property. In connection with the Armune Purchase Agreement, Armune terminated a license agreement pursuant to which it licensed certain patent rights and know-how from the Regents of the University of Michigan ("University of Michigan"), and we entered into a license agreement with the University of Michigan with respect to such patent rights and know-how, as well as certain additional intellectual property rights. Pursuant to our agreement with the University of Michigan, we are required to pay the University of Michigan a low single-digit royalty on our net sales of products using the licensed intellectual property.

Each of our patents generally has a term of 20 years from its respective priority filing date. Of our issued patents referenced above, the earliest is set to expire in 2020 and the last of these will expire in 2035.

License Agreements

We license certain technologies that are, or may be, incorporated into our technology under several license agreements. Generally, the license agreements require us to pay royalties based on certain net revenues received, and may require minimum royalty amounts, milestone payments, and maintenance fees.

Mayo

In June 2009, we entered into a license agreement with Mayo Foundation for Medical Education and Research ("Mayo"). Our license agreement with Mayo was amended and restated in February 2015 and further amended in January 2016, October 2017, and in December 2018. Under the license agreement, Mayo granted us an exclusive, worldwide license to certain Mayo patents and patent applications, as well as a non-exclusive, worldwide license with regard to certain Mayo know-how. The scope of the license covers any screening, surveillance or diagnostic tests or tools for use in connection with any type of cancer, pre-cancer, disease or condition.

The licensed Mayo patents and patent applications contain both method and composition claims that relate to sample processing, analytical testing, and data analysis associated with nucleic acid screening for cancers and other diseases. The jurisdictions covered by these patents and patent applications include the U.S., Australia, Canada, the European Union, China, Japan, and Korea. Under the license agreement, we assumed the obligation and expense of prosecuting and maintaining the licensed Mayo patents and are obligated to make commercially reasonable efforts to bring to market products using the licensed Mayo intellectual property.

Mayo has agreed to make available personnel through January 2020 to provide us product development and research and development assistance.

Pursuant to our agreement with Mayo, we are required to pay Mayo a low single-digit royalty on our net sales of products using the licensed Mayo intellectual property, with minimum annual royalty fees of $25,000 each year during the term of the Mayo agreement. The January 2016 amendment to the Mayo license agreement established various low single-digit royalty rates on net sales of current and future products and clarified how net sales will be calculated . As part of the January 2016 and October 2017 amendments, the royalty rate on our net sales of Cologuard increased, but the rate remained a low single-digit percentage of net sales.

In addition to the royalty rates described above, we are also required to pay Mayo cash of $0.2 million, $0.8 million and $2.0 million upon each product using the licensed Mayo intellectual property reaching $5.0 million, $20.0 million and $50.0 million in cumulative net sales, respectively.

As part of the February 2015 amendment and restatement of the license agreement, we agreed to pay Mayo an additional $5.0 million, payable in five annual installments, through 2019.

The license agreement will remain in effect, unless earlier terminated by the parties in accordance with the agreement, until the last of the licensed patents expires in 2033 (or later, if certain licensed patent applications are issued). However, if we are still using the licensed Mayo know-how or certain Mayo-provided biological specimens or their derivatives on such expiration date, the term shall continue until the earlier of the date we stop using such know-how and materials and the date that is five years after the last of the licensed patents expires. The license agreement contains customary termination provisions and permits Mayo to terminate the license agreement if we sue Mayo or its affiliates, other than any such suit claiming an uncured material breach by Mayo of the license agreement.

Hologic

In October 2009, we entered into a technology license agreement with Hologic, Inc. ("Hologic"). Under the license agreement, Hologic granted us an exclusive, worldwide license within the field of human stool based colorectal cancer and pre-cancer detection or identification with regard to certain Hologic patents, patent applications and improvements, including Hologic's Invader detection chemistry (the "Covered Hologic IP"). The licensed patents and patent applications contain both method and composition-of-matter claims. The jurisdictions covered by these patents and patent applications include the U.S., Australia, Canada, China, the European Union, Japan, and Korea. The license agreement also provided us with non-exclusive, worldwide licenses to the Covered Hologic IP within a field covering clinical diagnostic purposes relating to colorectal cancer (including cancer diagnosis, treatment, monitoring or staging) and the field of detection or identification of colorectal cancer and pre-cancers through means other than human stool samples. In December 2012, we entered into an amendment to this license agreement with Hologic pursuant to which Hologic granted us a non-exclusive worldwide license to the Covered Hologic IP within the field of any disease or condition within, related to or affecting the gastrointestinal tract and/or appended mucosal surfaces.

We are required to pay Hologic a low single-digit royalty on our net sales of products using the Covered Hologic IP.

Unless earlier terminated in accordance with the agreement, the license agreement will remain in effect until the last of the licensed patents expires in 2029. The agreement contains customary termination provisions which, among other things, permit termination in the event of material uncured breaches.

MDx Health

In July 2010, we entered into a technology license and royalty agreement ("MDx License Agreement") with MDx Health (formerly Oncomethylome Sciences, S.A.) ("MDx"). Under the MDx License Agreement, MDx granted us a royalty bearing, exclusive, worldwide license to certain patents. Under the MDx License Agreement, we were obligated to make commercially reasonable efforts to bring products covered by the license agreement to market. We were required to pay MDx a low-single digit royalty fee, subject to an annual minimum, as well as various milestone payments.

Effective April 2017, we and MDx entered into a Royalty Buy-Out Agreement, which terminated the MDx License Agreement. Pursuant to the Royalty Buy-Out Agreement, we paid MDx a one-time fee of $8.0 million in exchange for an assignment of certain patents covered by the MDx License Agreement and the elimination of all ongoing royalties and other payments by us to MDx under the MDx License Agreement. Also included in the Royalty Buy-Out Agreement is a mutual release of liabilities, which includes all amounts previously accrued under the MDx License Agreement. Concurrently with entering into the Royalty Buy-Out Agreement, we entered into a Patent Purchase Agreement with MDx under which we paid MDx an additional $7.0 million in exchange for the assignment of certain other patent rights that were not covered by the MDx License Agreement.

Acquisitions

In October 2018, we completed the acquisition of Biomatrica, Inc. ("Biomatrica"), a privately held company specializing in the collection and preservation of biological materials. In the acquisition, we acquired all of the outstanding equity interests for an aggregate purchase price of $20.0 million net of cash received, debt repaid and certain other adjustments. Contingent consideration for up to an additional $20.0 million could be earned based upon certain revenue milestones being met.

Employees

As of December 31, 2018, we had 1,977 full-time employees. None of our employees are represented by a labor union. We consider our relationship with our employees generally to be good.

Financial Information

See our consolidated financial statements included elsewhere in this Form 10-K and accompanying notes to the consolidated financial statements.

Available Information

We were incorporated in the State of Delaware on February 10, 1995. Our corporate headquarters are located at 441 Charmany Drive, Madison, Wisconsin 53719. Our telephone number is 608-284-5700. Our Internet website address is *www.exactsciences.com* . Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, including exhibits, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 are available free of charge through the investor relations page of our Internet website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission. Our Internet website and the information contained therein or connected thereto are not intended to be incorporated into this Annual Report on Form 10-K.

Item 1A. Risk Factors

We operate in a rapidly changing environment that involves a number of risks, some of which are beyond our control. This discussion highlights some of the risks that may affect future operating results. These are the risks and uncertainties we believe are most important for you to consider. We cannot be certain that we will successfully address these risks. If we are unable to address these risks, our business may not grow, our stock price may suffer, and we may be unable to stay in business. Additional risks and uncertainties not presently known to us, which we currently deem immaterial or which are similar to those faced by other companies in our industry or business in general, may also impair our business operations.

We may never become profitable.

We have incurred losses since we were formed and only began generating revenue from Cologuard, our only product, in 2014. From our date of inception on February 10, 1995 through December 31, 2018, we have accumulated a total deficit of approximately $1.0 billion. We expect to continue investing significantly toward development and commercialization of our colorectal cancer screening technology and other products and services. If our revenue does not grow significantly, we will not be profitable. We cannot be certain that the revenue from the sale of any products or services based on our technologies will be sufficient to make us profitable.

We may need additional capital to execute our business plan.

Although we believe that we have sufficient capital to fund our operations for at least the next twelve months, we may require additional capital to fully fund our current strategic plan, which includes successfully commercializing Cologuard and developing a pipeline of future products and services. Additional financing may not be available in amounts or on terms satisfactory to us or at all. Our success in raising additional capital may be significantly affected by general market conditions, the market price of our common stock, our financial condition, uncertainty about the future commercial success of our current products and services, the development and commercial success of future products or services, regulatory developments, the status and scope of our intellectual property, any ongoing litigation, our

compliance with applicable laws and regulations and other factors. If we raise additional funds through the sale of equity, convertible debt or other equity-linked securities, our stockholders' ownership will be diluted, and the market price of our common stock could be depressed. We may issue securities that have rights, preferences and privileges senior to our common stock. If we raise additional funds through collaborations, licensing arrangements or other structured financing transactions, we may relinquish rights to certain of our technologies or products or services, grant security interests in our assets or grant licenses to third parties on terms that are unfavorable to us.

Our success depends heavily on our Cologuard colorectal cancer screening test.

For at least the next 12 months, our ability to generate revenues will depend very substantially on the commercial success of our Cologuard test. There can be no assurance that we will develop or commercialize any other product or service that will generate significant revenue. The commercial success of our Cologuard test and our ability to generate revenues will depend on a variety of factors, including the following:

- acceptance in the medical community;
- inclusion of Cologuard in healthcare guidelines and recommendations, such as those developed by ACS and USPSTF;
- inclusion of Cologuard in quality measures including the HEDIS measures and the CMS Medicare Advantage Star Ratings;
- recommendations and studies regarding Cologuard specifically or colorectal cancer screening generally that may be published by government agencies, professional organizations, academic or medical journals or other key opinion leaders;
- patient acceptance of and demand for the Cologuard test;
- patient compliance with orders for the Cologuard test by healthcare providers, and patient adherence over time to recommendations regarding periodic re-screening;
- successful sales, marketing, and educational programs, including successful direct-to-patient marketing such as television advertising and social media;
- the number of patients screened for colorectal cancer, as well as the number of patients who use Cologuard for that purpose;
- sufficient coverage and reimbursement by third-party payers, which may depend in whole or in part on multiple factors, including federal or state laws that mandate coverage for colorectal cancer screening, the extent to which those laws mandate coverage of Cologuard and the enforcement of those laws;
- the amount and nature of competition from other colorectal cancer or pre-cancer screening products and procedures;
- maintaining FDA marketing approval of Cologuard;
- the ease of use of our ordering process for physicians;
- maintaining and defending patent protection for the intellectual property relevant to Cologuard; and
- our ability to establish and maintain adequate commercial manufacturing, distribution, sales and CLIA laboratory testing capabilities.

If we are unable to develop and maintain substantial sales of our Cologuard test or if we are significantly delayed or limited in doing so, our business prospects, financial condition and results of operation would be adversely affected.

Our quarterly operating results could be subject to significant fluctuation, which could increase the volatility of our stock price and cause losses to our stockholders.

Our revenues and results of operations may fluctuate significantly, depending on a variety of factors, including the following:

- our success in marketing and selling, and changes in demand for, our Cologuard test, and the level of reimbursement and collection obtained for Cologuard;
- seasonal variations affecting physician recommendations for colorectal cancer screenings and patient compliance with physician recommendations, including without limitation holidays, weather events, and circumstances such as the outbreak of influenza that may limit patient access to medical practices for preventive services such as colorectal cancer screening;

- our success in collecting payments from third-party payers, patients and collaborative partners, variation in the timing of these payments and recognition of these payments as revenues;
- the pricing of our Cologuard test, including potential changes in CMS or other reimbursement rates;
- circumstances affecting our ability to provide our Cologuard test, including weather events, supply shortages, or regulatory or other circumstances that adversely affect our ability to manufacture our Cologuard test or process Cologuard tests in our clinical laboratory;
- fluctuations in the amount and timing of our selling and marketing costs and our ability to manage costs and expenses and effectively implement our business; and
- our research and development activities, including the timing of costly clinical trials.

Other companies or institutions may develop and market novel or improved technologies, which may make our technologies, including our Cologuard test, less competitive or obsolete.

The U.S. market for colorectal cancer and pre-cancer screening is large, consisting of more than 85 million individuals between the ages of 50 and 85. If the screening population includes 45-49 year olds, as recommended by the ACS, the colorectal cancer screening market would increase by approximately 19 million people to approximately 104 million people. Given the large market for colorectal cancer screening, we face numerous competitors, some of which possess significantly greater financial and other resources and development capabilities than us. Our Cologuard test faces competition from procedure-based detection technologies such as colonoscopy, flexible sigmoidoscopy, and "virtual" colonoscopy, a radiological imaging approach that visualizes the inside of the bowel by CT scan (spiral computerized axial tomography), as well as other common screening tests, such as the fecal occult blood test ("FOBT") and the fecal immunochemical test ("FIT"), and newer screening technologies such as pill-based imaging solutions like PillCam COLON, cleared by the FDA in February 2014, and C-Scan, which obtained a CE Mark in early 2019. Our competitors may also be developing additional methods of detecting colorectal cancer and pre-cancer that have not yet been announced.

In addition, some companies and institutions are developing liquid biopsy tests based on the detection of proteins, tumor cells, nucleic acids, epigenetic markers, or other biomarkers in the blood. These tests could represent significant competition for Cologuard and other tests we may develop. We are aware of at least 13 companies—Epigenomics AG, EDP Biotech Corporation, Freenome Inc., GRAIL, Inc., CellMax, Inc., Volition Diagnostics, Cambridge Epigenetix Limited, Nucleix Ltd., Singlera Genomics, DiaCarta, Genomictree, Bioprognos, and PapGene, Inc. — that have developed, or are developing, liquid biopsy tests for the detection of colorectal cancer. Epigenomics AG received FDA approval for its liquid biopsy screening test for colorectal cancer, Epi proColon, in April 2016, and began offering the test commercially in May 2016. We also are aware of at least two companies, DiaTech and Geneoscopy, that have launched outside the U.S., or are seeking to develop, stool-based colorectal cancer tests based on the detection of nucleic acids.

Beyond our Cologuard test, as we seek to develop other tests to detect cancer and pre-cancer, we expect to compete with a broad range of organizations in the U.S. and other countries that are engaged in the development, production and commercialization of cancer screening and diagnostic products and services. These competitors include:

- biotechnology, diagnostic and other life science companies;
- academic and scientific institutions;
- governmental agencies; and
- public and private research organizations.

We may be unable to compete effectively against our competitors either because their products and services are superior or because they may have more expertise, experience, financial resources, or stronger business relationships. These competitors may have broader product lines and greater name recognition than we do. We have limited experience developing tests for detecting non-colorectal cancers and cannot guarantee that our research and development activities will be successful in developing any marketable testing products or services. Furthermore, even if we do develop new marketable products or services, our current and future competitors may develop products and services that are more commercially attractive than ours, and they may bring those products and services to market earlier or more effectively than us.

We may not be successful expanding Cologuard's indication to include people from 45 to 49 years old at average risk for colorectal cancer or in commercializing Cologuard for use in this patient population.

We plan to seek FDA approval to expand Cologuard's indication to people age 45 and older who are at average risk for colorectal cancer and to undertake any clinical work required to support such approval, so that we can market Cologuard to that population. The efforts necessary to support FDA approval of this label expansion may be expensive and time consuming and may require us to perform clinical trials. There can be no assurance that we will obtain FDA approval for the expanded indication.

Even if the FDA approves Cologuard for use by people from 45-49 years old at average risk for colorectal cancer, we may not be able to successfully commercialize Cologuard to this patient population unless Government and other third-party payers, including managed care organizations, approve reimbursement for our Cologuard test for such patients at adequate reimbursement rates. We expect that securing a favorable recommendation from the U.S. Preventative Services Task Force, as well as other influential recommendations, inclusion in healthcare guidelines and inclusion in quality metrics will be keys to payers' willingness to cover, and healthcare providers' willingness to prescribe, Cologuard for people in this expanded population. However, there can be no assurance that these guidelines and quality metrics will support the expanded use of Cologuard. Further, we cannot be sure that payers will be willing to cover, that healthcare providers will be willing to prescribe the test to patients in this population, or that 45-49 year-old patients will be willing to use Cologuard. If we are unable to successfully commercialize Cologuard to people age 45 to 49, our financial results and our business prospects may be materially and adversely affected.

We face uncertainty related to healthcare reform, pricing, coverage and reimbursement, which could reduce our revenue.

Healthcare reform laws, including the Patient Protection and Affordable Care Act (the "ACA") and the Protecting Access to Medicare Act of 2014 ("PAMA"), are significantly affecting the U.S. healthcare and medical services industry. Existing legislation, and possible future legal and regulatory changes, including potential repeal or modification of the ACA, elimination of penalties regarding the individual mandate for coverage, or approval of health plans that allow lower levels of coverage for preventive services, could substantially change the structure and finances of the health insurance system and the methodology for reimbursing medical services, drugs and devices, including our current and future products and services. The ACA has also been the subject of various legal challenges and in December 2018, a federal district court in Texas held that the ACA is unconstitutional and unenforceable. The court's decision is subject to appeal, but if this case, or any other case challenging the ACA is ultimately successful, insurance coverage for Cologuard could be materially and adversely affected. Any change in reimbursement policy could result in a change in patient cost-sharing, which could adversely affect a provider's willingness to prescribe and patient's willingness and ability to use our Cologuard test and any other product or service we may develop. Healthcare reforms, which may intend to reduce healthcare costs, may have the effect of discouraging third-party payers from covering certain kinds of medical products and services, particularly newly developed technologies, such as our Cologuard test or other products or tests we may develop in the future. We cannot predict whether future healthcare reform initiatives will be implemented at the federal or state level or the effect any such future legislation or regulation will have on us. The taxes imposed by new legislation, cost reduction measures and the expansion in the government's role in the U.S. healthcare industry may result in decreased profits to us, which may adversely affect our business, financial condition and results of operations.

The CLFS for both 2018 and 2019 set the CMS reimbursement rate for Cologuard at $508.87. Under PAMA , payment rates for clinical diagnostic laboratory tests are calculated based on the volume-weighted median of private payer rates for each clinical diagnostic laboratory test based on data submitted by certain applicable laboratories. The current CMS reimbursement rate for Cologuard was based on the volume-weighted median of private payer rates for Cologuard from January 1, 2016 through June 30, 2016. Based on current regulations, we expect that the CMS reimbursement rate for Cologuard will remain in place until January 2021 and then will be reset based on the volume-weighted median of private payer rates for Cologuard during the data collection period from January 1, 2019 to June 30, 2019. PAMA presents significant uncertainty for future CMS reimbursement rates for Cologuard. Because Medicare currently covers approximately half of the patients in the current screening population for Cologuard, any reduction in the CMS reimbursement rate for Cologuard would negatively affect our revenues and our business prospects. There can be no assurance under PAMA that adequate CMS reimbursement rates will continue to be assigned to our tests. Further, it is possible that Medicare or other federal payers that provide reimbursement for our tests may suspend, revoke or discontinue coverage at any time, may require co-payments from patients, or may reduce the reimbursement rates

payable to us. Any such action could have a negative impact on our revenues.

Coverage of Cologuard and other products that we may develop may also depend, in whole or in part, on whether payers determine, or courts and/or regulatory authorities determine, coverage is required under applicable federal or state laws mandating coverage of certain colorectal cancer screening services. For example, Section 2713 of the ACA mandates that certain health insurers cover evidence-based items or services that have in effect a rating of "A" or "B" in the current recommendations of USPSTF without imposing any patient cost-sharing ("ACA Mandate"). Similarly, federal regulations require that Medicare Advantage plans cover "A" or "B" rated preventive services without patient cost-sharing. Following the June 2016 update to the USPSTF colorectal cancer screening recommendation statement, CMS issued an updated Evidence of Coverage notice for Medicare Advantage plans that affirms such plans must include coverage of Cologuard every three years without patient cost-sharing. While we believe the ACA Mandate requires most health insurers to cover Cologuard for most patients between the ages of 50 and 75, without patient cost-sharing some health insurers have disagreed and determined not to cover Cologuard and others may take that position in the future. It may be difficult for us or patients to enforce the ACA Mandate directly, and we may need to rely on states to take enforcement action, which they may choose not to do. It is also possible that the ACA Mandate will be repealed or overturned or significantly modified in the future.

Several states have laws mandating coverage for preventive services, such as colorectal cancer screening services, applicable to certain health insurers. Not all of these laws apply to Cologuard, however. Further, if the ACA is repealed, replaced or overturned, or even if it is not, states may decide to modify their laws, which may include repeal of those coverage mandates that we believe currently apply to Cologuard.

If third-party payers, including managed care organizations, do not approve and maintain reimbursement for our Cologuard test at adequate reimbursement rates, we may be unable to successfully commercialize our Cologuard test which, we expect, would limit or slow our revenue generation and likely have a material adverse effect on our business.

Successful commercialization of our Cologuard test depends, in large part, on the availability of adequate reimbursement from government insurance plans, managed care organizations and private insurance plans. Although we received a positive coverage decision and what we believe is an adequate reimbursement rate from CMS for our Cologuard test, it is also critical that other third-party payers approve and maintain reimbursement for our Cologuard test at adequate reimbursement rates. Third-party payers are increasingly attempting to contain healthcare costs by limiting both coverage and the level of reimbursement for new healthcare products. As a result, there is uncertainty surrounding whether Cologuard and any new test we may develop , will be eligible for coverage by third-party payers or, if eligible for coverage, what the reimbursement rates will be. Reimbursement of sDNA colorectal cancer screening by a third-party payer may depend on a number of factors, including a payer's determination that tests using our technologies are: sensitive and specific for colorectal cancer and pre-cancer; not experimental or investigational; approved or recommended by the major guidelines organizations; subject to applicable federal or state coverage mandates; reliable, safe and effective; medically necessary; appropriate for the specific patient; and cost-effective.

If we are unable to obtain positive decisions from third-party payers, including managed care organizations, approving reimbursement for our Cologuard test at adequate levels, its commercial success will be compromised and our revenues would be significantly limited. Healthcare providers may be reluctant to prescribe Cologuard if they believe that a significant number of their patients will not be reimbursed for the test.

We may also experience material delays in obtaining such reimbursement decisions and payment for our Cologuard test that are beyond our control. Further, there can be no assurance that CMS and commercial payers who initially decide to cover Cologuard will continue to do so. We are pursuing a variety of strategies to increase commercial payer coverage and reimbursement of Cologuard. In certain situations, where we believe payers are obligated to cover Cologuard under federal and state laws that mandate coverage for certain colorectal cancer screening tests, we have sued to enforce coverage obligations. We may pursue similar litigation or other tactics in the future. Such litigation and tactics may be costly, may divert management attention from other responsibilities, may cause payers, including those not directly involved in any litigation, to resist contracting with us, and may ultimately prove unsuccessful.

As noted above, federal and state coverage mandates may be deemed not to apply to Cologuard, may be interpreted in a manner unfavorable to us, may be difficult to enforce and are subject to repeal or modification. For example, the ACA may be repealed or materially modified, in whole or in part, or replaced with an alternative legal framework

governing healthcare matter. Such repeal, modification or replacement may eliminate or modify the coverage mandate for preventive services, and any such elimination or modification may have an adverse effect on our business prospects.

Moreover, coverage determinations and reimbursement rates are subject to change, and we cannot guarantee that even if we initially achieve adequate coverage and reimbursement rates, they will be applicable to our Cologuard test in the future. As noted above, under PAMA, our Medicare reimbursement rate will be subject to adjustment based on our volume-weighted median commercial reimbursement rate. Any reduction in our Medicare reimbursement rate could significantly and adversely affect our business prospects, financial condition and results of operation.

Even where a third-party payer agrees to cover Cologuard, other factors may have a significant impact on the actual reimbursement we receive for a Cologuard test from that payer. For example, if we do not have a contract with a given payer, we may be deemed an "out-of-network" provider by that payer, which could result in the payer allocating a portion of the cost of the Cologuard test to the patient, notwithstanding any applicable coverage mandate. We may be unsuccessful in our efforts to enter into, or maintain, a network contract with a given payer, and we expect that our network status with a given payer may change from time to time for a variety of reasons, many of which may be outside our control. To the extent Cologuard is out of network for a given payer, physicians may be less likely to prescribe Cologuard for their patients and their patients may be less likely to comply with those prescriptions that are written. Also, some payers may require that they give prior authorization for a Cologuard test before they are willing to pay for it or review claims post-service to ensure the service was medically appropriate for specific patients. Prior authorization and other medical management practices may require that we, patients or physicians provide the payer with extensive medical records and other information. Prior authorization and other medical management practices impose a significant additional cost on us, may be difficult to comply with given our position as a laboratory that generally does not have direct access to patient medical records, may make physicians less likely to prescribe Cologuard for their patients, and may make patients less likely to comply with physician orders for Cologuard, all or any of which may have an adverse effect on our revenues.

If our clinical studies do not satisfy providers, payers, patients and others as to the reliability, effectiveness and superiority of our Cologuard test or any future test we may develop and seek to commercialize, we may experience reluctance or refusal on the part of physicians to order, and third-party payers to pay for, such test.

Although we have received FDA approval for our Cologuard test, if the results of our research and clinical studies and our sales and marketing activities relating to communication of these results, do not convince guidelines organizations, physicians and other healthcare providers, third-party payers and patients that our Cologuard test is reliable, effective and superior to alternative screening methods, we may experience reluctance or refusal on the part of physicians to order, and third-party payers to pay for, our Cologuard test, which could adversely affect our business prospects. Likewise, if the results of our research and clinical studies and our sales and marketing activities relating to new tests we may develop in the future do not convince FDA and other regulators, guidelines organizations, physicians and other healthcare providers, third-party payers and patients that other tests we may develop and seek to commercialize in the future are safe, effective, reliable and superior to alternative tests, those tests may not receive or sustain necessary regulatory approvals and we may experience reluctance or refusal on the part of physicians to order, and third-party payers to pay for, those tests, which could adversely affect our business prospects.

We have finite selling and marketing resources and only limited sales, marketing, customer support, manufacturing, distribution and commercial laboratory experience, which may restrict our success in commercializing Cologuard and other products we may develop, and we may be unsuccessful in entering into or maintaining third-party arrangements to support our internal efforts.

To grow our business as planned, we must expand our sales, marketing and customer support capabilities, which will involve developing and administering our commercial infrastructure and/or collaborative commercial arrangements and partnerships. We must also maintain satisfactory arrangements for the manufacture and distribution of our Cologuard test. Also, in connection with the launch of Cologuard in late 2014, we began operating a CLIA certified lab facility to process Cologuard tests and provide patient results. We have limited experience managing a sales force, customer support operation and operating a manufacturing operation and clinical lab facility and we may encounter difficulties retaining and managing the specialized workforce these activities require. We may seek to partner with others to assist us with any or all of these functions. However, we may be unable to find appropriate third parties with whom to enter into these arrangements. In August 2018, we entered into a Promotion Agreement with Pfizer, pursuant to which Pfizer agreed to promote Cologuard and provide certain sales, marketing, analytical and other commercial operations

support services. The Promotion Agreement, and any other future partnership arrangement, may not perform as expected or the arrangements may otherwise prove to be detrimental to our short- and long-term results. For example, certain third-party arrangements may cause us to forego or defer the development or acquisition of internal capabilities. If a third-party arrangement fails to perform as expected or if it is terminated prematurely for any reason, our business may be harmed not only by such failure or termination itself, but also by the opportunity cost associated with not timely developing or acquiring necessary for useful capabilities internally.

If we are unable to deploy and maintain effective sales, marketing and medical affairs capabilities, we will have difficulty achieving market awareness and selling our products and services.

To achieve commercial success for our Cologuard test and our future products and services, we must continue to develop and grow our sales, marketing and medical affairs organizations and our sales, marketing and medical affairs organizations must effectively explain to healthcare providers the reliability, effectiveness and benefits of Cologuard and our future products and services as compared to alternatives. We may not be able to successfully manage our dispersed or inside sales forces or our sales force may not be effective. Because of the competition for their services, we may be unable to partner with or retain additional qualified sales representatives or marketing or medical affairs personnel, either as our employees or independent contractors or through independent sales or other third-party organizations. Market competition for commercial, marketing and medical affairs talent is significant, and we may not be able to hire or retain such talent on commercially reasonable terms, if at all.

Establishing and maintaining sales, marketing and medical affairs capabilities will be expensive and time-consuming. Our expenses associated with maintaining our sales force may be disproportional compared to the revenues we may be able to generate on sales of the Cologuard test or any future products or services.

The success of our Cologuard test and any other screening or diagnostic product or service we may develop will depend on the degree of market acceptance by physicians, patients, healthcare payers and others in the medical community.

Our Cologuard test and our future products and services may not gain market acceptance by physicians, healthcare payers and others in the medical community. The degree of market acceptance of our Cologuard test and our future products and services will depend on a number of factors, including:

- its demonstrated sensitivity and specificity;
- its price;
- the availability and attractiveness of alternative screening methods;
- the willingness of physicians to prescribe our products and services;
- the ease of use of our ordering process for physicians; and
- adequate third-party coverage or reimbursement.

Use of a stool-based DNA colorectal cancer screening test requires people to collect a stool sample, which some people may be reluctant to do. If our Cologuard test does not achieve an adequate level of acceptance, we may not generate the substantial revenues we need to generate to become profitable.

Our assumptions regarding the market opportunity for Cologuard may not prove true. We estimate the potential market opportunity for Cologuard assuming, among other things, the size of the screening population, the adoption rate in the screening population and a three-year screening interval. Although ACS guidelines and others recommend a three-year screening interval for Cologuard and CMS has determined that Medicare will cover the test at this interval, the label for Cologuard does not specify a three-year interval and physicians, healthcare payers, the FDA and other regulators and opinion leaders could recommend a different interval. Further, patients may not adhere to any recommended testing interval.

Recommendations, guidelines and quality metrics issued by various organizations, including the U.S. Preventative Services Task Force, the American Cancer Society and the National Committee for Quality Assurance, may significantly affect payers' willingness to cover, and physicians' willingness to prescribe, our products.

Securing influential recommendations, inclusion in healthcare guidelines and inclusion in quality measures are keys to our physician and payer engagement strategies. These guidelines, recommendations and quality metrics may shape payers' coverage decisions and physicians' cancer screening procedures.

The USPSTF, a panel of primary care physicians and epidemiologists and other national experts funded by the U.S. Department of Health and Human Services' Agency for Healthcare Research and Quality, makes influential recommendations on clinical preventative services. In June 2016, the USPSTF issued an updated recommendation statement for colorectal cancer screening, and gave an "A" grade to colorectal cancer screening starting at age 50 and continuing until age 75. The statement specifies seven screening methods, including FIT-DNA (which is Cologuard). USPSTF updates its screening recommendations periodically, approximately every five to eight years. USPSTF distributed a draft research plan for public comment on January 3, 2019. The research plan, once finalized, will be used to guide a systematic review of the evidence by researchers at an evidence-based practice center. The resulting evidence review will form the basis of the next update to the USPSTF recommendation statement regarding colorectal cancer screening. We cannot be certain when USPSTF will next update its colorectal cancer screening recommendations, whether updated recommendations will continue to give an "A" grade to colorectal cancer screening between the ages of 50 and 75, whether updated recommendations will continue to include FIT-DNA, whether updated recommendations may take a different format, including by ranking different methodologies and positioning FIT-DNA below other methodologies, or whether updated recommendations will include new technologies that are competitive with Cologuard and that may have greater appeal to physicians, patients and payers. Any update to the USPSTF recommendations that may have the effect of reducing screening, that does not include FIT-DNA in a favorable manner, or that adds new technologies could have a material adverse effect on our business.

The 2016 USPSTF recommendation statement may have certain potentially significant implications. For example, the ACA mandates that certain non-grandfathered health insurers cover evidence-based items or services that have in effect a rating of "A" or "B" in the current recommendations of USPSTF without imposing any patient cost-sharing. Similarly, federal regulations require that Medicare Advantage plans cover "A" or "B" graded preventive services without patient cost-sharing. Following the updated USPSTF recommendation statement, the Centers for Medicare & Medicaid Services ("CMS") issued an updated Evidence of Coverage notice for Medicare Advantage plans that affirms such plans must include coverage of Cologuard every three years without patient cost-sharing. While we believe the ACA Mandate requires certain health insurers to cover Cologuard without patient cost-sharing some health insurers have disagreed. Enforcement of the ACA Mandate is difficult and depends on state, federal or other third-party enforcement actions that we do not control. Further, a court or regulatory agency may agree with arguments that have been made, or that may in the future be made, by insurers and determine that the ACA Mandate does not require that they cover Cologuard or may otherwise interpret the ACA Mandate in a manner unfavorable to us. Also, Congress may modify or repeal all or part of the ACA, and any such modification or repeal may repeal or limit the ACA Mandate for preventive services. Additionally, t he ACA has been the subject of various legal challenges and in December 2018, a federal district court in Texas held that the ACA is unconstitutional and unenforceable. The court's decision is subject to appeal, but if this case, or any other case challenging the ACA is ultimately successful, insurance coverage for Cologuard could be materially and adversely affected. If the ACA Mandate for preventive services is repealed , overturned or modified, if the ACA Mandate is determined not to require coverage of Cologuard, if the ACA Mandate is otherwise interpreted in a manner unfavorable to us, or if we are unable to influence or secure effective enforcement of the ACA Mandate, even if it is held to require coverage of Cologuard, our business prospects may be adversely affected.

In addition, the healthcare industry in the United States has experienced a trend toward cost containment and value-based purchasing of healthcare services. Some government and private payers are adopting pay-for-performance programs that differentiate payments for healthcare services based on the achievement of documented quality metrics, cost efficiencies or patient outcomes. Payers may look to quality measures such as the National Committee for Quality Assurance ("NCQA"), Healthcare Effectiveness Data and Information Set ("HEDIS") and the CMS Medicare Advantage Star Ratings to assess quality of care. These measures are intended to provide incentives to service providers to deliver the same or better results while consuming fewer resources. In October 2016, the NCQA included Cologuard testing on a three-year interval in the final published 2017 HEDIS measures. In April 2017, CMS released final details for the 2018 Medicare Advantage Star Ratings program and included Cologuard. If for some reason Cologuard was removed from, or not included in, HEDIS, the Star Ratings or other quality metrics, payers may be less inclined to

reimburse our Cologuard test at adequate levels, if at all, which could adversely impact our business. Additionally, if Cologuard was removed from, or not included in, HEDIS, the Star Ratings or other quality metrics, physicians may not earn quality credit for prescribing Cologuard and therefore may be less inclined to do so. If Cologuard fails to maintain its current position within any updated USPSTF colorectal cancer screening recommendations, Cologuard may, as a result, become excluded from the HEDIS measures and the Star Ratings.

We expect to make significant investments to research and develop new cancer screening and diagnostic tools, which may not be successful.

In addition to commercializing our Cologuard test, we are seeking to increase Cologuard's specificity by substituting new biomarkers and to develop a pipeline for future products and services, including screening and diagnostic tests for liver, lung and other types of cancers. We expect to incur significant expenses on these development efforts, but they may not be successful.

Developing new or improved cancer screening or diagnostic tools is a speculative and risky endeavor. Candidate products and services that may initially show promise may fail to achieve the desired results in larger clinical studies or may not achieve acceptable levels of clinical accuracy. Any cancer screening test we develop will need to demonstrate in clinical studies a high level of accuracy. Because cancer screening tests seek to identify relatively rare occurrences, if in a clinical study a candidate product or service fails to identify even a small number of cancer cases, the sensitivity rate may be materially and adversely affected and we may have to abandon the candidate product or service.

We may need to explore a number of different marker combinations, alter our candidate products or platform technologies and repeat clinical studies before we identify a potentially successful candidate. We may need to acquire, whether through purchase, license or otherwise, technologies owned by third parties, and we may not be able to acquire such technologies on commercially reasonable terms or at all. Product development is expensive, may take years to complete and can have uncertain outcomes. Failure can occur at any stage of the development. If, after development, a candidate product or service appears successful, we may, depending on the nature of the product or service, still need to obtain FDA and other regulatory clearances or approvals before we can market it. The FDA's clearance or approval pathways are likely to involve significant time, as well as additional research, development and clinical study expenditures. There can be no guarantee that the FDA would clear or approve any future product or service we may develop. Even if the FDA clears or approves a new product or service we develop, we would need to commit substantial resources to commercialize, sell and market it before it could be profitable, and the product or service may never be commercially viable. Additionally, development of any product or service may be disrupted or made less viable by the development of competing products or services.

If we determine that any of our current or future development programs is unlikely to succeed, we may abandon it without any return on our investment into the program. We may need to raise significant additional capital to bring any new products or services to market, which may not be available on acceptable terms, if at all.

We rely on strategic collaborative and licensing arrangements with third parties to develop critical intellectual property. We may not be able to successfully establish and maintain such intellectual property, which could adversely affect our ability to develop and commercialize our products and services.

The development and commercialization of our products and services rely, directly or indirectly, upon strategic collaborations and licensing agreements with third parties. We currently have a collaborative and licensing arrangement with Mayo Foundation for Medical Education and Research. In addition, we have licensing agreements with Hologic and others. Such arrangements provide us with intellectual property crucial to our product development and commercialization, including technology that we have incorporated into our Cologuard test. Our dependence on licensing, collaboration and other similar agreements with third parties may subject us to a number of risks. There can be no assurance that any current contractual arrangements between us and third parties or between our strategic partners and other third parties will be continued on materially similar terms and will not be breached or terminated early. Any failure to obtain or retain the rights to necessary technologies on acceptable commercial terms could require us to re-configure our products and services, which could negatively impact their commercial sale or increase the associated costs, either of which could materially harm our business and adversely affect our future revenues.

We expect to continue and expand our reliance on collaborative and licensing arrangements. Establishing new strategic collaborations and licensing arrangements is difficult and time-consuming. Discussions with potential

collaborators or licensors may not lead to the establishment of collaborations on favorable terms, if at all. To the extent we agree to work exclusively with one collaborator in a given area, our opportunities to collaborate with other entities could be limited. Potential collaborators or licensors may reject collaborations with us based upon their assessment of our financial, regulatory or intellectual property position. Even if we successfully establish new collaborations, these relationships may never result in the successful commercialization of any product or service.

We have entered into a Promotion Agreement with Pfizer regarding the commercialization of Cologuard. If we or Pfizer fail to adequately perform under the Promotion Agreement, or if the Promotion Agreement is terminated prior to its full term, our business, prospects, financial condition and results of operation could be adversely affected.

In August 2018 we entered into a Promotion Agreement ("Promotion Agreement") with Pfizer, Inc. ("Pfizer"), pursuant to which Pfizer will promote Cologuard and provide certain sales, marketing, analytical and other commercial operations support services. We and Pfizer committed in the Promotion Agreement to invest specified amounts in the advertising and promotion of Cologuard. We agreed to pay Pfizer a service fee based on incremental gross profits over specified baselines and pay Pfizer royalties for Cologuard-related revenues for a specified period after the expiration or termination of the Promotion Agreement.

The initial term of the Promotion Agreement is scheduled to run through December 31, 2021, but may be terminated by either party at any time on or after February 21, 2020 upon six months' written notice to the other party.

We have dedicated significant time and resources to negotiating and implementing our Promotion Agreement. The growth in Cologuard revenue we anticipate as a result of the Promotion Agreement may not occur. We may not realize the expected benefits from the Promotion Agreement for a number of reasons including, among others, if we and Pfizer fail to coordinate our promotional efforts effectively, if Pfizer fails to optimally or effectively promote, market and sell Cologuard or otherwise fails to perform under the Promotion Agreement, if Pfizer prioritizes the promotion of its own, or other partners', products or services over Cologuard, if the Promotion Agreement is terminated before its anticipated benefits can be fully realized, or if other factors, extraneous to the Promotion Agreement, adversely impact sales of Cologuard (for example, reimbursement, competition, or seasonal factors). Our relationship with Pfizer is new, we have limited experience executing under co-promotion agreements and Pfizer has limited experience promoting molecular diagnostic products. Our strategic partnership with Pfizer will impact the retention and development of our own sales and marketing capabilities, both for Cologuard and other products in our pipeline. If we do not realize the expected benefits from the Promotion Agreement, either because Pfizer's marketing strategy and sales and marketing expertise do not translate well to the promotion of Cologuard or for any other reason, our business, prospects, financial condition and results of operation may be adversely affected.

If we fail to meet any applicable requirements of CLIA or similar state laws, that failure could adversely affect any future payer consideration of our technologies, prevent their approval entirely, and/or interrupt the commercial sale and/or marketing of any products and services and otherwise cause us to incur significant expense.

We are subject to federal and state laws and regulations regarding the operation of clinical laboratories. Federal CLIA requirements and laws of certain states, including New York, impose certification requirements for clinical laboratories, establish standards for quality assurance and quality control, among other things. Some state laws restrict laboratory marketing activities, which may adversely affect our ability to market our laboratory services. Clinical laboratories are subject to inspection by regulators, and to sanctions for failing to comply with applicable requirements. Sanctions available under CLIA include prohibiting a laboratory from running tests, requiring a laboratory to implement a corrective plan, and imposing civil monetary penalties. If we fail to meet any applicable requirements of CLIA or state law, that failure could adversely affect any payer consideration of our current or future technologies, prevent their approval entirely, and/or interrupt the commercial sale and/or marketing of any products and services and otherwise cause us to incur significant expense.

We must maintain FDA approval for Cologuard and compliance with applicable FDA requirements; failure to maintain compliance with FDA requirements may prevent or delay the development, marketing or manufacturing of our Cologuard test.

As a condition of the FDA approval of our Cologuard test, we are required to conduct a post-approval study. We anticipate that the post-approval study will require significant funding and resources to reach its conclusion. There is a

risk that the FDA may modify or withdraw the approval of Cologuard if the results of this post-approval study are not satisfactory or are inconsistent with previous studies. We rely on third parties, such as contract research organizations, medical institutions and clinical investigators to conduct the post-approval study. We have limited control over the activities of these third parties and the post-approval study may be delayed or halted prior to its completion for reasons outside our control.

Additionally, our Madison, Wisconsin manufacturing and laboratory facilities are periodically subject to inspection by the FDA and other governmental agencies to ensure they meet production and quality requirements. Operations at these facilities could be interrupted or halted if the FDA or other governmental agency deems the findings of such inspections unsatisfactory.

Further, failure to comply with FDA or other regulatory requirements regarding the development, marketing, promotion, manufacturing and distribution of our tests could result in fines, unanticipated compliance expenditures, recall or seizures of our products, total or partial suspension of production or distribution, restrictions on labeling and promotion, termination of ongoing research, disqualification of data for submission to regulatory authorities, enforcement actions, injunctions and criminal prosecution.

If we do not meet applicable regulatory or quality standards, our products may be subject to recall, and, under certain circumstances, we may be required to notify applicable regulatory authorities about a recall. In 2017, we recalled one of the components of our Cologuard test kit and circumstances may arise that cause us to recall other products or components used in connection with our Cologuard test. Any such recalls could have an adverse effect on our ability to provide the Cologuard test, which in turn would adversely affect our financial condition.

Our inability to obtain without delay any necessary regulatory clearances or approvals for new medical devices, or improvements to or expanded indications for our current offerings, could prevent, delay or adversely impact future product commercialization.

We may develop new diagnostic test candidates that are regulated by the FDA as medical devices. Unless otherwise exempted, medical devices must receive either FDA regulatory approval or clearance before being marketed in the U.S. The FDA determines whether a medical device will require either regulatory approval or clearance based on statutory criteria that include the risk associated with the device and whether the device is similar to an existing, legally marketed product. The process to obtain either regulatory approval or clearance will likely be costly, time-consuming and uncertain. However, we believe the regulatory approval process is generally more challenging. Even if we design a product that we expect to be eligible for the regulatory clearance process, the FDA may require that the product undergo the regulatory approval process. There can be no assurance that the FDA will ever permit us to market any new product or service that we develop. Even if regulatory approval or clearance is granted, such approval may include significant limitations on indicated uses, which could materially and adversely affect the prospects of any new medical device.

FDA regulatory approval or clearance is not just required for new medical devices we develop, but would also be required for certain enhancements we may seek to make to our Cologuard test.

Delays in receipt of, or failure to obtain, clearances or approvals could materially delay or prevent us from commercializing our products and services or result in substantial additional costs that could decrease our profitability. In addition, even if we receive FDA clearance or approval for a new or enhanced product, the FDA may condition, withdraw or materially modify its clearance or approval.

In the future, we may develop tests that could be regulated as LDTs. If the FDA begins to actively regulate LDTs, we may need to obtain additional FDA or other regulatory approvals, which may prevent, delay, or adversely impact our commercialization of these diagnostic tests.

We may develop products or services that would be regulated as LDTs under CLIA. LDTs are clinical laboratory tests that are developed, validated and manufactured by a laboratory for its own use. Historically, LDTs have been regulated under CLIA while the FDA has exercised enforcement discretion and not required approvals or clearances for most LDTs performed by CLIA-certified laboratories. The FDA has historically chosen not to exercise its authority to regulate LDTs because LDTs were limited in number, were relatively simple tests, and typically were used to diagnose rare disease and uncommon conditions.

In October 2014, the FDA published two draft guidance documents describing a proposed risk-based framework under which it might regulate LDTs. The FDA's draft framework proposed, among other things, premarket review for higher-risk LDTs, such as those that have the same intended use as FDA-approved or cleared diagnostics currently on the market. In November 2015, the FDA issued a report citing evidence for the need for additional regulation of LDTs and stated the FDA is continuing to work to finalize premarket review requirements for LDTs. However, in November 2016, the FDA announced it would not issue a final guidance for LDTs. In January 2017, the FDA issued a Discussion Paper on LDTs, which confirmed it would not finalize guidance on the regulation of LDTs to allow more time for public discussion and time for the congressional authorizing committees to develop a legislative solution. We cannot predict the timing, content or form of any legislation, regulation or guidance, or the potential effect on our existing molecular diagnostic tests or our tests in development, or the potential impact of such guidance or regulation on our business, financial condition or results of operation.

Our business could be materially affected if the FDA begins to actively regulate LDTs. We may be required to change business plans regarding the development and commercialization of new diagnostic tests. New laws and regulations may significantly slow the time it would take us to bring LDTs to market, may materially increase the costs of developing, and decrease the profitability of providing, LDTs, and may prevent us from commercializing certain products or services. We cannot provide any assurance that FDA clearance or approval will not be required in the future for any of our tests, whether as a result of additional guidance or regulations issued by the FDA, new enforcement policies adopted by the FDA or new legislation adopted by Congress. It is possible that legislation will be enacted into law, regulations could be promulgated or guidance could be issued by the FDA that may result in increased regulatory burdens for us to continue to offer molecular diagnostic tests or to develop and introduce new tests. Moreover, if pre-market review is required by the FDA or if we decide to voluntarily pursue the FDA's pre-market review for any of our tests, there can be no assurance that they will be cleared or approved on a timely basis, if at all, nor can there be assurance that labeling claims will be consistent with our current claims or adequate to support continued adoption of and reimbursement for our tests. If pre-market review is required, our business could be negatively impacted as a result of commercial delay that may be caused by any new requirements.

We currently manufacture our Cologuard test predominantly in one facility and perform our Cologuard test in one laboratory facility. If demand for our Cologuard test grows, we may lack adequate facility space and capabilities to meet increased processing requirements. Moreover, if these or any future facilities or our equipment were damaged or destroyed, or if we experience a significant disruption in our operations for any reason, our ability to continue to operate our business could be materially harmed.

We currently perform our Cologuard test in a single laboratory facility in Madison, Wisconsin. We manufacture the Cologuard test in a single facility in Madison, Wisconsin. Our headquarters are also located in Madison, Wisconsin.

As we expand the commercialization of Cologuard and increase the number of tests processed by our laboratory facility, we believe it will be necessary to both expand our existing laboratory facility and to add one or more new manufacturing and laboratory facilities in order to increase our manufacturing and processing capacity to meet anticipated demand. During 2018 we expanded the capacity at our existing laboratory facility to approximately three million tests per year. Also, during the fourth quarter of 2017, we purchased real property in Madison, Wisconsin and began construction of a new clinical laboratory facility. The new laboratory facility is expected to increase our annual capacity by approximately four million tests per year. Construction of the new facility is expected to be completed near mid-2019. We are also in the process of building an additional manufacturing facility and additional warehouse and office space on the recently-acquired real property, which are expected to be completed in 2019. Manufacturing in the new facility is expected commence during 2020. We have also contracted with a third party regarding the construction and lease of a new headquarters facility in Madison, Wisconsin, which is expected to be completed in the first quarter of 2020. Failure to complete, or timely complete, these expansion projects, may significantly delay our Cologuard processing times and capabilities, or other operations, which may adversely affect our business, financial condition and results of operation. In addition, our financial condition may be adversely affected if we are unable to complete these expansion projects on budget and otherwise on terms and conditions acceptable to us. Finally, our financial condition will be adversely affected if demand for our products and services does not materialize in line with our current expectations and if, as a result, we end up building excess capacity that does not yield a reasonable return on our investment.

If our present, or any future facilities, were to be damaged, destroyed or otherwise unable to operate, whether due to fire, floods, storms, tornadoes, other inclement weather events or natural disasters, employee malfeasance, terrorist

acts, power outages, or otherwise, our business could be severely disrupted. If our present and/or future Madison, Wisconsin, manufacturing facility or laboratory is disrupted, we may not be able to produce or perform our Cologuard test or generate test reports as promptly as patients and healthcare providers require or expect, or possibly not at all. If we are unable to perform our Cologuard test or generate test reports within a timeframe that meets patient and healthcare provider expectations, our business, financial results and reputation could be materially harmed.

We currently maintain insurance against damage to our property and equipment and against business interruption, subject to deductibles and other limitations. If we have underestimated our insurance needs with respect to an interruption, or if an interruption is not subject to coverage under our insurance policies, we may not be able to cover our losses.

We rely upon certain single-source suppliers and loss or interruption of supply from single-source suppliers could have a disruptive effect on our business.

We purchase certain supplies from third-party suppliers and manufacturers. In some cases, due to the unique attributes of products that are incorporated into our Cologuard test, we maintain a single-source supplier relationship. These third parties are independent entities subject to their own unique operational, regulatory compliance, and financial risks that are outside our control. These third parties may not perform their obligations in a timely and cost-effective manner and they may be unwilling to increase production capacity commensurate with demand for our Cologuard test or future products or services. Moreover, we may become dependent on other single-source suppliers as we expand and develop our product pipeline. The loss of a single-source supplier, the failure to perform by a single-source supplier, the deterioration of our relationship with a single-source supplier or any unilateral modification to the contractual terms under which we are supplied materials by a single-source supplier could have a disruptive effect on our business, and could adversely affect our results of operations.

Failure in our information technology, storage systems or our clinical laboratory equipment could significantly disrupt our operations and our research and development efforts, which could adversely impact our revenues, as well as our research, development and commercialization efforts.

Our ability to execute our business strategy depends, in part, on the continued and uninterrupted performance of our information technology ("IT") systems, which support our operations, including at our clinical laboratory, and our research and development efforts. We are substantially dependent on our IT systems to receive and process Cologuard test orders, securely store patient health records and deliver the results of our Cologuard tests. The integrity and protection of our own data, and that of our customers and employees, is critical to our business. The regulatory environment governing information, security and privacy laws is increasingly demanding and continues to evolve. IT 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 our servers are potentially vulnerable to physical or electronic break-ins, computer viruses and similar disruptive problems. Despite the precautionary measures we have taken to prevent unanticipated problems that could affect our IT systems, sustained or repeated system failures that interrupt our ability to generate and maintain data, and in particular to operate our clinical laboratory, could adversely affect our ability to operate our business. Any interruption in the operation of IT systems could have an adverse effect on our operations. Furthermore, any breach in our IT systems could lead to the unauthorized access, disclosure and use of non-public information, including protected health information, which is protected by HIPAA and other laws. Any such access, disclosure, or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, and damage to our reputation.

System upgrades and enhancements require significant expenditures and allocation of valuable employee resources. We are currently in the process of upgrading our systems with SAP SE. Additionally we continuously upgrade our customer facing software applications. On November 12, 2018, we entered into an agreement with Epic Systems Corporation ("Epic") pursuant to which we will use Epic's software to handle multiple components of our information technology system, from order entry all the way through revenue cycle and customer care. Delays in integration or disruptions to our business from implementation of these new or upgraded systems could have a material adverse impact on our financial condition and operating results. There can be no assurance that our process of improving existing systems, developing new systems to support our expanding operations, integrating new systems, protecting confidential patient information, and improving service levels will not be delayed or that additional systems issues will not arise in

the future. Failure to adequately protect and maintain the integrity of our information systems issues and data may result in a material adverse effect on our financial position, results of operations and cash flows.

We rely on courier delivery services to transport Cologuard collection kits to patients and samples back to laboratory facilities for analysis. If these delivery services are disrupted or become prohibitively expensive, customer satisfaction and our business could be negatively impacted.

In most cases, we ship Cologuard collection kits to patients, and patients ship samples to our Madison, Wisconsin, laboratory facility for analysis, by air and ground express courier delivery service. Disruptions in delivery service, whether due to bad weather, natural disaster, labor disruptions, terrorist acts or threats, or for other reasons, can adversely affect customer satisfaction, specimen quality and our ability to provide our services on a timely basis. If the courier delivery services that transport Cologuard collection kits institute significant price increases, our profitability would be negatively affected and we may need to identify alternative delivery methods, if possible, modify our service model, or attempt to raise our pricing, which may not be possible with regard to Medicare claims or commercially practicable with regard to commercial claims.

Due to billing complexities in the diagnostic and laboratory service industry, we may not be able to collect payment for the Cologuard tests we perform.

Billing for diagnostic and laboratory services is a complex process. Laboratories bill many different payers including patients, private insurance companies, Medicare, Medicaid, and employer groups, all of which have different billing requirements. We are continuing to work with third-party payers to cover and reimburse Cologuard tests. If we are unsuccessful, we may not receive payment for Cologuard tests we perform for patients on a timely basis, if at all, and we may not be able to provide services for patients with certain healthcare plans. We may have to litigate to enforce coverage obligations under Medicare laws and laws that mandate coverage for certain colorectal cancer screening tests or to enforce contractual coverage obligations. Such litigation may be costly, may divert management attention from other responsibilities, may cause payers, including those not directly involved in the litigation, to resist contracting with us, and may ultimately prove unsuccessful for a variety of reasons. We may face lawsuits by government or commercial payers if they believe they have overpaid us for our Cologuard test services or as a result of other circumstances. We may face write-offs of doubtful accounts, disputes with payers and patients, and long collection cycles. We may face patient dissatisfaction, complaints or lawsuits, including to the extent Cologuard tests are not fully covered by insurers and patients become responsible for all or part of the price of the test. As a result, patient demand for Cologuard could be adversely affected. To the extent patients express dissatisfaction with our billing practices to their physicians, those physicians may be less likely to prescribe Cologuard for other patients, and our business would be adversely affected.

Even if payers do agree to cover Cologuard, our billing and collections process may be complicated by the following and other factors, which may be beyond our control:

- disputes among payers as to which payer is responsible for payment;
- disparity in coverage among various payers or among various healthcare plans offered by a single payer;
- payer medical management requirements, including prior authorization requirements;
- differing information and billing requirements among payers; and
- failure by patients or physicians to provide complete and correct billing information.

Sometimes, when we have a contract with a commercial payer to cover Cologuard, we are not permitted to bill patients insured by that payer for amounts beyond deductibles, co-payments and co-insurance as prescribed in the coverage agreement between the payer and the patients. Therefore, when such contracted payers do not pay us our full, contracted rate for a Cologuard test, for example, for failure to satisfy prior-authorization or other payer medical management requirements, we may not be permitted to collect the balance from the patient and our business is adversely impacted.

The uncertainty of receiving payment for our Cologuard test and complex laboratory billing processes could negatively affect our business and our operating results.

We may be subject to substantial costs and liability, or be prevented from using technologies incorporated in our Cologuard test, as a result of litigation or other proceedings relating to patent or other intellectual property rights.

Third parties may assert infringement or other intellectual property claims against our licensors, our licensees, our suppliers, our strategic partners or us. We pursue a patent strategy that we believe provides us with a competitive advantage in the non-invasive early detection of colorectal cancer and pre-cancer and is designed to maximize our patent protection against third parties. We have filed patent applications that we believe cover the methods we have designed and use in our Cologuard test to detect colorectal cancer and pre-cancer. In order to protect or enforce our patent and other intellectual property rights, we may have to initiate actions against third parties. Any actions regarding patents could be costly and time-consuming and divert the attention of our management and key personnel from our business. Additionally, such actions could result in challenges to the validity or applicability of our patents. Because the U.S. Patent & Trademark Office maintains patent applications in secrecy until a patent application publishes or the patent is issued, we have no way of knowing if others may have filed patent applications covering technologies used by us or our partners. Additionally, there may be third-party patents, patent applications and other intellectual property relevant to our technologies that may block or compete with our technologies. From time to time we have received correspondence from third parties alleging to hold intellectual property rights that could block our development or commercialization of products. While none of these inquiries to date have had any material effect on us, we may receive inquiries in the future that could have a material effect on our business. Even if third-party claims are without merit, defending a lawsuit may result in substantial expense to us and may divert the attention of management and key personnel. In addition, we cannot provide assurance that we would prevail in any such suits to the extent necessary to conduct our business according to our strategic plan or that the damages or other remedies, if any, awarded against us would not be substantial. Claims of intellectual property infringement may require that we, or our strategic partners, enter into royalty or license agreements with third parties that may only be available on unacceptable terms, if at all. These claims may also result in injunctions against the further development and commercial sale of services or products containing our technologies, which would have a material adverse effect on our business, financial condition and results of operations.

Also, patents and patent applications owned by us may become the subject of interference proceedings in the U.S. Patent and Trademark Office to determine priority of invention, which could result in substantial cost to us as well as a possible adverse decision as to the priority of invention of the patent or patent application involved. An adverse decision in an interference proceeding may result in the loss of rights under a patent or patent application subject to such a proceeding.

If we are unable to protect our intellectual property effectively, we may be unable to prevent third parties from using our intellectual property, which would impair any competitive advantage we may otherwise have.

We rely on patent protection as well as a combination of trademark, copyright and trade secret protection and other contractual restrictions to protect our proprietary technologies and other intellectual property rights, all of which provide limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. If we fail to protect our intellectual property, third parties may be able to compete more effectively against us and we may incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property, which may not be entirely successful, if at all. Additionally, certain of our patents began to expire in 2018. This loss of intellectual property protection may permit third parties to use certain intellectual property assets previously exclusively reserved for our use.

We cannot assure you that any of our currently pending or future patent applications will result in issued patents, and we cannot predict how long it will take for any such patents to be issued. Further, we cannot assure you that other parties will not challenge any patents issued to us or that courts or regulatory agencies will hold our patents to be valid or enforceable. We have been in the past, and may be in the future, the subject of opposition proceedings relating to our patents. We cannot guarantee you that we will be successful in defending challenges made against our patents and patent applications. Any successful third-party challenge to our patents could result in co-ownership of such patents with the third party or the unenforceability or invalidity of such patents. Furthermore, in the life sciences field, courts frequently render opinions that may affect the patentability of certain inventions or discoveries, including opinions that may affect the patentability of isolated DNA and/or methods for analyzing or comparing DNA. Such decisions may adversely impact our ability to obtain new patents and facilitate third-party challenges to our existing patents.

Even where we have valid patents, third parties may be able to successfully design their products and services around those patents, such that their products and services do not infringe our patents. To the extent third parties are

able to develop or commercialize competing products and services that do not infringe our patents, our business will be adversely impacted.

We depend on trademarks to establish a market identity for our company and our products and services. To maintain the value of our trademarks, we may have to file lawsuits against third parties to prevent them from using trademarks confusingly similar to or dilutive of our registered or unregistered trademarks. We also may not obtain registrations for our pending or future trademark applications, and might have to defend our registered trademarks and pending applications from challenges by third parties. Enforcing or defending our registered and unregistered trademarks might result in significant litigation costs and, if we are unsuccessful, might result in damages, including the inability to continue using certain trademarks.

Our business is subject to various complex laws and regulations. We could be subject to significant fines and penalties if we or our partners fail to comply with these laws and regulations.

As a provider of clinical diagnostic products and services, we and our partners are subject to extensive and frequently changing federal, state and local laws and regulations governing various aspects of our business. In particular, the clinical laboratory industry is subject to significant governmental certification and licensing regulations, as well as federal and state laws regarding:

- test ordering and billing practices;
- marketing, sales and pricing practices;
- health information privacy and security, including the Health Insurance Portability and Accountability Act of 1996, or HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act of 2009, or HITECH, and comparable state laws;
- insurance;
- anti-markup legislation; and
- consumer protection.

We are also required to comply with FDA regulations, including with respect to our labeling and promotion activities. In addition, advertising of our tests is subject to regulation by the Federal Trade Commission, or FTC, and advertising of laboratory services is regulated by certain state laws. Violation of any FDA requirement could result in enforcement actions, such as seizures, injunctions, civil penalties and criminal prosecutions, and violation of any FTC or state law requirement could result in injunctions and other associated remedies, all of which could have a material adverse effect on our business. Most states also have similar regulatory and enforcement authority for devices. Additionally, most foreign countries have authorities comparable to the FDA and processes for obtaining marketing approvals. Obtaining and maintaining these approvals, and complying with all laws and regulations, may subject us to similar risks and delays as those we could experience under FDA, FTC and state regulation. We incur various costs in complying and overseeing compliance with these laws and regulations.

Healthcare policy has been a subject of extensive discussion in the executive and legislative branches of the federal and many state governments and healthcare laws and regulations are subject to change. Development of the existing commercialization strategy for our Cologuard test and planned development of products in our pipeline has been based on existing healthcare policies. We cannot predict what additional changes, if any, will be proposed or adopted or the effect that such proposals or adoption may have on our business, financial condition and results of operations.

If we or our partners, including Pfizer, fail to comply with these laws and regulations, we could incur significant fines and penalties and our reputation and prospects could suffer. Additionally, any such partners could be forced to cease offering our products and services in certain jurisdictions, which could materially disrupt our business.

Some of our activities may subject us to risks under federal and state laws prohibiting 'kickbacks' and false or fraudulent claims.

In addition to FDA marketing and promotion restrictions, several other types of state and federal healthcare fraud and abuse laws have been applied in recent years to restrict certain marketing practices in the healthcare product and service industry and to regulate billing practices and financial relationships with physicians, hospitals and other healthcare providers. These laws include a federal law commonly known as the Medicare/Medicaid anti-kickback law, and several similar state laws, which prohibit payments intended to induce physicians or others either to refer patients or

to acquire or arrange for or recommend the acquisition of healthcare products or services. While the federal law applies only to referrals, products or services for which payment may be made by a federal healthcare program, state laws often apply regardless of whether federal funds may be involved. These laws constrain the sales, marketing and other promotional activities of manufacturers of medical devices and providers of laboratory services by limiting the kinds of financial arrangements, including sales programs, that may be used with hospitals, physicians, laboratories and other potential purchasers or prescribers of medical devices and laboratory services. Other federal and state laws generally prohibit individuals or entities from knowingly presenting, or causing to be presented, claims for payment from Medicare, Medicaid, or other third-party payers that are false or fraudulent, or are for items or services that were not provided as claimed. Additionally, to avoid liability under federal false claims laws, we must carefully and accurately code claims for reimbursement, proactively monitor the accuracy and appropriateness of Medicare claims and payments received, diligently investigate any credible information indicating that we may have received an overpayment, and promptly return any overpayments. Medicare payments are subject to audit, including through the Comprehensive Error Rate Testing (CERT) program, and payments may be recouped by CMS if it is determined that they were improperly made. Currently, a significant percentage of our revenues are generated by payments from Medicare. The federal anti-kickback statute and certain false claims laws prescribe civil and criminal penalties (including fines) for noncompliance that can be substantial. While we continually strive to comply with these complex requirements, interpretations of the applicability of these laws to marketing and billing practices are constantly evolving and even an unsuccessful challenge could cause adverse publicity and be costly to respond to, and thus could harm our business and prospects. Our failure to comply with applicable laws could result in various adverse consequences that could have a material adverse effect upon our business, including the exclusion of our products and services from government programs and the imposition of civil or criminal sanctions.

Compliance with the HIPAA security, privacy and breach notification regulations may increase our costs.

The HIPAA privacy, security and breach notification regulations, including the expanded requirements under HITECH, establish comprehensive federal standards with respect to the uses and disclosures of protected health information ("PHI") by health plans, healthcare providers and healthcare clearinghouses, in addition to setting standards to protect the confidentiality, integrity and security of PHI. The regulations establish a complex regulatory framework on a variety of subjects, including:

- the circumstances under which uses and disclosures of PHI are permitted or required without a specific authorization by the patient, including but not limited to treatment purposes, activities to obtain payments for our services, and our healthcare operations activities;
- a patient's rights to access, amend and receive an accounting of certain disclosures of PHI;
- requirements to notify individuals if there is a breach of their PHI;
- the contents of notices of privacy practices for PHI;
- administrative, technical and physical safeguards required of entities that use or receive PHI; and
- the protection of computing systems maintaining electronic PHI.

We have implemented practices to meet the requirements of the HIPAA privacy, security and breach notification regulations, as required by law. We are required to comply with federal privacy, security and breach notification regulations as well as varying state privacy, security and breach notification laws and regulations, which may be more stringent than federal HIPAA requirements. In addition, for healthcare data transfers from other countries relating to citizens of those countries, we must comply with the laws of those countries. The federal privacy regulations restrict our ability to use or disclose patient identifiable data, without patient authorization, for purposes other than payment, treatment, healthcare operations and certain other specified disclosures such as public health and governmental oversight of the healthcare industry.

HIPAA provides for significant fines and other penalties for wrongful use or disclosure of PHI, including potential civil and criminal fines and penalties. Computer networks are always vulnerable to breach and unauthorized persons may in the future be able to exploit weaknesses in the security systems of our computer networks and gain access to PHI. Additionally, we share PHI with third-parties who are legally obligated to safeguard and maintain the confidentiality of PHI. Unauthorized persons may be able to gain access to PHI stored in such third-parties computer networks. Any wrongful use or disclosure of PHI by us or such third-parties, including disclosure due to data theft or unauthorized access to our or our third-parties computer networks, could subject us to fines or penalties that could adversely affect our business and results of operations. Although the HIPAA statute and regulations do not expressly provide for a private

right of damages, we could also incur damages under state laws to private parties for the wrongful use or disclosure of confidential health information or other private personal information.

While we believe we currently have adequate internal control over financial reporting, we are required to assess our internal control over financial reporting on an annual basis and any future adverse results from such assessment could result in a loss of investor confidence in our financial reports and have an adverse effect on our stock price.

Pursuant to the Sarbanes-Oxley Act of 2002 and the rules and regulations promulgated by the SEC, we are required to furnish in our Form 10-K a report by our management regarding the effectiveness of our internal control over financial reporting. The report includes, among other things, an assessment of the effectiveness of our internal control over financial reporting as of the end of our fiscal year, including a statement as to whether or not our internal control over financial reporting is effective. This assessment must include disclosure of any material weaknesses in our internal control over financial reporting identified by management. While we believe our internal control over financial reporting is currently effective, the effectiveness of our internal controls in future periods is subject to the risk that our controls may become inadequate because of changes in conditions. Establishing, testing and maintaining an effective system of internal control over financial reporting requires significant resources and time commitments on the part of our management and our finance staff, may require additional staffing and infrastructure investments and would increase our costs of doing business. If we are unable to assert that our internal control over financial reporting is effective in any future period (or if our auditors are unable to express an opinion on the effectiveness of our internal controls or conclude that our internal controls are ineffective), we could lose investor confidence in the accuracy and completeness of our financial reports, which could have an adverse effect on our stock price.

The success of our business is substantially dependent upon the efforts of our senior management team.

Our success depends largely on the skills, experience and performance of key members of our senior management team including Kevin Conroy, our Chairman, President and Chief Executive Officer, Mark Stenhouse, our President of Cologuard, Scott Coward, our Senior Vice President, General Counsel and Chief Administrative Officer, Scott Johnson, our Senior Vice President of Research & Development, and Jeff Elliott, our Chief Financial Officer. These executives are critical to directing and managing our growth and development in the future. Our success is substantially dependent upon our senior management's ability to lead our company, implement successful corporate strategies and initiatives, develop key relationships, including relationships with collaborators and business partners, and successfully commercialize products and services. While our management team has experience in developing and securing FDA approvals for diagnostic products, we have considerably less experience in commercializing products or services. The efforts of our management team will be critical to us as we develop our technologies and seek to commercialize our Cologuard test and other products and services.

Our success depends on our ability to retain our managerial personnel and to attract additional personnel.

Our success depends in large part on our ability to attract and retain managerial personnel. If we were to lose any of our senior management team, we may experience difficulties in competing effectively, developing our technologies and implementing our business strategies. Competition for desirable personnel is intense, and there can be no assurance that we will be able to attract and retain the necessary staff. The failure to maintain management or to attract sales and marketing personnel as we commercialize our Cologuard test could materially adversely affect our business, financial condition and results of operations.

Our management has broad discretion over the use of our available cash and marketable securities and might not spend available cash and marketable securities in ways that increase the value of your investment.

As of December 31, 2018, we had $1.1 billion in combined cash and marketable securities. Our management currently expects to deploy these resources primarily to expand our Cologuard operation and commercialization activities, to fund our product development efforts and for general corporate and working capital purposes. However, our management has broad discretion to pursue other objectives and we may use these funds for other purposes. Our management might not effectively deploy our cash and marketable securities which could have an adverse effect on our business.

Our business and reputation will suffer if we are unable to establish and comply with, stringent quality standards to assure that the highest level of quality is observed in the performance of our Cologuard test.

Inherent risks are involved in providing and marketing cancer screening and diagnostic tests, such as our Cologuard test, and related services. Patients and healthcare providers rely on us to provide accurate clinical and diagnostic information that may be used to make critical healthcare decisions. As such, users of our Cologuard test may have a greater sensitivity to errors than users of some other types of products and services.

We must maintain top service standards and FDA-mandated and other quality controls. Performance defects, incomplete or improper process controls, excessively slow turnaround times, unanticipated uses of Cologuard or mishandling of stool samples or Cologuard test results (whether by us, patients, healthcare providers, courier delivery services or others) can lead to adverse outcomes for patients and interruptions to our services. These events could lead to voluntary or legally mandated safety alerts relating to Cologuard or our laboratory facility and could result in the removal of Cologuard from the market or the suspension of our laboratory's operations. Insufficient quality controls and any resulting negative outcomes could result in significant costs and litigation, as well as negative publicity that could reduce demand for Cologuard and payers' willingness to cover our Cologuard test. Even if we maintain adequate controls and procedures, damaging and costly errors may occur.

Product and professional liability suits against us could result in expensive and time-consuming litigation, payment of substantial damages and increases in our insurance rates.

The sale and use of our Cologuard test could lead to product or professional liability claims. Such claims could also arise out of clinical studies we may conduct or any of our other activities. A product or professional liability claim could result in substantial damages, be costly and time consuming to defend, and cause material harm to our business, reputation or financial condition. We cannot assure you that our liability insurance would protect our assets from the financial impact of defending a product or professional liability claim. Any claim brought against us, with or without merit, could increase our liability insurance rates or prevent us from securing insurance coverage in the future.

We expect to rely on third parties to conduct any future studies of our technologies that may be required by the FDA or other US or foreign regulatory bodies, and those third parties may not perform satisfactorily.

We do not have the ability to independently conduct the clinical or other studies that will be required to obtain FDA or other regulatory approvals or clearances for future products we may develop or the approval of foreign regulatory bodies that may be required for such future products or for our Cologuard test to the extent we seek to market products internationally. Accordingly, we expect to rely on third parties such as contract research organizations, medical institutions and clinical investigators to conduct any such studies, including the post-approval study required by the FDA for our Cologuard test. Our reliance on these third parties for clinical development activities will reduce our control over these activities. These third-parties may not complete activities on schedule or conduct studies in accordance with regulatory requirements or our study design. Our reliance on third parties that we do not control will not relieve us of our requirement to prepare, and ensure our compliance with, various procedures required under good clinical practices, even though third-party contract research organizations may prepare and comply with their own, comparable procedures. If these third parties do not successfully carry out their contractual duties or regulatory obligations or meet expected deadlines, if the third parties need to be replaced or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our clinical protocols or regulatory requirements or for other reasons, our studies may be extended, delayed, suspended or terminated, and we may not be able to obtain a required regulatory approval.

Our inability to manage growth could harm our business.

In connection with the commercialization of our Cologuard test, we have added, and expect to continue to add, additional personnel in the areas of sales and marketing, laboratory operations, billing and collections, quality assurance and compliance. Our number of full-time employees has increased from 736, as of December 31, 2016, to 1,268, as of December 31, 2017, and to 1,977, as of December 31, 2018. Further, as we build our commercialization efforts and expand research and development activities for new products and services, the scope and complexity of our operations is increasing significantly. As a result of our growth, our operating expenses and capital requirements have also increased, and we expect that they will continue to increase, significantly. Our ability to manage our growth effectively requires us to expend funds to improve our operational, financial and management controls, reporting systems and procedures. As we move forward in commercializing our Cologuard test, we will also need to effectively manage our growing

manufacturing, laboratory operations and sales and marketing needs. We are presently seeking to add facilities to support anticipated demand for our Cologuard test and anticipated associated growth in our personnel. We are expanding the capacity of our existing clinical laboratory, and have started construction of a second clinical laboratory, both in Madison, Wisconsin. We have begun construction on new manufacturing, warehouse and office facilities. We face various risks in managing these expansion efforts, including financing, construction delays, budget management, quality control, design efficiency, and transition execution. If we are unable to manage our anticipated growth effectively, our business could be harmed.

International operations could subject us to risks and expenses that could adversely impact our business and results of operations.

To date, we have not undertaken substantial commercial activities outside the United States. We have evaluated the commercialization of Cologuard in several European, Middle Eastern and Asian countries. After undertaking preliminary preparatory activities, we determined to cease those efforts and we do not have present plans to expand Cologuard internationally. If we seek to expand Cologuard internationally, or launch other products or services internationally, in the future, those efforts would expose us to risks from the failure to comply with foreign laws and regulations that differ from those under which we operate in the U.S., as well as U.S. rules and regulations that govern foreign activities such as the U.S. Foreign Corrupt Practices Act. In addition, we could be adversely affected by other risks associated with operating in foreign countries. Economic uncertainty in some of the geographic regions in which we might operate, including developing regions, could result in the disruption of commerce and negatively impact cash flows from our operations in those areas. Also, if we choose to pursue international expansion efforts, it may be necessary or desirable to contract with third parties, such as laboratories, distributors or others. We may not be able to enter into such agreements on commercially acceptable terms, or at all, such arrangements may not perform to our expectations, we may be exposed to various risks as a result of the activities of our partners, and we may be exposed to contractual or other liabilities to our partners if the arrangements prove non-beneficial for them or if we seek to terminate them early.

These and other factors may have a material adverse effect on any international operations we may seek to undertake and, consequently, on our financial condition and results of operations.

Delaware law, our charter documents and certain provisions of our convertible notes could impede or discourage a takeover or change of control that stockholders may consider favorable.

As a Delaware corporation, we are subject to certain anti-takeover provisions. Under Delaware law, a corporation may not engage in a business combination with any holder of 15 percent or more of its capital stock unless the holder has held the stock for three years or, among other things, the board of directors has approved the transaction. Accordingly, our board of directors could rely on Delaware law to prevent or delay an acquisition of our company. In addition, certain provisions of our certificate of incorporation and bylaws may have the effect of delaying or preventing a change of control or changes in our management. These provisions include the following:

- Our board of directors is divided into three classes serving staggered three-year terms.
- Only our board of directors can fill vacancies on the board.
- Our stockholders may not act by written consent.
- There are various limitations on persons authorized to call a special meeting of stockholders and advance notice requirements for stockholders to make nominations of candidates for election as directors or to bring matters before an annual meeting of stockholders.
- Our board of directors may issue, without stockholder approval, shares of undesignated preferred stock.

These types of provisions could make it more difficult for a third party to acquire control of us, even if the acquisition would be beneficial to our stockholders.

Certain provisions of the $690 million and $218.5 million of convertible notes we issued in January 2018 and June 2018, respectively, could make it more difficult or more expensive for a third party to acquire us. Upon the occurrence of certain transactions constituting a “fundamental change,” as such term is defined in the indenture for the notes, holders of the convertible notes will have the right, at their option, to require us to repurchase all of their convertible notes or any portion of the principal amount of such convertible notes in integral multiples of $1,000. We may also be required to increase the conversion rate in the event of a “make-whole fundamental change,” as such term is defined in

the indenture for the notes. In addition, the indenture and the convertible notes will prohibit us from engaging in certain mergers or acquisitions unless, among other things, the surviving entity assumes our obligations under the convertible notes and the indenture. These and other provisions in the indenture could deter or prevent a third party from acquiring us.

Our bylaws provide, subject to certain exceptions, that the Court of Chancery of the State of Delaware will be the sole and exclusive forum for certain stockholder litigation matters, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees or stockholders.

Our bylaws provide, subject to limited exceptions, that the Court of Chancery of the State of Delaware will, to the fullest extent permitted by law, be the sole and exclusive forum for any claims, including any derivative actions or proceedings brought on our behalf, (1) that are based upon a violation of a duty by a current or former director or officer or stockholder in such capacity or (2) that may be brought in the Court of Chancery pursuant to the Delaware General Corporation Law. Any person or entity purchasing or otherwise acquiring any interest in shares of our common stock shall be deemed to have notice of and to have consented to the provisions of our bylaws described above. This choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or any of our directors, officers, other employees or stockholders which may discourage lawsuits with respect to such claims. Alternatively, if a court were to find the choice of forum provision that is contained in our bylaws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could materially adversely affect our business, financial condition and results of operations.

We may engage in acquisitions that could disrupt our business, cause dilution to our stockholders and reduce our financial resources.

We have recently undertaken certain acquisition activities. In 2018, we acquired the stock of Biomatrica, Inc. We could incur losses resulting from yet undiscovered liabilities of these acquired business that are not covered by any indemnification or other contractual remedies. In addition, we may not be able to successfully integrate these businesses into our existing operations in an effective, timely and non-disruptive manner.

In the future, we may enter into transactions to acquire other businesses, products, services or technologies. Because we have only made a limited number of small acquisitions to date, our ability to do so successfully is unproven. If we do identify suitable candidates, we may not be able to make such acquisitions on favorable terms or at all. Any acquisitions we make may not strengthen our competitive position, and these transactions may be viewed negatively by investors, healthcare providers, patients and others. We may decide to incur debt in connection with an acquisition or issue our common stock or other securities to the stockholders of the acquired company, which would reduce the percentage ownership of our existing stockholders. We could incur losses resulting from undiscovered liabilities of the acquired business that are not covered by any indemnification we may obtain from the seller. In addition, we may not be able to successfully integrate the acquired personnel, technologies and operations into our existing business in an effective, timely and non-disruptive manner. Acquisitions may also divert management from day-to-day responsibilities, increase our expenses and reduce our cash available for operations and other uses. We cannot predict the number, timing or size of future acquisitions or the effect that any such transactions might have on our operating results.

Our ability to use our net operating losses to offset future taxable income may be subject to certain limitations.

As of December 31, 2018, we had federal and state net operating loss carryforwards ("NOLs") of approximately $937.4 million and $403.5 million, respectively. In general, under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), a corporation that undergoes an "ownership change" is subject to limitations on its ability to utilize its pre-change NOLs to offset future taxable income. An ownership change is generally defined as a greater than 50 percent change in equity ownership by value over a specified time period (generally three years). Given the Code's broad definition, an ownership change could be the unintended consequence of otherwise normal market trading in our stock that is outside our control. An ownership change under Section 382 of the Code could also be triggered by certain strategic transactions. Additionally, tax law limitations may result in our NOLs expiring before we have the ability to use them. Pursuant to the Tax Cuts and Jobs Act (H.R. 1) of 2017 federal NOLs arising in tax years beginning after December 31, 2017 have an indefinite carryover period and may only be used to offset 80 percent of current year taxable income. For these reasons, even if we attain profitability our ability to utilize our NOLs may be limited, potentially significantly so.

Our stock price has fluctuated widely and is likely to continue to be volatile.

The market price for our common stock varied between a high of $82.85 and a low of $37.36 in the twelve-month period ended December 31, 2018. Our stock price is likely to continue to be volatile and subject to significant price and volume fluctuations in response to market and other factors, including those listed in this "Item 1A. Risk Factors" section and other, unknown factors. Our stock price also may be affected by:

- comments by securities analysts regarding our business or prospects;
- our quarterly operating performance;
- our issuance of common stock or other securities;
- our inability to accurately forecast future performance;
- our inability to meet analysts' expectations;
- our entering into merger, acquisition or other similar transactions;
- general fluctuations in the stock market or in the stock prices of companies in the life sciences or healthcare diagnostics industries; and
- general conditions and publicity regarding the life sciences or healthcare diagnostics industries.

Consequently, the current market price of our common stock may not be indicative of future market prices, and we may be unable to sustain or increase the value of an investment in our common stock. Further, sharp drops in the market price of our common stock, such as we experienced at certain times in our history, may expose us to securities class-action litigation. Such litigation could result in substantial expenses and diversion of management's attention and corporate resources, which would seriously harm our business, financial condition, and results of operations.

We have never paid cash dividends and do not intend to do so.

We have never declared or paid cash dividends on our common stock. We currently plan to retain any earnings to finance the growth of our business rather than to pay cash dividends. Payments of any cash dividends in the future will depend on our financial condition, results of operations and capital requirements, as well as other factors deemed relevant by our board of directors.

Our indebtedness could adversely affect our business, financial condition and results of operations and our ability to meet our payment obligations under such indebtedness.

Pursuant to the convertible note offerings we completed in 2018 we incurred $908.5 million of indebtedness, and we have a construction loan outstanding of $24.3 million as of December 31, 2018. This level of debt could have significant consequences on our future operations, including:

- increasing our vulnerability to adverse economic and industry conditions;
- making it more difficult for us to meet our payment and other obligations;
- making it more difficult to obtain any necessary future financing for working capital, capital expenditures, debt service requirements or other purposes;
- requiring the dedication of a substantial portion of any cash flow from operations to service our indebtedness, thereby reducing the amount of cash flow available for other purposes, including capital expenditures;
- placing us at a possible competitive disadvantage with competitors that are less leveraged than us or have better access to capital than we have; and
- limiting our flexibility in planning for, or reacting to, changes in our business and the markets in which we compete.

Any of the above-listed factors could have an adverse effect on our business, financial condition and results of operations and our ability to meet our payment obligations under the convertible notes.

Our ability to meet our payment and other obligations under the convertible notes depends on our ability to generate significant cash flow in the future. This, to some extent, is subject to general economic, financial, competitive, legislative and regulatory factors as well as other factors that are beyond our control. We cannot assure you that our business will generate cash flow from operations, or that future borrowings will be available to us, in an amount

sufficient to enable us to meet our payment obligations under the convertible notes and to fund other liquidity needs. If we are not able to generate sufficient cash flow to service our debt obligations, we may need to refinance or restructure our debt, including the convertible notes, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we are unable to implement one or more of these alternatives, we may not be able to meet our payment obligations under the convertible notes, and such a default could cause us to be in default on any other currently existing or future outstanding indebtedness

Servicing our debt will require a significant amount of cash, and we may not have sufficient cash flow from our business to pay amounts due under our indebtedness, including the convertible notes.

Our ability to make scheduled payments of the principal of, to pay interest on or to refinance our indebtedness, including the $908.5 million aggregate principal amount of 1.0% convertible senior notes due 2025 depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue to generate cash flow from operations in the future sufficient to service our debt, including the convertible notes, and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring debt or obtaining additional equity capital on terms that may be onerous or highly dilutive. Our ability to refinance our indebtedness will depend on the capital markets and our financial condition at such time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in a default on our debt obligations.

Item 1B. Unresolve d Staff Comments

None.

Item 2. Propertie s

As of December 31, 2018, we occupied approximately 437,000 square feet of space at our significant facilities in the Madison, Wisconsin area, a 10,000 square foot facility in San Diego California, a 6,000 square foot facility in Ann Arbor, Michigan, and a 5,000 square foot facility in Salt Lake City, Utah. See Note 7 in the Notes to Consolidated Financial Statements included in Part II, Item 8, “Consolidated Financial Statements and Supplementary Data” for further discussion surrounding our leased facilities and Note 9 in the Notes to our Consolidated Financial Statements for further discussion surrounding mortgages on our owned properties.

As of December 31, 2018, our facilities are as follows:

Location	Primary Function	Total Square Feet (approx.)	Leased or Owned
Madison, Wisconsin	Research and development	48,000	Leased
Madison, Wisconsin	Corporate offices	160,000	Owned
Madison, Wisconsin	Operations	35,000	Leased
Madison, Wisconsin	Operations	66,000	Leased
Madison, Wisconsin	Clinical laboratory	55,000	Leased
Madison, Wisconsin	Corporate offices	45,000	Leased
Salt Lake City, Utah	Corporate offices	5,000	Leased
San Diego, California	Corporate offices	10,000	Leased
Ann Arbor, Michigan	Research and development	6,000	Leased
Madison, Wisconsin	Corporate offices	2,000	Leased
Middleton, Wisconsin	Corporate offices	26,000	Leased

Item 3. Legal Proceeding s

From time to time we are a party to various legal proceedings arising in the ordinary course of our business. We are not currently a party to any pending litigation that we believe is likely to have a material adverse effect on our business operations or financial condition.

Item 4. Mine Safet y Disclosures

Not applicable.

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PART I I

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

Our common stock is currently listed on the NASDAQ Capital Market under the symbol "EXAS."

As of February 20, 2019, there were 125,760,907 shares of our common stock outstanding held by approximately 85 holders of record.

We have never paid any cash dividends on our capital stock and do not plan to pay any cash dividends in the foreseeable future.

Item 6. Selected Financial Dat a

The selected historical financial data for the five years ended December 31, 2018 is derived from our audited consolidated financial statements. The selected historical financial data should be read in conjunction with, and is qualified by reference to "Management's Discussion and Analysis of Financial Condition and Results of Operations," and our consolidated financial statements and notes thereto.

	Year Ended December 31,				
	2018	2017	2016	2015	2014
	(Amounts in thousands, except per share data)				
Statements of Operations Data:					
Revenue:	$ 454,462	$ 265,989	$ 99,376	$ 39,437	$ 1,798
Cost of sales(1)	117,982	79,196	45,195	24,501	4,325
Gross margin	336,480	186,793	54,181	14,936	(2,527)
Operating expenses:					
Research and development(1)	68,210	42,139	33,473	33,914	28,669
General and administrative(1)	178,293	109,040	76,898	57,950	30,435
Sales and marketing(1)	249,448	153,924	112,826	82,140	38,908
	495,951	305,103	223,197	174,004	98,012
Loss from operations	(159,471)	(118,310)	(169,016)	(159,068)	(100,539)
Investment income	21,203	3,932	2,018	1,271	542
Interest expense	(36,789)	(206)	(213)	(6)	(51)
Net loss before tax	(175,057)	(114,584)	(167,211)	(157,803)	(100,048)
Income tax benefit (expense)	(92)	187	—	—	—
Net loss	$ (175,149)	$ (114,397)	$ (167,211)	$ (157,803)	$ (100,048)
Net loss per share:					
Basic and diluted	$ (1.43)	$ (0.99)	$ (1.63)	$ (1.71)	$ (1.25)
Weighted average common shares outstanding:					
Basic and diluted	122,207	115,684	102,335	92,135	80,232
Balance Sheet Data:					
Cash and cash equivalents	$ 160,430	$ 77,491	$ 48,921	$ 41,135	$ 58,131
Marketable securities	963,752	347,224	262,179	265,744	224,625
Total assets	1,524,022	598,560	377,040	364,030	312,824
Convertible notes, net	664,749	—	—	—	—
Long-term debt	24,073	4,269	4,633	4,789	1,000
Other long-term liabilities	9,475	5,633	5,734	4,601	3,599
Total liabilities	843,081	78,142	41,745	37,174	23,840
Stockholders' equity	680,941	520,418	335,295	326,856	288,984

(1) Non-cash stock-based compensation expense included in these amounts are as follows:

	2018	2017	2016	2015	2014
Cost of sales	$ 3,531	$ 1,783	$ 1,064	$ 876	$ 279
Research and development	10,189	6,836	4,014	3,744	4,149
General and administrative	34,181	20,221	14,597	9,358	5,575
Sales and marketing	12,363	6,672	4,057	4,072	1,517

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

The following discussion of our financial condition and results of operations should be read in conjunction with the consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K.

Overview

Exact Sciences Corporation (together with its subsidiaries, "Exact," "we," "us," "our" or the "Company") is a molecular diagnostics company focused on the early detection and prevention of some of the deadliest forms of cancer. We have developed an accurate, non-invasive, patient-friendly screening test called Cologuard® for the early detection of colorectal cancer and pre-cancer, and we are currently working on the development of additional tests for other types of cancer, with the goal of becoming a leader in cancer screening and diagnostics.

Our Cologuard Test

Colorectal cancer is the second leading cause of cancer deaths in the U.S. and the leading cause of cancer deaths in the U.S. among non-smokers. Each year in the U.S. there are approximately:

- 146,000 new cases of colorectal cancer
- 51,000 deaths from colorectal cancer

It is widely accepted that colorectal cancer is among the most preventable, yet least prevented cancers. Colorectal cancer can take up to 10-15 years to progress from a pre-cancerous lesion to metastatic cancer and death. Patients who are diagnosed early in the progression of the disease—with pre-cancerous lesions or polyps or early-stage cancer—are more likely to have a complete recovery and to be treated less expensively. Of the more than 85 million people between the ages of 50 and 85, who are at average-risk for colorectal cancer in the U.S., 38 percent have not been screened according to current guidelines. Internal studies have shown that approximately 50% of Cologuard users were previously unscreened for colorectal cancer. Poor compliance with screening guidelines has meant that nearly two-thirds of colorectal cancer diagnoses are made in the disease's late stages. The five-year survival rates for stages 3 and 4 are 70 percent and 13 percent, respectively. We believe the large underserved population of unscreened and inadequately screened patients represents a significant opportunity for a patient-friendly screening test.

Our Cologuard test is a non-invasive sDNA screening test that utilizes a multi-target approach to detect DNA and hemoglobin biomarkers associated with colorectal cancer and pre-cancer. Eleven biomarkers are targeted that have been shown to be strongly associated with colorectal cancer and pre-cancer. Methylation, mutation, and hemoglobin results are combined in the laboratory analysis through a proprietary algorithm to provide a single positive or negative reportable result.

Changes in DNA methylation, and the occurrence of mutations, alter gene expression and other mechanisms for cell cycle regulation and differentiation. As a result, the affected cells continue to proliferate, often resulting in malignancies associated with colorectal cancer and pre-cancer. Hemoglobin is the protein complex responsible for transporting oxygen in red blood cells. During the progression of cancer, the probability of bleeding into the colon increases. The presence of hemoglobin, released from red blood cells, can be detected in the stool. Using sDNA Cologuard purifies, amplifies and detects increased levels of methylation, and presence of mutations, in specific genes. By combining these DNA indicators with a test for hemoglobin, Cologuard produces a multi-marker result effective for the detection of colorectal cancer and pre-cancerous adenomas.

In August 2014, the FDA granted PMA to Cologuard for use as a colorectal cancer screening test in adults 50 years of age and older who are at a typical average-risk for colorectal cancer. Upon approval, Cologuard became the first and only FDA-approved sDNA non-invasive colorectal cancer screening test. Our original PMA submission to the FDA for Cologuard included the results of our pivotal DeeP-C clinical trial that had over 10,000 patients enrolled at 90 sites in the U.S. and Canada. The results of our DeeP-C clinical trial for Cologuard were published in the New England Journal of Medicine in April 2014. The peer-reviewed study, "Multi-target Stool DNA Testing for Colorectal-Cancer Screening," highlighted the performance of Cologuard in the trial population:

- Cancer Sensitivity: 92%
- Stage I and II Cancer Sensitivity: 94%

- High-Grade Dysplasia Sensitivity: 69%
- Specificity: 87%

We believe the competitive advantages of sDNA screening may provide a significant market opportunity. There are 85 million people in the U.S. between the ages of 50-85 who are at average risk for colorectal cancer. At a three-year screening interval and an average revenue per test of $500 this represents a potential $14 billion market for Cologuard, of which our current share is approximately four percent.

We are also seeking to develop a pipeline of potential future products and services with a focus on liquid biopsy tests.

Our Clinical Laboratory and Manufacturing Facilities

As part of our commercialization strategy, we established a state-of-the-art, highly automated lab facility that is certified pursuant to federal CLIA requirements to process Cologuard tests and provide patient results. Our commercial lab operation is housed in a 55,000 square foot facility in Madison, Wisconsin. At our lab, we currently have the capacity to process approximately three million tests per year.

During the fourth quarter of 2017 we began construction of a new clinical lab facility in Madison, Wisconsin that is expected to be completed mid-2019. After the new clinical laboratory is operational, we expect our total lab capacity at both facilities will be approximately seven million tests per year by the end of 2019.

We currently manufacture the Cologuard test in a facility in Madison, Wisconsin. As we expand the commercialization of Cologuard, we believe it will be necessary to expand our manufacturing capacity. Accordingly, w e are in the process of building an additional manufacturing facility which we expect to complete in 2019. We are committed to manufacturing and providing medical devices and related products that meet customer expectations and applicable regulatory requirements. We adhere to manufacturing and safety standards required by federal, state, and local laws and regulations and operate our manufacturing facilities under a quality management system. We purchase certain components for our Cologuard test from third-party suppliers and manufacturers.

How We Recognize Revenue

We recognize revenue on the delivery of a test result to an ordering healthcare provider for tests performed where based on our estimate of the amount that we will ultimately collect at the time delivery is complete. The amount of revenue we recognize is based on the established billing rates less contractual and other adjustments, which yields the constrained amount that we expect to ultimately collect. We determine the amount we expect to ultimately collect on a per-payer or per-agreement basis, using historical collections, established reimbursement rates and other adjustments. The expected amount is typically lower than, if applicable, the agreed-upon reimbursement amount due to several factors, such as the amount of any patient co-payments, the existence of secondary payers and claim denials. Upon ultimate collection, the aggregate amount received from payers and patients where reimbursement was estimated is compared to previous collection estimates and, if necessary, the contractual allowance is adjusted. Finally, should we recognize revenue from claims on an accrual basis and later determine the judgments underlying estimated collections change, our financial results could be negatively impacted in future quarters. Historically, a portion of our revenue was recognized upon cash receipt, because we were unable to reasonably estimate the amount that would ultimately be collected from certain payers. Effective during the first quarter of 2017, we determined that we had the ability to reasonably estimate the amount that will ultimately be collected from all payers, including the impact of patient cost-share collections. Accordingly, as noted above, we now recognize revenue for all billed claims at the time the test results are delivered to the customer.

Our average reimbursement per test, as further defined below, was approximately $476 and $438 through December 31, 2018 and 2017, respectively. This cumulative average Cologuard reimbursement rate will change over time due to a number of factors, such as medical coverage decisions by payers, changes in the payer mix, the effects of contracts signed with payers, non-renewal or termination of payer contracts, changes in allowed amounts by payers, our ability to successfully win appeals for payment, settlements reached with payers regarding previously denied claims and our ability to collect cash payments from payers and individual patients. Historical average reimbursement is not necessarily indicative of future average reimbursement.

We calculate the average Cologuard reimbursement per test on a trailing twelve-month basis for all tests that are at least six months old, since it can take that long, or in some cases longer, to collect from some payers and patients. Thus, the average reimbursement per test at December 31, 2018 and December 31, 2017, respectively, represents the total cash collected through such dates for tests performed during the twelve-month periods ended June 30, 2018 and June 30, 2017, respectively, divided by the number of tests performed during those same periods.

Acquisitions

In October 2018, we completed the acquisition of Biomatrica, a privately held company specializing in the collection and preservation of biological materials. In the acquisition, we acquired all of the outstanding equity interests for an aggregate purchase price of $20.0 million net of cash received, debt repaid and certain other adjustments. Contingent consideration for an additional $20.0 million could be earned based upon certain revenue milestones being met.

2019 Priorities

Our top priorities for 2019 are to (1) power our partnership with Pfizer, (2) enhance Cologuard through label expansion and product improvements, and (3) advance liquid biopsy.

Power the Partnership

In August 2018, we entered into a Promotion Agreement with Pfizer. Under the terms of the Promotion Agreement, Pfizer agreed to promote Cologuard and provide certain other sales and marketing services. We and Pfizer committed in the Promotion Agreement to invest specified amounts in the advertising and promotion of Cologuard. Pfizer has a large primary care sales team that has extensive experience with large health system organizations and enhances our physician and consumer marketing capabilities. A priority for 2019 is executing on the Pfizer partnership in order to grow the Cologuard brand and get more patients screened with Cologuard.

Enhance Cologuard

In May 2018, the ACS updated its guidelines to recommend colorectal cancer screening beginning at age 45, rather than 50, for people at average risk of the disease due to the rising incidence rate within the 45-49 year-old population. There are nearly 21 million people who are between the ages of 45-49, and we estimate approximately 19 million of them are at average risk for colorectal cancer and would be eligible for screening under the ACS guidelines. We plan to conduct clinical and other necessary work to gain FDA approval to expand Cologuard's indication to people between the ages of 45 and 49 who are at average risk for colorectal cancer.

In addition, we are seeking opportunities to improve upon Cologuard's performance characteristics. For example, we are evaluating whether new biomarkers would increase specificity while maintaining sensitivity. If we could increase the specificity of Cologuard, we believe that would enhance its adoption as a front-line screening test. We are also evaluating ways that we might make Cologuard even easier for patients to use and opportunities for lowering the cost of providing Cologuard.

The timing of any expansion of Cologuard's indication or of any such enhancements to Cologuard is unknown and would be subject to FDA approval.

Advance Liquid Biopsy

We also are focusing our research and development efforts on building a pipeline of potential future products and services with a focus on liquid biopsy tests. We will continue to advance liquid biopsy through biomarker discovery and validation in tissue and blood. We have identified proprietary biomarkers for several cancers, including liver cancer and lung cancer. We have successfully performed validation studies on tissue samples for thirteen cancers and on blood samples for eight cancers.

The ACS estimates that liver cancer will be diagnosed in 42,000 Americans and cause 32,000 deaths in 2019, three-fourths of which will be hepatocellular carcinoma ("HCC"). Incidence and mortality rates are both increasing at approximately 3 percent per year. People who have been diagnosed with cirrhosis of the liver or Hepatitis B are at high

risk of developing HCC. Evidence shows that HCC testing in these high-risk groups leads to earlier detection and improved outcomes. The NCCN and American Association for the Study of Liver Diseases ("AASLD") guidelines recommend that these two groups be tested for HCC every six months using ultrasound and the blood-based biomarker alpha-fetoprotein ("AFP"). However, ultrasound and AFP are documented to have poor sensitivity for early stage cancer, which is the primary target of testing. We are currently seeking to develop a blood-based biomarker test to serve as an alternative to ultrasound and AFP for use in HCC testing, and our goal is to develop a patient-friendly test that performs better than this current standard of care. We are currently enrolling a case control study of at least 1,500 patients to finalize the development of our liver cancer test.

The ACS estimates that, in the U.S. in 2019, lung cancer will be diagnosed in 228,000 people and cause 143,000 deaths. Currently, more than half of lung cancer cases are diagnosed at an advanced stage, after symptoms appear, when the five-year survival rate is in the low single digits. We are currently seeking to develop a blood-based biomarker test to aid in the early detection of lung cancer in individuals with lung nodules discovered through a CT or other scan. Such a test may help reduce the number of follow-up procedures, and thereby reduce costs and improve health outcomes.

Results of Operations

Our top priorities for 2018 were to (1) continue to strengthen our core Cologuard business by increasing the size of our nationwide sale force, (2) prepare for future demand including by continuing to invest in people, processes, technology and systems to build capacity, and (3) expand our product pipeline by developing additional cancer screening and diagnostic tests.

During 2018, we completed approximately 934,000 Cologuard tests, and generated $454.5 million of revenue compared to 2017 when we completed 571,000 tests and generated $266.0 million of revenue. We believe that the increase in revenues and tests completed from the prior year was primarily driven by sales force execution, our patient advertising campaign, and the increase in commercial coverage for Cologuard. As of December 31, 2018, nearly 147,000 health care providers have ordered Cologuard compared to nearly 102,000 health care providers as of December 31, 2017. In August 2018, we entered into a Promotion Agreement with Pfizer, Inc. Pfizer is promoting Cologuard to both physicians and health systems and will also actively participate in extending and deepening the Cologuard marketing campaign.

During 2018, we made investments in our technical systems, manufacturing capabilities, customer care center, and our sales force in order to enhance our infrastructure and position our operations and processes for continued growth. Additionally, we continued to focus on cost containment throughout the business which, along with the increase in test volume, helped drive improvements in our gross margin from 70 percent for 2017 to 74 percent for 2018.

In 2018, we continued to invest in research and development and focused on the development of additional cancer diagnostic tests as outlined in the *"Advance Liquid Biopsy"* section above.

In order to support the commercialization of Cologuard and to achieve our goals for 2018, our selling, general, and administrative costs increased by $164.8 million during the year. In addition, our efforts in 2018 to develop our pipeline products and improvements to Cologuard led to an increase in research and development costs of $26.1 million during the year. We ensured that we were well capitalized to meet our future goals by raising $671.1 million and $225.3 million, net of issuance costs, through an underwritten public offering of convertible notes completed in January 2018 and June 2018, respectively, and finished the year with $1.1 billion in cash, cash equivalents, and marketable securities.

Comparison of the years ended December 31, 2018 and 2017

Revenue. Our revenue is primarily generated by performing screening services using our Cologuard test. For the years ended December 31, 2018 and 2017, we completed approximately 934,000 and 571,000 Cologuard tests, respectively, and generated revenue of $454.5 million and $266.0 million, respectively. The increase in revenue was primarily due to an increase in completed Cologuard tests and an increase in average revenue recognized per test during the current period due to increased commercial insurance coverage for our Cologuard test.

Our cost structure. Our selling, general, and administrative expenses consist primarily of non-research personnel salaries, office expenses, professional fees, sales and marketing expenses incurred in support of our commercialization efforts and non-cash stock-based compensation.

Cost of sales includes costs related to inventory production and usage, shipment of test collection kits, royalties and the cost of services to process tests and provide results to physicians. We incur expenses for tests in the period in which the activities occur, therefore, gross margin as a percentage of revenue may vary due to costs being incurred in one period that relate to revenues recognized in a later period.

We expect that gross margin for our services will continue to fluctuate and be affected by Cologuard test volume, our operating efficiencies, patient compliance rates, payer mix, the levels of reimbursement, and payment patterns of payers and patients.

Cost of sales. Cost of sales increased to $118.0 million for the year ended December 31, 2018 from $79.2 million for the year ended December 31, 2017. The increase in cost of sales is primarily due to the increases in completed Cologuard tests. The Company completed approximately 934,000 and 571,000 Cologuard tests for the years ended December 31, 2018 and 2017, respectively.

Amounts in millions	2018	2017	Change
Production costs	$ 82.8	$ 57.3	$ 25.5
Facility and support services	11.1	8.3	2.8
Personnel expenses	20.3	11.6	8.7
Stock-based compensation	3.5	1.8	1.7
Other cost of sales expenses	0.3	0.2	0.1
Total cost of sales expense	$ 118.0	$ 79.2	$ 38.8

Research and development expenses . Research and development expenses increased to $68.2 million for the year ended December 31, 2018 compared to $42.1 million for the year ended December 31, 2017. The increase in research and development expenses was primarily due to an increase in direct research and development expenses for our pipeline as well as personnel costs due to increased headcount.

Amounts in millions	2018	2017	Change
Personnel expenses	$ 19.3	$ 13.9	$ 5.4
Direct research and development expenses	28.3	16.8	11.5
Professional and legal fees	5.3	2.1	3.2
Stock-based compensation	10.2	6.8	3.4
Other research and development expenses	5.1	2.5	2.6
Total research and development expenses	$ 68.2	$ 42.1	$ 26.1

General and administrative expenses. General and administrative expenses increased to $178.3 million for the year ended December 31, 2018 compared to $109.0 million for the year ended December 31, 2017. The increase in general and administrative expenses was primarily a result of increased costs in the areas outlined in the table below to support the overall growth of the Company.

Amounts in millions	2018	2017	Change
Personnel expenses	$ 67.8	$ 42.7	$ 25.1
Facility and support services	37.8	21.1	16.7
Stock-based compensation	34.2	20.2	14.0
Professional and legal fees	30.9	20.1	10.8
Other general and administrative	7.6	4.9	2.7
Total general and administrative expenses	$ 178.3	$ 109.0	$ 69.3

Sales and marketing expenses. Sales and marketing expenses increased to $249.4 million for the year ended December 31, 2018 compared to $153.9 million for the year ended December 31, 2017. The increase in sales and marketing expenses was a result of hiring additional sales and marketing personnel and increasing our advertising and

patient marketing efforts as part of the ongoing commercialization of our Cologuard test.

Amounts in millions	2018	2017	Change
Personnel expenses	$ 105.6	$ 70.4	$ 35.2
Direct marketing costs and professional fees	127.7	75.4	52.3
Stock-based compensation	12.4	6.7	5.7
Other sales and marketing expenses	3.7	1.4	2.3
Total sales and marketing expenses	$ 249.4	$ 153.9	$ 95.5

Investment income. Investment income increased to $21.2 million for the year ended December 31, 2018 compared to $3.9 million for the year ended December 31, 2017. This increase in investment income was due to an increase in the average cash and marketable securities balance and an increase in the average rate of return on investments due to an increase in market interest rates for the year ended December 31, 2018 when compared to the same period in 2017.

Interest expense. Net interest expense increased to $36.8 million for the year ended December 31, 2018 compared to $0.2 million for the year ended December 31, 2017. We issued $690.0 million and $218.5 million of convertible debt in January 2018 and June 2018, respectively, which collectively resulted in $36.4 million in interest expense during the year ended December 31, 2018. $28.6 million of interest expense relates to amortization of debt discount and debt issuance costs for the year ended December 31, 2018. The remaining $7.8 million of interest expense for the year ended December 31, 2018 relates to the stated interest that was paid in cash during the year. There was minimal interest expense for the year ended December 31, 2018 related to the mortgage on one of our facilities in Madison, Wisconsin that was entered into in June 2015. The interest expense for the year ended December 31, 2017 is related solely to the mortgage on one of our facilities in Madison, Wisconsin that was entered into in June 2015.

Comparison of the years ended December 31, 2017 and 2016

Revenue. Our revenue is generated by performing screening services using our Cologuard test. For the years ended December 31, 2017 and 2016, the Company completed approximately 571,000 and 244,000 Cologuard tests, respectively, and generated revenue of $266.0 million and $99.4 million, respectively. The increase in revenue was primarily due to an increase in completed Cologuard tests during the period.

Cost of sales. Cost of sales increased to $79.2 million for the year ended December 31, 2017 from $45.2 million for the year ended December 31, 2016. The increase in cost of sales is primarily due to the increase in completed Cologuard tests. The company completed approximately 571,000 and 244,000 Cologuard tests for the years ended December 31, 2017 and 2016, respectively.

Amounts in millions	2017	2016	Change
Production costs	$ 57.3	$ 30.0	$ 27.3
Personnel expenses	11.6	6.8	4.8
Facility and support services	8.3	7.2	1.1
Stock-based compensation	1.8	1.1	0.7
Other cost of sales expenses	0.2	0.1	0.1
Total cost of sales expenses	$ 79.2	$ 45.2	$ 34.0

Research and development expenses. Research and development expenses increased to $42.1 million for the year ended December 31, 2017 from $33.5 million for the year ended December 31, 2016. The increase in research and development expenses was primarily due to an increase in personnel costs due to increased headcount and an increase in

direct research and development expenses for our pipeline.

Amounts in millions	2017	2016	Change
Personnel expenses	$ 13.9	$ 11.5	$ 2.4
Stock-based compensation	6.8	4.0	2.8
Direct research and development expenses	16.8	13.8	3.0
Professional and legal fees	2.1	1.9	0.2
Other research and development expenses	2.5	2.3	0.2
Total research and development expenses	$ 42.1	$ 33.5	$ 8.6

General and administrative expenses. General and administrative expenses increased to $109.0 million for the year ended December 31, 2017 from $76.9 million for the year ended December 31, 2016. The increase in general and administrative expenses was primarily a result of increased personnel costs, facility and support costs, legal and professional fees, and stock-based compensation expense to support the overall growth of the Company.

Amounts in millions	2017	2016	Change
Personnel expenses	$ 42.7	$ 31.8	$ 10.9
Professional and legal fees	20.1	11.9	8.2
Stock-based compensation	20.2	14.6	5.6
Other general and administrative expenses	4.9	2.9	2.0
Facility and support services	21.1	15.7	5.4
Total general and administrative expenses	$ 109.0	$ 76.9	$ 32.1

Sales and marketing expenses. Sales and marketing expenses increased to $153.9 million for the year ended December 31, 2017 from $112.8 million for the year ended December 31, 2016. The increase in sales and marketing expense was a result of hiring additional sales and marketing personnel and increasing our advertising and patient marketing efforts as part of the ongoing commercialization of Cologuard test.

Amounts in millions	2017	2016	Change
Direct marketing costs and professional fees	$ 75.4	$ 50.6	$ 24.8
Personnel expenses	70.4	57.4	13.0
Stock-based compensation	6.7	4.1	2.6
Other sales and marketing expenses	1.4	0.7	0.7
Total sales and marketing expenses	$ 153.9	$ 112.8	$ 41.1

Investment income. Investment income increased to $3.9 million for the year ended December 31, 2017 from $2.0 million for the year ended December 31, 2016. This increase in investment income was due to a higher average balance and return on investments for the year ended December 31, 2017 when compared to the same period in 2016.

Interest expense. Net interest expense of $0.2 million was realized for each of the years ended December 31, 2017 and 2016. Interest expense is related to the mortgage on one of our facilities in Madison, Wisconsin that was entered into in June 2015.

Liquidity and Capital Resources

We have financed our operations since inception primarily through public offerings of our common stock and convertible debt and through revenue generated by the sale of Cologuard. As of December 31, 2018, we had approximately $160.4 million in unrestricted cash and cash equivalents and approximately $963.8 million in marketable securities.

All of our investments in marketable securities consist of fixed income investments, and all are deemed available-for-sale. The objectives of this portfolio are to provide liquidity and safety of principal while striving to achieve the highest rate of return. Our investment policy limits investments to certain types of instruments issued by institutions with investment grade credit ratings and places restrictions on maturities and concentration by type and issuer.

Net cash used in operating activities was $69.3 million, $71.7 million, and $130.1 million for the years ended December 31, 2018, 2017 and 2016, respectively. The principal use of cash in operating activities for each of the years ended December 31, 2018, 2017 and 2016 was to fund our net loss. The decrease in use of cash in operating activities for the year ended December 31, 2018 when compared to the same period in 2017 and 2016 is primarily due to increased Cologuard revenue and an increase in non-cash expenses such as amortization and stock-based compensation.

Net cash used in investing activities was $781.9 million, $160.8 million, and $11.5 million for the years ended December 31, 2018, 2017, and 2016, respectively. The increase in cash used in investing activities for the year ended December 31, 2018 when compared to the same period in 2017 and 2016 was primarily the result of the timing of purchases and maturities of marketable securities following our convertible debt offerings. Excluding the impact of purchases and maturities of marketable securities, net cash used in investing activities was $168.6 million, $75.2 million, and $14.9 million for the years ended December 31, 2018, 2017, and 2016, respectively. The increase in investing activities from 2017 to 2018, excluding the impact of purchases and maturities of marketable securities, was primarily due to an increase in purchases of property and equipment during the year ended December 31, 2018 from increased laboratory equipment purchases, computer equipment and computer software purchases, and assets under construction in order to continue to scale-up our operations for future expected growth of our Cologuard business. Additionally, the increase for 2018 was driven by the acquisition of Biomatrica for $17.9 million compared to 2017 when we completed an acquisition of Sampleminded, Inc. (“Sampleminded”) for $3.0 million. The increase in investing activities from 2016 to 2017, excluding the impact of purchases and maturities of marketable securities was primarily due to an increase in purchases of property and equipment during the year ended December 31, 2018. Additionally, the increase for 2017 was driven by the purchase of intangible assets for $20.7 million and the acquisition of Sampleminded for $3.0 million compared to 2016 when we had no activity in these areas.

Net cash provided by financing activities was $934.1 million, $261.0 million, and $149.6 million for the years ended December 31, 2018, 2017, and 2016, respectively. The increase in cash provided by financing activities for the year ended December 31, 2018 when compared to the same period in 2017 was primarily the result of proceeds from our offerings of convertible debt in January 2018 and June 2018. The increase in cash provided by financing activities for the year ended December 31, 2017 when compared to the same period in 2016 was primarily the result of an increase in proceeds from the sale of common stock from $144.2 million in 2016 to $253.4 million in 2017.

We expect that cash and cash equivalents and marketable securities on hand at December 31, 2018 will be sufficient to fund our current operations for at least the next twelve months, based on current operating plans. However, we may need to raise additional capital to fully fund our current strategic plan, which includes successfully commercializing Cologuard and developing a pipeline of future products. Additionally, we may enter into transactions to acquire other businesses, products, services, or technologies as part of our strategic plan. If we are unable to obtain sufficient additional funds to enable us to fund our operations through the completion of such plan, our results of operations and financial condition would be materially adversely affected, and we may be required to delay the implementation of our plan and otherwise scale back our operations. Even if we successfully raise sufficient funds to complete our plan, we cannot assure that our business will ever generate sufficient cash flow from operations to become profitable.

The following table sets forth certain information concerning our obligations to make contractual future payments, such as pursuant to debt and lease agreements, as of December 31, 2018:

		Payments Due by Period			
(In thousands)	Total	Less Than One Year	1 - 3 Years	3 - 5 Years	More Than 5 Years
Convertible notes(1)	$ 908,500	$ —	$ —	$ —	$ 908,500
Long-term debt obligations(2)	43,054	943	2,085	26,035	13,991
Other long-term liabilities(3)	1,200	—	—	1,200	—
Operating lease obligations(4)	68,450	3,861	10,130	10,173	44,286
Total	$ 1,021,204	$ 4,804	$ 12,215	$ 37,408	$ 966,777

(1) Senior convertible notes were issued in January and June 2018 and are treated as a single series of securities with a maturity date of January 15, 2025. The table excludes expected interest payments related to the Notes. See Note 10 in the Notes to Consolidated Financial Statements for further information.

(2) Includes obligations associated with outstanding credit and loan agreements. The table excludes expected interest payments related to long term debt obligations. See Note 9 in the Notes to Consolidated Financial Statements for further information.

(3) Includes fixed or minimum commitments associated with a land purchase option agreement with the owner of the land adjacent to one of our current Madison, Wisconsin facilities. See Note 12 in the Notes to Consolidated Financial Statements for further information.

(4) Operating leases reflect remaining obligations associated with the leased facilities at our headquarters, operations and lab facilities in Madison, Wisconsin, San Diego, California, Salt Lake City, Utah, and Ann Arbor, Michigan. This also includes the lease payments associated with the research and development facility, which was recorded under the financing method. See Note 7 and Note 9 in the Notes to Consolidated Financial Statements for further information.

Net Operating Loss Carryforwards

As of December 31, 2018, we had federal, state, and foreign net operating loss carryforwards of approximately $937.4 million, $403.5 million, $78.0 million, respectively. We also had federal and state research tax credit carryforwards of approximately $17.4 million and $7.5 million, respectively. The net operating loss and tax credit carryforwards will expire at various dates through 2038, if not utilized. The Internal Revenue Code and applicable state laws impose substantial restrictions on a corporation's utilization of net operating loss and tax credit carryforwards if an ownership change is deemed to have occurred. Additionally, tax law limitations may result in our NOLs expiring before we have the ability to use them. The Tax Cuts and Jobs Act (H.R. 1) of 2017 limit the deduction for NOLs to 80 percent of current year taxable income and provides for an indefinite carryover period for federal NOLs. Both provisions are applicable for losses arising in tax years beginning after December 31, 2017. For these reasons, even if we attain profitability our ability to utilize our NOLs may be limited, potentially significantly so.

A valuation allowance is provided for deferred tax assets if it is more likely than not these items will either expire before we are able to realize their benefit, or that future deductibility is uncertain. In general, companies that have a history of operating losses are faced with a difficult burden of proof on their ability to generate sufficient future income in order to realize the benefit of the deferred tax assets. We have recorded a valuation against our deferred tax assets based on our history of losses and current uncertainty as to timing of future taxable income. The deferred tax assets are still available for us to use in the future to offset taxable income, which would result in the recognition of tax benefit and a reduction to our effective tax rate.

Critical Accounting Policies and Estimates

Management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States ("GAAP"). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements as well as the reported revenues and expenses during the reporting periods. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, tax positions, and stock-based compensation. We base our estimates on historical experience and on various other factors that are believed to be appropriate under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are more fully described in Note 2 in the Notes to Consolidated Financial Statements, we believe that the following accounting policies and judgments are most critical to aid in fully understanding and evaluating our reported financial results.

Revenue Recognition.

Revenue. Our revenue is primarily generated by performing screening services using our Cologuard test, and the service is completed upon delivery of a patient's test result to the ordering physician. We account for revenue in accordance with Accounting Standards Codification Topic 606, *Revenue from Contracts with Customers* ("ASC 606"),

which we adopted on January 1, 2018, using the modified retrospective method, which we elected to apply to all contracts. Application of the modified retrospective method did not impact amounts previously reported by us, nor did it require a cumulative effect adjustment upon adoption, as our method of recognizing revenue under ASC 606 was analogous to the method utilized immediately prior to adoption. Accordingly, there is no need for us to disclose the amount by which each financial statement line item was affected as a result of applying the new standard and an explanation of significant changes.

The core principle of ASC 606 is that we recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services. We recognize revenue from our Cologuard test in accordance with that core principle, and key aspects considered include the following:

Contracts

Our customer is the patient. However, we do not enter into a formal reimbursement contract with a patient, as formal reimbursement contracts, including national coverage determination, are established with payers. Accordingly, we establish a contract with a patient in accordance with other customary business practices.

- Approval of a contract is established via the order submitted by the patient's physician and the return of a sample by the patient.
- We are obligated to perform our laboratory services upon receipt of a sample from a patient, and the patient and/or applicable payer are obligated to reimburse us for services rendered based on the patient's insurance benefits.
- Payment terms are a function of a patient's existing insurance benefits, including the impact of coverage decisions with CMS and applicable reimbursement contracts established between us and payers, unless the patient is a self-pay patient, whereby we require payment from the patient prior to us shipping a collection kit to the patient.
- Once we deliver a patient's test result to the ordering physician, we are legally able to collect payment and bill an insurer and/or patient, depending on payer contract status or patient insurance benefit status.
- Our consideration is deemed to be variable, and we consider collection of such consideration to be probable to the extent that it is unconstrained.

Performance obligations

A performance obligation is a promise in a contract to transfer a distinct good or service (or a bundle of goods or services) to the customer. Our contracts have a single performance obligation, which is satisfied upon rendering of services, which culminates in the delivery of a patient's Cologuard test result to the ordering physician. The duration of time between sample receipt and delivery of a valid test result to the ordering physician is typically less than two weeks. Accordingly, we elect the practical expedient and therefore, we do not disclose the value of unsatisfied performance obligations.

Transaction price

The transaction price is the amount of consideration that we expect to collect in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (for example, some sales taxes). The consideration expected from a contract with a customer may include fixed amounts, variable amounts, or both.

The consideration derived from our contracts is deemed to be variable, though the variability is not explicitly stated in any contract. Rather, the implied variability is due to several factors, such as the amount of contractual adjustments, any patient co-payments, deductibles or compliance incentives, the existence of secondary payers and claim denials.

We estimate the amount of variable consideration using the expected value method, which represents the sum of probability-weighted amounts in a range of possible consideration amounts. When estimating the amount of variable consideration, the company considers several factors, such as historical collections experience, patient insurance eligibility and payer reimbursement contracts.

We limit the amount of variable consideration included in the transaction price to the unconstrained portion of such consideration. In other words, we recognize revenue up to the amount of variable consideration that is not subject to a

significant reversal until additional information is obtained or the uncertainty associated with the additional payments or refunds is subsequently resolved. Differences between original estimates and subsequent revisions, including final settlements, represent changes in the estimate of variable consideration and are included in the period in which such revisions are made. Revenue recognized from changes in transaction prices was $15.0 million for the year ended December 31, 2018.

We monitor our estimates of transaction price to depict conditions that exist at each reporting date. If we subsequently determine that we will collect more consideration than we originally estimated for a contract with a patient, we will account for the change as an increase in the estimate of the transaction price (i.e., an upward revenue adjustment) in the period identified. Similarly, if we subsequently determine that the amount we expect to collect from a patient is less than we originally estimated, we will generally account for the change as a decrease in the estimate of the transaction price (i.e., a downward revenue adjustment), provided that such downward adjustment does not result in a significant reversal of cumulative revenue recognized.

When we do not have significant historical experience or that experience has limited predictive value, the constraint over estimates of variable consideration may result in no revenue being recognized upon delivery of a patient's Cologuard test result to the ordering physician, with recognition generally occurring at the date of cash receipt. Since the first quarter of 2017, we determined that our historical experience has sufficient predictive value, such that there are no longer any contracts for which no revenue is recognized upon delivery of a Cologuard test result to an ordering physician under both legacy accounting principles, which were effective in 2017, and ASC 606, which was adopted in 2018 as discussed above. Of the revenue recognized in the twelve months ended December 31, 2017, approximately $4.3 million relates to the one-time impact of certain payers meeting our revenue recognition criteria for accrual-basis revenue recognition beginning with the period ended March 31, 2017. Approximately $1.0 million of this one-time impact relates to tests completed in the prior year and for which our accrual revenue recognition criteria were not met until 2017.

Allocate transaction price

The entire transaction price is allocated to the single performance obligation contained in a contract with a patient.

Point in time recognition

Our single performance obligation is satisfied at a point in time, and that point in time is defined as the date a patient's successful test result is delivered to the patient's ordering physician. We consider this date to be the time at which the patient obtains control of the promised Cologuard test service.

Disaggregation of Revenue

The following table presents our revenues disaggregated by revenue source for the years ended December 31, 2018, 2017 and 2016, respectively:

	Year Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Medicare Parts B & C	$ 254,431	$ 172,255	$ 81,976
Commercial	184,538	84,842	16,017
Other	15,493	8,892	1,383
Total	$ 454,462	$ 265,989	$ 99,376

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable and deferred revenue on the consolidated balance sheets. Generally, billing occurs subsequent to delivery of a patient's test result to the ordering physician, resulting in an account receivable. However, we sometimes receive advance payment from a patient, particularly a self-pay patient, before a Cologuard test result is completed, resulting in deferred revenue. The deferred revenue balance is relieved upon delivery of the applicable patient's test result to the ordering physician. Changes in accounts receivable and deferred revenue were not materially impacted by any other factors.

Deferred revenue balances are reported in other short-term liabilities on our consolidated balance sheets and were $0.5 million and $0.2 million as of December 31, 2018 and December 31, 2017, respectively.

Revenue recognized for the year ended December 31, 2018 and 2017, which was included in the deferred revenue balance at the beginning of each period was $0.1 million and $44,000, respectively.

Practical expedients

We do not adjust the transaction price for the effects of a significant financing component, as at contract inception we expect the collection cycle to be one year or less.

We expense sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within sales and marketing expenses on our consolidated statements of operations.

We incur certain other costs that are incurred regardless of whether a contract is obtained. Such costs are primarily related to legal services and patient communications (e.g. compliance reminder letters). These costs are expensed as incurred and recorded within general and administrative expenses on our consolidated statements of operations.

Inventory. Inventory is stated at the lower of cost or market value (net realizable value). We determine the cost of inventory using the first-in, first out method ("FIFO"). We estimate the recoverability of inventory by reference to internal estimates of future demands and product life cycles, including expiration. We periodically analyze our inventory levels to identify inventory that may expire prior to expected sale or has a cost basis in excess of its estimated realizable value and record a charge to cost of sales for such inventory as appropriate. In addition, our products are subject to strict quality control and monitoring which we perform throughout the manufacturing process. If certain batches or units of product no longer meet quality specifications or become obsolete due to expiration, we record a charge to cost of sales to write down such unmarketable inventory to its estimated realizable value.

Direct and indirect manufacturing costs incurred during process validation and for other research and development activities, which are not permitted to be sold, have been expensed to research and development.

Stock-Based Compensation. In accordance with GAAP, all stock-based payments, including grants of employee stock options, restricted stock and restricted stock units, market measure-based awards and shares purchased under an employee stock purchase plan ("ESPP") (if certain parameters are not met), are recognized in the financial statements based on their fair values. The grant date fair value of market measure-based share-based compensation plans are calculated using a Monte Carlo simulation pricing model. The following assumptions are used in determining fair value for stock options, restricted stock and ESPP shares:

- ***Valuation and Recognition*** —The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model. The fair value of each market measure-based award is estimated on the date of grant using a Monte Carlo simulation pricing model. The fair value of service-based awards for each restricted stock unit award is determined on the date of grant using the closing stock price on that day. The estimated fair value of these awards is recognized to expense using the straight-line method over the vesting period. For awards issued to non-employees, the measurement date is the date when the performance is complete or when the award vests, whichever is the earliest. Accordingly, non-employee awards are re-measured at each reporting period until the final measurement date. The fair value of the award is recognized as stock-based compensation expense over the requisite service period, generally the vesting period. The Black-Scholes and Monte Carlo pricing models utilize the following assumptions:

- ***Expected Term*** —Expected term is based on our historical life data and is determined using the average of the vesting period and the contractual life of the stock options granted. Expected life of a market measure-based award is based on the applicable performance period.

- ***Expected Volatility*** —Expected volatility is based on our historical stock volatility data over the expected term of the awards.

- ***Risk-Free Interest Rate*** —We base the risk-free interest rate used in the Black-Scholes and Monte Carlo valuation models on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent expected term.

- ***Forfeitures*** —Effective January 1, 2017, we adopted Accounting Standards Update ("ASU") No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* ("Update 2016-09"). With the adoption of Update 2016-09, forfeiture estimates are no longer required, and the effects of actual forfeitures are recorded at the time they occur. The impact on the consolidated balance sheet was a cumulative-effect adjustment of $0.4 million, increasing opening accumulated deficit and additional paid-in capital.

The fair value of service-based awards for each restricted stock award and restricted stock unit is determined on the date of grant using the closing stock price on that day. The fair value of market measure-based share-based compensation plans are calculated using a Monte Carlo simulation pricing model. The fair value of each option award is estimated on the date of grant using the Black-Scholes option pricing model based on the assumptions noted above and as further described in Note 6 in the Notes to Consolidated Financial Statements.

Tax Positions . A valuation allowance to reduce the deferred tax assets is reported if, based on the weight of the evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. We have incurred significant losses since our inception and due to the uncertainty of the amount and timing of future taxable income, management has determined that a $209.9 million and $214.3 million valuation allowance at December 31, 2018 and 2017 is necessary to reduce the tax assets to the amount that is more likely than not to be realized. The change in valuation allowance for 2018 and 2017 was a decrease of $4.4 million and $45.8 million, respectively. Due to the existence of the valuation allowance, future changes in our unrecognized tax benefits will not impact our effective tax rate.

Convertible Notes. We account for convertible debt instruments that may be settled in cash or equity upon conversion by separating the liability and equity components of the instruments in a manner that reflects our nonconvertible debt borrowing rate. In January 2018 and June 2018, we issued $690.0 million and $218.5 million, respectively, in aggregate principal amount of 1.0% Convertible Notes with a maturity date of January 15, 2025 (the "Notes"). We determined the carrying amount of the liability component of the Notes by using assumptions that market participants would use in pricing a debt instrument, including market interest rates, credit standing, yield curves and volatilities. Determining the fair value of the debt component requires the use of accounting estimate and assumptions. These estimates and assumptions are judgmental in nature and could have a significant impact on the determination of the debt component, and the associated non-cash interest expense.

For the January 2018 offering, we allocated $194.9 million to the equity component of the convertible debt instrument. That equity component is treated as a discount on the liability component of the Notes, which is amortized over the seven-year term of the Notes using the effective interest rate method. For the June 2018 offering, we allocated $73.0 million to the equity component of the convertible debt instrument. That equity component, less the $14.2 million premium, is treated as a discount on the liability component of the Notes, which is amortized over the remaining six-and-a-half-year term of the Notes using the effective interest rate method. In addition, debt issuance costs related to the Notes were $18.9 million and $7.4 million for the January 2018 and June 2018 offerings, respectively. We allocated the costs to the liability and equity components of the Notes based on their relative values. The debt issuance costs allocated to the liability component are being amortized over the life of the Notes as additional non-cash interest expense. The transaction costs allocated to the equity component are netted with the equity component of the convertible debt instrument in stockholders' equity.

Goodwill. In 2017, we recognized goodwill of $2.0 million from the acquisition of Sampleminded. During the fourth quarter of 2018, we recognized goodwill of $15.3 million from the acquisition of Biomatrica. We evaluate goodwill impairment on an annual basis or more frequently should an event or change in circumstance occur that indicates that the carrying amount is in excess of the fair value. There were no impairment losses for the years ended December 31, 2018, 2017, and 2016. Refer to Note 2 and 14 for further discussion of the goodwill recorded.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* . We adopted this guidance on January 1, 2018. See Note 2 for additional discussion.

In January 2016, the Financial Accounting Standards Board issued ASU No. 2016-01, *Financial Instruments – Overall: Recognition and Measurement of Financial Assets and Financial Liabilities* ("Update 2016-01"). Update 2016-01 modifies how entities will have to measure equity investments and present changes in the fair value of financial

liabilities. Under the new guidance, entities will have to measure equity investments that do not result in consolidation and are not accounted for under the equity method at fair value and recognize any changes in fair value in net income unless the investments qualify for the new practicality exception. A practicality exception will apply to those equity investments that do not have readily determinable fair value and do not qualify for the practical expedient to estimate fair value under ASC 820, "Fair Value Measurements," and as such these investments may be measured at cost. Update 2016-01 will be effective for the Company's fiscal year beginning January 1, 2018, and subsequent interim periods. Update 2016-01 was further amended in February 2018 by ASU No. 2018-03, *Technical Corrections and Improvements to Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities* , ("Update 2018-03"). Update 2018-03 clarifies certain aspects of the guidance issued in Update 2016-01. Public business entities with fiscal years beginning between December 15, 2017 and June 15, 2018, are not required to adopt these amendments until the interim period beginning after June 15, 2018. We adopted Update 2016-01 on January 1, 2018, and it did not have an impact on our consolidated financial statements.

In February 2016, the Financial Accounting Standards Board issued ASU No. 2016-02, *Leases* (Topic 842), ("Update 2016-02") to increase transparency and comparability among organizations by requiring the recognition of right-of-use ("ROU") assets and lease liabilities on the balance sheet. The most noteworthy change in the standard is the recognition of ROU assets and lease liabilities by lessees for those leases classified as operating leases under current U.S. GAAP. The standard requires disclosures to meet the objective of enabling users of financial statements to assess the amount, timing, and uncertainty of cash flows arising from leases.

We will adopt the standard on January 1, 2019 with initial application on the effective date as permitted under ASU No. 2018-11. We will recognize and measure leases existing at the initial application date of January 1, 2019 through a cumulative-effect adjustment recorded at the beginning of fiscal year 2019. We intend to elect the package of practical expedients and accordingly, we will not reassess the lease classification or whether expired or existing contracts contain leases under the new definition of a lease. Additionally, we will elect not to separate the lease components from the non-lease components for all classes of underlying assets. Our ability to adopt the new standards depends on system readiness, including software procured from a third-party provider. We remain on schedule and have implemented key system functionality to enable preparation of financial statements in accordance with the new standard.

We anticipate this standard will have a material impact on our consolidated balance sheets; however, we do not expect adoption to have a material impact on our consolidated statements of operations. We expect the most significant impact to be the recognition of ROU assets and lease liabilities for operating leases. Adoption of the standard is expected to result in the recognition of ROU assets and lease liabilities for operating leases of approximately $17.0 million to $18.0 million and $19.5 million to $20.5 million as of December 31, 2018, respectively. We are not party to any capital lease agreements as of December 31, 2018.

Based on our analysis, the sale-lease back transaction detailed within Note 9, the buyer-lessor has not obtained control of the underlying asset as the present value of the lease payments is substantially all of the fair value of the underlying asset. As such, the underlying asset and related financing obligation will continue to be included in our consolidated balance sheets upon adoption.

At December 31, 2018, we included $7.3 million as an asset under construction, including $2.1 million that is funded by the landlord, with a corresponding financing obligation related to a build-to-suit construction project. See Note 9 in the Notes to Consolidated Financial Statements for further information. Based on our analysis, upon adoption of Topic 842, we do not control the asset under construction and, as such, the asset and corresponding financing obligation will be de-recognized at adoption of ASC 842 on January 1, 2019.

In August 2016, the Financial Accounting Standards Board issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments,* ("Update 2016-15"). Current GAAP either is unclear or does not include specific guidance on the eight cash flow classification issues included in the amendments in Update 2016-15. The amendments are an improvement to GAAP because they provide guidance for each of the eight issues, thereby reducing the current and potential future diversity in practice. We adopted this guidance on January 1, 2018, and it did not have an impact on our consolidated statements of cash flows.

In October 2016, the Financial Accounting Standards Board issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory,* ("Update 2016-16"). This amendment improves the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. We adopted this guidance on

January 1, 2018, and it did not have an impact on our consolidated financial statements.

In November 2016, the Financial Accounting Standards Board issued ASU No. 2016-18, *Statement of Cash Flows: Restricted Cash,* (“Update 2016-18”). Update 2016-18 provides guidance on the classification of restricted cash in the statement of cash flows. We adopted this guidance on January 1, 2018, and it did not have an impact on our consolidated financial statements, as we do not have restricted cash.

In May 2017, the Financial Accounting Standards Board issued ASU No. 2017-09, *Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting* , (“Update 2017-09”). Update 2017-09 provides guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. We adopted this guidance on January 1, 2018, and it did not have an impact on our consolidated financial statements.

In June 2018, the Financial Accounting Standards Board issued ASU No. 2018-07 (Topic 718), *Improvements to Nonemployee Share-Based Payment Accounting,* (“Update 2018-07”). Update 2018-07 expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. An entity should apply the requirements of Topic 718 to nonemployee awards except for certain exemptions specified in the amendment. The guidance is effective for fiscal years beginning after December 15, 2018, including interim reporting periods within that fiscal year. Early adoption is permitted, but no earlier than an entity’s adoption of Topic 606. We will adopt this guidance on January 1, 2019, and we do not anticipate it will have an impact on our consolidated financial statements.

In July 2018, the Financial Accounting Standards Board issued ASU No. 2018-09, *Codification Improvements* , ("Update 2018-09"). Update 2018-09 provided various minor codification updates and improvements to address comments that the FASB had received regarding unclear or vague accounting guidance. The guidance is effective for fiscal years beginning after December 15, 2018, including interim reporting periods within that fiscal year. We will adopt this guidance on January 1, 2019, and we do not anticipate it will have an impact on our consolidated financial statements.

In August 2018, the Financial Accounting Standards Board issued ASU No. 2018-13, *Fair Value Measurement (Topic 820); Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement* , ("Update 2018-13"). Update 2018-13 provided an update to the disclosure requirements for fair value measurements under the scope of ASC 820. The guidance is effective for fiscal years beginning after December 15, 2019. We are currently evaluating the impact of the guidance on our consolidated financial statements.

In August 2018, the Financial Accounting Standards Board issued ASU No. 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software,* (“Update 2018-15”). Update 2018-15 provided guidance for evaluating the accounting for fees paid by a customer in a cloud computing arrangement that is a service contract. The guidance is effective for fiscal years beginning after December 15, 2019. We are currently evaluating the impact of the guidance on our consolidated financial statements.

In November 2018, the Financial Accounting Standards Board issued ASU No. 2018-18, *Collaborative Arrangements (Topic 808),* (“Update 2018-18”). Update 2018-18 provided additional guidance regarding the interaction between Topic 808 on Collaborative Arrangements and Topic 606 on Revenue Recognition. The guidance is effective for fiscal years beginning after December 15, 2019. We are currently evaluating the impact of the guidance on our consolidated financial statements.

Off-Balance Sheet Arrangements

As of December 31, 2018, we had no off-balance sheet arrangements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

Our exposure to market risk is principally confined to our cash, cash equivalents and marketable securities. We invest our cash, cash equivalents, and marketable securities in securities of the U.S. governments and its agencies and in investment-grade, highly liquid investments consisting of commercial paper, bank certificates of deposit, and corporate

bonds, which as of December 31, 2018 and December 31, 2017 were classified as available-for-sale. We place our cash equivalents and marketable securities with high-quality financial institutions, limit the amount of credit exposure to any one institution, and have established investment guidelines relative to diversification and maturities designed to maintain safety and liquidity.

Based on a hypothetical ten percent adverse movement in interest rates, the potential losses in future earnings, fair value of risk-sensitive financial instruments, and cash flows are immaterial, although the actual effects may differ materially from the hypothetical analysis. While we believe our cash, cash equivalents, and marketable securities do not contain excessive risk, we cannot provide absolute assurance that, in the future, our investments will not be subject to adverse changes in market value. In addition, we maintain significant amounts of cash, cash equivalents, and marketable securities at one or more financial institutions that are in excess of federally insured limits. Given the potential instability of financial institutions, we cannot provide assurance that we will not experience losses on these deposits. We do not utilize interest rate hedging agreements or other interest rate derivative instruments.

A hypothetical ten percent change in interest rates would not have a material adverse impact on our future operating results or cash flows. All of our interest-bearing liabilities bear interest at fixed rates and therefore are not subject to fluctuations in market interest rates; however, because these interest rates are fixed, we may be paying a higher interest rate, relative to market, in the future if circumstances change.

Foreign Currency Risk

We have no significant operations outside the United States and we do not expect to be impacted significantly by foreign currency fluctuations.

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Item 8. Consolidated Financial Statements and Supplementary Data

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Repor t of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Exact Sciences Corporation
Madison, Wisconsin

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Exact Sciences Corporation (the "Company") and subsidiaries as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company and subsidiaries at December 31, 2018 and 2017, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2018, in conformity with accounting principles generally accepted in the United States of America.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") and our report dated February 21, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's consolidated 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 United States 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 consolidated financial statements are free of material misstatement, whether due to error or fraud.

Our audits included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ BDO USA, LLP

We have served as the Company's auditor since 2012.

Madison, Wisconsin
February 21, 2019

Report of Independent Registered Public Accounting Firm

Shareholders and Board of Directors
Exact Sciences Corporation
Madison, Wisconsin

Opinion on Internal Control over Financial Reporting

We have audited Exact Sciences Corporation's (the "Company's") internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (the "COSO criteria"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company and subsidiaries as of December 31, 2018 and 2017, and the related consolidated statements of operations, comprehensive loss, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2018, and the related notes and our report dated February 21, 2019 expressed an unqualified opinion thereon.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Item 9A, Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with United States federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit of internal control over financial reporting in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 management and directors of the company; and (3) 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 the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ BDO USA, LLP

Madison, Wisconsin
February 21, 2019

EXACT SCIENCES CORPORATION

Consolidated Balance Sheet s

(Amounts in thousands, except share data)

	December 31, 2018	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	$ 160,430	$ 77,491
Marketable securities	963,752	347,224
Accounts receivable, net	44,239	26,419
Inventory, net	39,148	26,027
Prepaid expenses and other current assets	20,498	10,055
Total current assets	1,228,067	487,216
Long-term Assets:		
Property, plant and equipment, net	245,259	79,986
Goodwill and intangibles, net	46,281	24,205
Other long-term assets, net	4,415	7,153
Total assets	$ 1,524,022	$ 598,560
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable	$ 28,141	$ 16,135
Accrued liabilities	100,644	49,126
Accrued interest	4,593	—
Debt, current portion	8	182
Other short-term liabilities	3,204	2,681
Total current liabilities	136,590	68,124
Convertible notes, net	664,749	—
Long-term debt, less current portion	24,073	4,269
Other long-term liabilities	9,475	5,749
Lease incentive obligation, less current portion	8,194	—
Total liabilities	843,081	78,142
Commitments and contingencies		
Stockholders' Equity:		
Preferred stock, $0.01 par value Authorized—5,000,000 shares issued and outstanding—no shares at December 31, 2018 and December 31, 2017	—	—
Common stock, $0.01 par value Authorized—200,000,000 shares issued and outstanding—123,192,540 and 120,497,426 shares at December 31, 2018 and December 31, 2017	1,232	1,205
Additional paid-in capital	1,716,894	1,380,577
Accumulated other comprehensive loss	(1,422)	(750)
Accumulated deficit	(1,035,763)	(860,614)
Total stockholders' equity	680,941	520,418
Total liabilities and stockholders' equity	$ 1,524,022	$ 598,560

The accompanying notes are an integral part of these consolidated financial statements.

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EXACT SCIENCES CORPORATION

Consolidated Statements of Operation s

(Amounts in thousands, except per share data)

	Year Ended December 31,		
	2018	2017	2016
Revenue	$ 454,462	$ 265,989	$ 99,376
Cost of sales	117,982	79,196	45,195
Gross margin	336,480	186,793	54,181
Operating expenses:			
Research and development	68,210	42,139	33,473
General and administrative	178,293	109,040	76,898
Sales and marketing	249,448	153,924	112,826
Total operating expenses	495,951	305,103	223,197
Loss from operations	(159,471)	(118,310)	(169,016)
Other income (expense)			
Investment income	21,203	3,932	2,018
Interest expense	(36,789)	(206)	(213)
Total other income (expense)	(15,586)	3,726	1,805
Net loss before tax	(175,057)	(114,584)	$ (167,211)
Income tax benefit (expense)	(92)	187	—
Net loss	$ (175,149)	$ (114,397)	$ (167,211)
Net loss per share—basic and diluted	$ (1.43)	$ (0.99)	$ (1.63)
Weighted average common shares outstanding—basic and diluted	122,207	115,684	102,335

The accompanying notes are an integral part of these consolidated financial statements.

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EXACT SCIENCES CORPORATION

Consolidated Statements of Comprehensive Los s

(Amounts in thousands)

	Year Ended December 31,		
	2018	2017	2016
Net loss	$ (175,149)	$ (114,397)	$ (167,211)
Other comprehensive loss, net of tax:			
Unrealized gain (loss) on available-for-sale investments	(708)	(475)	230
Foreign currency translation gain (loss)	36	143	(215)
Comprehensive loss	$ (175,821)	$ (114,729)	$ (167,196)

The accompanying notes are an integral part of these consolidated financial statements.

EXACT SCIENCES CORPORATION

Consolidated Statements of Stockholders' Equit y

(Amounts in thousands, except share data)

	Common Stock		Additional	Other		Total
	Number of Shares	$0.01 Par Value	Paid In Capital	Comprehensive Income (Loss)	Accumulated Deficit	Stockholders' Equity
Balance, January 1, 2016	96,674,786	$ 967	$ 904,932	$ (433)	$ (578,610)	$ 326,856
Issuance of common stock, net of issuance costs of $7.3 million	9,775,000	98	144,144	—	—	144,242
Exercise of common stock options	2,254,384	23	3,388	—	—	3,411
Issuance of common stock to fund the Company's 2015 401(k) match	341,507	3	2,148	—	—	2,151
Compensation expense related to issuance of stock options and restricted stock awards	833,627	8	23,724	—	—	23,732
Purchase of employee stock purchase plan shares	356,823	3	2,096	—	—	2,099
Net loss	—	—	—	—	(167,211)	(167,211)
Accumulated other comprehensive income	—	—	—	15	—	15
Balance, December 31, 2016	110,236,127	$ 1,102	$ 1,080,432	$ (418)	$ (745,821)	$ 335,295
Cumulative-effect adjustment - ASU 2016-09 adoption	—	—	396	—	(396)	
Issuance of common stock, net of issuance costs of $7.4 million	7,450,000	74	253,314	—	—	253,388
Exercise of common stock options	1,067,047	11	5,092	—	—	5,103
Issuance of common stock to fund the Company's 2016 401(k) match	158,717	2	3,006	—	—	3,008
Compensation expense related to issuance of stock options and restricted stock awards	1,162,112	12	35,500	—	—	35,512
Purchase of employee stock purchase plan shares	423,423	4	2,837	—	—	2,841
Net loss	—	—	—	—	(114,397)	(114,397)
Accumulated other comprehensive loss		—	—	(332)	—	(332)
Balance, December 31, 2017	120,497,426	$ 1,205	$ 1,380,577	$ (750)	$ (860,614)	$ 520,418
Equity component of convertible debt, net of issuance costs	—	—	260,246	—	—	260,246
Exercise of common stock options	1,033,012	10	6,626	—	—	6,636
Issuance of common stock to fund the Company's 2017 401(k) match	86,882	1	4,302	—	—	4,303
Compensation expense related to issuance of stock options and restricted stock awards	1,228,611	13	60,251	—	—	60,264
Purchase of employee stock purchase plan shares	346,609	3	4,892	—	—	4,895
Net loss	—	—	—	—	(175,149)	(175,149)
Accumulated other comprehensive loss		—	—	(672)	—	(672)
Balance, December 31, 2018	123,192,540	$ 1,232	$ 1,716,894	$ (1,422)	$ (1,035,763)	$ 680,941

The accompanying notes are an integral part of these consolidated financial statements.

EXACT SCIENCES CORPORATION

Consolidated Statements of Cash Flow s

(Amounts in thousands, except share data)

	Year Ended December 31,		
	2018	2017	2016
Cash flows from operating activities:			
Net loss	$ (175,149)	$ (114,397)	$ (167,211)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization of property and equipment	20,482	14,500	11,309
Loss on disposal of property and equipment	353	954	151
Loss on preferred stock investment	765	—	—
Deferred tax benefit	—	(115)	—
Stock-based compensation	60,264	35,512	23,732
Amortization of debt discount	26,291	—	—
Amortization of debt issuance costs	2,273	—	—
Amortization of other liabilities	(2,500)	(1,674)	(1,013)
Amortization of deferred financing costs	106	54	52
Amortization of premium on short-term investments	(3,901)	65	463
Amortization of intangible assets	2,602	1,055	200
Proceeds from refundable tax credits	—	—	800
Changes in assets and liabilities, net of effects of acquisition:			
Accrued interest	4,593	—	—
Accounts receivable, net	(17,292)	(17,529)	(3,593)
Inventory, net	(12,729)	(19,194)	(156)
Prepaid expenses and other current assets	(9,076)	(995)	761
Accounts payable	11,332	15,383	(2,598)
Accrued liabilities	21,744	15,154	7,349
Other short-term liabilities	172	119	—
Lease incentive obligation	345	(616)	(312)
Net cash used in operating activities	(69,325)	(71,724)	(130,066)
Cash flows from investing activities:			
Purchases of marketable securities	(1,192,506)	(357,051)	(189,989)
Maturities of marketable securities	579,171	271,466	193,321
Purchases of property and equipment	(150,093)	(48,480)	(14,851)
Business acquisition, net of cash acquired	(17,908)	(2,980)	—
Investment in privately-held company	—	(3,000)	—
Purchases of intangible assets	—	(20,690)	—
Internally developed software	(578)	(70)	—
Net cash used in investing activities	(781,914)	(160,805)	(11,519)
Cash flows from financing activities:			
Proceeds from issuance of convertible notes, net	896,430	—	—
Proceeds from financing obligation	6,762	—	—
Proceeds from exercise of common stock options	6,636	5,103	3,411
Proceeds from sale of common stock, net of issuance costs	—	253,388	144,242
Proceeds in connection with the Company's employee stock purchase plan	4,895	2,841	2,099
Payments of deferred financing costs	(24)	(202)	—
Proceeds from construction loan	24,260	—	—
Payments on mortgage payable	(4,678)	(174)	(166)
Payments on capital lease	(139)	—	—
Net cash provided by financing activities	934,142	260,956	149,586
Effects of exchange rate changes on cash and cash equivalents	36	143	(215)
Net increase in cash and cash equivalents	82,939	28,570	7,786
Cash and cash equivalents, beginning of period	77,491	48,921	41,135
Cash and cash equivalents, end of period	$ 160,430	$ 77,491	$ 48,921
Supplemental disclosure of non-cash investing and financing activities:			
Property and equipment acquired but not paid	$ 33,452	$ 8,818	$ 655
Property acquired under build-to-suit lease	$ 2,092	$ —	—
Unrealized loss on available-for-sale investments	$ (708)	$ (475)	$ 230
Issuance of 86,882, 158,717, and 341,507 shares of common stock to fund the Company's 401(k) matching contribution for 2017, 2016, and 2015, respectively	$ 4,303	$ 3,008	$ 2,151
Business acquisition contingent consideration liability	$ 3,060	$ —	$ —
Interest paid	$ 4,638	$ 201	$ 209

The accompanying notes are an integral part of these consolidated financial statements.

EXACT SCIENCES CORPORATION

Notes to Consolidated Financial Statements

(1) ORGANIZATIO N

Exact Sciences Corporation (together with its subsidiaries, "Exact," or the "Company") was incorporated in February 1995. Exact is a molecular diagnostics company currently focused on the early detection and prevention of some of the deadliest forms of cancer. The Company has developed an accurate, non-invasive, patient friendly screening test called Cologuard for the early detection of colorectal cancer and pre-cancer, and is currently working on the development of additional tests for other types of cancer, with the goal of becoming a leader in cancer screening and diagnostics.

(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company's wholly-owned subsidiaries and variable interest entities. See Note 12 for the discussion of financing arrangements involving certain entities that are variable interest entities that are included in the Company's consolidated financial statements. All significant intercompany transactions and balances have been eliminated in consolidation.

References to "Exact", "we", "us", "our", or the "Company" refer to Exact Sciences Corporation and its wholly owned subsidiaries.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States ("GAAP") 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. Actual results could differ from those estimates.

Cash and Cash Equivalents

The Company considers cash on hand, demand deposits in a bank, money market funds, and all highly liquid investments with an original maturity of 90 days or less to be cash and cash equivalents. The Company had no restricted cash at December 31, 2018 and 2017.

Marketable Securities

Management determines the appropriate classification of debt securities at the time of purchase and re-evaluates such designation as of each balance sheet date. Debt securities carried at amortized cost are classified as held-to-maturity when the Company has the positive intent and ability to hold the securities to maturity. Marketable equity securities and debt securities not classified as held-to-maturity are classified as available-for-sale. Available-for-sale securities are carried at fair value, with the unrealized gains and losses, net of tax, reported in other comprehensive income. The amortized cost of debt securities in this category is adjusted for amortization of premiums and accretion of discounts to maturity computed under the straight-line method. Such amortization is included in investment income. Realized gains and losses and declines in value judged to be other-than-temporary on available-for-sale securities are included in investment income. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in investment income.

At December 31, 2018 and 2017, the Company's marketable securities were comprised of fixed income investments, and all were deemed available-for-sale. The objectives of the Company's investment strategy are to provide liquidity and safety of principal while striving to achieve the highest rate of return consistent with these two objectives. The Company's investment policy limits investments to certain types of instruments issued by institutions with

EXACT SCIENCES CORPORATION

Notes to Consolidated Financial Statements (Continued)

investment grade credit ratings and places restrictions on maturities and concentration by type and issuer. Investments in which the Company has the ability and intent, if necessary, to liquidate in order to support its current operations (including those with a contractual term greater than one year from the date of purchase) are classified as current. All of the Company's investments are considered current. Realized gains were $0.4 million, $23,000, and $24,000, net of insignificant realized losses, for the years ended December 31, 2018, 2017, and 2016, respectively and are included in investment income.

The Company periodically reviews investments in unrealized loss positions for other-than-temporary impairments. This evaluation includes, but is not limited to, significant quantitative and qualitative assessments and estimates regarding credit ratings, collateralized support, the length of time and significance of a security's loss position, the Company's intent not to sell the security, and whether it is more likely than not that the Company will have to sell the security before recovery of its cost basis. For the year ended December 31, 2018, no investments were identified with other-than-temporary declines in value.

Available-for-sale securities at December 31, 2018 consist of the following:

	December 31, 2018			
(In thousands)	Amortized Cost	Gains in Accumulated Other Comprehensive Income (Loss)	Losses in Accumulated Other Comprehensive Income (Loss)	Estimated Fair Value
Corporate bonds	$ 392,973	$ 33	$ (719)	$ 392,287
Asset backed securities	277,537	30	(568)	276,999
U.S. government agency securities	250,606	43	(178)	250,471
Commercial paper	12,158	—	(7)	12,151
Certificates of deposit	31,875	—	(31)	31,844
Total available-for-sale securities	$ 965,149	$ 106	$ (1,503)	$ 963,752

Available-for-sale securities at December 31, 2017 consist of the following:

	December 31, 2017			
(In thousands)	Amortized Cost	Gains in Accumulated Other Comprehensive Income (Loss)	Losses in Accumulated Other Comprehensive Income (Loss)	Estimated Fair Value
Corporate bonds	$ 181,639	$ 10	$ (344)	$ 181,305
Asset backed securities	94,700	—	(185)	94,515
U.S. government agency securities	54,974	—	(162)	54,812
Commercial paper	9,953	—	(7)	9,946
Certificates of deposit	6,647	1	(2)	6,646
Total available-for-sale securities	$ 347,913	$ 11	$ (700)	$ 347,224

EXACT SCIENCES CORPORATION

Notes to Consolidated Financial Statements (Continued)

Changes in Accumulated Other Comprehensive Income (Loss)

The amount recognized in accumulated other comprehensive income (loss) ("AOCI") for the years ended December 31, 2018, 2017 and 2016 were as follows:

(In thousands)	Cumulative Translation Adjustment	Unrealized Gain (Loss) on Securities	Accumulated Other Comprehensive Income (Loss)
Balance at January 1, 2016	$ 11	$ (444)	$ (433)
Other comprehensive income (loss) before reclassifications	(215)	117	(98)
Amounts reclassified from accumulated other comprehensive loss	—	113	113
Net current period change in accumulated other comprehensive income (loss)	(215)	230	15
Balance at December 31, 2016	$ (204)	$ (214)	$ (418)
Other comprehensive income (loss) before reclassifications	143	(530)	(387)
Amounts reclassified from accumulated other comprehensive loss	—	55	55
Net current period change in accumulated other comprehensive income (loss)	143	(475)	(332)
Balance at December 31, 2017	$ (61)	$ (689)	$ (750)
Other comprehensive income (loss) before reclassifications	36	(1,025)	(989)
Amounts reclassified from accumulated other comprehensive loss	—	317	317
Net current period change in accumulated other comprehensive income (loss)	36	(708)	(672)
Balance at December 31, 2018	$ (25)	$ (1,397)	$ (1,422)

Amounts reclassified from accumulated other comprehensive loss for the years ended December 31, 2018, 2017 and 2016 were as follows:

Details about AOCI Components (In thousands)	Affected Line Item in the Statements of Operations	Year Ended December 31, 2018	2017	2016
Change in value of available-for-sale investments				
Sales and maturities of available-for-sale investments	Investment income	$ 317	$ 55	$ 113
Total reclassifications		$ 317	$ 55	$ 113

Allowance for Doubtful Accounts

The Company estimates an allowance for doubtful accounts against accounts receivable based on estimates of expected collections consistent with historical cash collection experience. The allowance for doubtful accounts is evaluated on a regular basis and adjusted when trends, significant events or other substantive evidence indicate that expected collections will be less than applicable accrual rates. At December 31, 2018 and 2017 there was no allowance for doubtful accounts recorded. For the years ended December 31, 2018, 2017 and 2016, there was no bad debt expense written off against the allowance and charged to operating expense.

Inventory

Inventory is stated at the lower of cost or market value (net realizable value). The Company determines the cost of inventory using the first-in, first out method ("FIFO"). The Company estimates the recoverability of inventory by reference to internal estimates of future demands and product life cycles, including expiration. The Company periodically analyzes its inventory levels to identify inventory that may expire prior to expected sale or has a cost basis in excess of its estimated realizable value and records a charge to cost of sales for such inventory as appropriate. In addition, the Company's products are subject to strict quality control and monitoring which the Company performs throughout the manufacturing process. If

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Notes to Consolidated Financial Statements (Continued)

certain batches or units of product no longer meet quality specifications or become obsolete due to expiration, the Company records a charge to cost of sales to write down such unmarketable inventory to its estimated realizable value.

Direct and indirect manufacturing costs incurred during process validation and for other research and development activities, which are not permitted to be sold, have been expensed to research and development in the Company's consolidated statements of operations.

Inventory consisted of the following:

(In thousands)	December 31, 2018	December 31, 2017
Raw materials	$ 12,761	$ 10,344
Semi-finished and finished goods	26,387	15,683
Total inventory	$ 39,148	$ 26,027

Property, Plant and Equipment

Pro perty and equipment are stated at cost and depreciated using the straight-line method over the assets' estimated useful lives. Land is stated at cost and does not depreciate. Maintenance and repairs are expensed when incurred; additions and improvements are capitalized. The estimated useful lives of property and equipment are as follows:

(In thousands)	Estimated Useful Life	December 31, 2018	December 31, 2017
Property, plant and equipment			
Land	(1)	$ 4,466	$ 4,466
Leasehold and building improvements	(2)	38,895	17,629
Land improvements	15 years	1,530	1,419
Buildings	30 years	7,928	7,928
Computer equipment and computer software	3 years	36,969	30,148
Laboratory equipment	3 - 10 years	37,518	23,296
Furniture and fixtures	3 years	8,353	4,531
Assets under construction	(3)	167,462	28,655
Property, plant and equipment, at cost		303,121	118,072
Accumulated depreciation		(57,862)	(38,086)
Property, plant and equipment, net		$ 245,259	$ 79,986

(1) Not depreciated.
(2) Lesser of remaining lease term, building life, or useful life.
(3) Not depreciated until placed into service.

Depreciation expense for the years ended December 31, 2018, 2017, and 2016 was $20.5 million, $14.5 million, and $11.3 million, respectively.

At December 31, 2018, the Company had $167.5 million of assets under construction which consisted of $130.8 million related to building and leasehold improvements, $5.2 million of capitalized costs related to software projects, and $31.5 million of costs related to laboratory equipment under construction. Depreciation will begin on these assets once they are placed into service. The Company expects to incur an additional $184.9 million to complete the building projects and leasehold improvements, $7.5 million of costs to complete the computer software projects, $7.2 million to complete the laboratory equipment, and minimal costs to complete the computer equipment. These projects are expected to be completed in 2019 and 2020. The Company assesses its long-lived assets, consisting primarily of

property and equipment, for impairment when material events and changes in circumstances indicate that the carrying value may not be recoverable. There were no impairment losses for the years ended December 31, 2018, 2017 or 2016.

Software Capitalization Policy

Software development costs related to internal use software are incurred in three stages of development: the preliminary project stage, the application development stage, and the post-implementation stage. Costs incurred during the preliminary project and post-implementation stages are expensed as incurred. Costs incurred during the application development stage that meet the criteria for capitalization are capitalized and amortized, when the software is ready for its intended use, using the straight-line basis over the estimated useful life of the software.

Patent Costs, Intangible Assets and Goodwill

Goodwill and intangible assets consisted of the following:

(In thousands)	December 31, 2018	December 31, 2017
Finite-lived intangible assets		
Finite-lived intangible assets	$ 33,058	$ 23,726
Less: Accumulated amortization	(4,107)	(1,500)
Finite-lived intangible assets, net	28,951	22,226
Internally developed technology in process	51	—
Total finite-lived intangible assets, net	29,002	22,226
Goodwill	17,279	1,979
Goodwill and intangible assets, net	$ 46,281	$ 24,205

Finite-Lived Intangible Assets

The following table summarizes the net-book-value and estimated remaining life of the Company's finite-lived intangible assets as of December 31, 2018:

(In thousands)	Net Balance at December 31, 2018	Weighted Average Remaining Life (Years)
Trade name	$ 689	14.8
Customer relationships	2,666	14.8
Patents	18,979	9.6
Acquired developed technology	6,086	13.8
Internally developed technology	531	2.7
Total	$ 28,951	

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Notes to Consolidated Financial Statements (Continued)

As of December 31, 2018, the estimated future amortization expense associated with the Company's finite-lived intangible assets for each of the five succeeding fiscal years is as follows:

(In thousands)	
2019	$ 3,193
2020	3,193
2021	3,092
2022	2,956
2023	2,953
Thereafter	13,564
	$ 28,951

The Company reviews long-lived assets, including property and equipment and identifiable intangibles for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future undiscounted net cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of are reported at the lower of the carrying amount or fair value less costs to sell. There were no impairment losses for the years ended December 31, 2018, 2017, and 2016.

Patent costs, which have historically consisted of related legal fees, are capitalized as incurred, only if the Company determines that there is some probable future economic benefit derived from the transaction. A capitalized patent is amortized over its estimated useful life, beginning when such patent is approved. Capitalized patent costs are expensed upon disapproval, upon a decision by the Company to no longer pursue the patent or when the related intellectual property is either sold or deemed to be no longer of value to the Company. Other than the transactions discussed below, the Company determined that all patent costs incurred during the year ended December 31, 2018, 2017 and 2016 should be expensed and not capitalized as the future economic benefit derived from the transactions cannot be determined.

Under a technology license and royalty agreement entered into with MDx Health ("MDx"), dated July 26, 2010 (as subsequently amended, the "MDx License Agreement"), the Company was required to pay MDx milestone-based royalties on sales of products or services covered by the licensed intellectual property. Once the achievement of a milestone occurred or was considered probable, an intangible asset and corresponding liability was reported in goodwill and intangible assets and accrued liabilities, respectively. The liability was relieved once the milestone was achieved and payment made. The intangible asset is being amortized over the estimated ten-year useful life of the licensed intellectual property through 2024, and such amortization is reported in cost of sales. Payment for all remaining milestones under the License Agreement was made as part of the Royalty Buy-Out agreement outlined below.

Effective April 2017, the Company and MDx entered into a royalty buy-out agreement ("Royalty Buy-Out Agreement"), which terminated the MDx License Agreement. Pursuant to the Royalty Buy-Out Agreement, the Company paid MDx a one-time fee of $8.0 million in exchange for an assignment of certain patents covered by the MDx License Agreement and the elimination of all ongoing royalties and other payments by the Company to MDx under the MDx License Agreement. Also included in the Royalty Buy-Out Agreement is a mutual release of liabilities, which includes all amounts previously accrued under the MDx License Agreement. Concurrently with entering into the Royalty Buy-Out Agreement, the Company entered into a patent purchase agreement ("Patent Purchase Agreement") with MDx under which it paid MDx an additional $7.0 million in exchange for the assignment of certain other patent rights that were not covered by the MDx License Agreement. The total $15.0 million paid by the Company pursuant to the Royalty Buy-Out Agreement and Patent Purchase Agreement, net of liabilities relieved of $6.6 million, was recorded as an intangible asset and is being amortized over the estimated remaining useful life of the licensed intellectual property

through 2024, and such amortization is reported in cost of sales. The $6.6 million of liabilities relieved were related to historical milestones and accrued royalties under the License Agreement.

As of December 31, 2018 and 2017, an intangible asset of $7.7 million and $9.0 million, respectively, related to historical milestone payments made under the MDx License Agreement and intangible assets acquired as part of the Royalty Buy-Out Agreement and Patent Purchase Agreement is reported in intangible assets. Amortization expense for the years ended December 31, 2018, 2017, and 2016 was $1.3 million, $1.0 million, and $0.2 million, respectively.

In December 2017, the Company entered into an asset purchase agreement (the "Armune Purchase Agreement") with Armune BioScience, Inc. ("Armune"), pursuant to which the Company acquired intellectual property and certain other assets underlying Armune's APIFINY®, APIFINY® PRO and APIFINY® ACTIVE SURVEILLANCE prostate cancer diagnostic tests. The portfolio of Armune assets the Company acquired is expected to complement its product pipeline. The total consideration was comprised of an up-front cash payment of $12.0 million and $17.5 million in contingent payment obligations that will become payable upon the Company's achievement of development and commercial milestones using the acquired intellectual property. The satisfaction of these milestones is subject to many risks and is therefore uncertain. The Company will not record the contingent consideration until it is probable that the milestones will be met. There is no other consideration due to Armune beyond the milestone payments and the Company is not subject to future royalty obligations should a product be developed and commercialized. In connection with the Armune Purchase Agreement, Armune terminated a license agreement pursuant to which it licensed certain patent rights and know-how from the Regents of the University of Michigan ("University of Michigan"), and the Company entered into a license agreement with the University of Michigan with respect to such patent rights and know-how, as well as certain additional intellectual property rights. Pursuant to the Company's agreement with the University of Michigan, it is required to pay the University of Michigan a low single-digit royalty on its net sales of products using the licensed intellectual property.

The Company accounted for the transaction as an asset acquisition under GAAP. The asset is comprised of a portfolio of biomarkers, related technology and know-how, which is a group of complementary assets concentrated in a single identifiable asset. The transaction costs directly related to the asset acquisition were added to the asset in accordance with GAAP. As such, the collective asset value from the acquisition resulted in an intangible asset of $12.2 million. The intellectual property asset, which includes related transaction costs, is being amortized on a straight-line basis over the period the Company expects to be benefited, which is consistent with the legal life of the patents acquired. The Company capitalized these costs as there is a reasonable expectation that the assets acquired will be used in an alternative manner in the future, that is not contingent on future development subsequent to acquisition, and the Company anticipates there to be economic benefit from these alternative uses. For the years ended December 31, 2018 and 2017, the Company recorded amortization expense of $0.9 million and $40,000, respectively. At December 31, 2018 and 2017, the net balances of $11.3 million and $12.2 million, respectively are reported in net goodwill and intangible assets in the Company's consolidated balance sheet.

As a result of the Sampleminded, Inc. ("Sampleminded") acquisition discussed in Note 14, the Company recorded an intangible asset of $1.0 million which was comprised of acquired developed technology of $0.9 million, customer relationships of $0.1 million, and non-compete agreements of $32,000. The intangible assets acquired are being amortized over the remaining useful life which was determined to be eight years for acquired developed technology, three years for customer relationships, and five years for non-compete agreements. For the years ended December 31, 2018 and 2017, the Company recorded amortization expense of $0.1 million and $52,000, respectively, and the net balances of $0.8 million and $0.9 million, respectively, are reported in net goodwill and intangible assets in the Company's consolidated balance sheet.

As a result of the Biomatrica Acquisition discussed in Note 14, the Company recorded an intangible asset of $8.8 million which was comprised of acquired developed technology of $5.4 million, customer relationships of $2.7 million, and trade names of $0.7 million. The intangible assets acquired are being amortized over the remaining useful life which was determined to be fifteen years for the acquired developed technology, fifteen years for the customer relationships,

and fifteen years for the trade names. For the year ended December 31, 2018, the Company recorded amortization expense of $0.1 million and the net balance of $8.7 million is reported in net goodwill and intangible assets in the Company's consolidated balance sheet.

In 2017, the Company recognized goodwill of $2.0 million from the acquisition of Sampleminded, Inc. During the fourth quarter of 2018, the Company recognized goodwill of $15.3 million from the acquisition of Biomatrica, Inc. Goodwill is reported in net goodwill and intangible assets in the Company's consolidated balance sheet. The Company will evaluate goodwill impairment on an annual basis or more frequently should an event or change in circumstance occur that indicates that the carrying amount is in excess of the fair value. There were no impairment losses for the years ended December 31, 2018, 2017, and 2016. Refer to Note 14 for further discussion of the goodwill recorded.

The change in the carrying amount of goodwill for the years ended December 31, 2018 and 2017 is as follows:

(In thousands)	
Balance, December 31, 2016	$ —
Sampleminded acquisition	1,979
Balance, December 31, 2017	1,979
Biomatrica acquisition	15,300
Balance, December 31, 2018	$ 17,279

Net Loss Per Share

Basic net loss per common share was determined by dividing net loss applicable to common stockholders by the weighted average common shares outstanding during the period. Basic and diluted net loss per share is the same because all outstanding common stock equivalents have been excluded, as they are anti-dilutive as a result of the Company's losses.

The following potentially issuable common shares were not included in the computation of diluted net loss per share because they would have an anti-dilutive effect due to net losses for each period:

	December 31,		
(In thousands)	2018	2017	2016
Shares issuable upon exercise of stock options	2,532	3,360	3,505
Shares issuable upon the release of restricted stock awards	6,246	6,149	5,601
Shares issuable upon conversion of convertible notes	12,044	—	—
	20,822	9,509	9,106

Accounting for Stock-Based Compensation

The Company requires all share-based payments to employees, including grants of employee stock options, restricted stock, restricted stock units and shares purchased under an employee stock purchase plan (if certain parameters are not met), to be recognized in the financial statements based on their fair values.

Revenue Recognition

The Company's revenue is primarily generated by screening services using its Cologuard test, and the service is completed upon delivery of a patient's test result to the ordering physician. The Company accounts for revenue in accordance with Accounting Standards Codification ("ASC") Topic 606, *Revenue from Contracts with Customers* ("ASC 606"), which it adopted on January 1, 2018, using the modified retrospective method, which it elected

to apply to all contracts. Application of the modified retrospective method did not impact amounts previously reported by the Company, nor did it require a cumulative effect adjustment upon adoption, as the Company's method of recognizing revenue under ASC 606 was analogous to the method utilized immediately prior to adoption. Accordingly, there is no need for the Company to disclose the amount by which each financial statement line item was affected as a result of applying the new standard and an explanation of significant changes.

The core principle of ASC 606 is that the Company recognizes revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those goods or services. The Company recognizes revenue from its Cologuard test in accordance with that core principle, and key aspects considered by the Company include the following:

Contracts

The Company's customer is the patient. However, the Company does not enter into a formal reimbursement contract with a patient, as formal reimbursement contracts, including national coverage determination for Cologuard, are established with payers. Accordingly, the Company establishes a contract with a patient in accordance with other customary business practices.

- Approval of a contract is established via the order submitted by the patient's physician and the return of a sample by the patient.
- The Company is obligated to perform its laboratory services upon receipt of a sample from a patient, and the patient and/or applicable payer are obligated to reimburse the Company for services rendered based on the patient's insurance benefits.
- Payment terms are a function of a patient's existing insurance benefits, including the impact of coverage decisions with CMS and applicable reimbursement contracts established between the Company and payers, unless the patient is a self-pay patient, whereby the Company requires payment from the patient prior to the Company shipping a collection kit to the patient.
- Once the Company delivers a patient's test result to the ordering physician, the contract with a patient has commercial substance, as the Company is legally able to collect payment and bill an insurer and/or patient, depending on payer contract status or patient insurance benefit status.
- The Company's consideration is deemed to be variable, and the Company considers collection of such consideration to be probable to the extent that it is unconstrained.

Performance obligations

A performance obligation is a promise in a contract to transfer a distinct good or service (or a bundle of goods or services) to the customer. The Company's contracts have a single performance obligation, which is satisfied upon rendering of services, which culminates in the delivery of a patient's Cologuard test result to the ordering physician. The duration of time between sample receipt and delivery of a valid test result to the ordering physician is typically less than two weeks. Accordingly, the Company elects the practical expedient and therefore, the Company does not disclose the value of unsatisfied performance obligations.

Transaction price

The transaction price is the amount of consideration that the Company expects to collect in exchange for transferring promised goods or services to a customer, excluding amounts collected on behalf of third parties (for example, some sales taxes). The consideration expected from a contract with a customer may include fixed amounts, variable amounts, or both.

The consideration derived from the Company's contracts is deemed to be variable, though the variability is not explicitly stated in any contract. Rather, the implied variability is due to several factors, such as the amount of

contractual adjustments, any patient co-payments, deductibles or patient compliance incentives, the existence of secondary payers and claim denials.

The Company estimates the amount of variable consideration using the expected value method, which represents the sum of probability-weighted amounts in a range of possible consideration amounts. When estimating the amount of variable consideration, the Company considers several factors, such as historical collections experience, patient insurance eligibility and payer reimbursement contracts.

The Company limits the amount of variable consideration included in the transaction price to the unconstrained portion of such consideration. In other words, the Company recognizes revenue up to the amount of variable consideration that is not subject to a significant reversal until additional information is obtained or the uncertainty associated with the additional payments or refunds is subsequently resolved. Differences between original estimates and subsequent revisions, including final settlements, represent changes in the estimate of variable consideration and are included in the period in which such revisions are made. Revenue recognized from changes in transaction prices was $15.0 million for the year ended December 31, 2018.

The Company monitors its estimates of transaction price to depict conditions that exist at each reporting date. If the Company subsequently determines that it will collect more consideration than it originally estimated for a contract with a patient, it will account for the change as an increase in the estimate of the transaction price (i.e., an upward revenue adjustment) in the period identified. Similarly, if the Company subsequently determines that the amount it expects to collect from a patient is less than it originally estimated, it will generally account for the change as a decrease in the estimate of the transaction price (i.e., a downward revenue adjustment), provided that such downward adjustment does not result in a significant reversal of cumulative revenue recognized.

When the Company does not have significant historical experience or that experience has limited predictive value, the constraint over estimates of variable consideration may result in no revenue being recognized upon delivery of a patient's Cologuard test result to the ordering physician, with recognition, generally occurring at the date of cash receipt. Since the first quarter of 2017, the Company has determined that its historical experience has sufficient predictive value, such that there are no longer any contracts for which no revenue is recognized upon delivery of a Cologuard test result to an ordering physician. Of the revenue recognized in the twelve months ended December 31, 2017, approximately $4.3 million relates to the one-time impact of certain payers meeting the Company's revenue recognition criteria for accrual-basis revenue recognition beginning with the period ended March 31, 2017. Approximately $1.0 million of this one-time impact relates to tests completed in the prior year and for which the Company's accrual revenue recognition criteria were not met until 2017.

Allocate transaction price

The entire transaction price is allocated entirely to the performance obligation contained within the contract with a patient.

Point in time recognition

The Company's single performance obligation is satisfied at a point in time, and that point in time is defined as the date a patient's successful test result is delivered to the patient's ordering physician. The Company considers this date to be the time at which the patient obtains control of the promised Cologuard test service.

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Notes to Consolidated Financial Statements (Continued)

Disaggregation of Revenue

The following table presents our revenues disaggregated by revenue source for the years ended December 31, 2018, 2017 and 2016, respectively:

	Year Ended December 31,		
(In thousands)	**2018**	**2017**	**2016**
Medicare Parts B & C	$ 254,431	$ 172,255	$ 81,976
Commercial	184,538	84,842	16,017
Other	15,493	8,892	1,383
Total	$ 454,462	$ 265,989	$ 99,376

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable and deferred revenue on the consolidated balance sheets. Generally, billing occurs subsequent to delivery of a patient's test result to the ordering physician, resulting in an account receivable. However, the Company sometimes receives advance payment from a patient, particularly a self-pay patient, before a Cologuard test result is completed, resulting in deferred revenue. The deferred revenue balance is relieved upon delivery of the applicable patient's test result to the ordering physician. Changes in accounts receivable and deferred revenue were not materially impacted by any other factors.

Deferred revenue balances are reported in other short-term liabilities in the Company's consolidated balance sheets and were $0.5 million and $0.2 million as of December 31, 2018 and 2017, respectively.

Revenue recognized for the years ended December 31, 2018 and 2017, which was included in the deferred revenue balance at the beginning of each period was $0.1 million and $44,000, respectively.

Practical Expedients

The Company does not adjust the transaction price for the effects of a significant financing component, as at contract inception, the Company expects the collection cycle to be one year or less.

The Company expenses sales commissions when incurred because the amortization period would have been one year or less. These costs are recorded within sales and marketing expenses in the Company's consolidated statements of operations.

The Company incurs certain other costs that are incurred regardless of whether a contract is obtained. Such costs are primarily related to legal services and patient communications (e.g. compliance reminder letters). These costs are expensed as incurred and recorded within general and administrative expenses in the Company's consolidated statements of operations.

Advertising Costs

The Company expenses the costs of media advertising at the time the advertising takes place. The Company expensed approximately $93.7 million, $58.0 million, and $38.1 million of media advertising during the years ended December 31, 2018, 2017, and 2016, respectively.

Fair Value Measurements

The FASB has issued authoritative guidance that requires fair value to be based on the assumptions market participants would use when pricing an asset or liability and establishes a fair value hierarchy that prioritizes the

information used to develop those assumptions. Under that standard, fair value measurements are separately disclosed by level within the fair value hierarchy. The fair value hierarchy establishes and prioritizes the inputs used to measure fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs. Observable inputs are inputs that reflect the assumptions that market participants would use in pricing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances.

The three levels of the fair value hierarchy established are as follows:

Level 1	Quoted prices (unadjusted) in active markets for identical assets or liabilities that the Company has the ability to access as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.
Level 2	Pricing inputs other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reporting date. These include quoted prices for similar assets or liabilities in active markets and quoted prices for identical or similar assets or liabilities in markets that are not active.
Level 3	Unobservable inputs that reflect the Company's assumptions about the assumptions that market participants would use in pricing the asset or liability. Unobservable inputs shall be used to measure fair value to the extent that observable inputs are not available.

Fixed-income securities are valued using a third-party pricing agency. The valuation is based on observable inputs including pricing for similar assets and other observable market factors. There has been no material pricing change from period to period. The estimated fair value of the Company's long-term debt represents a Level 2 measurement. When determining the estimated fair value of the Company's long-term debt, the Company used market-based risk measurements, such as credit risk. See Note 9 and Note 10 for further detail on the Company's long-term debt. The fair value of contingent consideration related to the Biomatrica Acquisition was categorized as a Level 3 liability, as the measurement amount is based primarily on significant inputs not observable in the market. The Company assesses the fair value of expected contingent consideration and the corresponding liability each reporting period using the Monte Carlo Method, which is consistent with the initial measurement of the expected earn out liability. This fair value measurement is considered a Level 3 measurement because the Company estimates projections during the earn out period utilizing various potential pay-out scenarios. Probabilities were applied to each potential scenario and the resulting values were discounted using a rate that considers weighted average cost of capital as well as a specific risk premium associated with the riskiness of the earn out itself, the related projections, and the overall business. The contingent earn out liability is classified as a component of other long-term liabilities in the Company's consolidated balance sheets. There were no changes in the fair value assessed between the acquisition date and December 31, 2018. See Note 14 for further detail on the Biomatrica Acquisition.

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Notes to Consolidated Financial Statements (Continued)

The following table presents the Company's fair value measurements as of December 31, 2018 along with the level within the fair value hierarchy in which the fair value measurements, in their entirety, fall.

		Fair Value Measurement at December 31, 2018 Using:		
(In thousands)	Fair Value at December 31, 2018	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents				
Cash and money market	$ 86,375	$ 86,375	$ —	$ —
U.S. government agency securities	49,985	—	49,985	—
Commercial paper	24,070	—	24,070	—
Available-for-sale				
Marketable securities				
Corporate bonds	392,287	—	392,287	—
Asset backed securities	276,999	—	276,999	—
U.S. government agency securities	250,471	—	250,471	—
Certificates of deposit	31,844	—	31,844	—
Commercial paper	12,151	—	12,151	—
Contingent consideration	(3,060)	—	—	(3,060)
Total	$ 1,121,122	$ 86,375	$ 1,037,807	$ (3,060)

The following table presents the Company's fair value measurements as of December 31, 2017 along with the level within the fair value hierarchy in which the fair value measurements, in their entirety, fall.

		Fair Value Measurement at December 31, 2017 Using:		
(In thousands)	Fair Value at December 31, 2017	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Cash and cash equivalents				
Cash and money market	$ 61,297	$ 61,297	$ —	$ —
Commercial paper	10,995	—	10,995	—
Certificates of deposit	1,499	—	1,499	—
U.S. government agency securities	3,700	—	3,700	—
Available-for-sale				
Marketable securities				
Corporate bonds	181,305	—	181,305	—
Asset backed securities	94,515	—	94,515	—
U.S. government agency securities	54,812	—	54,812	—
Commercial paper	9,946	—	9,946	—
Certificates of deposit	6,646	—	6,646	—
Total	$ 424,715	$ 61,297	$ 363,418	$ —

The Company monitors investments for other-than-temporary impairment. It was determined that unrealized gains and losses at December 31, 2018 and 2017 are temporary in nature because the change in market value for those securities has resulted from fluctuating interest rates rather than a deterioration of the credit worthiness of the issuers. So long as the Company holds these securities to maturity, it is unlikely to experience gains or losses. In the event that the Company disposes of these securities before maturity, it is expected that realized gains or losses, if any, will be immaterial.

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Notes to Consolidated Financial Statements (Continued)

The following table summarizes the gross unrealized losses and fair values of investments in an unrealized loss position as of December 31, 2018, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position:

	December 31, 2018					
	Less than 12 months		12 months or greater		Total	
(In thousands)	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
Marketable securities						
Corporate bonds	$ 340,287	$ (638)	$ 35,773	$ (81)	$ 376,060	$ (719)
U.S. government agency securities	201,036	(178)	—	—	201,036	(178)
Asset backed securities	243,846	(501)	18,335	(67)	262,181	(568)
Certificates of deposit	31,843	(31)	—	—	31,843	(31)
Commercial paper	12,151	(7)	—	—	12,151	(7)
Total	$ 829,163	$ (1,355)	$ 54,108	$ (148)	$ 883,271	$ (1,503)

The following table summarizes the gross unrealized losses and fair value of investments in an unrealized loss position as of December 31, 2017, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position:

	December 31, 2017					
	Less than 12 months		12 months or greater		Total	
(In thousands)	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss	Fair Value	Gross Unrealized Loss
Marketable Securities						
Corporate bonds	$ 158,790	$ (340)	$ 4,715	$ (4)	$ 163,505	$ (344)
Asset backed securities	85,906	(179)	8,609	(6)	94,515	(185)
U.S. government agency securities	24,878	(90)	29,934	(72)	54,812	(162)
Commercial paper	19,944	(7)	—	—	19,944	(7)
Certificates of deposit	2,997	(2)	—	—	2,997	(2)
Total	$ 292,515	$ (618)	$ 43,258	$ (82)	$ 335,773	$ (700)

The following table summarizes contractual underlying maturities of the Company's available-for-sale investments at December 31, 2018:

	Due one year or less		Due after one year through four years	
(In thousands)	Cost	Fair Value	Cost	Fair Value
Marketable securities				
Corporate bonds	$ 282,910	$ 282,437	$ 110,062	$ 109,850
U.S. government agency securities	201,116	200,961	49,491	49,510
Asset backed securities	70,859	70,681	206,678	206,318
Certificates of deposit	25,485	25,471	6,390	6,373
Commercial paper	12,158	12,151	—	—
Total	$ 592,528	$ 591,701	$ 372,621	$ 372,051

Concentration of Credit Risk

In accordance with GAAP, the Company is required to disclose any significant off-balance-sheet risk and credit risk concentration. The Company has no significant off-balance-sheet risk, such as foreign exchange contracts or other

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Notes to Consolidated Financial Statements (Continued)

hedging arrangements. Financial instruments that subject the Company to credit risk consist of cash, cash equivalents and marketable securities. As of December 31, 2018, the Company had cash and cash equivalents deposited in financial institutions in which the balances exceed the federal government agency insured limit of $250,000 by approximately $43.6 million. The Company has not experienced any losses in such accounts and management believes it is not exposed to any significant credit risk.

Through December 31, 2018, the Company's revenues have been primarily derived from the sale of Cologuard. The following is a breakdown of revenue and accounts receivable from major payers:

	% Revenue for the years ended December 31,			% Accounts Receivable at December 31,		
Major Payer	**2018**	**2017**	**2016**	**2018**	**2017**	**2016**
Centers for Medicare and Medicaid Services	36%	44%	60%	32%	39%	63%
UnitedHealthCare	13%	11%	(1)	10%	10%	(1)

(1) Payer was less than 10 percent of revenue for the year.

As the number of payers reimbursing for Cologuard increases, the percentage of revenue derived from major payers will continue to change as a percentage of revenue and accounts receivable.

Tax Positions

A valuation allowance to reduce the deferred tax assets is reported if, based on the weight of the evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The Company has incurred significant losses since its inception and due to the uncertainty of the amount and timing of future taxable income, the Company has determined that a $209.9 million and $214.3 million valuation allowance at December 31, 2018 and 2017 is necessary to reduce the tax assets to the amount that is more likely than not to be realized. The change in valuation allowance as of December 31, 2018 and 2017 was a decrease of $4.4 million and $45.8 million, respectively. Due to the existence of the valuation allowance, future changes in the Company's unrecognized tax benefits will not impact the Company's effective tax rate.

Subsequent Events

The Company evaluates events that occur through the filing date and discloses those events or transactions that provide additional evidence with respect to conditions that existed at the date of the balance sheet. In addition, the financial statements are adjusted for any changes in estimates resulting from the use of such evidence.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* . The Company adopted this guidance on January 1, 2018. See Note 2 for additional discussion .

In January 2016, the Financial Accounting Standards Board issued ASU No. 2016-01, *Financial Instruments – Overall: Recognition and Measurement of Financial Assets and Financial Liabilities* ("Update 2016-01"). Update 2016-01 modifies how entities will have to measure equity investments and present changes in the fair value of financial liabilities. Under the new guidance, entities will have to measure equity investments that do not result in consolidation and are not accounted for under the equity method at fair value and recognize any changes in fair value in net income unless the investments qualify for the new practicality exception. A practicality exception will apply to those equity investments that do not have readily determinable fair value and do not qualify for the practical expedient to estimate fair value under ASC 820, "Fair Value Measurements," and as such these investments may be measured at cost. Update 2016-01 will be effective for the Company's fiscal year beginning January 1, 2018, and subsequent interim periods. Update 2016-01 was further amended in February 2018 by ASU No. 2018-03, *Technical Corrections and Improvements*

to Financial Instruments – Overall (Subtopic 825-10): Recognition and Measurement of Financial Assets and Financial Liabilities , ("Update 2018-03"). Update 2018-03 clarifies certain aspects of the guidance issued in Update 2016-01. Public business entities with fiscal years beginning between December 15, 2017 and June 15, 2018, are not required to adopt these amendments until the interim period beginning after June 15, 2018. The Company adopted Update 2016-01 on January 1, 2018, and it did not have an impact on its consolidated financial statements.

In February 2016, the Financial Accounting Standards Board issued ASU No. 2016-02, *Leases* (Topic 842) ("Update 2016-02"), to increase transparency and comparability among organizations by requiring the recognition of right-of-use ("ROU") assets and lease liabilities on the balance sheet. The most noteworthy change in the standard is the recognition of ROU assets and lease liabilities by lessees for those leases classified as operating leases under current U.S. GAAP. The standard requires disclosures to meet the objective of enabling users of financial statements to assess the amount, timing, and uncertainty of cash flows arising from leases.

The Company will adopt the standard on January 1, 2019 with initial application on the effective date as permitted under ASU No. 2018-11. The Company will recognize and measure leases existing at the initial application date of January 1, 2019 through a cumulative-effect adjustment recorded at the beginning of fiscal year 2019. The Company intends to elect the package of practical expedients and accordingly, the Company will not reassess the lease classification or whether expired or existing contracts contain leases under the new definition of a lease. Additionally, we will elect not to separate the lease components from the non-lease components for all classes of underlying assets. The Company's ability to adopt the new standards depends on system readiness, including software procured from a third-party provider. The Company remains on schedule and have implemented key system functionality to enable preparation of financial statements in accordance with the new standard.

The Company anticipates this standard will have a material impact on its consolidated balance sheets; however, the Company does not expect adoption to have a material impact on its consolidated statements of operations. The Company expects the most significant impact to be the recognition of ROU assets and lease liabilities for operating leases. Adoption of the standard is expected to result in the recognition of ROU assets of approximately $17.0 million to $18.0 million and lease liabilities of $19.5 million to $20.5 million as of December 31, 2018. The Company is not party to any capital lease agreements as of December 31, 2018.

Based on the Company's analysis, the sale-lease back transaction detailed within Note 9, the buyer-lessor has not obtained control of the underlying asset as the present value of the lease payments is substantially all of the fair value of the underlying asset. As such, the underlying asset and related financing obligation will continue to be included in the Company's consolidated balance sheets upon adoption.

At December 31, 2018, the Company included $7.3 million as an asset under construction, including $2.1 million that is funded by the landlord, with a corresponding financing obligation related to a build-to-suit construction project. See Note 9 to the Company's consolidated financial statements for further information. Based on the Company's analysis, upon adoption of Topic 842, the Company does not control the asset under construction and as such, the asset and corresponding financing obligation will be de-recognized at adoption of ASC 842 on January 1, 2019.

In August 2016, the Financial Accounting Standards Board issued ASU No. 2016-15, *Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments,* ("Update 2016-15"). Current GAAP either is unclear or does not include specific guidance on the eight cash flow classification issues included in the amendments in Update 2016-15. The amendments are an improvement to GAAP because they provide guidance for each of the eight issues, thereby reducing the current and potential future diversity in practice. The Company adopted this guidance on January 1, 2018, and it did not have an impact on its consolidated statements of cash flows .

In October 2016, the Financial Accounting Standards Board issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory,* ("Update 2016-16"). This amendment improves the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. The Company adopted this guidance

on January 1, 2018, and it did not have an impact on its consolidated financial statements.

In November 2016, the Financial Accounting Standards Board issued ASU No. 2016-18, *Statement of Cash Flows: Restricted Cash,* (“Update 2016-18”). Update 2016-18 provides guidance on the classification of restricted cash in the statement of cash flows. The Company adopted this guidance on January 1, 2018, and it did not have an impact on its consolidated financial statements, as we do not have restricted cash.

In May 2017, the Financial Accounting Standards Board issued ASU No. 2017-09, *Compensation – Stock Compensation (Topic 718): Scope of Modification Accounting* , (“Update 2017-09”). Update 2017-09 provides guidance on determining which changes to the terms and conditions of share-based payment awards require an entity to apply modification accounting under Topic 718. The Company adopted this guidance on January 1, 2018, and it did not have an impact on its consolidated financial statements.

In June 2018, the Financial Accounting Standards Board issued ASU No. 2018-07 (Topic 718), *Improvements to Nonemployee Share-Based Payment Accounting,* (“Update 2018-07”). Update 2018-07 expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees. An entity should apply the requirements of Topic 718 to nonemployee awards except for certain exemptions specified in the amendment. The guidance is effective for fiscal years beginning after December 15, 2018, including interim reporting periods within that fiscal year. Early adoption is permitted, but no earlier than an entity’s adoption of Topic 606. The Company will adopt this guidance on January 1, 2019, and it does not anticipate it will have an impact on its consolidated financial statements.

In July 2018, the Financial Accounting Standards Board issued ASU 2018-09, *Codification Improvements* , ("Update 2018-09"). Update 2018-09 provided various minor codification updates and improvements to address comments that the FASB had received regarding unclear or vague accounting guidance. The guidance is effective for fiscal years beginning after December 15, 2018, including interim reporting periods within that fiscal year. The Company will adopt this guidance on January 1, 2019, and it does not anticipate it will have an impact on its consolidated financial statements.

In August 2018, the Financial Accounting Standards Board issued ASU 2018-13, *Fair Value Measurement (Topic 820); Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement* , ("Update 2018-13"). Update 2018-13 provided an update to the disclosure requirements for fair value measurements under the scope of ASC 820. The guidance is effective for fiscal years beginning after December 15, 2019. The Company is currently evaluating the impact of the guidance on its consolidated financial statements.

In August 2018, the Financial Accounting Standards Board issued ASU 2018-15, *Intangibles – Goodwill and Other – Internal-Use Software,* (“Update 2018-15”). Update 2018-15 provided guidance for evaluating the accounting for fees paid by a customer in a cloud computing arrangement that is a service contract. The guidance is effective for fiscal years beginning after December 15, 2019. The Company is currently evaluating the impact of the guidance on its consolidated financial statements.

In November 2018, the Financial Accounting Standards Board issued ASU 2018-18, *Collaborative Arrangements (Topic 808),* (“Update 2018-18”). Update 2018-18 provided additional guidance regarding the interaction between Topic 808 on Collaborative Arrangements and Topic 606 on Revenue Recognition. The guidance is effective for fiscal years beginning after December 15, 2019. The Company is currently evaluating the impact of the guidance on its consolidated financial statements.

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Notes to Consolidated Financial Statements (Continued)

Foreign Currency Translation

For the Company's international subsidiaries, the local currency is the functional currency. Assets and liabilities of these subsidiaries are translated into United States dollars at the period-end exchange rate or historical rates, as appropriate. Consolidated statements of operations amounts are translated at average exchange rates for the period. The cumulative translation adjustments resulting from changes in exchange rates are included in the consolidated balance sheet as a component of accumulated other comprehensive loss in total Exact Sciences Corporation's shareholders' equity. Transaction gains and losses are included in the consolidated statements of operations.

Reclassifications

Certain prior year amounts have been reclassified to conform to the current year presentation in the consolidated financial statements and accompanying notes to the consolidated financial statements.

(3) MAYO LICENSE AGREEMENT

In June 2009, the Company entered into a license agreement with Mayo Foundation for Medical Education and Research ("Mayo"). The Company's license agreement with Mayo was amended and restated in February 2015 and further amended in January 2016, October 2017 and December 2018. Under the license agreement, Mayo granted the Company an exclusive, worldwide license to certain Mayo patents and patent applications, as well as a non-exclusive, worldwide license with regard to certain Mayo know-how. The scope of the license, as amended, covers any screening, surveillance or diagnostic test or tool for use in connection with any type of cancer, pre-cancer, disease or condition.

The licensed Mayo patents and patent applications contain both method and composition claims that relate to markers, sample processing, analytical testing and data analysis associated with nucleic screening for cancers and other diseases. The jurisdictions covered by these patents and patent applications include the U.S., Australia, Canada, the European Union, China, Japan and Korea. In addition to granting the Company a license to the covered Mayo intellectual property, Mayo agreed to make available personnel to provide the Company product development and research and development assistance. Under the license agreement, the Company assumed the obligation and expense of prosecuting and maintaining the licensed Mayo patents and is obligated to make commercially reasonable efforts to bring to market products using the licensed Mayo intellectual property.

Mayo has agreed to make available personnel through January 2020 to provide the Company product development and research and development assistance.

Pursuant to the Company's agreement with Mayo, the Company is required to pay Mayo a low single digit royalty on the Company's net sales of products using the licensed Mayo intellectual property, with minimum annual royalty fees of $25,000 each year through 2033, the year the last patent expires. The January 2016 amendment to the Mayo license agreement established various low-single-digit royalty rates on net sales of current and future products and clarified how net sales will be calculated. As part of the amendment, the royalty rate on the Company's net sales of Cologuard increased and, if in the future, improvements are made to the Cologuard product, the royalty rate may further increase, but, pursuant to the terms of the January 2016 and October 2017 amendment, the rate remains a low-single-digit percentage of net sales.

In addition to royalties, the Company is required pay Mayo cash of $0.2 million, $0.8 million and $2.0 million upon each product using the licensed Mayo intellectual property reaching $5.0 million, $20.0 million and $50.0 million in cumulative net sales, respectively.

As part of the February 2015 amendment and restatement of the license agreement, the Company agreed to pay Mayo an additional $5.0 million, payable in five annual installments, through 2019. The Company paid Mayo the annual installment of $1.0 million in the first quarter of each of 2015 through 2018.

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Notes to Consolidated Financial Statements (Continued)

In addition, the Company is paying Mayo for research and development efforts. As part of the Company's research collaboration with Mayo, the Company has incurred charges of $4.5 million and has made payments of $4.4 million for the year ended December 31, 2018. The Company has recorded an estimated liability in the amount of $1.9 million for research and development efforts as of December 31, 2018. The Company incurred charges of $3.8 million and made payments of $2.9 million for the year ended December 31, 2017. The Company recorded an estimated liability in the amount of $1.8 million for research and development efforts at December 31, 2017. The Company incurred charges of $3.6 million and made payments of $3.9 million for the year ended December 31, 2016.

The Mayo license agreement required, among other things, a $0.5 million milestone payment upon FDA approval of the Company's Cologuard test. The Company received this FDA approval, and paid the milestone payment, in August 2014.

Pursuant to the license agreement, the Company granted Mayo two common stock purchase warrants with an exercise price of $1.90 per share covering 1,000,000 and 250,000 shares of common stock, respectively. The warrant covering 1,000,000 shares was fully exercised as of September 2011. The warrant covering 250,000 shares was exercised at various dates in 2013 and 2014 and became fully exercised as of June 2014.

The license agreement will remain in effect, unless earlier terminated by the parties in accordance with the agreement, until the last of the licensed patents expires in 2033 (or later, if certain licensed patent applications are issued). However, if the Company is still using the licensed Mayo know-how or certain Mayo-provided biological specimens or their derivatives on such expiration date, the term shall continue until the earlier of the date the Company stops using such know-how and materials and the date that is five years after the last licensed patent expires. The license agreement contains customary termination provisions and permits Mayo to terminate the license agreement if the Company sues Mayo or its affiliates, other than any such suit claiming an uncured material breach by Mayo of the license agreement.

(4) PFIZER PROMOTION AGREEMENT

In August 2018, the Company entered into a Promotion Agreement ("Promotion Agreement") with Pfizer, Inc. ("Pfizer"). Under the terms of the Promotion Agreement, Pfizer will promote Cologuard and provide certain sales, marketing, analytical and other commercial operations support services. The Company and Pfizer committed in the Promotion Agreement to invest specified amounts in the advertising and promotion of Cologuard. The Company agreed to pay Pfizer for promotion, sales and marketing costs incurred on behalf of the Company, a service fee based on incremental gross profits over specified baselines and royalties for Cologuard related revenues for a specified period after the expiration or termination of the Promotion Agreement. These costs are recorded in sales and marketing in the consolidated statements of operations. The initial term of the Promotion Agreement runs through December 31, 2021. The Company incurred charges of $5.8 million and made payments of $5.3 million for promotion, sales and marketing services performed by Pfizer on behalf of the Company in 2018. The Company recorded a liability of $0.5 million for promotion, sales and marketing services performed by Pfizer on behalf of the Company in accrued liabilities in the Company's consolidated balance sheet as of December 31, 2018. The Company recorded a liability of $4.8 million for the promotion fee earned by Pfizer as of December 31, 2018 in accrued liabilities in the Company's consolidated balance sheet.

(5) ISSUANCES OF EQUITY

Underwritten Public Offerings

In August 2016 the Company completed an underwritten public offering of 9.8 million shares of common stock at a price of $15.50 per share to the public. The Company received approximately $144.2 million of net proceeds from the offering after deducting $7.3 million for the underwriting discount and commissions and other stock issuance costs paid by the Company.

In June 2017, the Company completed an underwritten public offering of 7.0 million shares of common stock at a price of $35.00 per share to the public. On June 26, 2017, the underwriters partially exercised their over-allotment option in connection with the offering and purchased an additional 450,000 shares of common stock at $35.00 per share to the public. The Company received, in the aggregate, approximately $253.4 million of net proceeds from the offering, after deducting $7.3 million for the underwriting discount and commissions and other stock issuance costs paid by the Company.

(6) STOCK-BASED COMPENSATION

Stock-Based Compensation Plans

The Company maintains the 2010 Omnibus Long-Term Incentive Plan (As Amended and Restated Effective July 27, 2017), the 2010 Employee Stock Purchase Plan, the 2015 Inducement Award Plan, the 2016 Inducement Award Plan and the 2000 Stock Option and Incentive Plan (collectively, the "Stock Plans").

2000 Stock Option and Incentive Plan. The Company adopted the 2000 Stock Option and Incentive Plan (the "2000 Option Plan") on October 17, 2000. The 2000 Option Plan expired October 17, 2010 and after such date no further awards could be granted under the plan. Under the terms of the 2000 Option Plan, the Company was authorized to grant incentive stock options, as defined under the Internal Revenue Code, non-qualified options, restricted stock awards and other stock awards to employees, officers, directors, consultants and advisors. Options granted under the 2000 Option Plan expire ten years from the date of grant. Grants made from the 2000 Option Plan generally vest over a period of three to four years.

The 2000 Option Plan was administered by the compensation committee of the Company's board of directors, which selected the individuals to whom equity-based awards would be granted and determined the option exercise price and other terms of each award, subject to the provisions of the 2000 Option Plan. The 2000 Option Plan provides that upon an acquisition of the Company, all options to purchase common stock will accelerate by a period of one year. In addition, upon the termination of an employee without cause or for good reason prior to the first anniversary of the completion of the acquisition, all options then outstanding under the 2000 Option Plan held by that employee will immediately become exercisable. At December 31, 2018, options to purchase 7,055 shares were outstanding under the 2000 Option Plan. There were no shares of restricted stock outstanding under the 2000 Option Plan.

2010 Omnibus Long-Term Incentive Plan. The Company adopted the 2010 Omnibus Long-Term Incentive Plan (the "2010 Stock Plan") on July 16, 2010. The 2010 Stock Plan will expire on July 16, 2020 and after such date no further awards may be granted under the plan. Under the terms of the 2010 Stock Plan, the Company is authorized to grant incentive stock options, as defined under the Internal Revenue Code, non-qualified options, restricted stock awards and other stock awards to employees, officers, directors, consultants and advisors. Options granted under the 2010 Stock Plan expire ten years from the date of grant. Grants made from the 2010 Stock Plan generally vest over a period of three to four years.

The 2010 Stock Plan is administered by the compensation committee of the Company's board of directors, which selects the individuals to whom equity-based awards will be granted and determines the option exercise price and other terms of each award, subject to the provisions of the 2010 Stock Plan. The 2010 Stock Plan provides that upon an acquisition of the Company, all equity will accelerate by a period of one year. In addition, upon the termination of an employee without cause or for good reason prior to the first anniversary of the completion of the acquisition, all equity awards then outstanding under the 2010 Stock Plan held by that employee will immediately vest. At December 31, 2018, options to purchase 2,524,506 shares were outstanding under the 2010 Stock Plan and 5,789,721 shares of restricted stock and restricted stock units were outstanding. At December 31, 2018, there were 9,071,346 shares available for future grant under the 2010 Stock Plan.

2015 Inducement Award Plan. The Company adopted the 2015 Inducement Award Plan (the "2015 Inducement Plan") on February 9, 2015. The 2015 Inducement Plan expired on July 27, 2015 and after such date no further awards could be granted under the plan. Under the terms of the 2015 Inducement Plan, the Company was authorized to grant

incentive stock options, as defined under the Internal Revenue Code, non-qualified options, restricted stock awards and other stock awards to employees who were not previously an employee of the Company or any of its Subsidiaries. Options granted under the 2015 Inducement Plan expire ten years from the date of grant. Grants made from the 2015 Inducement Plan generally vest over a period of three to four years.

The 2015 Inducement Plan is administered by the compensation committee of the Company's board of directors, which selects the individuals to whom equity-based awards would be granted and determines the option exercise price and other terms of each award, subject to the provisions of the 2015 Inducement Plan. The 2015 Inducement Plan provides that upon an acquisition of the Company, all equity will accelerate by a period of one year. In addition, upon termination of an employee without cause or for good reason prior to the first anniversary of the completion of the acquisition, all equity awards then outstanding under the 2015 Inducement Plan held by that employee will immediately vest. At December 31, 2018, there were 38,572 shares of restricted stock and restricted stock units outstanding under the 2015 Inducement Award Plan. At December 31, 2018, there were no shares available for future grant under the 2015 Inducement Plan.

2016 Inducement Award Plan. The Company adopted the 2016 Inducement Award Plan (the "2016 Inducement Plan") on January 25, 2016. The 2016 Inducement Plan expired on July 27, 2017, and after such date no further awards could be granted under the plan. Under the terms of the 2016 Inducement Plan, the Company was authorized to grant incentive stock options, as defined under the Internal Revenue Code, non-qualified options, restricted stock awards and other stock awards to employees who were not previously an employee of the Company or any of its Subsidiaries. Options granted under the 2016 Inducement Plan expire ten years from the date of grant. Grants made from the 2016 Inducement Plan generally vest over a period of three to four years.

The 2016 Inducement Plan is administered by the compensation committee of the Company's board of directors, which selected the individuals to whom equity-based awards would be granted and determines the option exercise price and other terms of each award, subject to the provisions of the 2016 Inducement Plan. The 2016 Inducement Plan provides that upon an acquisition of the Company, all equity will accelerate by a period of one year. In addition, upon termination of an employee without cause or for good reason prior to the first anniversary of the completion of the acquisition, all equity awards then outstanding under the 2016 Inducement Plan held by that employee will immediately vest. At December 31, 2018, there were 417,881 shares of restricted stock and restricted stock units outstanding under the 2016 Inducement Award Plan. At December 31, 2018, there were no shares available for future grant under the 2016 Inducement Plan.

2010 Employee Stock Purchase Plan. The 2010 Employee Stock Purchase Plan (the "2010 Purchase Plan") was adopted by the Company on July 16, 2010. The 2010 Purchase Plan provides participating employees the right to purchase shares of common stock at a discount through a series of offering periods. The 2010 Purchase Plan will expire on October 31, 2020. On July 24, 2014, the Company's stockholders approved an amendment to the 2010 Employee Stock Purchase Plan to increase the number of shares available for purchase thereunder by 500,000 shares. On July 28, 2016 the Company's stockholders approved an amendment to the 2010 Employee Stock Purchase Plan to increase the number of shares available for purchase thereunder by 2,000,000 shares. At December 31, 2018, there were 1,236,537 shares of common stock available for purchase by participating employees under the 2010 Purchase Plan.

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Notes to Consolidated Financial Statements (Continued)

The compensation committee of the Company's board of directors administers the 2010 Purchase Plan. Generally, all employees whose customary employment is more than 20 hours per week and more than five months in any calendar year are eligible to participate in the 2010 Purchase Plan. Participating employees authorize an amount, between 1 percent and 15 percent of the employee's compensation, to be deducted from the employee's pay during the offering period. On the last day of the offering period, the employee is deemed to have exercised the employee's option to purchase shares of Company common stock, at the option exercise price, to the extent of accumulated payroll deductions. Under the terms of the 2010 Purchase Plan, the option exercise price is an amount equal to 85 percent of the fair market value, as defined under the 2010 Purchase Plan, and no employee can purchase more than $25,000 of Company common stock under the 2010 Purchase Plan in any calendar year. Rights granted under the 2010 Purchase Plan terminate upon an employee's voluntary withdrawal from the 2010 Purchase Plan at any time or upon termination of employment. At December 31, 2018, there were 1,563,463 cumulative shares issued under the 2010 Purchase Plan, and 346,609 shares were issued in the year ended December 31, 2018, as follows:

Offering period ended	Number of Shares	Weighted Average price per Share
April 30, 2018	285,013	$ 9.32
October 31, 2018	61,596	$ 36.35

Stock-Based Compensation Expense

The Company recorded approximately $60.3 million, $35.5 million, and $23.7 million in stock-based compensation expense during the years ended December 31, 2018, 2017, and 2016, respectively, in connection with the amortization of restricted stock and restricted stock unit awards, stock purchase rights granted under the Company's employee stock purchase plan and stock options granted to employees, non-employee consultants and non-employee directors. Non-cash stock-based compensation expense by expense category for the years ended December 31, 2018, 2017, and 2016 are as follows:

	December 31,		
(In thousands)	2018	2017	2016
Cost of sales	$ 3,531	$ 1,783	$ 1,064
Research and development	10,189	6,836	4,014
General and administrative	34,181	20,221	14,597
Sales and marketing	12,363	6,672	4,057
Total stock-based compensation	$ 60,264	$ 35,512	$ 23,732

In connection with the November 2016 retirement of the Company's former Chief Financial Officer, the Company modified the vesting of 118,341 shares of his previously unvested restricted stock units whereby such restricted stock units vested on January 1, 2017. He forfeited all other unvested restricted stock units and stock option awards. In the fourth quarter of 2016, the Company recorded $1.5 million of non-cash stock-based compensation expense for the modified award.

In connection with the April 2018 transition of the Company's former Chief Operating Officer, the Company accelerated the vesting of 69,950 shares under his previously unvested stock options and 54,350 shares under his previously unvested restricted stock units whereby such unvested stock options and unvested restricted stock units vest on December 31, 2018. It was determined that the continuing service to be provided by the Company's Chief Operating Officer to the Company through December 31, 2018 was substantive and, as a result, the Company recognized the additional non-cash stock-based compensation expense for the modified awards evenly over the transition term of April 25, 2018 to December 31, 2018. During the year ended December 31, 2018, the Company recorded $3.9 million of non-cash stock-based compensation expense for the modified awards.

Determining Fair Value

Valuation and Recognition —The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model. The fair value of each market measure-based award is estimated on the date of

EXACT SCIENCES CORPORATION

Notes to Consolidated Financial Statements (Continued)

grant using a Monte Carlo simulation pricing model. The fair value of service-based awards for each restricted stock unit award is determined on the date of grant using the closing stock price on that day. The estimated fair value of these awards is recognized to expense using the straight-line method over the vesting period. For awards issued to non-employees, the measurement date is the date when the performance is complete or when the award vests, whichever is earliest. Accordingly, non-employee awards are re-measured at each reporting period until the final measurement date. The fair value of the award is recognized as stock-based compensation expense over the requisite service period, generally the vesting period. The Black-Scholes and Monte Carlo pricing models utilize the following assumptions:

Expected Term —Expected life of an option award is the average length of time over which the Company expects employees will exercise their options, which is based on historical experience with similar grants. Expected life of a market measure-based award is based on the applicable performance period.

Expected Volatility —Expected volatility is based on the Company's historical stock volatility data over the expected term of the awards.

Risk-Free Interest Rate —The Company bases the risk-free interest rate used in the Black-Scholes and Monte Carlo valuation models on the implied yield currently available on U.S. Treasury zero-coupon issues with an equivalent expected term.

Forfeitures —Effective January 1, 2017, the Company adopted Accounting Standards Update ("ASU") No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting* ("Update 2016-09"). With the adoption of Update 2016-09, forfeiture estimates are no longer required, and the effects of actual forfeitures are recorded at the time they occur. The impact on the consolidated balance sheet was a cumulative-effect adjustment of $0.4 million, increasing opening accumulated deficit and additional paid-in capital.

The fair value of each option and market measure-based award is based on the assumptions in the following table:

	Year Ended December 31,		
	2018	2017	2016
Option Plan Shares			
Risk-free interest rates	2.73% - 2.79%	2.1% - 2.2%	1.5% - 1.7%
Expected term (in years)	5.45 - 6.44	6.51 - 6.59	6.25 - 6.74
Expected volatility	61.8% - 66.2%	62.1% - 62.9%	58.9% - 59.4%
Dividend yield	0 %	0 %	0 %
Weighted average fair value per share of options granted during the period	$ 24.55	$ 25.23	$ 3.17
Market Measure-Based Shares			
Risk-free interest rates	(1)	(1)	0.8% - 0.9%
Expected term (in years)	(1)	(1)	2.43 - 2.84
Expected volatility	(1)	(1)	68.3% - 79.6%
Dividend yield	(1)	(1)	0 %
Weighted average fair value per share of stock purchase rights granted during the period	(1)	(1)	$ 3.77
ESPP Shares			
Risk-free interest rates	2.1% - 2.8%	1% - 1.6%	0.4% - 0.8%
Expected term (in years)	0.5 - 2.0	0.5 - 2.0	0.5 - 2.0
Expected volatility	51.7% - 65.4%	45% - 85.5%	70.1% - 92.7%
Dividend yield	0 %	0 %	0 %
Weighted average fair value per share of stock purchase rights granted during the period	$ 20.47	$ 17.87	$ 3.30

(1) The Company did not issue market measure-based shares during the respective period.

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Notes to Consolidated Financial Statements (Continued)

Stock Option, Restricted Stock, and Restricted Stock Unit Activity

A summary of stock option activity under the Stock Plans during the years ended December 31, 2018, 2017 and 2016 is as follows:

Options	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (Years)	Aggregate Intrinsic Value(1)
(Aggregate intrinsic value in thousands)				
Outstanding, January 1, 2016	4,936,594	$ 4.80	4.5	
Granted	883,889	5.48		
Exercised	(2,255,959)	1.52		
Forfeited	(59,043)	9.75		
Outstanding, December 31, 2016	3,505,481	$ 7.00	5.5	
Granted	953,097	21.97		
Exercised	(1,067,120)	4.78		
Forfeited	(30,997)	13.90		
Outstanding, December 31, 2017	3,360,461	$ 11.89	6.4	
Granted	343,566	44.37		
Exercised	(1,033,012)	6.42		
Forfeited	(139,454)	24.07		
Outstanding, December 31, 2018	2,531,561	$ 17.86	6.6	$ 114,524
Exercisable, December 31, 2018	1,147,872	$ 12.10	5.2	$ 58,536

(1) The aggregate intrinsic value of options outstanding at December 31, 2018 is calculated as the difference between the exercise price of the underlying options and the market price of the Company's common stock for the 2,531,561 options that had exercise prices that were lower than the $63.10 market price of our common stock at December 31, 2018. The aggregate intrinsic value of options exercisable at December 31, 2018 is calculated as the difference between the exercise price of the underlying options and the market price of the Company's common stock for the 1,147,872 options that had exercise prices that were lower than the $63.10 market price of our common stock at December 31, 2018. The total intrinsic value of options exercised during the years ended December 31, 2018, 2017 and 2016 was $53.0 million, $47.0 million, and $30.5 million, respectively, determined as of the date of exercise.

EXACT SCIENCES CORPORATION

Notes to Consolidated Financial Statements (Continued)

A summary of restricted stock and restricted stock unit activity under the Stock Plans during the years ended December 31, 2018, 2017 and 2016 is as follows:

	Restricted Shares	Weighted Average Grant Date Fair Value
Outstanding, January 1, 2016	3,444,694	$ 14.19
Granted	3,960,583	6.90
Released	(796,168)	16.95
Forfeited	(1,007,793)	9.57
Outstanding, December 31, 2016	5,601,316	$ 9.19
Granted	2,035,679	33.04
Released	(1,132,265)	14.24
Forfeited	(355,952)	19.68
Outstanding, December 31, 2017	6,148,778	$ 15.76
Granted	1,686,385	50.49
Released	(1,277,727)	21.66
Forfeited	(311,262)	24.39
Outstanding, December 31, 2018	6,246,174	$ 23.16

As of December 31, 2018, there was approximately $120.8 million of total unrecognized compensation cost related to non-vested share-based compensation arrangements granted under all equity compensation plans. Total unrecognized compensation cost will be adjusted for future changes in forfeitures. The Company expects to recognize that cost over a weighted average period of 2.8 years.

The Company received approximately $6.6 million, $5.1 million, and $3.4 million from stock option exercises during the years ended December 31, 2018, 2017 and 2016, respectively. During the years ended December 31, 2018, 2017 and 2016, 346,609, 423,423, and 356,823 shares of common stock, respectively, were issued under the Company's 2010 Purchase Plan, resulting in proceeds to the Company of $4.9 million, $2.8 million, and $2.1 million, respectively.

The following table summarizes information relating to currently outstanding and exercisable stock options as of December 31, 2018:

	Outstanding			Exercisable	
Exercise Price	Number of Options	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number of Options	Weighted Average Exercise Price
$0.00 - $10.00	973,527	5.4	$ 6.16	604,168	$ 6.57
$10.01 - $15.00	228,032	4.5	12.28	228,032	12.28
$15.01 - $20.00	18,477	5.6	16.52	18,477	16.52
$20.01 - $25.00	980,551	7.5	22.03	281,220	22.45
$25.01 - $30.00	12,608	6.1	26.98	12,608	26.98
$30.01 - $40.00	—	—	—	—	—
$40.01 - $45.00	308,266	8.9	44.37	—	—
$45.01- $49.33	10,100	8.8	49.33	3,367	49.33
	2,531,561	6.6	$ 17.86	1,147,872	$ 12.10

EXACT SCIENCES CORPORATION

Notes to Consolidated Financial Statements (Continued)

Shares Reserved for Issuance

The Company has reserved shares of its authorized common stock for issuance pursuant to its employee stock purchase and stock option plans, including all outstanding stock option grants noted above at December 31, 2018, as follows:

Shares reserved for issuance	
2010 Stock Plan	9,071,346
2010 Purchase Plan	1,236,537
	10,307,883

(7) COMMITMENTS AND CONTINGENCIES

Operating Leases

The Company leases a 35,000 square foot manufacturing and office facility in Madison, Wisconsin. This lease has been in effect since 2010. During September 2018, the Company entered into an amended lease agreement. The amended agreement extended the initial term of the lease and is subject to periodic rent escalation adjustments. The Company has two options to extend the term of the lease for one year each. The lease is in effect until February 2025 and is subject to periodic rent escalation adjustments.

The Company leases a 55,000 square foot facility which houses its commercial lab operations in Madison, Wisconsin. This lease has been in effect since 2013. The lease has been amended numerous times with the most recent amendment taking place in March 2018. The amended agreement extended the initial term of the lease and is subject to periodic rent escalation adjustments. The Company has two options to extend the term of the lease for five years each. As part of the lease agreements, the landlord agreed to pay for a portion of leasehold improvements constructed. These payments are recorded as a lease incentive obligation and are amortized over the remaining term of the lease as a reduction of rent expense. The lease is in effect until November 2027 and is subject to periodic rent escalation adjustments. As of December 31, 2018 and 2017, the lease incentive obligation was $0.1 million and $0.7 million, respectively.

The Company leases a 45,000 square foot facility in Madison, Wisconsin for administration purposes. This lease has been in effect since 2014. The lease has been amended several times with the most recent amendment taking place in June 2018. The amended agreement extended the initial term of the lease and is subject to periodic rent escalation adjustments. The Company has six options to extend the lease for up to three months each. The Company has already exercised three of those options. The lease is in effect until June 2020 and is subject to periodic rent escalation adjustments.

The Company leases a 66,000 square foot warehouse facility in Madison, Wisconsin. The lease has been in effect since 2015. The lease has been amended several times with the most recent amendment taking place in October 2017. The amended agreement increased the square footage of leased space and the landlord agreed to pay for a portion of leasehold improvements constructed. The lease is effective until May 2025 and is subject to periodic rent escalation adjustments. The lease includes an option to extend the lease to November 2027. As of December 31, 2018, the lease incentive obligation was $0.9 million.

The Company leases a 26,000 square foot facility which houses a portion of its sales operations in Middleton, Wisconsin. This lease has been in effect since February 2018. The lease is effective until March 2020 and is subject to periodic rent escalation adjustments.

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Notes to Consolidated Financial Statements (Continued)

The Company leases a 48,000 square foot facility in Madison, Wisconsin for research and development purposes. The lease has been in effect since September 2018. The lease is effective until March 2035 and is subject to periodic rent escalation adjustments. See Note 9 for further detail regarding this leased facility.

The Company leases a 5,000 square foot office facility in Salt Lake City, Utah. This lease was acquired as part of the Company's acquisition of Sampleminded. The lease is effective until February 2022 and is subject to periodic rent escalation adjustments.

The Company leases a 10,000 square foot facility in San Diego, California. This lease was acquired as part of the Company's acquisition of Biomatrica. The lease has been in effect since November 2017. The lease is effective until November 2024 and is subject to periodic rent escalation adjustments. As part of the lease agreement, the landlord agreed to pay for a portion of leasehold improvements constructed. These payments are recorded as a lease incentive obligation and are amortized over the remaining term of the lease as a reduction of rent expense. As of December 31, 2018, the lease incentive obligation was $0.6 million.

There is currently a building being constructed in Madison, Wisconsin which will serve as the Company's corporate headquarters. The building is expected to be completed in 2020, at which point the Company will begin leasing it from the landlord with an expected initial term from March 2020 to February 2035. The lease is subject to periodic rent escalation adjustments. See Note 9 for further detail regarding this lease and the Company's accounting considerations under build-to-suit lease accounting.

Future minimum payments under operating leases as of December 31, 2018 are as follows. Amounts included in the table are in thousands.

Year Ending December 31,	
2019	$ 3,861
2020	5,135
2021	4,995
2022	5,027
2023	5,146
Thereafter	44,286
Total lease obligations	$ 68,450

Rent expense included in the accompanying consolidated statements of operations was approximately $3.6 million, $2.6 million, and $2.1 million for the years ended December 31, 2018, 2017 and 2016, respectively.

License Agreements

The Company licenses certain technologies that are, or may be, incorporated into its technology under several license agreements. Generally, the license agreements require the Company to pay royalties based on net revenues received using the technologies and may require minimum royalty amounts or maintenance fees.

Mayo. See Note 3 for information related to the Mayo license agreement.

Hologic. In October 2009, the Company entered into a technology license agreement with Hologic, Inc. ("Hologic"). Under the license agreement, Hologic granted the Company an exclusive, worldwide license within the field of human stool based colorectal cancer and pre-cancer detection or identification with regard to certain Hologic patents, patent applications and improvements, including Hologic's Invader detection chemistry (the "Covered Hologic IP"). The licensed patents and patent applications contain both method and composition-of-matter claims. The jurisdictions covered by these patents and patent applications include the U.S., Australia, Canada, China, the European Union, Japan and Korea. The license agreement also provided the Company with non-exclusive, worldwide licenses to the Covered Hologic IP within the field of clinical diagnostic purposes relating to colorectal cancer (including cancer diagnosis, treatment, monitoring or staging) and

the field of detection or identification of colorectal cancer and pre-cancers through means other than human stool samples. In December 2012, the Company entered into an amendment to this license agreement with Hologic pursuant to which Hologic granted the Company a non-exclusive worldwide license to the Covered Hologic IP within the field of any disease or condition within, related to or affecting the gastrointestinal tract and/or appended mucosal surfaces. The Company received FDA approval for its Cologuard test in August 2014 and was required to make a milestone payment of $0.1 million to Hologic, which was expensed to research and development in August 2014. The Company is required to pay Hologic a low single-digit royalty on the Company's net sales of products using the Covered Hologic IP.

MDx Health. In July 2010, the Company entered into a technology license and royalty agreement ("MDx License Agreement") with MDx Health (formerly Oncomethylome Sciences, S.A.) ("MDx"). Under the MDx License Agreement, MDx granted the Company a royalty bearing, exclusive, worldwide license to certain patents. Under the MDx License Agreement, the Company was obligated to make commercially reasonable efforts to bring products covered by the license agreement to market. The MDx License Agreement required the Company to pay MDx a low single-digit royalty fee based on a certain percentage of the Company's net sales of the licensed products, including a minimum royalty fee of $0.1 million on each anniversary of the agreement for the life of the contract. The Company also agreed to pay various milestone payments:

- $0.1 million upon the first commercial sale of a licensed product after the receipt of the FDA approval, which the Company paid in 2014;
- $0.2 million after the Company has reached net sales of $10 million of a licensed product after receipt of the FDA approval, which the Company paid in 2015;
- $0.8 million after the Company reached cumulative net sales of $50 million, which the Company paid in 2016;
- $1.0 million after the Company reached net sales of $50 million in a single calendar year, which the Company paid in 2016.

Effective April 2017, the Company and MDx entered into a Royalty Buy-Out Agreement, which terminated the MDx License Agreement. Pursuant to the Royalty Buy-Out Agreement, the Company paid MDx a one-time fee of $8.0 million in exchange for an assignment of certain patents covered by the MDx License Agreement and the elimination of all ongoing royalties and other payments by the Company to MDx under the MDx License Agreement. Also included in the Royalty Buy-Out Agreement is a mutual release of liabilities, which includes all amounts previously accrued under the MDx License Agreement. Concurrently with entering into the Royalty Buy-Out Agreement, the Company entered into a Patent Purchase Agreement with MDx under which it paid MDx an additional $7.0 million in exchange for the assignment of certain other patent rights that were not covered by the MDx License Agreement. The total $15.0 million paid by the Company pursuant to the Royalty Buy-Out Agreement and Patent Purchase Agreement, net of liabilities relieved of $6.6 million, was recorded as an intangible asset and is being amortized over the estimated remaining useful life of the licensed intellectual property through 2024, and such amortization is reported in cost of sales. The $6.6 million of liabilities relieved were related to historical milestones and accrued royalties under the MDx License Agreement.

Armune BioScience & the University of Michigan

In December 2017, the Company entered into the Armune Purchase Agreement with Armune, pursuant to which the Company acquired intellectual property and certain other assets underlying Armune's APIFINY®, APIFINY® PRO and APIFINY® ACTIVE SURVEILLANCE prostate cancer diagnostic tests. The portfolio of Armune assets the Company acquired is expected to complement its product pipeline. The total consideration was comprised of an up-front cash payment of $12.0 million and $17.5 million in contingent payment obligations that will become payable upon the Company's achievement of development and commercial milestones using the acquired intellectual property. The ability to meet these events is subject to many risks and is therefore uncertain. The Company will not record the contingent consideration until it is probable that the milestones will be met. There is no other consideration due to Armune beyond the milestone payments and the Company is not subject to future royalty obligations should a product be developed and commercialized. In connection with the Armune Purchase Agreement, Armune terminated a license agreement pursuant to which it licensed certain patent rights and know-how from the Regents of the University of

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Notes to Consolidated Financial Statements (Continued)

Michigan ("University of Michigan"), and the Company entered into a license agreement with the University of Michigan with respect to such patent rights and know-how, as well as certain additional intellectual property rights. Pursuant to the Company's agreement with the University of Michigan, it is required to pay the University of Michigan a low single-digit royalty on its net sales of products using the licensed intellectual property.

(8) ACCRUED LIABILITIES

Accrued liabilities at December 31, 2018 and 2017 consisted of the following:

(In thousands)	December 31, 2018	December 31, 2017
Compensation	$ 37,133	$ 26,399
Assets under construction	32,021	8,797
Professional fees	19,143	5,304
Research and trial related expenses	6,245	3,466
Other	4,052	3,872
Licenses	2,050	1,288
	$ 100,644	$ 49,126

(9) LONG-TERM DEBT

Building Purchase Mortgage

During June 2015, the Company entered into a $5.1 million credit agreement with a third-party financial institution to finance the purchase of a research and development facility located in Madison, Wisconsin. The credit agreement was collateralized by the acquired building.

In September 2018, the Company entered into a Purchase and Sale Agreement with a third-party to sell its research and development facility. The Company also simultaneously entered into a Master Lease Agreement with the third-party to lease the facility back. The sale-leaseback arrangement is recorded under the financing method of accounting, as the Company has continuing involvement in planned expansions of the facility and construction of the adjacent corporate headquarters facility. Under the financing method, the Company does not recognize the proceeds received from the third-party as a sale of the facility. The facility remains in property, plant and equipment on the Company's consolidated balance sheet, and the consideration of $6.8 million received in the sale is recorded as a financing obligation in other long-term liabilities on the Company's consolidated balance sheet as of December 31, 2018. A portion of the proceeds received from the sale were used to repay the mortgage on the facility, and as of December 31, 2018, the $4.5 million outstanding balance of the mortgage had been fully repaid in connection with the termination of the credit agreement. The remaining proceeds were utilized to fund the initial construction of the Company's corporate headquarters discussed in more detail below.

Prior to the repayment, borrowings under the credit agreement bore interest at 4.15 percent. The Company made interest-only payments on the outstanding principal balance for the period between July 12, 2015 and September 12, 2015. The credit agreement required the Company to make, beginning on October 12, 2015 and continuing through May 12, 2019, monthly principal and interest payments of $31,000, and a final principal and interest payment of $4.4 million would have been due on the maturity date of June 12, 2019.

Additionally, the Company previously recorded $73,000 in deferred financing costs, which were recorded as a direct deduction from the mortgage liability. The issuance costs were being amortized through June 12, 2019. The Company recorded $13,000, $18,000 and $18,000 in amortization of mortgage issuance costs during the years ended December, 31, 2018, 2017, and 2016, respectively. As of December 31, 2018, the outstanding balance of the mortgage issuance costs was written down to $0 due to the sale of the facility and the payoff of the mortgage.

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Notes to Consolidated Financial Statements (Continued)

Revolving Loan Agreement

During December 2017 the Company entered into a revolving loan agreement (the "Revolving Loan Agreement") with MB Financial Bank, N.A. ("MB Bank"). The Revolving Loan Agreement provides the Company with a 24-month secured revolving credit facility of up to $15.0 million (the "Revolver"). The Revolver is collateralized by the Company's accounts receivable and inventory. The Revolver is available for general working capital purposes and all other lawful corporate purposes; provided that the Company may not use the Revolver to purchase or carry margin stock.

Borrowings under the Revolving Loan Agreement accrue interest at one of the following per annum rates, as elected by the Company (i) the sum of the 1-month LIBOR rate plus 2.00 percent, (ii) the sum of the 3-month LIBOR rate plus 2.00 percent, or (iii) the MB Bank Reference Rate minus 0.5 percent. Loans under the Revolving Loan Agreement may be prepaid at any time without penalty. The Revolver's maturity date is December 10, 2019.

The Company has agreed in the Revolving Loan Agreement to various financial covenants including minimum liquidity and minimum tangible net worth. At December 31, 2018, the Company is in compliance with all covenants.

As of December 31, 2018, the Company has not drawn funds from, nor are any amounts outstanding under, the Revolving Loan Agreement.

Construction Loan Agreement

During December 2017, the Company entered into a loan agreement with MB Bank (the "Construction Loan Agreement"), which provides the Company with a non-revolving construction loan (the "Construction Loan") of $25.6 million. The Company will use the Construction Loan proceeds to finance the construction of an additional clinical laboratory and related facilities in Madison, Wisconsin. The Construction Loan is collateralized by the additional clinical laboratory and related facilities.

Pursuant to the Construction Loan Agreement, funds drawn will bear interest at a rate equal to the sum of the 1-month LIBOR rate plus 2.25 percent. Regular monthly payments are interest-only for the first 24 months, with further payments based on a 20-year amortization schedule. Amounts borrowed pursuant to the Construction Loan Agreement may be prepaid at any time without penalty. The maturity date of the Construction Loan Agreement is December 10, 2022.

In November 2017, MB Bank, on behalf of the Company, issued an Irrevocable Standby Letter of Credit in the amount of $0.6 million in favor of the City of Madison, Wisconsin (the "City Letter of Credit"). The City Letter of Credit is deemed to have been issued pursuant to the Construction Loan Agreement. The amount of the City Letter of Credit will reduce, dollar for dollar, the amount available for borrowing under the Construction Loan Agreement.

As a condition to MB Bank's initial advance of loan proceeds under the Construction Loan Agreement, the Company was required to first invest at least $16.4 million of its own cash into the construction project. The Company fulfilled its required initial investment and made its first draw on the Construction Loan in June 2018. In accordance with the Construction Loan Agreement, the Company will make monthly interest-only payments through November 2019. Starting in December 2019, the Company will make monthly payments towards the outstanding principal balance due plus accrued interest. As of December 31, 2018, the Company has drawn $24.7 million from the Construction Loan, including $0.4 million of interest incurred, which is included in accrued interest on the Company's consolidated financial statements. The Company capitalized the $0.4 million to the construction project.

Additionally, the Company has recorded deferred financing costs of $0.2 million related to the Construction Loan. These deferred financing costs are recorded as a reduction to long-term debt in the consolidated balance sheets. The deferred financing costs are being amortized through December 10, 2022. The Company has recorded $45,000 in

amortization of deferred financing costs related to the Construction Loan for the year ended December 31, 2018. There was no amortization expense recorded for the year ended December 31, 2017.

The Company has agreed in the Construction Loan Agreement to various financial covenants including minimum liquidity and minimum tangible net worth. As of December 31, 2018, the Company is in compliance with all covenants.

The table below represents the future principal obligations as of December 31, 2018. Amounts included in the table are in thousands:

Year ending December 31,	
2019	$ 8
2020	96
2021	105
2022	24,051
	$ 24,260

Build-to-Suit Leases

The Company evaluates whether it is the accounting owner of leased assets during the construction period when the Company is involved in the construction of the leased asset. Due to funding provided by the Company for costs related to the construction of the Company's new Madison, WI, headquarters, as of December 31, 2018, the Company is considered, for accounting purposes only, the owner of the construction project in accordance with build-to-suit accounting. As of December 31, 2018, the Company has contributed $4.5 million towards the project. All project construction costs incurred over that amount are to be paid by the landlord, though the Company will account for those costs as assets under construction with a corresponding liability. As of December 31, 2018, the Company recorded a total of $7.3 million in construction costs related to this project, including $2.1 million funded by the landlord, which is included as a financing obligation and recorded in other long-term liabilities. An additional $0.7 million has been funded by the Company for leasehold improvements which are not considered part of the build-to-suit lease.

The construction project is expected to be completed in 2020.

(10) CONVERTIBLE NOTES

In January 2018, the Company issued and sold $690.0 million in aggregate principal amount of 1.0% Convertible Notes (the "January 2018 Notes") with a maturity date of January 15, 2025 (the "Maturity Date"). The January 2018 Notes accrue interest at a fixed rate of 1.0% per year, payable semi-annually in arrears on January 15 and July 15 of each year, beginning on July 15, 2018. The net proceeds from the issuance of the January 2018 Notes were approximately $671.1 million, after deducting underwriting discounts and commissions and the offering expenses payable by the Company.

In June 2018, the Company issued and sold an additional $218.5 million in aggregate principal amount of 1.0% Convertible Notes (the "June 2018 Notes"). The June 2018 Notes were issued under the same indenture pursuant to which the Company previously issued the January 2018 Notes (the "Indenture"). The January 2018 Notes and the June 2018 Notes (collectively, the "Notes") have identical terms and will be treated as a single series of securities. The net proceeds from the issuance of the June 2018 Notes were approximately $225.3 million, after deducting underwriting discounts and commissions and the offering expenses payable by the Company.

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Notes to Consolidated Financial Statements (Continued)

Prior to July 15, 2024, the Notes are convertible only upon the occurrence of certain events and during certain periods, as set forth in the Indenture, and thereafter, until the close of business on the second scheduled trading day immediately preceding the Maturity Date. The Notes will be convertible into cash, shares of the Company's common stock (plus, if applicable, cash in lieu of any fractional share), or a combination of cash and shares of the Company's common stock, at the Company's election. On or after July 15, 2024, until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their Notes at any time.

It is the Company's intent and policy to settle all conversions through combination settlement. The initial conversion rate for the Notes is 13.2569 shares of common stock per $1,000 principal amount, which is equivalent to an initial conversion price of approximately $75.43 per share of the Company's common stock. The conversion rate is subject to adjustment upon the occurrence of certain specified events but will not be adjusted for accrued and unpaid interest. In addition, holders of the Notes who convert their Notes in connection with a "make-whole fundamental change" (as defined in the Indenture), will, under certain circumstances, be entitled to an increase in the conversion rate.

If the Company undergoes a "fundamental change" (as defined in the Indenture), holders of the Notes may require the Company to repurchase for cash all or part of their Notes at a repurchase price equal to 100% of the principal amount of the Notes to be repurchased, plus accrued and unpaid interest.

The Notes are the Company's senior unsecured obligations and (i) rank senior in right of payment to all of its future indebtedness that is expressly subordinated in right of payment to the Notes; equal in right of payment to all of the Company's future liabilities that are not so subordinated, unsecured indebtedness; (ii) are effectively junior to all of our existing and future secured indebtedness and other secured obligations, to the extent of the value of the assets securing that indebtedness and other secured obligations; and (iii) are structurally subordinated to all indebtedness and other liabilities of the Company's subsidiaries.

While the Notes are currently classified on the Company's consolidated balance sheets at December 31, 2018 as long-term, the future convertibility and resulting balance sheet classification of this liability will be monitored at each quarterly reporting date and will be analyzed dependent upon market prices of the Company's common stock during the prescribed measurement periods. In the event that the holders of the Notes have the election to convert the Notes at any time during the prescribed measurement period, the Notes would then be considered a current obligation and classified as such.

Under current accounting guidance, an entity must separately account for the liability and equity components of convertible debt instruments (such as the January 2018 Notes and June 2018 Notes) that may be settled entirely or partially in cash upon conversion in a manner that reflects the issuer's economic interest cost. The liability component of the instrument was valued in a manner that reflects the market interest rate for a similar nonconvertible instrument at the date of issuance. On the January 2018 Notes, the initial carrying value of the liability component of $495.1 million was calculated using a 6.0% assumed borrowing rate. The equity component of $194.9 million, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the January 2018 Notes and is recorded in additional paid-in capital on the Company's consolidated balance sheet at the issuance date. That equity component is treated as a discount on the liability component of the January 2018 Notes, which is amortized over the seven-year term of the January 2018 Notes using the effective interest rate method. The equity component is not re-measured as long as it continues to meet the conditions for equity classification. On the June 2018 Notes, the initial carrying value of the liability component of $159.7 million was calculated using a 6.0% assumed borrowing rate. The equity component of $73.0 million, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the June 2018 Notes and adding in the premium at which the June 2018 Notes were sold. This is recorded in additional paid-in capital on the Company's consolidated balance sheet at the issuance date. That equity component, prior to adding in the premium, is treated as a discount on the liability component of the June 2018 Notes, which is amortized over the remaining term of six-and-a-half years of the June 2018 Notes using the effective interest rate method. The equity component is not re-measured as long as it continues to meet the conditions for equity classification.

EXACT SCIENCES CORPORATION

Notes to Consolidated Financial Statements (Continued)

The Company allocated the total transaction costs of approximately $18.8 million related to the issuance of the January 2018 Notes to the liability and equity components of the January 2018 Notes based on their relative values, with $13.1 million being allocated to the liability component of the January 2018 Notes. Transaction costs attributable to the liability component are amortized to interest expense over the seven-year term of the January 2018 Notes, and transaction costs attributable to the equity component are netted with the equity component in stockholders' equity.

The Company allocated the total transaction costs of approximately $7.4 million related to the issuance of the June 2018 Notes to the liability and equity components of the June 2018 Notes based on their relative values, with $5.1 million being allocated to the liability component of the June 2018 Notes. Transaction costs attributable to the liability component are amortized to interest expense over the remaining six-and-a-half-year term of the June 2018 Notes, and transaction costs attributable to the equity component are netted with the equity component in stockholders' equity.

The Notes do not contain any financial or operating covenants or any restrictions on the payment of dividends, the issuance of other indebtedness or the issuance or repurchase of securities by the Company.

Convertible notes, net of discounts and deferred financing costs at December 31, 2018, consisted of the following:

(In thousands)		
Principal	$	908,500
Debt discount, net		(227,403)
Deferred financing costs		(16,348)
Net carrying amount	$	664,749

(11) EMPLOYEE BENEFIT PLAN

The Company maintains a qualified 401(k) retirement savings plan (the "401(k) Plan") covering all employees. Under the terms of the 401(k) Plan, participants may elect to defer a portion of their compensation into the 401(k) Plan, subject to certain limitations. Company matching contributions may be made at the discretion of the Board of Directors.

The Company's Board of Directors approved 401(k) Plan matching contributions for the years ended December 31, 2018, 2017 and 2016 in the form of Company common stock equal to 100 percent up to 6 percent of the participant's eligible compensation for that year. The Company recorded compensation expense of approximately $7.4 million, $3.0 million, and $2.2 million, respectively, in the statements of operations for the years ended December 31, 2018, 2017 and 2016 in connection with 401(k) Plan matching contributions.

(12) NEW MARKET TAX CREDIT

During the fourth quarter of 2014, the Company received approximately $2.4 million in net proceeds from financing agreements related to working capital and capital improvements at one of its Madison, Wisconsin facilities. This financing arrangement was structured with an unrelated third-party financial institution (the "Investor"), an investment fund, and its majority owned community development entity in connection with the Company's participation in transactions qualified under the federal New Markets Tax Credit ("NMTC") program, pursuant to Section 45D of the Internal Revenue Code of 1986, as amended. Through its participation in this program, the Company has secured low interest financing and the potential for future debt forgiveness related to the Madison, Wisconsin facility. Upon closing of this transaction, the Company provided an aggregate of approximately $5.1 million to the Investor, in the form of a loan receivable, with a term of seven years, bearing an interest rate of 2.74 percent per annum. This $5.1 million in proceeds plus $2.4 million of capital from the Investor was used to make an aggregate $7.5 million loan to a subsidiary of the Company. This financing arrangement is not secured by any assets of the Company. On December 1, 2021, the Company would receive a repayment of its approximately $5.1 million loan. The $5.1 million is eliminated in the consolidation of the financial statements. This transaction also includes a put/call feature

that becomes enforceable at the end of the seven-year compliance period. The Investor may exercise its put option or the Company can exercise the call, both of which will serve to trigger forgiveness of the debt. The value attributable to the put/call is nominal. The $2.4 million was recorded in other long-term liabilities on the Company's balance sheet. The benefit of this net $2.4 million contribution will be recognized as a decrease in expenses, included in cost of sales, as the Company amortizes the contribution liability over the seven-year compliance period as it is being earned through the Company's on-going compliance with the conditions of the NMTC program. The Company recorded $0.3 million as a decrease of expenses for the years ended December 31, 2018, 2017, and 2016. At December 31, 2018, the remaining balance of $1.0 million is included in other long-term liabilities. The Company incurred approximately $0.2 million of debt issuance costs related to the above transactions, which are being amortized over the life of the agreements.

The Investor is subject to 100 percent recapture of the NMTC it receives for a period of seven years as provided in the Internal Revenue Code and applicable U.S. Treasury regulations. The Company is required to be in compliance with various regulations and contractual provisions that apply to the NMTC arrangement. Noncompliance with applicable requirements could result in the Investor's projected tax benefits not being realized and, therefore, require the Company to indemnify the Investor for any loss or recapture of NMTC related to the financing until such time as the recapture provisions have expired under the applicable statute of limitations. The Company does not anticipate any credit recapture will be required in connection with this financing arrangement.

The Investor and its majority owned community development entity are considered Variable Interest Entities ("VIEs") and the Company is the primary beneficiary of the VIEs. This conclusion was reached based on the following:

- the ongoing activities of the VIEs—collecting and remitting interest and fees and NMTC compliance—were all considered in the initial design and are not expected to significantly affect performance throughout the life of the VIE;
- contractual arrangements obligate the Company to comply with NMTC rules and regulations and provide various other guarantees to the Investor and community development entity;
- the Investor lacks a material interest in the underling economics of the project; and
- the Company is obligated to absorb losses of the VIEs.

Because the Company is the primary beneficiary of the VIEs, they have been included in the consolidated financial statements. There are no other assets, liabilities or transactions in these VIEs outside of the financing transactions executed as part of the NMTC arrangement.

Also in December 2014, in connection with the NMTC transaction, the Company entered into a land purchase option agreement with the owner of certain real property (land) adjacent to certain of the Company's current Madison, Wisconsin facilities. The option is renewable annually in exchange for a fee. If the Company exercises its land purchase option, it will pay a fixed amount for the land. That fixed amount approximates the then-current fair value of the land. If the Company decides not to exercise its option, then on December 31, 2021 (which is after the seven-year compliance period of the NMTC program), the Company must pay $1.2 million to the community development entity. As discussed below, the community development entity is a variable interest entity consolidated into the Company. The community development entity would then distribute this money to its members. The majority member of the community development entity is also the owner of the land subject to the land purchase option. The Company has recorded the obligation and the land purchase option asset for $1.2 million to reflect the Company's assessment that it is probable that at least $1.2 million will be paid in the future based on resolution of the land purchase option. The asset is included in other long-term assets and the liability is included in other long-term liabilities on the consolidated balance sheet.

(13) WISCONSIN ECONOMIC DEVELOPMENT TAX CREDITS

During the first quarter of 2015, the Company entered into an agreement with the Wisconsin Economic Development Corporation ("WEDC") to earn $9.0 million in refundable tax credits if the Company expends $26.3

million in capital investments and establishes and maintains 758 full-time positions over a seven-year period. The tax credits earned are first applied against the tax liability otherwise due, and if there is no such liability present, the claim for tax credits will be reimbursed in cash to the Company. The maximum amount of the refundable tax credit to be earned for each year is fixed, and the Company earns the credits by meeting certain capital investment and job creation thresholds over the seven-year period. Should the Company earn and receive the job creation tax credits but not maintain those full-time positions through the end of the agreement, the Company may be required to pay those credits back to the WEDC.

The Company records the earned tax credits as job creation and capital investments occur. The amount of tax credits earned is recorded as a liability and amortized as a reduction of operating expenses over the expected period of benefit. The tax credits earned from capital investment are recognized as an offset to depreciation expense over the expected life of the acquired capital assets. The tax credits earned related to job creation are recognized as an offset to operational expenses over the life of the agreement, as the Company is required to maintain the minimum level of full-time positions through the seven-year period.

As of December 31, 2018, the Company has earned $9.0 million of tax credits and has received payment of $4.3 million from the WEDC. The unpaid portion is $4.7 million, of which $1.6 million is reported in prepaid expenses and other current assets and $3.1 million is reported in other long-term assets, reflecting when collection of the refundable tax credits is expected to occur. As of December 31, 2018, the Company also has recorded a $2.4 million liability in other short-term liabilities and a $2.2 million liability in other long-term liabilities, reflecting when the expected benefit of the tax credit amortization will reduce future operating expenses.

During the year ended December 31, 2018, the Company amortized $2.2 million of the tax credits earned as a reduction of operating expenses.

(14) ACQUISITIONS

In August 2017, the Company acquired all of the outstanding equity of Sampleminded, the primary operations of which were customized software development for laboratory information systems and clinical information systems, for cash consideration of $3.2 million and 86,357 of the Company's restricted stock units. Prior to the acquisition, Sampleminded provided certain consulting and software support services to the Company, and it licensed certain software to the Company. The restricted stock units were recorded by the Company as employee stock-based compensation because their vesting is contingent upon continued employment with the Company of certain former stockholders of Sampleminded. The $3.2 million of cash consideration was allocated to the estimated fair market value of the net (current or tangible) assets acquired of $0.2 million, $1.0 million in identifiable intangible assets (comprised of developed technology, customer relationships and non-compete agreements) and a residual amount of goodwill of $2.0 million. The purposes of acquisition were to invest in a technology complementary to the Company's core business, to reduce costs by bringing certain technology and expertise in-house and to prepare for anticipated future growth.

In November 2017, the Company made a $3.0 million cash investment (the "2017 Biomatrica Investment") in Biomatrica, Inc. ("Biomatrica"), then a privately held company specializing in the collection and preservation of biological materials. The Company made the 2017 Biomatrica Investment in connection with entering into an agreement for Biomatrica to supply certain products to the Company. Through the 2017 Biomatrica Investment, the Company acquired shares of Biomatrica's Series E Preferred Stock representing 10 percent, of Biomatrica's then-outstanding shares of capital stock on an as-converted basis.

The 2017 Biomatrica Investment did not constitute a variable interest entity, as the Company did not have control over the supplier's business. Additionally, as the ownership percentage was below 20 percent, the equity method was not used to account for the investment. There were no quoted prices or observable pricing inputs available for Biomatrica's stock. Therefore, the Company accounted for the 2017 Biomatrica Investment at cost, less any impairments, plus or minus changes resulting from observable price changes in orderly transactions for an identical or similar investment. The carrying value of the 2017 Biomatrica Investment was $3.0 million as of December 31, 2017 and was reported in other

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Notes to Consolidated Financial Statements (Continued)

long-term assets in the Company's consolidated balance sheets.

In October 2018, the Company completed a full acquisition of Biomatrica. In the acquisition, the Company acquired all of the outstanding equity interests for an aggregate purchase price of $20.0 million net of cash received, debt repaid and certain other adjustments. Contingent consideration for an additional $20.0 million could be earned based upon certain revenue milestones being met. The purpose of the acquisition was to secure a key supplier for the Company's pipeline products and expand the Company's commercial offerings.

During 2018, the Company incurred approximately $0.6 million of acquisition-related costs associated with this transaction. These costs and expenses include fees associated with financial, legal, and accounting advisors.

The total purchase consideration for the 2018 Biomatrica Acquisition was $24.5 million consisting of a cash payment at closing of $17.9 million including $0.1 million for a post-closing working capital adjustment, contingent consideration payable in cash and having a fair value of $3.4 million, exchange of Series E Preferred stock with an acquisition date fair value of $2.2 million and the reduction of a $1 million Senior Secured Promissory Note and Security Agreement previously provided to Biomatrica and considered part of the consideration transferred. The Company's previously held Series E Preferred stock ownership and the contingent consideration fair value were determined through a valuation using the income approach and involved significant unobservable inputs including revenue and operating margin forecasts, an applicable tax rate, a terminal growth rate and discount rate (Level 3). The valuation of the previously held investment indicated a loss on the investment of $0.8 million. The contingent consideration has been recognized in other long-term liabilities in the consolidated financial statements. The total purchase consideration was allocated to the underlying assets acquired and liabilities assumed based upon their estimated fair values at the date of acquisition as follows:

(In thousands)	
Net operating assets	2,168
Goodwill	15,300
Trade name	700
Customer relationships and contracts	2,700
Developed technology	5,400
Net operating liabilities	(1,754)
Total purchase price	24,514

The fair value of identifiable intangible assets has been determined using the income approach, which involves significant unobservable inputs (Level 3 inputs). These inputs include projected sales, margin, required rate of return and tax rate, as well as an estimated royalty rate in the cases of the developed technology and trade name intangibles. The developed technology and tradename intangibles are valued using a relief-from-royalty method. The customer relationships are valued using the multi-period excess earnings method.

Trade names represent the value identified associated with the Biomatrica trade name in the market. The trade name intangible is amortized on a straight-line basis over its estimated useful life of 15 years.

Developed technology represents purchased technology that had reached technological feasibility and for which Biomatrica had substantially completed development as of the date of acquisition. Fair value was determined using future discounted cash flows related to the projected income stream of the developed technology for a discrete projection period. Cash flows were discounted to their present value as of the closing date. Developed technology is amortized on a straight-line basis over its estimated useful life of 15 years.

Customer relationships and contracts represent agreements with existing Biomatrica customers. Customer relationships and contracts are amortized on a straight-line basis over their estimated useful life of 15 years.

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Notes to Consolidated Financial Statements (Continued)

The goodwill generated from the acquisition of Biomatrica is primarily related to expected synergies. The total goodwill related to this acquisition is not deductible for tax purposes.

The initial accounting for the business combination was not complete at the time the financial statements were issued. Limitations on the use and carryforward of the net operating losses acquired from Biomatrica are being analyzed under IRS section 382 .

The partial year results for Biomatrica's operations are included in the Company's consolidated financial statements and not disclosed separately due to immateriality. Pro forma disclosures have not been included due to immateriality.

(15) INCOME TAXES

Under financial accounting standards, deferred tax assets or liabilities are computed based on the differences between the financial statement and income tax bases of assets and liabilities using the enacted tax rates. Deferred income tax expense or benefit represents the change in the deferred tax assets or liabilities from period to period. At December 31, 2018, the Company had federal net operating loss, state net operating loss, and foreign net operating loss carryforwards of approximately $937.4 million, $403.5 million, and $7.8 million, respectively for financial reporting purposes, which may be used to offset future taxable income. The Company also had federal and state research tax credit carryforwards of $17.4 million and $7.5 million, respectively which may be used to offset future income tax liability. The federal credit carryforwards expire at various dates through 2038 and are subject to review and possible adjustment by the Internal Revenue Service. A portion of the state credit carryforwards expired in 2018 and the remainder begin to expire in 2019 through 2033 and are subject to review and possible adjustment by state tax jurisdictions. In the event of a change of ownership, the federal and state net operating loss and research and development tax credit carryforwards may be subject to annual limitations provided by the Internal Revenue Code and similar state provisions.

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, the following that impacts the Company: (1) reducing the U.S. federal corporate income tax rate from 35 percent to 21 percent; (2) eliminating the corporate alternative minimum tax; (3) creating a new limitation on deductible interest expense; (4) limiting the deductibility of certain executive compensation; and (5) limiting certain other deductions.

The expense (benefit) for income taxes consists of:

	December 31,		
(In thousands)	**2018**	**2017**	**2016**
Current	$ 92	$ 106	$ —
Deferred	—	(293)	—
Total Tax Expense (Benefit)	$ 92	$ (187)	$ —

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Notes to Consolidated Financial Statements (Continued)

The components of the net deferred tax asset with the approximate income tax effect of each type of carryforward, credit and temporary differences are as follows:

(In thousands)	December 31, 2018	December 31, 2017
Deferred tax assets:		
Operating loss carryforwards	$ 226,276	$ 186,963
Tax credit carryforwards	21,417	13,818
Other temporary differences	24,368	13,799
Tax assets before valuation allowance	272,061	214,580
Less - Valuation allowance	(209,868)	(214,250)
Total deferred tax assets	$ 62,193	$ 330
Deferred tax liabilities		
Convertible notes	$ (55,698)	$ —
Amortization	(2,182)	(126)
Fixed assets	(3,966)	—
Other temporary differences	(347)	(204)
Total deferred tax liabilities	(62,193)	(330)
Net deferred taxes	$ —	$ —

A valuation allowance to reduce the deferred tax assets is reported if, based on the weight of the evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. The Company has incurred significant losses since its inception and due to the uncertainty of the amount and timing of future taxable income, management has determined that a valuation allowance of $209.9 million and $214.3 million at December 31, 2018 and 2017, respectively, is necessary to reduce the tax assets to the amount that is more likely than not to be realized. The change in valuation allowance for December 31, 2018 and 2017 was a decrease of $4.4 million and $45.8 million, respectively, as revised for the correction of the immaterial items described below. Due to the existence of the valuation allowance, future changes in the Company's unrecognized tax benefits will not impact the Company's effective tax rate.

The effective tax rate differs from the statutory tax rate due to the following:

	December 31, 2018	December 31, 2017	December 31, 2016
U.S. Federal statutory rate	21.0 %	35.0 %	35.0
State taxes	3.4	2.4	2.4
Federal and state tax rate changes	—	(99.2)	0.5
Foreign tax rate differential	—	0.1	(0.4)
Research and development tax credits	1.9	(1.9)	0.9
Stock-based compensation expense	9.1	16.7	(0.6)
Non-deductible executive compensation	(4.9)	(10.7)	(5.1)
Other adjustments	1.1	(2.6)	(0.6)
Valuation allowance	(31.7)	60.4	(32.1)
Effective tax rate	(0.1)%	0.2 %	0.0

During preparation of the 2018 financial statements, the Company corrected the prior year balance of deferred tax assets relating to net operating loss carryovers and other temporary differences, as well as the valuation allowance related to those assets by an equal and offsetting amount. The correction related to the application of §162(m) on the deductibility of executive compensation. At December 31, 2017, the deferred tax assets and related valuation allowance were adjusted by $19.6 million in the table above, as a result of these corrections. Additionally, non-deductible executive compensation has been added as a separate line item in the rate reconciliation, the federal and state tax rate changes were

decreased by 9.8% for 2017 and the valuation allowance was decreased by 5.5% for 2016. The Company carries a full valuation allowance against net deferred tax assets, therefore these immaterial adjustments to the disclosures had no effect on the consolidated balance sheets, statements of operations and cash flows for the year ended December 31, 2018, 2017, and 2016.

During 2018, the Company engaged in a research and development tax credit study for its historical tax credit carryovers. As a result of this study, the Company claimed an additional $5.0 million of federal and $2.2 million of state research and development credits. The credits are available to be carried forward. The study identified uncertain tax benefits of $1.9 million related to federal and state research and development tax credits. These amounts have been recorded as a reduction to our deferred tax assets. A valuation allowance was recorded against these attributes at December 31, 2017, therefore there was no impact to income tax expense as a result of recording the unrecognized tax benefits during the year ended December 31, 2018. Included in the balance of unrecognized tax benefits as of December 31, 2018 are $1.9 million of tax benefits that, if recognized, would affect the effective tax rate.

The following is a tabular reconciliation of the amounts of unrecognized tax benefits:

	December 31,	
(In thousands)	2018	2017
January 1,	$ —	$ —
Increase due to current year tax positions	392	—
Increase due to prior year tax positions	1,534	—
Decrease due to prior year tax positions	—	—
Settlements	—	—
December 31,	$ 1,926	$ —

As of December 31, 2018, due to the carryforward of unutilized net operating losses and research and development credits, the Company is subject to U.S. Federal income tax examinations for the tax years 1999 through 2018, and to state income tax examinations for the tax years 2003 through 2018. There were no interest or penalties related to income taxes that have been accrued or recognized as of and for the years ended December 31, 2018, 2017 and 2016.

(16) RELATED PARTY TRANSACTIONS

In May 2017, the Company entered into a professional services agreement for recruiting and related services with a firm whose principal is a non-employee director. The Company incurred charges of $0.3 million and made payments of $0.3 million for the year ended December 31, 2018. The Company incurred charges of $0.2 million and made payments of $0.2 million for the year ended December 31, 2017.

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Notes to Consolidated Financial Statements (Continued)

(17) QUARTERLY RESULTS OF OPERATIONS (UNAUDITED)

The following table sets forth unaudited quarterly statements of operations data for each of the eight quarters ended December 31, 2018 and 2017. In the opinion of management, this information has been prepared on the same basis as the audited consolidated financial statements appearing elsewhere in this Form 10-K, and all necessary adjustments, consisting only of normal recurring adjustments, have been included in the amounts stated below to present fairly the unaudited quarterly results of operations. The quarterly data should be read in conjunction with the Company's audited consolidated financial statements and the notes to the consolidated financial statements appearing elsewhere in this Form 10-K.

	Quarter Ended			
	March 31,	June 30,	September 30,	December 31,
	(Amounts in thousands, except per share data)			
2018				
Revenue	$ 90,296	102,894	118,291	142,981
Cost of revenue	22,914	26,888	30,020	38,160
Gross margin	67,382	76,006	88,271	104,821
Research and development	14,935	14,712	17,631	20,932
General and administrative	35,567	39,565	46,729	56,432
Sales and marketing	53,408	54,431	64,836	76,773
Loss from operations	(36,528)	(32,702)	(40,925)	(49,316)
Investment income	3,673	4,917	6,292	6,321
Interest expense	(6,510)	(8,603)	(10,704)	(10,972)
Net loss before tax	(39,365)	(36,388)	(45,337)	(53,967)
Income tax benefit (expense)	(59)	1	(27)	(7)
Net loss	$ (39,424)	$ (36,387)	$ (45,364)	$ (53,974)
Net loss per share—basic and diluted	$ (0.33)	$ (0.30)	$ (0.37)	$ (0.44)
Weighted average common shares outstanding—basic and diluted	121,016	122,129	122,671	122,981
2017				
Revenue	$ 48,363	57,646	72,574	87,406
Cost of revenue	16,981	17,991	20,729	23,495
Gross margin	31,382	39,655	51,845	63,911
Research and development	8,002	9,737	11,725	12,675
General and administrative	20,070	24,609	30,763	33,598
Sales and marketing	38,801	36,728	37,768	40,627
Loss from operations	(35,491)	(31,419)	(28,411)	(22,989)
Investment income	595	683	1,334	1,320
Interest expense	(50)	(54)	(51)	(51)
Net loss before tax	(34,946)	(30,790)	(27,128)	(21,720)
Income tax benefit (expense)	—	—	231	(44)
Net loss	$ (34,946)	(30,790)	(26,897)	(21,764)
Net loss per share—basic and diluted	$ (0.32)	$ (0.27)	$ (0.23)	$ (0.18)
Weighted average common shares outstanding—basic and diluted	110,582	112,847	119,215	119,950

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

There have been no disagreements with accountants on accounting or financial disclosure matters.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures.

As required by Rule 13a-15(b) under the Securities Exchange Act of 1934 (the "Exchange Act"), our management, including our principal executive officer and principal financial officer, conducted an evaluation as of the end of the period covered by this report, of the effectiveness of our disclosure controls and procedures as defined in Rule 13a-15(e) under the Exchange Act. Based on that evaluation, our principal executive officer and principal financial officer have concluded that these disclosure controls and procedures were effective as of December 31, 2018 to provide reasonable assurance that information required to be disclosed by us in reports that we file under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in Securities and Exchange Commission rules and forms and that material information relating to the Company is accumulated and communicated to management, including our principal executive officer and our principal financial officer, as appropriate to allow timely decisions regarding required disclosures.

Changes in Internal Control over Financial Reporting.

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) under the Exchange Act during the quarter ended December 31, 2018, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting.

Management of the Company is responsible for establishing and maintaining effective internal control over financial reporting as defined in Rule 13a-15(f) under the Exchange Act. The Company's internal control over financial reporting is designed to provide reasonable assurance to the Company's management and board of directors regarding the preparation and fair presentation of published financial statements in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2018. In making this assessment, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework (2013).* Based on our assessment, we concluded that, as of December 31, 2018, our internal control over financial reporting was effective based on those criteria.

Our independent registered public accounting firm, BDO USA, LLP, has issued an audit report on the effectiveness of our internal control over financial reporting as of December 31, 2018, which is included herein.

Item 9B. Other Information

None.

PART II I

Item 10. Directors, Executive Officers and Corporate Governance

The information required under this item is incorporated by reference to the following sections of our proxy statement for our 2019 Annual Meeting of Stockholders: “Information Concerning Directors and Nominees for Director,” “Information Concerning Executive Officers,” “Section 16(a) Beneficial Ownership Reporting Compliance,” “Corporate Governance Principles and Board Matters,” and “The Board of Directors and Its Committees.”

Item 11. Executive Compensatio n

The information required under this item is incorporated by reference to the following sections of our proxy statement for our 2019 Annual Meeting of Stockholders: “Compensation and Other Information Concerning Directors and Officers,” “The Board of Directors and Its Committees,” and “Report of The Compensation Committee.”

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

The information required under this item is incorporated by reference to the following sections of our proxy statement for our 2019 Annual Meeting of Stockholders: “Equity Compensation Plan Information” and “Securities Ownership of Certain Beneficial Owners and Management.”

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

The information required under this item is incorporated by reference to the following sections of our proxy statement for our 2019 Annual Meeting of Stockholders: “Certain Relationships and Related Transactions” and “Corporate Governance Principles and Board Matters.”

Item 14. Principal Accountant Fees and Services

The information required under this item is incorporated by reference to the following sections of our proxy statement for our 2019 Annual Meeting of Stockholders: “Independent Registered Public Accounting Firm” and “Pre-Approval Policies and Procedures.”

PART I V

Item 15. Exhibits and Financial Statement Schedules

(a) The following documents are filed as part of this Form 10-K:

(1) Financial Statements (see "Consolidated Financial Statements and Supplementary Data" at Item 8 and incorporated herein by reference).

(2) Financial Statement Schedules (Schedules to the Financial Statements have been omitted because the information required to be set forth therein is not applicable or is shown in the accompanying Financial Statements or notes thereto).

(3) Exhibits

Exhibit Number	Exhibit Description	Filed with this Report	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/ Registration Number
3.1	Sixth Amended and Restated Certificate of Incorporation of the Registrant		S-1 (Exhibit 3.3)	12/4/00	333-48812
3.2	First Amendment to Sixth Amended and Restated Certificate of Incorporation of the Registrant		DEF 14A (Appendix B)	6/20/14	001-35092
3.3	Third Amended and Restated By-Laws of the Registrant		10-Q (Exhibit 3.3)	10/30/17	001-35092
4.1	Specimen certificate representing the Registrant's Common Stock		S-1 (Exhibit 4.1)	12/26/00	333-48812
4.2	Indenture, dated January 17, 2018, by and between the Registrant and U.S. Bank National Association, as Trustee		8-K (Exhibit 4.1)	1/17/18	001-35092
4.3	First Supplemental Indenture, dated January 17, 2018, by and between the Registrant and U.S. Bank National Association, as Trustee (including the form of 1.0% Convertible Senior Notes due 2025)		8-K (Exhibit 4.2)	1/17/18	001-35092

Lease Agreements

10.1	Second Amended and Restated Lease Agreement, dated September 28, 2018, by and between University Research Park Incorporated and the Registrant	X			
10.2	Lease Agreement dated June 25, 2013 by and between Tech Building I, LLC and Exact Sciences Laboratories, Inc.		10-Q (Exhibit 10.2)	8/2/13	001-35092

Agreements with Executive Officers and Directors

10.3*	Employment Agreement dated March 18, 2009 by and between Kevin T. Conroy and the Registrant		8-K (Exhibit 10.1)	3/18/09	000-32179
10.4*	Employment Agreement dated October 30, 2015 by and between Scott Coward and the Registrant		10-K (Exhibit 10.7)	2/24/16	001-35092
10.5*	Employment Agreement dated August 1, 2009 by and between Graham Lidgard and the Registrant		10-Q (Exhibit 10)	11/12/09	000-32179
10.6*	Employment Agreement dated November 8, 2016 by and between Jeffrey T. Elliott and the Registrant		10-K (Exhibit 10.9)	2/21/17	001-35092
10.7*	Employment Agreement dated April 2, 2018 by and between Mark Stenhouse and the Registrant		10-Q (Exhibit 10.2)	10/30/18	001-35092
10.8*	Employment Agreement dated September 11, 2017 by and between Scott Johnson and the Registrant	X			
10.9*	Employee Transition Agreement dated April 25, 2018 by and between Maneesh Arora and the Registrant		10-Q (Exhibit 10.4)	4/26/18	001-35092

Equity Compensation Plans and Policies

10.10*	2000 Stock Option and Incentive Plan		10-K (Exhibit 10.2)	3/31/09	000-32179
10.11*	The Registrant's 2010 Employee Stock Purchase Plan		DEF 14A (Appendix B)	4/30/10	000-32179

10.12*	First Amendment to the Registrant's 2010 Employee Stock Purchase Plan		DEF 14A (Appendix A)	6/20/14	001-35092
10.13*	Second Amendment to the Registrant's 2010 Employee Stock Purchase Plan		DEF 14A (Appendix A)	4/29/16	001-35092
10.14*	The Registrant's 2016 Inducement Award Plan		10-Q (Exhibit 10.3)	5/3/16	001-35092
10.15*	The Registrant's 2016 Inducement Award Plan Form Restricted Stock Unit Award Agreement		S-8 (Exhibit 4.7)	5/3/16	333-211099
10.16*	The Registrant's 2010 Omnibus Long-Term Incentive Plan (As Amended and Restated Effective July 27, 2017)		10-Q (Exhibit 10.1)	10/30/17	001-35092
10.17*	The Registrant's 2010 Omnibus Long-Term Incentive Plan (As Amended and Restated Effective July 27, 2017) Form Incentive Stock Option Award Agreement		10-K (Exhibit 10.31)	2/22/18	001-35092
10.18*	The Registrant's 2010 Omnibus Long-Term Incentive Plan (As Amended and Restated Effective July 27, 2017) Form Restricted Stock Award Agreement		10-K (Exhibit 10.32)	2/22/18	001-35092
10.19*	The Registrant's 2010 Omnibus Long-Term Incentive Plan (As Amended and Restated Effective July 27, 2017) Form Restricted Stock Unit Award Agreement		10-K (Exhibit 10.33)	2/22/18	001-35092
10.20*	The Registrant's Non-Employee Director Compensation Policy dated January 29, 2019	X			
10.21*	The Registrant's Non-Employee Director Compensation Policy dated October 25, 2018	X			
10.22*	The Registrant's Executive Deferred Compensation Plan dated January 1, 2019	X			

Credit Agreements

10.23	Loan and Security Agreement, dated as of December 15, 2017, by and among MB Financial Bank, N.A., the Registrant and Exact Sciences Laboratories, LLC		8-K (Exhibit 10.1)	12/18/17	001-35092
10.24	Loan Agreement, dated as of December 15, 2017, by and between MB Financial Bank, N.A. and CG Growth LLC		8-K (Exhibit 10.2)	12/18/17	001-35092

Other

10.25**	Technology License Agreement dated as of October 14, 2009 by and among Hologic, Inc., Third Wave Technologies, Inc., and the Registrant		10-K (Exhibit 10.39)	3/12/10	000-32179
10.26**	Amendment dated December 7, 2012 to Technology License Agreement dated October 14, 2009 by and among Hologic, Inc., Third Wave Technologies, Inc., and the Registrant		10-K (Exhibit 10.37)	3/1/13	001-35092
10.27**	Amended and Restated License Agreement dated effective January 31, 2015, by and between the Registrant and Mayo Foundation for Medical Education and Research		10-Q (Exhibit 10.1)	5/4/15	001-35092
10.28**	First Amendment dated effective July 1, 2015 to Amended and Restated License Agreement dated effective January 31, 2015, by and between the Registrant and Mayo Foundation for Medical Education and Research		10-Q/A (Exhibit 10.2)	6/3/16	001-35092
10.29**	Second Amendment dated effective October 1, 2017 to Amended and Restated License Agreement dated effective January 31, 2015, by and among the Registrant, Mayo Foundation for Medical Education and Research and Exact Sciences Development Company, LLC		10-K (Exhibit 10.21)	2/22/18	001-35092
10.30**	Third Amendment dated effective October 1, 2017 to Amended and Restated License Agreement dated effective January 1, 2019, by and among the Registrant, Mayo Foundation for Medical Education and Research and Exact Sciences Development Company, LLC	X			
10.31**	License Agreement dated July 26, 2010 by and between MDx Health S.A. and the Registrant		10-K (Exhibit 10.25)	2/28/14	001-35092
10.32**	Addendum dated May 6, 2011 to License Agreement dated July 26, 2010 by and between MDx Health S.A. and the Registrant		10-K (Exhibit 10.26)	2/28/14	001-35092
10.33	Royalty Buy-Out Agreement by and between MDx Health S.A. and the Registrant, dated April 25, 2017		8-K (Exhibit 10.1)	4/27/17	001-35092

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10.34	Promotion Agreement dated August 21, 2018 between the Registrant and Pfizer, Inc.		8-K (Exhibit 10.1)	8/22/18	001-35092
21	Subsidiaries of the Registrant	X			
23.1	Consent of BDO USA, LLP	X			
24.1	Power of Attorney (included on signature page)	X			
31.1	Certification Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934	X			
31.2	Certification Pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Securities Exchange Act of 1934	X			
32	Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X			
101	Interactive Data Files	X			

(*) Indicates a management contract or any compensatory plan, contract or arrangement.

(**) Confidential Treatment requested for certain portions of this Agreement.

Item 16. Form 10-K Summary

Not applicable.

SIGNATURE S

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

EXACT SCIENCES CORPORATION

Date: February 21, 2019

By: /s/ Kevin T. Conroy
Kevin T. Conroy
President & Chief Executive Officer

POWER OF ATTORNEY AND SIGNATURES

We, the undersigned officers and directors of Exact Sciences Corporation, hereby severally constitute and appoint Kevin T. Conroy our true and lawful attorney, with full power to him to sign for us and in our names in the capacities indicated below, any amendments to this Annual Report on Form 10-K, and generally to do all things in our names and on our behalf in such capacities to enable Exact Sciences Corporation to comply with the provisions of the Securities Exchange Act of 1934, as amended, and all the requirements of the Securities Exchange Commission.

Pursuant to the requirements of the Securities and Exchange Act of 1934, as amended, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Name	Title	Date
/s/ Kevin T. Conroy Kevin T. Conroy	President and Chief Executive Officer (Principal Executive Officer) and Chairman of the Board	February 21, 2019
/s/ Jeffrey T. Elliott Jeffrey T. Elliott	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 21, 2019
/s/ Thomas D. Carey Thomas D. Carey	Director	February 21, 2019
/s/ Eli Casdin Eli Casdin	Director	February 21, 2019
/s/ James E. Doyle James E. Doyle	Director	February 21, 2019
/s/ John A. Fallon M.D. John A. Fallon	Director	February 21, 2019
/s/ Daniel J. Levangie Daniel J. Levangie	Director	February 21, 2019
/s/ David Thompson David Thompson	Lead Independent Director	February 21, 2019
/s/ Michael S. Wyzga Michael S. Wyzga	Director	February 21, 2019
/s/ Katherine Zanotti Katherine Zanotti	Director	February 21, 2019

EXHIBIT 10.1

SECOND AMENDED AND RESTATED LEASE AGREEMENT

LANDLORD: **UNIVERSITY RESEARCH PARK, INCORPORATED**

TENANT: **EXACT SCIENCES CORPORATION**

PROPERTY: **441 Charmany Drive**
Madison, Wisconsin 53719

DATE: **September 28, 2018**

303024619 v1

UNIVERSITY RESEARCH PARK

SECOND AMENDED AND RESTATED LEASE AGREEMENT

This Second Amended and Restated Lease Agreement (this "Lease") dated September 28, 2018, is made by and between University Research Park, Incorporated, a Wisconsin non-stock corporation (hereinafter referred to as "Landlord"), and Exact Sciences Corporation, a Delaware corporation (hereinafter referred to as "Tenant").

RECITALS:

A. Landlord and Tenant entered into a Lease on November 1, 2009, as amended by Amendment One to Lease Agreement dated November 1, 2010, as further amended by Amendment Two to Lease Agreement dated March 1, 2012, as further amended by Amendment Three to Lease Agreement dated November 20, 2014, and as amended and restated by the Amended and Restated Lease Agreement dated October 28, 2016, pursuant to which Tenant leases certain premises in the property at 441 Charmany Drive, Madison, Wisconsin (collectively, the "Original Lease"); and

B. Pursuant to the Master Agreement between Landlord and Tenant dated July 3, 2018 (the "Master Agreement"), Landlord and Tenant have agreed to amend the Original Lease as provided therein. Accordingly, Landlord and Tenant agree that, effective as of the Master Closing Date under the Master Agreement (the "Master Closing Date"), the Original Lease shall be amended, restated and replaced in its entirety by this Lease.

IT IS HEREBY AGREED, by and between the parties hereto, in consideration of the covenants and agreements set forth in this Lease, as follows:

1. PREMISES AND TERM

1.1. Leased Premises . Landlord hereby leases to Tenant and Tenant hereby leases from Landlord on the terms and provisions and subject to the conditions hereinafter set forth in this Lease, the following described premises (the "Leased Premises"):

> All of the space in that certain building identified as 441 Charmany Drive, Madison, Dane County, Wisconsin (the "Building"), consisting of approximately 35,000 rentable square feet, as shown on Exhibit A attached hereto.

The Building is located on the land described on Exhibit B attached hereto (the "Property"). The Leased Premises leased to Tenant do not include the land under the Building or the roof or outer walls of the Building, but Tenant does have the non-exclusive rights to use the Common Areas as described in Section 5.1. Neither Landlord nor Tenant may increase or decrease the floor area of the Building except by mutual agreement and amendment to this Lease.

1.2. Term of Lease, Early Termination . Subject to extension as provided in Section 1.3, the term of this Lease (the "Term") shall begin on the Master Closing Date (the "Commencement Date") and shall end at midnight on February 28, 2025 (the "Initial Term"). Provided Tenant is not then in default under this Lease, Tenant may terminate this Lease ("Early Termination Right") effective as of October 31, 2020 (the "Early Termination Date"), provided that (i) Tenant gives Landlord written notice on or before February 1, 2020, of Tenant's exercise of the Early Termination Right and (ii) Tenant pays to Landlord, on

or before the Early Termination Date, the amount of Two Hundred Thousand Dollars ($200,000.00) as an early termination fee to compensate Landlord for the unamortized balance of the Interior Allowance provided under Section 1.6 below.

1.3. Option to Extend . Provided (i) Tenant is not then in default under this Lease or the lease between Landlord and Tenant for Innovation One, or the tenant thereunder is not then in default under the lease between Landlord and Tenant's affiliate, Exact Sciences Development Company, LLC, for the building at 501 Charmany Drive, Madison, Wisconsin, (ii) Tenant has never accrued more than One Hundred Fifty Thousand and 00/100 Dollars ($150,000.00) in arrears since the commencement of the Original Lease, or (iii) this Lease has not been assigned or transferred to any unrelated third party, Tenant shall have two (2) options to extend the Initial Term of this Lease for a term of five (5) years each upon providing Landlord written notice eighteen (18) months before the end of the then-current Term ("Extended Term 1" and "Extended Term 2," respectively). Base Rent (as defined below) for Extended Term 1 and Extended Term 2, as applicable, shall be the "Fair Market Rental" for the Leased Premises, as defined and determined pursuant to attached Exhibit G. Tenant's option to extend contained herein shall accrue to any assignee of this Lease which is an affiliate or subsidiary of Tenant, subject to all terms above.

1.4. Security Deposit . Landlord acknowledges that Tenant has heretofore deposited with Landlord a security deposit in the total amount of Forty Five Thousand Two Hundred Eight and 33/100 Dollars ($45,208.33), as security for the performance of the obligations hereof by Tenant. This security deposit shall be returned to Tenant within sixty (60) days following the termination of this Lease, less any amount appropriately applied by Landlord.

1.5. Condition of Improvements . Tenant acknowledges that, as of the Commencement Date, it is in possession of the Leased Premises, and accepts the Leased Premises in AS-IS, WHERE-IS condition without any representations or warranties with respect to said condition. Tenant hereby agrees to supply as-built drawings and final and total costs of any improvements made to the Leased Premises during the Term no later than sixty (60) days following completion of said improvements.

1.6. Allowance . Landlord shall provide an allowance to Tenant of $100,000.00 (the "Exterior Allowance") to reimburse Tenant for costs of improvements for a grade-level pedestrian connection to the Building, with walks, canopies, lighting, seating, snow melt, and other aesthetic features and improvements as mutually designed by Tenant and Landlord, provided that such improvements are completed by Tenant during the period commencing January 1, 2019 and ending December 1, 2020. In addition, Landlord shall provide an additional allowance to Tenant of $10.00 per square foot (the "Interior Allowance") to reimburse Tenant for costs of improvements for interior features and improvements as proposes and mutually agreed upon by Tenant and Landlord, provided that such improvements are completed by Tenant during the period commencing January 1, 2019 and ending December 1, 2020, and provided further that Tenant has not theretofore exercised its Early Termination Right. Such improvements shall be performed in compliance with the provisions of this Lease, and the Interior Allowance and Exterior Allowance, as applicable, shall be disbursed to Tenant within thirty (30) days following Landlord's confirmation that the relevant improvements have been completed in accordance with plans and specifications approved by Landlord, and receipt by Landlord of Tenant's verification of costs and all applicable releases and waivers of liens.

Additionally, if Tenant exercises Extended Term 1 Landlord shall provide an allowance to Tenant of $5.00 per square foot (the "Extended Term Allowance") to reimburse Tenant for costs of improvements to the Premises as mutually approved by Tenant and Landlord. Such improvements shall be performed

in compliance with the provisions of this Lease, and the Extended Term Allowance shall be disbursed to Tenant within thirty (30) days following Landlord's confirmation that the improvements have been completed in accordance with plans and specifications approved by Landlord, and receipt by Landlord of Tenant's verification of costs and all applicable releases and waivers of liens.

1.7. Parking .

(a) Parking Allocation . Tenant shall have parking rights to 117 stalls (the "Parking Allocation") in the surface parking lot on the Property (the "Surface Lot"), subject to relocation in the Parking District (as defined in the Master Agreement, and as currently depicted on attached Exhibit C, subject to modification by Landlord from time to time), at locations to be designated by Landlord from time to time to accommodate construction relating to the redevelopment of University Research Park (the "Park"), and, if the number of stalls in the Surface Lot are permanently reduced due to development by Landlord of the Property, such stalls will be replaced by stalls located elsewhere in the Parking District and/or in new structured parking on the Surface Lot, if any, that Landlord elects to develop. The parking stalls for the Building shall be located as close to the Building as possible with reasonable allocations to other tenants and occupants of the Park. Tenant shall use diligent and good faith efforts to have its employees utilize available parking in the Surface Lot before utilizing other Parking District stalls. If Tenant requires additional parking beyond the allocation set forth above after such parking is fully utilized by its employees, then Landlord shall use diligent and good faith efforts to provide such additional stalls ("Supplemental Stalls") to Tenant to the extent needed to meet such need, and EXAS agrees to relinquish such Supplemental Stalls from time to time if no longer needed to serve EXAS's parking needs.

(b) Parking Rent through End of Term . During the Term (including extensions through the end of Extended Term 2, if applicable), (i) no parking rent will be charged for parking in the Surface Lot or other surface parking in the Parking District, and (ii) parking rent shall be payable for any Supplemental Stalls located in structured parking facilities at prevailing market rates.

(c) Parking Rights beyond End of Initial Term . If the Term of this Lease is extended beyond the Initial Term, then with respect to Extended Term 1 only, the Parking Allocation shall be a minimum of 3 stalls per 1,000 rentable square feet of the Leased Premises leased during Extended Term 1; provided, however, that if Innovation One is not concurrently leased by Tenant or Tenant's affiliate for a term that is at least coextensive with Extended Term 1, the Parking Allocation during Extended Term 1 shall be a minimum of 2.25 stalls per 1,000 rentable square feet of the Leased Premises leased during Extended Term 1. The stalls in the Parking Allocation during Extended Term 1, if any, shall be at locations within the Parking District to be designated by Landlord from time to time; provided, however, such stalls shall be located as close to the Building as possible with reasonable allocations to other tenants and occupants of the Park. Parking rent shall be payable for the Parking Allocation during Extended Term 1 at prevailing market rates; provided, however, that no parking rent will be charged for parking provided in the Surface Lot or other surface parking in the Parking District to the extent then-prevailing comparable suburban market surface parking is also at no charge. The foregoing provisions of this Section 1.7(c) shall not be construed to create an option or right to a specified Parking Allocation if the Term is extended for Extended Term 2, and if the Term is extended for Extended Term 2, the Parking Allocation for Extended Term 2 shall be determined by mutual agreement of Landlord and Tenant and amendment to this Lease.

1.8. Building Expansion . Until the earlier of (i) the expiration or termination of this Lease, or (ii) the last day of the Development Protection Period (as defined in Exhibit C of the Master Agreement), Tenant will have the exclusive right to collaborate with Landlord on the expansion of the Building, consistent with the overall development goals for the Park as set forth in Recital A of the Master Agreement, and Landlord will negotiate in good faith with Tenant for such expansion on market terms, which may include the requirement to remove the temporary addition on the south facade of the Building which was installed by Tenant (the "Temporary Addition") and restoration of the Property affected thereby. The foregoing exclusive right shall terminate upon any monetary default by Tenant under this Lease that remains uncured after three (3) months or more, even if subsequently cured.

2. RENT

2.1. Base Rent. Tenant shall pay to Landlord at its office in Madison, Wisconsin, or such other place as Landlord may designate in writing, and without any deduction or offset whatsoever, the following amounts in advance on or before the first day of each calendar month during the Term indicated ("Base Rent"):

Term	Base Rent per Square Foot*	Monthly Amount
Commencement Date — 10/31/2018	$15.97	$46,579.17
11/01/2018 — 10/31/2019	$16.45	$47,979.17
11/01/2019 — 10/31/2020	$16.94	$49,408.33
11/01/2020 — 10/31/2021	$17.45	$50,895.83
11/01/2021 — 10/31/2022	$17.45	$50,895.83
11/01/2022 — 10/31/2023	$17.80	$51,913.75
11/01/2023 — 10/31/2024	$18.15	$52,952.02
11/01/2024 — 2/28/2025	$18.52	$54,011.06

*The Base Rent per Square Foot listed above reflects increases of three percent (3%) annually.

2.2. Additional Rent . During the Term, in addition to Base Rent, Tenant shall pay as part of the consideration for this Lease and as additional rent, all additional amounts due under this Lease including, but not limited to, Tenant's Proportionate Share (defined below) of real estate taxes, CAM Charges (as defined below), annual CAM reimbursements affiliated with Capital Repairs (defined below), and Landlord's insurance in accordance with Section 6.1 below and all utilities attributable to the Leased Premises, the Building, and the Property (collectively, "Additional Rent"). Landlord reserves the right to deviate from the estimates so that the amounts due as Additional Rent for the Leased Premises are consistent with the amounts due as Additional Rent as determined by the more detailed provisions pertaining thereto within this Lease. Consistent with the forgoing, Tenant agrees to pay those amounts, if

any, in excess of the estimates set forth above. Additional Rent shall be payable in monthly installments except as otherwise expressly provided in this Lease. The term "Tenant's Proportionate Share" for any particular Additional Rent charge shall be defined as the rentable square footage of the Leased Premises divided by the rentable square footage of all the space that shares in such charge. For Common Area elements used exclusively by Tenant as the Tenant of the Leased Premises Tenant's Proportionate Share, is equal to one hundred percent (100%); provided, however, that if the "Knowledge Lane" right-of-way is constructed in the Common Area for the Property, CAM Charges shall exclude the development costs of Knowledge Lane.

2.3. Past Due Rent . If Tenant shall fail to pay when due any Base Rent or Additional Rent, and such amount shall not be paid within ten (10) days after written notice from Landlord to Tenant that such amount was not paid on the date when due, such unpaid amounts shall thereafter bear interest from the due date thereof to the date of payment at the rate of ten percent (10%) per annum or the prime interest rate then charged by the U.S. Bank National Association or its successors or assigns, whichever is greater.

2.4. Real Estate Taxes . Landlord shall pay all general taxes on the Building and the Property, including all general real estate taxes, personal property taxes on Landlord's personal property located at the Property and installments for special assessments arising during the Term. In event any special assessments or similar charges are levied against the Building and/or the Property, Landlord shall either (1) elect to defer such payments over the longest period allowed by law and Tenant shall only be required to pay such installments thereof which accrue and are payable during the Term, or (2) if Landlord chooses in its sole discretion to pay such special assessments or similar charges in whole or in accord with a payment schedule shorter than the longest payment schedule allowed by law, then Tenant shall pay to Landlord in equal monthly installments only that portion of the total special assessments or charges that would accrue and be payable during the Term if the special assessments or charges were deferred over the longest period allowed by law. Tenant agrees to reimburse Landlord for Tenant's Proportionate Share of such taxes and assessments. Tenant's obligation for each tax described in this section shall be further prorated for the first year of this Lease between Landlord and Tenant as of the Commencement Date of this Lease. Tenant's obligation for each tax described in this section shall be further prorated for the last year of the Term as of the last day of the Term.

Tenant shall, upon notice from Landlord, pay in escrow to Landlord one-twelfth (1/12) of Tenant's Proportionate Share of the estimated annual real estate taxes, personal property taxes and installments for special assessments for the Building and Property on the first day of each month after such request, provided, however, that if the sum of such installments shall be less than the total amount of Tenant's Proportionate Share of such taxes, Tenant shall pay such deficiency at least thirty (30) days after Landlord's written request therefore, taking into account any installment payment arrangements offered by the taxing authority without the imposition of any finance charge, penalty or other cost. Tenant's escrow payment shall be applied by Landlord to the payment of the taxes on the Building and Property. At the termination of this Lease, Tenant shall pay Landlord for Tenant's Proportionate Share of taxes for that portion of the termination year this Lease is in effect. Once Tenant's Proportionate Share of taxes for that portion of the termination year this Lease is in effect is known, Landlord shall send Tenant an invoice indicating Tenant's Proportionate Share of taxes. Tenant shall pay Landlord's invoice within thirty (30) days of receipt of Landlord's invoice. Any payment by Tenant in excess of its Proportionate Share of taxes for any tax year shall be refunded to Tenant as soon as reasonably practicable.

Upon the reasonable request of Tenant, Landlord agrees to work with Tenant in good faith and with due diligence to contest taxes levied against the Building and/or Property. Tenant shall be

responsible for any and all reasonable out-of-pocket costs incurred by Landlord while acting under Tenant's request to contest taxes levied against the Building and/or Property, including attorneys' or other professional fees.

As of the Commencement Date, the Leased Premises is classified as manufacturing by the State of Wisconsin Department of Revenue. Tenant agrees to make available to Landlord all information deemed necessary by Landlord for the complete and truthful submission of Landlord's manufacturing property tax returns.

3. INSTALLATIONS, REPAIRS AND

MAINTENANCE OF LEASED PREMISES

3.1. Maintenance by Tenant . Tenant shall at all times keep the Leased Premises and all partitions, doors, fixtures, equipment and appurtenances thereof (including but not limited to electrical, lighting, HVAC, and plumbing equipment, lines and fixtures servicing the Leased Premises) in good order, condition and repair, reasonable wear and tear excepted. Tenant shall enter into service contracts, reasonably acceptable to Landlord, on all heating, ventilating and air conditioning units, including but not limited to changing filters, checking belts and oiling of units. If Tenant refuses or neglects to repair the property as required hereunder and to the reasonable satisfaction of Landlord as soon as reasonably possible after written demand, Landlord may make such repairs without liability to Tenant for any loss or damage that may accrue to Tenant's property or to Tenant's business by reason thereof and upon completion thereof, Tenant shall pay Landlord's reasonable costs for making such repairs plus twenty percent (20%) for overhead, upon presentation of bill therefor, as Additional Rent as per Section 2.2. When used in this section, the term "repairs" shall include capital repairs, replacements and renewals when necessary and all such repairs shall be equal in quality and class of original work. Repairs or replacements under this Section may be considered to be "Capital Repairs" if a) the repair exceeds $5,000 in cost, b) the repair or replacement provides an improvement to the Building for a period of time exceeding the Term of the Lease, c) the repair or replacement is not remedying an improvement previously made by Tenant, and d) the repair or replacement is not to improvements or fixtures unique to Tenant's business (including, but not limited to, trade fixtures, systems, and improvements unique to Tenant's operations). For example, a toilet replacement may qualify as a Capital Repair, however a rooftop exhaust system serving Tenant's fume hoods would not.

At Tenant's request, Landlord will reimburse Tenant for 100% of the actual costs (including reasonable consulting or engineering costs) incurred by Tenant to complete a Capital Repair, provided Tenant and Landlord agree, prior to incurring the expense, to i) the proposed Capital Repair scope of work and its specifications, ii) the exact expenditure to be reimbursed by Landlord, iii) the names of any vendors or contractors to be performing the Capital Repair, iv) the anticipated useful life (in years) of the proposed Capital Repair, and v) the annual amount of the exact expenditure supplied by Tenant to Landlord hereunder to be recovered by Landlord as a CAM Charge. In regard to the foregoing item (v), Landlord and Tenant agree that Landlord shall be entitled to recover from Tenant CAM reimbursements affiliated with Capital Repairs equal to the cost of such Capital Repair amortized over the useful life agreed upon under (iv) above on a straight line basis. For example, in the event the Building is in need of new HVAC units with an agreed upon useful life of 15 years which are not unique to Tenant's business at a cost of $150,000, then Tenant would pay Landlord $10,000 per year in Additional Rent toward this Capital Repair during the Term of the Lease.

Landlord will reimburse Tenant for previously approved Capital Repairs upon the completion of all of the following: a) Tenant's request for reimbursement, b) Landlord's inspection of the work and reasonable approval of substantial completion, and c) Tenant's submission of actual invoices and full and complete lien waivers. For approved Capital Repairs reimbursed by Landlord, Tenant agrees to pay Landlord the amortized cost of the Capital Repairs as Additional Rent (defined in Section 2.2) assuming an amortization period equal to the agreed-upon anticipated useful life.

Unless otherwise agreed to by the parties hereto, Tenant shall coordinate all Capital Repairs. Tenant shall be solely responsible for all repairs and Capital Repairs required due to the negligence of willful misconduct of its employees, agents, or contractors.

3.2. Maintenance by Landlord. Landlord shall at its sole cost and expense without reimbursement from Tenant, keep, repair, maintain and replace the foundations, exterior walls, roof and all other interior and exterior structural elements of the Leased Premises, the Building, and the Common Area, including any utility lines and equipment servicing the Leased Premises but located outside the Building, in good order, condition and repair and shall have access to the Leased Premises for such purpose, but Landlord shall not be required to make any such repairs which become necessary or desirable by reason of the negligence of Tenant, its agents, servants, employees or customers. Landlord shall also, subject to reimbursement from Tenant as provided in the Section 5.5 below, make all Capital Repairs under this section to the Property, the Building, and the Common Area as well as make all routine repairs and maintenance of the Common Area in order to keep them in good order, condition and repair. Landlord shall have access to the Leased Premises for such purposes, but Landlord shall not be required to make any such Capital Repairs nor undertake any repairs or maintenance which become necessary or desirable by reason of the negligence of Tenant, its agents, servants, employees or customers. Tenant shall not be obligated to reimburse Landlord as Additional Rent for Capital Repairs under this Section 3.2 or Capital Repairs to the foundations, exterior walls, roof, and any other interior or exterior structural elements of the Leased Premises provided such Capital Repairs were not necessitated by the intentional or negligent conduct of Tenant and are unrelated to any Capital Repair to be performed under Section 3.1.

3.3. Exterior Signs. All exterior signs to be installed by Tenant shall be approved in advance in writing by the Design Review Board appointed by the Board of Regents of the University of Wisconsin System (the "Design Review Board"). All signs to be installed by Landlord shall be approved in advance in writing by the Design Review Board.

Tenant shall remove all signs installed by Tenant at the termination of this Lease. Such installations and removals shall be made in such a manner as to avoid injury, defacement or any other damages to the buildings and improvements. The cost of repairing any damage to the building caused by the installation, removal, or maintenance of the sign shall be borne by Tenant.

The cost of all signs, other than those furnished by Landlord, including the installation, maintenance, and removal thereof, shall be the responsibility of Tenant.

3.4. Alterations, Changes and Installations by Tenant . Tenant shall not make or cause to be made any alterations, additions or improvements to the Leased Premises which cost more than Twenty Thousand Dollars ($20,000), or cause to be installed any fixtures, interior or exterior lighting, plumbing equipment or mechanical equipment within the Leased Premises which cost more than Twenty Thousand

Dollars ($20,000) without the prior written consent of Landlord, not to be unreasonably withheld or delayed. Notwithstanding the forgoing, Tenant shall not make any alterations, additions, or improvements to any structural components (including any bearing or demising walls) or enclosure of the Leased Premises without Landlord's prior consent. Landlord acknowledges and agrees that Tenant is, with Landlord's consent, currently undertaking the improvements to the Leased Premises listed in the attached Exhibit C. Tenant agrees to provide Landlord with all as-built drawings of, cut-sheets from, and costs of any alterations, additions, or improvements made to the Leased Premises under this section. Tenant acknowledges that the University Research Park Design Review Board has the sole authority to review and approve or reject any changes made to the exterior of the Leased Premises, the Building, or the Property.

3.5. Fixtures and Equipment . Subject to Landlord's consent, not to be unreasonably withheld, conditioned or delayed, Tenant may, at its own expense, furnish and install such business and trade fixtures or equipment in and on the Leased Premises as may be necessary or desirable for Tenant's business. Upon expiration of this Lease, Tenant may remove such business and trade fixtures provided that Tenant shall promptly repair any damage caused by their removal. Landlord and Tenant acknowledge that the business and trade fixtures identified in Exhibit F and currently located within the Leased Premises are the property of the respective parties. All other business and trade fixtures currently located within the Leased Premises are the property of Tenant.

3.6. Liens and Obligations . Tenant agrees not to create or to permit others to create any lien or obligations against Landlord, the Property, the Building, or the Leased Premises in making alterations, repairs or in installing materials, fixtures or equipment. If a lien or obligation is claimed against Landlord, the Property, the Building, or the Leased Premises, Tenant shall either (a) provide Landlord with a bond in the amount of that claim, or (b) cause that claim to be released. Tenant further agrees to hold Landlord harmless from all claims and demands by any third party in any manner connected with such alterations, repairs or installations or with Tenant's occupancy for such purpose. Tenant shall comply with all laws and all directions, rules and regulations of all governmental regulatory bodies or officials having jurisdiction over such alterations, repairs or installations, except that Tenant shall not be required to comply with any laws, regulations or orders by governmental authority necessitating structural alterations, changes, repairs or additions, unless made necessary by the act or work performed by Tenant, in which case Tenant shall so comply, at its own expense, after first procuring the written consent of Landlord.

4. CONDUCT OF BUSINESS

4.1. Business Use . It is understood and agreed that the Leased Premises shall only be used and occupied by Tenant as a general office, laboratory, manufacturing facility, and warehouse. Tenant shall not use the Leased Premises for any use not identified as a permitted use by any zoning ordinance or other governmental regulation relating to the Leased Premises or approved as a conditional use by the governmental bodies having zoning authority. No use shall be permitted, or acts done, which will cause a cancellation of any insurance policy covering the Leased Premises. Tenant shall not sell, permit to be kept, used or sold in or about the Leased Premises any article which may be prohibited by the standard form of fire insurance policy. In the event Tenant's use of the Leased Premises results in an increase in the cost of any insurance relating to the Building or the Property, Tenant shall pay such additional cost to Landlord upon demand. Tenant shall comply with all applicable laws, ordinances, regulations, and/or deed and plat restrictions affecting the use and occupancy of the Leased Premises. Tenant shall not commit, or permit to be committed, any waste or nuisance on the Leased Premises.

4.2. Utility Charges . Landlord shall furnish to the Leased Premises heat, gas, sewer, electricity and other utilities. Tenant shall be solely responsible for and promptly pay all charges for heat, water, gas, sewer, electricity or any other utility used or consumed in the Leased Premises, including supplemental heating. In the event utilities are not separately metered, Tenant shall pay Tenant's Proportionate Share of utility costs for the Leased Premises. In no event shall Landlord be liable for an interruption or failure in the supply of any such utilities to the Leased Premises.

4.3. Taxes on Leasehold . Tenant shall be responsible for and shall pay before delinquency all municipal, county, state, or other taxes assessed during the Term against any leasehold interest or personal property of any kind, owned by or placed in, upon or about Leased Premises by Tenant.

4.4. Assignment or Subletting . Tenant shall have the one-time right to assign this Lease to (a) any Affiliate of Tenant; (b) any entity resulting from a merger or consolidation; or (c) to an entity purchasing substantially all of the stock or assets of Tenant (collectively, a "Business Transfer"). Except as provided in (a), (b), or (c) preceding, Tenant agrees not to sell, assign, mortgage, pledge or in any manner transfer this Lease and not to sublet the Leased Premises or any part or parts thereof without the prior written consent of Landlord in each instance which consent shall not be unreasonably withheld, conditioned or delayed. As a condition to any Business Transfer: (a) Tenant must not be in default under this Lease; (b) Tenant must give Landlord written notice at least fifteen (15) business days before such Transfer; and (c) if such Transfer will result from a merger or consolidation of Tenant with another entity, then the Credit Requirement (defined below) must be satisfied. Tenant's notice to Landlord shall include information and documentation evidencing the Business Transfer. If requested by Landlord, Tenant's successor shall sign and deliver to Landlord a commercially reasonable form of assumption agreement. "Affiliate" shall mean an entity controlled by, controlling or under common control with Tenant. The "Credit Requirement" shall be deemed satisfied if, as of the date immediately preceding the date of the Transfer, the Net Worth of the entity with which Tenant is to merge or consolidate is equal to or greater than Tenant's. Any Transfer in violation of this Section 4.4 shall, at Landlord's option, be deemed a default by Tenant as described in Section 9, and shall be voidable by Landlord. Tenant shall indemnify, defend, protect and hold harmless Landlord from and against any and all losses resulting from claims that may be made against Landlord by the transferee or anyone claiming under or through any transferee or by any broker or other persons or entities claiming a commission or similar compensation in connection with the proposed assignment or sublease, irrespective of whether Landlord shall give or decline its consent to any proposed assignment or sublease, or if Landlord shall exercise any of its options under this Section 4.4.

All permitted subleases shall provide that in the event of a default under this Lease which results in a termination hereof or if this Lease is rejected in a bankruptcy proceeding, the sublease shall be terminated unless Landlord, at Landlord's option, elects in writing to recognize the sublease as a direct lease with Landlord. Any consideration paid to Tenant for a permitted sublease or assignment (other than a Business Transfer) that exceeds the amount Tenant must pay Landlord under this Lease (the "Excess Consideration") shall be paid to Landlord. Where a part of the Leased Premises is subleased or assigned, there shall be a prorating of all Base Rent and Additional Rent payable under this Lease and the rent payable under the assignment or the sublease to determine whether Excess Consideration is payable to Landlord. Excess Consideration shall exclude documented reasonable leasing commissions paid by Tenant, payments attributable to the amortization of the cost of disclosed Tenant improvements made to the Leased Premises at Tenant's cost for the assignee or subtenant, and other reasonable, documented actual cash out-of-pocket costs paid by Tenant, such as attorneys' fees directly related to Tenant's obtaining an assignee or sublease. Tenant shall pay this Excess Consideration to Landlord at the end of each calendar year during which Tenant collects any Excess Consideration. Each payment shall be sent

with a detailed statement showing the total consideration paid by the subtenant or assignee and any exclusions from consideration permitted by this section.

Consent by Landlord to one assignment of this Lease or to one licensing or subletting of the Leased Premises shall not be a waiver of Landlord's rights hereunder as to subsequent assignment or subletting, or act to release any guaranty of this Lease, Landlord's rights to approve an assignment of this Lease are and shall remain unqualified. If Tenant becomes bankrupt, the bankruptcy trustee shall not have the right to assume or assign this Lease unless the trustee complies with all requirements of the United States Bankruptcy Code, and Landlord expressly reserves all of its rights, claims and remedies thereunder.

4.5. Corporate Ownership . If Tenant is a corporation and if at any time during the Term any part or all of the corporate shares of said corporation shall be transferred by sale, assignment, operation of law or other disposition (except transfers by gift, bequest or inheritance) so that the result of such transfer would be the loss of voting control of said corporation by the person or persons owning a majority of said corporate shares at the date of this Lease, Tenant shall notify Landlord in writing of such changes in voting control. This section, however, shall not apply if Tenant is a corporation, the outstanding common stock of which is listed on a recognized security exchange, or if at least eighty percent (80%) of Tenant's stock is owned by another corporation, the common stock of which is so listed.

4.6. Rules and Regulations . The rules and regulations appended to this Lease as Exhibit D are hereby made a part of this Lease. Any additional rules and regulations adopted by Landlord must be reasonably consistent with the terms of this Lease, shall be in writing, and must be provided to Tenant in order to be effective. Tenant agrees to comply with and observe all such reasonably adopted rules and regulations. Tenant's failure to keep and observe said rules and regulations shall constitute a breach of the terms of this Lease in the manner as if the same were contained herein as covenants. Landlord reserves the right from time to time to amend or supplement said rules and regulations and to adopt and promulgate additional rules and regulations applicable to Leased Premises, and the property described in Exhibit A, provided that such additional rules and regulations apply equally to all lessees located on the Property and do not unreasonably interfere with Tenant's use and enjoyment of the Leased Premises. Any such additional rules and regulations, and amendments and supplements, if any, shall be given to Tenant in writing, and Tenant agrees thereupon to comply with and observe all such rules and regulations and amendments thereto and supplements thereof.

4.7. Surrender . On the last day of the Term, including any option term, or upon the sooner termination thereof, Tenant shall peaceably and quietly surrender the Leased Premises and all improvements thereon in the same condition as at the commencement of this Lease in good order, condition and repair, fire and other unavoidable casualty, and reasonable wear and tear excepted. All alterations, additions, and improvements other than business and trade fixtures which may be made or installed by either Landlord or Tenant upon the Leased Premises or in the Common Area, shall remain the property of Landlord and shall remain upon and be surrendered without disturbance, molestation or injury at the termination of the Term, whether by the elapse of time or otherwise, all without compensation or credit to Tenant. Tenant shall remove all of its equipment and personal property, the Temporary Addition and any other improvements to the Premises approved by the Design Review Board for temporary installation only, and shall repair any damage occasioned by such removal. Any personal property not removed by Tenant shall be deemed abandoned and shall become the property of Landlord; provided, that Landlord shall have the option to effect said removals and Tenant shall pay Landlord, on demand, the cost of removal thereof, with interest at the rate of ten (10%) percent per annum from the

date of such removal by Landlord, or the prime interest rate established by U.S. Bank National Association or its successors or assigns, whichever is higher.

The delivery to Landlord at the place then fixed for the payment of rent of the keys or door access system cards and software to the Leased Premises shall constitute surrender of the premises by Tenant. Acceptance of the keys or door access system cards and software by Landlord shall constitute acceptance by Landlord of such surrender. Such acceptance by Landlord shall not constitute a waiver of any rights to recover damages under terms of this Lease. This method of surrender shall not be exclusive and shall be in addition to all other methods of surrender.

Anything in this section to the contrary notwithstanding, at any termination of this Lease, Landlord shall have a lien upon all of the property of Tenant then located in or upon the Leased Premises to secure the payment of any amounts due from Tenant to Landlord by reason of this Lease or to secure the payment of damages, and Landlord may retain possession of such property until payment in full of said amounts. Said lien shall not be defeated by placing such property in storage. If Tenant has not redeemed said property within ninety (90) days after the termination of said Lease, Landlord may sell such property at public or private sale without further notice to Tenant, and shall apply in a reasonable manner determined by Landlord the proceeds of sale to reduce the amounts then owed from Tenant to Landlord.

5. COMMON USE AREAS AND FACILITIES

5.1. Common Area . As used herein, the "Common Area" shall mean all of the areas within the Property outside of the Building, such as the parking areas, drive aisles, sidewalks and landscaped areas, as the same may exist from time to time. Tenant shall have the non-exclusive right to use, in common with Landlord and other occupants of the Park to whom Landlord has or may hereafter grant reasonable rights to use the same, the Common Area. To the extent other parties that are tenants of the Park share in the use of a portion of the Common Area such parties shall share in the CAM Charge for such portion of the Common Area and Tenant's Proportionate Share for such item shall be adjusted accordingly. Landlord shall at all times have full control, management and direction of the Common Area and, subject to Tenant's rights under Section 1.8 above, Landlord reserves the right at any time and from time to time in Landlord's discretion, including for uses that may not be for the sole benefit of the Building, to reduce, increase, enclose or otherwise change the size, location, layout and nature of the Common Area (including without limitation to relocate the ingress and egress easement defined as the "South Driveway" in the Reciprocal Access Easement Agreement dated May 22, 2006, among the Board of Regents of the University of Wisconsin System, Landlord, EMD Biosciences, Inc. (a predecessor in interest to Tenant), and Wisconsin Energy Conservation Corp. (the "Easement Agreement")), provided that (1) reasonable access to and use of the Leased Premises is provided, (2) Landlord uses reasonable measures to minimize any disruption or interruption to the conduct of Tenant's business operations at the Leased Premises, (3) Landlord shall not reduce the number of parking spaces available to Tenant on the Property except in accordance with Section 1.7 above, (4) Landlord shall not unreasonably or continuously interfere with the loading dock access at the Leased Premises, (5) direct pedestrian access shall always be provided (subject to relocation to alternate paths on a temporary basis as reasonably necessary to accommodate temporary construction conditions) from the Leased Premises to Innovation One so long as Tenant, or an affiliate leases space in Innovation One, and (6) any development of the southeast corner of the Surface Lot (other than the development of the Knowledge Road right of way) shall be subject to the prior approval of Tenant, not to be unreasonably withheld. Notwithstanding the foregoing, however, Tenant acknowledges that in all events Landlord, subject to the limitations in items (1)-(6) above, shall have the right, at all times during the term of this Lease, (i) to develop the Knowledge Road right of way, whether as a public or

private right of way, and (ii) to develop the western half of the Property, including but not limited to the development of structured parking to serve Innovation Two (as defined in the Master Agreement). If any portion of the Common Area is developed for a use that no longer benefits the Building, then effective upon the date on which such use is changed, such portion shall be deleted from the Common Area, and such portion shall also be deemed to be excluded from the Property for purposes of calculating Additional Rent under this Lease. Upon Landlord's request, Tenant agrees to execute such document(s) as may be necessary to confirm the termination of Tenant's interest under the Easement Agreement on account of the modification of the Leased Premises pursuant to this Lease, and/or to join in any amendment to the Easement Agreement or new easement agreement relocating the South Driveway.

Landlord agrees to allow Tenant to access the University Research Park Data Network ("URPNet") from the Leased Premises. URPNet is a high-speed communications service, linking computers located at the University Research Park to the University of Wisconsin-Madison campus and national computer networks. URPNet is meant to encourage technology and information transfer between companies and the University of Wisconsin-Madison researchers, staff and students. URPNet consists of a fiber optic-based Ethernet serving portions of the University Research Park and connected to the Metropolitan United Fiber Network. Individual workstations are connected to URPNet using twisted-pair Ethernet compatible cabling. URPNet is connected to the Campus System Ethernet. Landlord will allow Tenant to access the URPNet service with an initial system-wide capacity of 1 Gigabit/second. Tenant's use of URPNet is subject to acceptable use policies promulgated from time to time by Landlord. Landlord reserves the right to limit or deny any Tenant's use of URPNet as a result of repeated violations of promulgated acceptable use policies. Tenant's use of the Campus resources and certain databases may be limited and may require negotiation of separate agreements between Tenant and the University of Wisconsin-Madison. Attached is a description of certain services that may be available to Tenant (Exhibit E). In no event shall Landlord be liable for an interruption or failure in the supply of service between URPNet to the Leased Premises or Tenant's usage of, or failure to access, URPNet unless such is caused by the reckless or intentional misconduct of Landlord. Landlord acknowledges and agrees that all of Tenant's information and data conveyed via the URPNet is proprietary and confidential and, as such, the University of Wisconsin and Landlord have no rights to use, collect or store such information except such use, collection or storage as would normally be done by a commercial Internet Service Provider ("ISP"). Landlord agrees that Tenant may also use any other ISP and Landlord agrees to grant whatever licenses or easement which may be required in connection with the same.

5.2. Use of Common Area . Landlord hereby grants to Tenant, its employees, agents, customers and invitees, the non-exclusive right during the Term to use the Common Area and all equipment and fixtures therein as the same may exist from time to time, such use to be in common with Landlord and its employees, agents, and contractors, except when the same are being repaired. Landlord reserves the right to promulgate rules and regulations for the use of any Common Area in accordance with Section 4.6.

5.3. Operation and Maintenance . The Common Area shall at all times be subject to the exclusive control and management of Landlord and Landlord shall manage, operate, repair and maintain the Common Area and its facilities in a clean and sightly condition. The manner in which such area and facilities shall be maintained and the expenditures therefor shall be in Landlord's reasonable discretion. Landlord reserves the right to add and remove equipment and fixtures from the Common Area in its reasonable discretion.

5.4. Preventing Public Rights . If Landlord deems it necessary in order to prevent the acquisition of special rights, Landlord may from time to time close all or any portion of the Common Area or take such action as shall be reasonably appropriate for that purpose.

5.5. Charge for Common Area and Facilities . During the Term, Tenant shall pay to Landlord an annual charge which shall be Tenant's Proportionate Share of Landlord's actual cost of operating, maintaining, repairing, and replacing the Common Area and other facilities (the "CAM Charges") which shall include, but shall not be limited to driveways, parking areas, landscaped and vacant areas, area-ways, walks, curbs, corridors, gardens, sanitary and storm sewers, signs, the cost of operating, repairing, lighting, cleaning, painting, removing of snow, ice and debris, policing and inspecting, insurance for hazards and other risks, maintenance including but not limited to such repair of paving, curbs, walkways, driveways, landscaping and drainage and lighting facilities as may be necessary from time to time to keep the same in good condition and repair, and a reasonable allowance for Landlord's overhead costs in conjunction with the foregoing. Landlord reserves the right to charge separate and reasonable user fees for certain equipment and fixtures located in the Common Area. Landlord shall provide Tenant with an itemized statement of Common Area costs and user fees. CAM Charges shall not include expenditures for capital improvements to the Leased Premises nor the Property, except for amortization of the cost, together with reasonable financing charges, of furnishing and installing capital investment items that are primarily for the purpose of (i) maintaining the building, the Common Area and the HVAC system in good working order, (ii) reducing CAM Charges or avoiding increases in Common Area expenses (provided Landlord reasonably estimates at the time of installing or furnishing the capital investment item that the reduction in, or avoidance of, Common Area expenses resulting from the capital investment item will equal or exceed the amortization cost of the capital item), (iii) a Capital Repair under Section 3.1, or (iv) required by laws. All such capital improvement costs will be amortized over the useful life of the capital investment items with the useful life and amortization schedule being determined in accordance with generally accepted accounting principles, in no event to extend beyond the remaining useful life of the building.

5.6. Formula For Proportionate Share . The annual charge for Common Area maintenance and facilities shall be computed on the basis of twelve (12) consecutive calendar months commencing and ending on January 1, and shall be paid in advance in monthly installments on the first day of each calendar month in an amount estimated by Landlord. Within sixty (60) days after the end of each such twelve (12) month period, Landlord shall determine and furnish to Tenant a computation of the actual amount charged for such period; and the amounts so estimated and paid during such period shall be adjusted promptly (including adjustments on a pro rata basis for any partial such period at either end of the Lease Term) by one party's paying to the other whatever amount is necessary to effectuate such adjustment.

Tenant, at Tenant's sole cost and expense, shall have the right to conduct an audit of Common Area maintenance and facilities charges. Any such audit shall be limited to the current year and the two (2) previous years. In the event the audit reveals a discrepancy, Landlord and Tenant shall work together diligently to resolve such discrepancy in a timely and equitable manner.

5.7. Hazardous Materials . Landlord represents and warrants that, as of November 1, 2009, there were no Hazardous Materials (as hereinafter defined) present in the Leased Premises or in, on, or under the Property. Tenant agrees that the remediation, removal or neutralization, if and to the extent required by Environmental Regulations, of any Hazardous Materials in the Leased Premises or in, on or under the Property shall be done by Tenant, at its sole cost and expense, if such Hazardous Materials discovered were introduced in the Leased Premises or in, on or under the Property by Tenant, its agents, employees or contractors. "Hazardous Materials" shall mean (i) any waste, material or substance

(whether in the form of a liquid, a solid, or a gas and whether or not air-borne) which is deemed to be a pollutant or a contaminant, or to be hazardous, toxic, ignitable, reactive, infectious, explosive, corrosive, dangerous, harmful or injurious to public health or to the environment, and which is now or becomes regulated in the future by or under the authority of any applicable local, state or federal laws, judgments, ordinances, orders, rules, regulations, codes or other governmental restrictions or requirements, any amendments or successor(s) thereto, replacements thereof or publications promulgated pursuant thereto, relating to environmental quality, health, safety, contamination and clean-up (collectively "Environmental Regulations", and individually, "Environmental Regulation"); (ii) petroleum; (iii) asbestos and asbestos containing materials; (iv) any polychlorinated biphenyl; and (v) any radioactive material. Landlord and Tenant each agree that neither Landlord nor Tenant shall cause any Hazardous Materials to exist on, or to escape, seep, leak, spill or be discharged, emitted or released from the Property in violation of any Environmental Regulation during the Term in violation of any applicable Environmental Regulation.

5.8. Landlord's Indemnity . Landlord hereby indemnifies Tenant, its successors and assigns, and their respective agents, contractors, employees, members, partners, officers, and directors ("Tenant Indemnified Parties"), and agrees to hold Tenant Indemnified Parties harmless from and against any and all losses, liabilities, damages, injuries, penalties, fines, costs, expenses and claims of any and every kind whatsoever, including reasonable attorney's fees and costs (collectively "Environmental Liabilities") paid, incurred or suffered by, or asserted against, Tenant Indemnified Parties with respect to, or as a direct or indirect result of, the presence on or under, or the escape, seepage, leakage, spillage, discharge, emission or release from the Property of any Hazardous Materials which were (1) brought in to the Property by Landlord, its agents, employees, or their respective predecessors-in-interest, (2) caused by breach by Landlord, its agents, employees or their respective predecessors-in-interest of any Environmental Regulation to which Landlord is subject, or (3) was located upon the Leased Premises or the Property prior to November 1, 2009. This indemnity shall survive the termination of this Lease.

5.9. Tenant's Indemnity . Tenant hereby indemnifies Landlord, its successors and assigns, and their respective agents, contractors, employees, members, partners, officers, and directors ("Landlord Indemnified Parties"), and agrees to hold Landlord Indemnified Parties harmless from and against any and all Environmental Liabilities paid, incurred or suffered by, or asserted against, Landlord Indemnified Parties with respect to, or as a direct or indirect result of, the presence on or under, or the escape, seepage, leakage, spillage, discharge, emission or release from the Leased Premises or the Property of any Hazardous Materials which were brought in to the Leased Premises or the Property by Tenant, its agents or employees, or caused by breach by Tenant of any Environmental Regulation to which Tenant is subject. This indemnity shall survive the termination of this Lease.

5.10. Remediation . In the event Hazardous Materials are or become present at the Property as the result of any cause whatsoever (other than Hazardous Material which were brought in to the Leased Premises by Tenant, its agents, employees or invitees), and such presence of Hazardous Materials renders the Leased Premises Unusable (as hereinafter defined), then all rent shall be abated with respect to the portion of the Leased Premises so damaged until such time as the portion(s) of the Leased Premises so damaged are no longer rendered Unusable. For the purpose of this subsection, "Unusable" means that Tenant does not have access to or beneficial occupancy of all or that certain portion of the Leased Premises because of the enforcement of any Environmental Regulation or the need to use all or any portion of the Leased Premises for remediation of any Hazardous Materials, or because the use of the Leased Premises would represent a risk to the health or safety of Tenant, Tenant's employees, agents or invitees.

6. INSURANCE

6.1. Landlord's Insurance . Landlord shall at all times during the Term keep all improvements which are now or hereafter located on the Property insured against loss or damage by fire and the extended coverage hazards at full insurance value with loss payable to Landlord, Landlord's mortgagee and such other parties as Landlord may designate, as their interests may appear. Tenant agrees to cooperate in providing reasonable disclosures and information regarding improvements made by Tenant and the costs thereof as may be reasonably necessary to establish the full insurance value for the Property.

Tenant agrees to pay Landlord for Tenant's Proportionate Share of the reasonable cost of such insurance in equal monthly installments. Upon Landlord's receipt of any premium notice, Tenant shall within thirty (30) days of Landlord's written demand make up any deficiency to the extent of Tenant's Proportionate Share of the estimated annual casualty insurance premium.

6.2. Tenant's Insurance . Tenant shall, at its expense, obtain and carry at all times during the Term as the primary policies of insurance (i.e. Landlord's insurance policies, if any, shall be secondary to Tenant's required insurance under this Lease) listed in Lease Section 6.3 (a), naming Tenant as insured and Landlord, and Landlord's mortgagee, if any, as additional insureds, to insure against injury to property, person, or loss of life arising out of the ownership, use, occupancy or maintenance of the Leased Premises or conduct of Tenant's operations with limits as described in Subsection (a). Tenant shall furnish to Landlord a copy of such policies or an ACORD 27 certificate of Tenant's insurer evidencing such insurance, and shall, upon Landlord's request during the Term, provide to Landlord and any party designated by Landlord a copy of the insurance policy endorsement or wording showing that Landlord and such other parties have been added as additional insureds. At least ten (10) days prior to the expiration of Tenant's policy, Tenant shall furnish Landlord with the renewal thereof, or Landlord may order such insurance and charge the cost thereof to Tenant.

6.3. Tenant's Insurance Requirements . Tenant is required to provide a certificate of insurance indicating that the following minimum insurance amounts are in place during the Term:

(a) **General Liability**

$2,000,000 General Aggregate
$2,000,000 Products/Completed Operations Aggregate
$1,000,000 Personal & Advertising Injury
$1,000,000 Each Occurrence
$100,000 Fire Damage [see subsection (c) below]
$5,000 Medical Payments

(b) **Tenant's Contents** - Tenant shall be responsible for obtaining such insurance as it may deem advisable for all property located in the Leased Premises and in Common Area. It is understood that the insurance carried by Landlord does not cover the risk of loss or damage to Tenant's property. Tenant waives any claim against Landlord and shall save Landlord harmless from any claim for loss or damage to contents, merchandise, fixtures, equipment or work done by Tenant regardless of the cause of any such damage or loss.

(c) **Increase in Fire Insurance** . Tenant agrees that it will not keep or use, in or upon the Leased Premises any article that may be prohibited by the standard form fire insurance policy. If Tenant's use or occupancy causes any increase in premiums for fire or casualty insurance on the

Property, or the Leased Premises, or any part thereof, above the rate of the least hazardous type of occupancy legally permitted in the Leased Premises, Tenant shall pay the additional premium on such insurance. No part of such additional premium resulting from the use or occupancy of another tenant shall be charged to Tenant under Sections 6.1 and/or 6.2 of this Lease. Tenant shall also pay in such event any additional premium on any rent insurance policy that may be carried by Landlord for its protection against rent loss through fire or other casualty. Landlord shall render bills for such additional premiums to Tenant at such times as Landlord may elect, and shall be due and payable by Tenant when rendered, and the amount thereof shall be deemed to be, and be paid as, Additional Rent.

6.4. Hold Harmless . Landlord shall not be liable for any loss, injury, death, or damage to persons or property which at any time may be suffered or sustained by Tenant or by any person whosoever may at any time be using or occupying or visiting the Leased Premises or the Property or be in, on, or about the same, whether such loss, injury, death, or damage shall be caused by or in any way result from or arise out of any act, omission, or negligence of Tenant or of any occupant, subtenant, visitor, or user of any portion of the Leased Premises or the Property, or shall result from or be caused by any other matter or thing whether of the same kind as or of a different kind than the matters or things above set forth, and Tenant shall indemnify Landlord against all claims, liability, loss, costs and fees, including, without limitation, attorneys' fees, or damage whatsoever on account of any such loss, injury, death, or damage. Tenant shall indemnify Landlord against all claims, liability, loss, costs and fees, including, without limitation, attorneys' fees or damage arising by reason of the negligence or misconduct of Tenant, its agents or employees. Tenant hereby waives all claims against Landlord for damages to the building and improvements that are now on or hereafter placed or built on the Property and to the property of Tenant in, on, or about the Property, and for injuries to persons or property in or about the Property, from any cause arising at any time. The preceding sentences shall not apply to loss, injury, death, or damage arising by reason of the reckless or intentional misconduct of Landlord, its agents, or employees.

6.5. Waiver of Subrogation . Landlord and Tenant hereby release each other from any and all liability or responsibility to the other (or to anyone claiming through or under them by way of subrogation or otherwise) for any loss or damage to property caused by fire or any of the extended coverage or supplementary insurance contract casualties, even if such fire or other casualty shall have been caused by the fault or negligence of the party or anyone for whom such party may be responsible, provided, however, that this release shall be applicable and in force and effect only in respect to loss or damage occurring during such time as the releaser's policies shall contain a clause or endorsement to the effect that any such release shall not adversely affect or impair or prejudice the right of the releaser to recover thereunder. Landlord and Tenant each agree that their policies will include such a clause or endorsement so long as the same is obtainable and if not obtainable, shall so advise the other in writing and such notice shall release both parties from the obligation to obtain such a clause or endorsement.

7. DESTRUCTION OF LEASED PREMISES

7.1. Destruction of Leased Premises . If the Building which is included in the Leased Premises is damaged or partially destroyed by fire or other casualty to the extent of less than one-quarter (1/4) of the then cost of replacement thereof above foundation, the same shall be repaired as quickly as is practicable, by Landlord, except that the obligation of Landlord to rebuild shall be limited to repairing or rebuilding of Landlord's improvements. If the Building is so destroyed or damaged to the extent of one-quarter (1/4) or more of the then replacement cost thereof, then either (i) Landlord may within sixty (60) days from the date of casualty elect not to repair or rebuild by giving notice in writing terminating this

Lease, or (ii) if Landlord has not substantially completed the rebuilding or repairing of the Building within one hundred eighty (180) days of the date of casualty, Tenant may elect to terminate this Lease, in which either event this Lease shall be terminated as of the date of such notice.

7.2. Rebuilding by Landlord . If Landlord shall undertake to restore or repair the Building which is included in the Leased Premises, it shall initiate and pursue the necessary work within sixty (60) days from the date of the casualty, in a manner consistent with sound construction methods. Landlord shall cause the restoration or repair of that portion of the building so damaged to be substantially completed within one hundred eighty (180) days following the date of casualty.

7.3. Abatement of Rent Upon Destruction of Premises . If such damage or partial destruction renders the Leased Premises wholly untenantable, all rent due hereunder shall abate until the Leased Premises have been restored and rendered tenantable. If such damage or partial destruction renders the Leased Premises untenantable only in part, all rent due hereunder shall abate proportionately as to the portion of the Leased Premises rendered untenantable and actually unoccupied by Tenant. Rent shall not abate under this section if the damage or destruction is caused by the negligence or misconduct of Tenant, its agents, employees, customers or invitees.

8. EFFECT OF CONDEMNATION

8.1. Total Condemnation . In the event that the Leased Premises or such part of the Leased Premises as will render the remainder untenantable, shall be appropriated or taken under the power of eminent domain by any public or quasi-public authority, this Lease shall terminate and expire as of the date of taking.

8.2. Partial Condemnation . In the event of any other partial condemnation, Tenant shall have the option of terminating this Lease on the effective date of such condemnation by written notice to Landlord prior to such effective date, unless Landlord shall provide to Tenant within a reasonable time after such effective date reasonably comparable space to that taken. For purposes of this Section, reasonably comparable space shall mean space which is in the same general area as that condemned, is in a similar type of building and contains a similar floor plan, and is leased on similar economic and other terms as this Lease.

8.3. Landlord's Damages . In the event of any condemnation or taking, whether whole or partial, Tenant shall not be entitled to any part of the award paid for such condemnation and Landlord is to receive the full amount of such award. Tenant hereby expressly waives any rights or claim to any part thereof.

8.4. Tenant's Damages . Although all damages in the event of any condemnation are to belong to Landlord whether such damages are awarded as compensation for diminution in value of the leasehold or to the fee of the Leased Premises, Tenant shall have the right to claim and recover from the condemning authority, but not from Landlord, such compensation as may be separately awarded or recoverable by Tenant in Tenant's own right on account of any and all damage to Tenant's business by reason of the condemnation, and for or on account of any cost or loss to which Tenant might be put in removing Tenant's property.

9. REMEDIES

9.1. Events of Default by Tenant . In the event Tenant should default in payment of Base Rent or Additional Rent when due, Landlord shall give Tenant written notice of such default, and Tenant shall have ten (10) days from the date of receiving such notice to correct same. Should Tenant fail to correct such default in said 10-day period, Landlord may, in addition to all other rights available to Landlord under the laws of the State of Wisconsin, terminate Tenant's right to possession and continue to hold Tenant liable for performance of all of Tenant's obligations under this Lease, including, without limitation, payment of Base Rent, Additional Rent and all other monetary charges. In the event Tenant should fail to comply with any other of its obligations under this Lease, Landlord shall give Tenant written notice of such default. Should such default continue to exist at the expiration of thirty (30) days from the date of receipt of such notice, and Tenant is not then engaged in prudent efforts to cure such default, Landlord may, in addition to all other rights available to Landlord under the laws of the State of Wisconsin, terminate Tenant's right to possession and continue to hold Tenant liable for performance of all of Tenant's obligations under this Lease, including, without limitation, payment of Base Rent, Additional Rent and all other monetary charges. Should Tenant correct its default within the time provided or correct such default by action commenced during such time period and prudently pursued thereafter, then Tenant's rights hereunder shall be re-established as though said default had not occurred (other than Tenant's obligation to pay the 10% late charge). In addition to the foregoing, the following shall also constitute a default under the Lease: (i) the making by Tenant of any general assignment pursuant to any state bankruptcy, receivership, or equivalent state law, or general arrangement for the benefit of creditors pursuant to the same; (ii) the filing by or against Tenant of a petition to have Tenant adjudged a bankrupt or a petition for reorganization or arrangement under any law relating to bankruptcy (unless, in the case of a petition filed against Tenant, the same is dismissed within sixty (60) days); (iii) the appointment of a trustee or receiver to take possession of substantially all of Tenant's assets located at the Leased Premises or of Tenant's interest in this Lease, where possession is not restored to Tenant within sixty (60) days; (iv) upon the dissolution of Tenant; or (v) the attachment, execution or other judicial seizure of substantially all of Tenant's assets located at the Leased Premises or of Tenant's interest in this Lease, where such seizure is not discharged within sixty (60) days, then Landlord at its option may pursue any rights or remedies available to Landlord, at law or in equity. In the event of any of the foregoing defaults, Landlord may, in addition to all other rights available to Landlord under the laws of the State of Wisconsin, terminate Tenant's right to possession and continue to hold Tenant liable for performance of all of Tenant's obligations under this Lease, including, without limitation, payment of Base Rent, Additional Rent and all other monetary charges.

9.2. Re-Entry by Landlord . Upon such termination of the Lease or termination of Tenant's right to use and occupy the Leased Premises as aforesaid, Landlord may reenter the Leased Premises.

9.3. Right to Relet . Should Landlord elect to reenter, as herein provided, or should it take possession pursuant to legal proceedings or pursuant to any notice provided for by law, it may either terminate this Lease or it may from time to time without terminating this Lease, make such alterations and repairs as may be necessary in order to relet the Leased Premises, and relet the Leased Premises or any part thereof for such term or terms (which may be for a term extending beyond the Term) and at such rental or rentals upon such other terms and conditions as Landlord in its sole discretion may deem advisable upon each such reletting. All rentals received by Landlord from such reletting shall be applied, first, to the payment of any indebtedness other than Base Rent or Additional Rent due hereunder from Tenant to Landlord; second, to the payment of any costs of such alterations and repairs; third, to the payment of Base Rent or Additional Rent due and unpaid future Base Rent or Additional Rent as the same

may become due and payable hereunder. If such rentals received from such reletting during the month be less than that to be paid during that month by Tenant hereunder, Tenant shall pay any such deficiency to Landlord. Such deficiency shall be calculated and paid monthly. No such re-entry or taking possession of said Leased Premises by Landlord shall be construed as an election in its part to terminate this Lease unless a written notice of such intention be given to Tenant or unless the termination thereof be decreed by a court of competent jurisdiction. Notwithstanding any such reletting without termination, Landlord may at any time thereafter elect to terminate this Lease for such previous breach. Should Landlord at any time reenter or terminate this Lease for any breach, in addition to any other remedies it may have, it may recover from Tenant all damages it may incur by reason of such breach, including the cost of recovering the Leased Premises and reasonable attorney's fees. All which amounts shall be immediately due and payable from Tenant to Landlord.

9.4. Tenant's Remedies . If Landlord shall fail to perform any covenant, term or condition of this Lease required to be performed by Landlord, if any, Tenant may, in addition to all its other rights and remedies at law or in equity, obtain specific performance of Landlord's obligations or may recover a money judgment against Landlord, but such judgment shall be satisfied only out of the proceeds of sale received upon execution of such judgment and levied thereon against the right, title and interest of Landlord in the Building and the Property and out of rents or other income from such property receivable by Landlord, or out of the consideration received by Landlord from the sale or other disposition of all or any part of Landlord's right, title and interest in the Building and the Property, and Landlord shall not be personally liable for any deficiency.

9.5. Landlord's Remedies: Liquidated Damages . In the event that at anytime, whether before or after the commencement of the Term hereof, a bankruptcy petition shall be filed by Tenant or against Tenant and Tenant shall thereafter be adjudicated a bankrupt, or such petition shall be approved by the court, in any court or pursuant to any statute either of the United States or of any State, whether in bankruptcy, insolvency, for reorganization under Chapter XI or XIII of the Bankruptcy Act or under any other provisions of the Bankruptcy Act, or under the provisions of any law of like impact, for the appointment of a receiver or trustee of Tenant or for the property of Tenant, or if Tenant shall make an assignment of Tenant's property for the benefit of its creditors, or if proceedings are instituted in a court of competent jurisdiction for the reorganization, liquidation or involuntary dissolution of Tenant, then immediately upon the happening of any such event, and without any entry or other act by Landlord, this Lease and the Term and estate hereby granted (whether or not the Term shall therefore have commenced) shall expire, terminate and come to an end in the same manner and with the same force and effect as if the date of such occurrence were the date hereinbefore fixed for the expiration of the Term hereof. In the event of the termination of the Term hereof by the happening of any such event, Landlord shall forthwith upon such termination, and any other provisions of this Lease to the contrary notwithstanding, become entitled to recover as and for liquidated damages caused by such breach of the provisions of this Lease an amount equal to the difference between the then cash value of the Base Rent plus Additional Rent reserved hereunder for the unexpired portion of the demised Term and the then cash rental value of the Leased Premises for such unexpired portion of the Term hereby demised unless the statute which governs or shall govern the proceeding in which such damages are to be provided limits or shall be entitled to prove as and for liquidated damages an amount equal to that allowed by or under such statute. The provision of this section shall be without prejudice to Landlord's right to prove in full damages for Base Rent plus Additional Rent accrued prior to the termination of this Lease but not paid. This provision of this Lease shall be without prejudice of any rights given Landlord by any pertinent statute to prove any amounts allowed thereby. In making such computation, the then cash rental value of the Leased Premises shall be deemed prima facie to be the rent realized upon any reletting, if such reletting

can be accomplished by Landlord within a reasonable time after such a termination of this Lease. All amounts payable by Tenant to or on behalf of Landlord under this Lease, whether or not expressly denominated Base Rent or Additional Rent, shall constitute rent for purposes of Section 502(b)(6) of the United States Bankruptcy Code.

9.6. Expenses of Landlord . Upon the occurrence of an event of default by Tenant, notwithstanding anything herein to the contrary and whether or not Landlord terminates this Lease, Tenant shall promptly, upon request, reimburse Landlord for all costs and expenses reasonably incurred in enforcing this Lease, including reasonable attorneys' fees.

9.7. Waiver of Redemption . Tenant hereby expressly waives any and all rights of redemption granted by or under any present or future laws in the event of Tenant's being evicted or dispossessed for any cause, or in the event of Landlord's obtaining possession of the Leased Premises, by reason for the violation by Tenant of any of the covenants or conditions of this Lease, or otherwise.

9.8. Defaults of Landlord . Should Landlord be in default under the terms of this Lease, Landlord shall cure such default within thirty (30) days after written notice of such default from Tenant, or in the event such default is of such a character as to require more than thirty (30) days to cure, Landlord shall use due diligence to cure such default.

9.9. Limitation of Landlord's Liability . Any liability of Landlord under this Lease shall be limited solely to its interest in the Building and the Property, and in no event shall any personal liability be asserted against Landlord in connection with this Lease nor shall any recourse be had to any other property or assets of Landlord. No directors, officers, employees, managers, members, partners, agents, shareholders or owners of any corporation, limited liability company or partnership which is Landlord shall have any personal liability arising from or in connection with this Lease.

9.10. Rights Cumulative . All rights and remedies of Landlord and Tenant herein enumerated shall be cumulative and none shall exclude any other right or remedy allowed by law, and said rights and remedies may be exercised and enforced concurrently and whenever and as often as occasion therefor arises.

10. MISCELLANEOUS

10.1. Subordination . At Landlord's option, this Lease shall be subordinated to any existing mortgages covering the Leased Premises, any extension or renewal thereof, or to any new mortgages which may be placed thereon from time to time, provided, however, anything to the contrary contained herein notwithstanding, every such mortgage shall contain a provision that the mortgagee shall recognize the validity of this Lease in the event of foreclosure of the Landlord's interest so long as Tenant shall not be in default under the terms of this Lease. Tenant shall execute whatever instruments may be required to effect such subordination.

10.2. Sale of Property . Landlord shall have the right at any time to sell, transfer or convey its interest in all or any portion(s) of the Property, and/or the improvements and buildings of which the Leased Premises are a part to any person, firm or corporation whatsoever, and upon any such sale, transfer or conveyances, Landlord shall cease to be liable under any covenant, condition or obligation imposed upon it by this Lease after the date of such transfer or conveyance, or any of the terms and provisions thereof; provided, however, that any such sale, transfer or conveyance shall be subject to this Lease and that all of Landlord's covenants and obligations contained herein shall be binding upon the

subsequent owner or owners thereof; and provided further that such transferee from Landlord shall in writing assume the obligations of Landlord hereunder.

10.3. Offset Statement . Within thirty (30) days after request therefor by Landlord or Tenant, or in the event that upon any sale, assignment or hypothecation of the Leased Premises and/or all or any portion(s) of the Building and/or the Property by Landlord an estoppel statement shall be required, the parties hereto agree to deliver in recordable form a certificate certifying (if such be the case) that this Lease is in full force and effect and that there are no defenses or offsets thereto, or stating those claimed.

10.4. Attornment . Tenant shall, in the event any proceedings are brought for the foreclosure of any mortgage made by Landlord covering the Leased Premises, attorn to the purchaser upon any such foreclosure and recognize such purchaser as Landlord under this Lease.

10.5. Recording . Landlord and Tenant agree to execute, concurrently with the execution of this Lease, a memorandum of this Lease in the form attached as Exhibit H, which Landlord shall cause to be recorded in the Office of the Register of Deeds of Dane County, Wisconsin. Following the expiration or earlier termination of this Lease, upon Landlord's request, Tenant shall execute an instrument in recordable form confirming that this Lease has expired or terminated. Tenant's obligations under this Section shall survive the expiration or termination of this Lease..

10.6. Excavations . In case any excavation shall be made for buildings or improvements or for any other purpose upon the land adjacent to or near the Leased Premises, Tenant will afford to Landlord, or the person or persons, firms or corporations causing or making such excavation, license to enter upon the Leased Premises for the purpose of doing such work as Landlord or such person or persons, firms or corporations shall deem to be necessary to preserve the walls or structures of the building from injury, and to protect the building by proper securing of foundations. Insofar as Landlord may have control over the same, all such work shall be done in a manner as will not materially interfere with the operation of Tenant's business in the Leased Premises.

10.7. Access to Leased Premises . Tenant shall permit Landlord, its agents and employees, upon reasonable prior notice, to enter the Leased Premises at all reasonable times, for the purpose of making repairs, additions or alterations to the building in which the Leased Premises are located, or for the purpose of inspecting (including without limitation inspections for determining the compliance by any laboratory and animal operations with minimum health and safety requirements or standards) or for the purpose of posting notices of availability for rent without any rebate or abatement of rent and without any liability for any loss of occupation or quiet enjoyment of the Leased Premises. For purposes of this section, the standards set forth in the Guide for the Care and Use of Laboratory Animals (which outlines the rules and regulations of the Animal Welfare Act and the Public Health Service Policy on Human Care and Use of Laboratory Animals) shall constitute such minimum standards. In addition, upon the request of Landlord, Tenant will promptly, within ten (10) days of Landlord's request, furnish to Landlord copies of all reports, filings and records required to be maintained by Tenant with respect to hazardous materials located or used in the Leased Premises, including all "Material Safety Data Sheets." The exercise by Landlord of any of its rights under this provision shall not be deemed an eviction or disturbance of Tenant's use and possession of the Leased Premises.

10.8. Quiet Enjoyment . If and so long as Tenant pays the Base Rent and Additional Rent reserved by this Lease and performs and observes all of the covenants and provisions hereof, Tenant shall quietly enjoy the Leased Premises, subject, however, to the terms of this Lease.

10.9. Notices . Any notice required or permitted under this Lease shall be deemed sufficiently given or served if sent by certified mail to Tenant at the address of the Leased Premises, and to Landlord at its office or such other place as it may designate in writing, and either party may by like written notice at any time and from time to time designate a different address to which notices shall subsequently be sent. Notices given in accordance with these provisions shall be deemed received when mailed.

10.10. Holding Over . Tenant shall surrender the Leased Premises upon the expiration or termination of the Lease as provided for in Section 4.7. In the event Tenant remains in possession of the Leased Premises after the expiration of this Lease, it shall be deemed to be occupying said Leased Premises as a Tenant from month-to-month. In addition to all other rights and remedies available to Landlord, Tenant shall be liable for the sum of any and all damages or costs incurred by Landlord in connection with Tenant's hold over tenancy, including, but not limited to, damages related to obligations made by Landlord to any successor tenants of Landlord for occupation of the Leased Premises; provided however that in no event shall Tenant's liability under this Section exceed the greater of (1) 150% of the Base Rent and Additional Rent due during the period of such holdover, or (2) Landlord's costs or damages related to the inability to deliver any portion of the Leased Premises to a successor tenant and 150% of Base Rent and Additional Rent due.

10.11. Consents by Landlord . Unless another standard is expressly provided, whenever under this Lease provision is made for Tenant securing the written consent or approval of Landlord, such consent or approval will not be unreasonably withheld.

10.12. Successors and Assigns . The terms, covenants and conditions hereof shall be binding upon and inure to the successors in interest and assigns of the parties hereto.

10.13. Governmental Regulations . Tenant shall, at Tenant's sole cost and expense, materially comply with all of the requirements of all city, county, municipal, state, federal and other applicable governmental authorities, including the ADA, now in force, or which may hereafter be in force, pertaining to signs, installations, repairs and business operations in the Leased Premises and shall faithfully observe all statutes now in force or which may hereafter be in force. At any time during the Term that Tenant is required to obtain a license from any local, state or federal regulatory body, for the use of hazardous materials, Tenant shall notify Landlord of the existence of such license and provide Landlord with a copy of such license. Upon termination of this Lease and prior to vacation of the Leased Premises, Tenant shall fully comply with all terms of such license and to the extent applicable, obtain a closure letter or similar written confirmation of compliance with all license terms and provide a copy of such letter or confirmation to Landlord.

10.14. Certain Expenses of Landlord . Any out-of-pocket expenses reasonably incurred by Landlord for purposes of considering or acting upon any request for consent or waiver under, or modification of, any of the provisions of this Lease, including reasonable attorney's fees, shall be promptly reimbursed by Tenant upon Landlord's request.

10.15. Attorney's Fees . All costs and expenses, including reasonable attorneys' fees, incurred by Landlord or Tenant in bringing or defending any claim, suit or cause of action commenced to enforce the obligations of the other party under this Lease shall be paid by the losing party to the prevailing party upon demand.

10.16. Patriot Act . Tenant hereby represents and warrants its compliance with all applicable anti-money laundering laws, including, without limitation, the USA Patriot Act, and the laws administered

by the United States Treasury Department's Office of Foreign Assets Control ("OFAC"), including, without limitation, Executive Order 13224 ("Executive Order"). Tenant further represents and warrants (a) that it is not an entity on OFAC's List of Specially Designated Nationals and Blocked Persons, and it is not owned or controlled by or acting for or on behalf of any person or entity on OFAC's List of Specially Designated Nationals and Blocked Persons or any other list of persons or entities with whom Landlord is restricted by law from doing business; and (b) that it is not a person otherwise identified by government or legal authority as a person with whom Landlord is prohibited from transacting business. Tenant shall indemnify and hold Landlord harmless from and against any and all losses, damages, liabilities, costs, and expenses (including, without limitation, reasonable attorneys' fees and expenses) that are incurred by Landlord and/or its affiliates that derive from a claim made by a third party against Landlord and/or its affiliates arising from or alleged to arise from a misrepresentation made by Tenant hereunder or a breach of any covenant to be performed by Tenant hereunder.

10.17. Force Majeure . In the event that either Landlord or Tenant shall be delayed or hindered in or prevented from the performance of any act required hereunder by reason of strikes, lock outs, labor disputes, inability to procure materials, failure of power, restrictive governmental laws or regulations, riots, insurrection, war or other reason of a like nature not attributable to the negligence or fault of the party delayed in performing work or doing acts required under the terms of this Lease, then performance of such act shall be excused for the period of the unavoidable delay and the period for the performance of any such act shall be extended for an equivalent period. Provided, however, that this provision shall not operate to excuse Tenant from the timely payment of Base Rent and Additional Rent and other payments required by the terms of this Lease.

10.18. General . Nothing contained in this Lease shall be deemed or construed by the parties hereto or by any third party to create the relationship of principal and agent or of partnership or of joint venture or of any association between Landlord and Tenant, it being expressly understood and agreed that neither the method of computation of rent nor any other provisions contained in this Lease nor any acts of the parties hereto shall be deemed to create any relationship between Landlord and Tenant other than the relationship of landlord and tenant. No waiver of any default of Tenant or Landlord hereunder shall be implied from any omission by Landlord or Tenant any action on account of such default if such default persists or is repeated, and no express waiver shall affect any default other than the default specified in the express waiver and that only for the time and to the extent therein stated. One or more waivers of any covenant, term or condition of this Lease by Landlord or Tenant shall not be construed as a waiver of a subsequent breach of the same covenant, term or conditions. The consent or approval by Landlord to or of any act by Tenant requiring Landlord's consent or approval shall not be deemed to waive or render unnecessary Landlord's consent or approval to or of any subsequent similar act by Tenant. The invalidity or unenforceability of any provision hereof shall not affect or impair any provision. The plural sense where there is more than one tenant and to either corporations, associations, partnership or individuals, male or females, shall in all instances be assumed as though in each case fully expressed. The laws of the State of Wisconsin shall govern the validity, performance and enforcement of this Lease. The submission of this Lease for examination does not constitute a reservation of or option for the Leased Premises and this Lease becomes effective as a Lease only upon execution and delivery thereof by Landlord and by Tenant. The headings contained herein are for convenience only and do not define, limit or construe the contents of the provisions hereof. All negotiations, representations and understandings between the parties are incorporated herein and may be modified or altered only by agreement in writing between the parties. This Lease may be executed in counterparts, each of which shall be deemed the original, but all of which together shall constitute one and the same instrument.

10.19. No Option . The submission of this Lease for examination does not constitute a reservation of or option for the Leased Premises, and this Lease shall become effective only upon execution and delivery thereof by both parties.

10.20. Broker . Landlord and Tenant represent to each other that no broker or person is entitled to any commission by reason of the negotiation and execution of this Lease.

10.21. Financial Information . Unless Tenant is a publicly traded company, Tenant shall from time to time, within ten (10) business days after request by Landlord, deliver to Landlord financial statements (including balance statements and income/expense statements) for Tenant's then most recent full and partial fiscal years immediately preceding such request, certified by an independent certified public accountant or Tenant's chief financial officer and in form reasonably satisfactory to Landlord.

10.22. Entity Authority . If Tenant is an entity, each individual executing this Lease on behalf of said entity represents and warrants that he or she is duly authorized to execute and deliver this Lease on behalf of said entity, in accordance with a duly adopted resolution of the governing body of said entity, and that this Lease is binding upon said entity in accordance with its terms.

10.23. Rent Covenant . The covenant to pay rent, whether Base Rent or Additional Rent, or any other monies payable under this Lease, is hereby declared to be an independent covenant on the part of Tenant to be kept and performed, and no offset shall be permitted or allowed, except as otherwise provided in this Lease. Tenant's covenant to pay such rent and other monies shall survive the expiration or earlier termination of this Lease.

10.24. Time of Essence . Time is of the essence regarding all timelines and dates for performing any covenants or obligations of this Lease.

11. ATTACHMENTS

11.1. Attachments . The following are attached hereto and made a part hereof with the same force and effect as if set forth in full herein:

(a) Exhibit A: Leased Premises.

(b) Exhibit B: The Property.

(c) Exhibit C: Parking District.

(d) Exhibit D: Rules and Regulations.

(e) Exhibit E: Description of Network Services.

(f) Exhibit F: Landlord's Business and Trade Fixtures.

(g) Exhibit G: Determination of Fair Market Rental.

(h) Exhibit H: Memorandum of Lease

IN WITNESS WHEREOF, Landlord and Tenant have executed this Lease under seal as of the day, month and year set forth below.

LANDLORD:	TENANT:
UNIVERSITY RESEARCH PARK, INCORPORATED	EXACT SCIENCES CORPORATION
By: /s/ Aaron Olver	By: /s/ D. Scott Coward
Name: Aaron Olver	Name: D. Scott Coward
Title: Asst. Secretary/Treasurer	Title: SVP, General Counsel, CAO and Secretary

EXHIBIT 10.20

Exact Sciences Corporation
Non-Employee Director Compensation Policy

The purpose of this Non-Employee Director Compensation Policy of Exact Sciences Corporation, a Delaware corporation (the "Company"), is to provide a total compensation package that enables the Company to attract and retain, on a long-term basis, high caliber directors who are not employees or officers of the Company or its subsidiaries.

In furtherance of the purpose stated above, all non-employee directors shall be paid compensation for services provided to the Company as set forth below:

A. Initial Compensation

Upon his or her initial election to the board, each new non-employee director shall be granted restricted stock or deferred stock units having a value equal to $375,000, with the number of restricted shares or deferred stock units to be issued being determined based on the closing sale price of the Company's common stock on the date of grant. A director shall elect whether such award is restricted stock or deferred stock units by delivering written or electronic notice of such election to the Chief Financial Officer before the director begins to serve on the board (or within 30 days after if it is not possible for the director to make his or her election prior to beginning service); provided, however, that if the Chief Financial Officer receives no such election, such grant shall be made in restricted stock. Such restricted stock or deferred stock units shall vest annually over three years (1/3 on the first anniversary of the grant, 1/3 on the second anniversary of the grant and 1/3 on the third anniversary of the grant). If a director ceases to serve as a director before such restricted shares or deferred stock units are fully vested due to death, or if there is a Change in Control prior to such vesting, then such restricted stock or deferred stock units shall become fully vested as of the date of such death or Change in Control, as applicable. If the director ceases to serve on the Board for any reason other than death, any restricted stock or deferred stock units granted under this Paragraph A that are not then vested shall be forfeited as of the date of such cessation of services.

B. Annual Compensation

1. Annual Cash Compensation

Board Member Cash Compensation

Annual retainer for each director:	$50,000
Board chair (if independent chair) additional compensation:	$25,000
Lead independent director (if no independent chair) add. compensation:	$25,000

Committee Member Cash Compensation

Committee chair cash compensation

– Audit and Finance	$25,000
– Compensation and Management Development	$20,000
– Nominating & Governance	$13,000
– Innovation, Technology & Pipeline	$13,000

Committee member (other than committee chair) cash compensation

– Audit and Finance	$12,500
– Compensation and Management Development	$10,000
– Nominating & Governance	$6,500
– Innovation, Technology & Pipeline	$6,500

b. In lieu of cash, a director may elect to receive restricted stock having an equivalent dollar value based on the closing sale price of the Company's common stock on the date of grant. To be effective, notice of such election must be delivered to the Company's Chief Financial Officer in writing or electronically prior to the annual meeting at which such election shall first take effect, and such election shall be irrevocable and remain in effect until the later of (i) immediately prior to the second annual meeting following the date of delivery of such notice, or (ii) written or electronic notice from the director to the Chief Financial Officer terminating such election.

2. Annual Equity Compensation

a. On the date of each annual meeting of the Company's stockholders, each non-employee director who is continuing as a director following the date of such annual meeting shall be granted restricted stock or deferred stock units having a value of $250,000 with the number of restricted stock or deferred stock units to be issued being determined, based on the closing sale price of the Company's common stock on the date of grant. A director shall elect whether such award is restricted stock or deferred stock units by delivering written or electronic notice of such election to the Chief Financial Officer prior to January 1 of the calendar year in which such award will be made (or the date of the annual meeting with respect to the first award made to a director under this Policy if it is not possible for the director to make his or her election prior to January 1 of the calendar year in which such award will be made); provided, however, that if the Chief Financial Officer receives no such election, such grant shall be made in restricted stock.

b. On the date of each annual meeting of the Company's stockholders, the board chair (if independent), provided such individual will continue as board chair following the date of the annual meeting, shall be granted an additional annual award having a value equal to $15,000 based on the closing sale price of the Company's common stock on the date of grant.

The chair may elect to receive such award in either restricted stock or deferred stock units by delivering written or electronic notice of such election to the Chief Financial Officer prior to January 1 of the calendar year in which such award will be made (or the date of the annual meeting with respect to the first award made to the chair under this Policy if it is not possible for the chair to make his or her election prior to January 1 of the calendar year in which such award will be made); provided, however, that if the Chief Financial Officer receives no such election, such grant shall be made in restricted stock.

c. Grants of annual equity compensation described in Section 2 of this Policy shall not become vested until the first anniversary of the grant date (or, if earlier, the date of the next annual meeting of the Company's stockholders (the "Annual Award Vesting Date"). If a director ceases to serve as a director before the Annual Award Vesting Date due to the director's death, or if there is a Change in Control prior to the Annual Award Vesting Date, then the shares shall become fully vested as of the date of such death or Change in Control, as applicable. If a director ceases to serve as a director at any time for any reason other than death before the earlier of the Annual Award Vesting Date or a Change in Control, then the annual equity grant shall become vested pro rata (based on the number of days between the grant date and the date of cessation of services divided by (x) 365 days for awards made at an annual stockholders meeting or (y) the number of days from the date of commencement of services until the next annual stockholders meeting for an award made other than at an annual stockholders meeting), and to the extent the shares are not thereby vested they shall be forfeited as of the date of such cessation of services. These vesting rules will apply whether an award is payable in shares or deferred stock units.

3. Partial Year Compensation

If a director is elected or appointed to the board other than on the date of an annual meeting of stockholders, such director's annual cash and equity compensation for the period between the date of such election or appointment and the date of the next following annual meeting of the Company's stockholders shall be granted in accordance with subsection B of this Policy on the date of such meeting but adjusted pro rata to reflect the date of such director's election or appointment and the date of such meeting and, provided, further, that the number of restricted stock or deferred stock units to be issued pursuant to this paragraph shall be determined, based on the closing sale price of the Company's common stock on the date of such director's appointment, and shall be fully-vested on grant .

4. Per-Meeting Cash Compensation; Special Circumstances

a. Members of the Innovation, Technology & Pipeline Committee shall receive a cash payment, in addition to that described in Section B.1.a above, of $5,000 per full-day, on-site, special working meeting. It is contemplated that the Innovation, Technology & Pipeline Committee will have two such meetings a year and that such meetings would take place at the Company's headquarters in Madison, Wisconsin, at the Mayo Clinic in Rochester, Minnesota, or at some other location as determined by the Committee. In lieu of cash for any such meeting, a member of the Innovation, Technology & Pipeline Committee may elect to receive restricted stock having an equivalent dollar value based on the closing sale price of the

Company's common stock on the date of such meeting (which shall be the date of grant). To be effective, notice of such election must be delivered to the Company's Chief Financial Officer in writing or electronically prior to the date of such meeting.

b. Additional cash compensation shall be paid at the rate of $1,500 per meeting attended, whether such meeting is attended in person or by telephone, in the following special circumstances:

i. To the extent the number of board meetings or committee meetings, calculated on a per-committee basis, exceeds 10 in a given year. For purposes of this section, a year commences with the Company's annual meeting of stockholders. Only the members of a given committee are eligible for the payments described in this section with respect to meetings of that committee. For the avoidance of doubt, no additional compensation would be payable under this section if a director attends 9 board meetings, 9 compensation committee meetings and 9 audit committee meetings; rather, additional compensation would only be triggered by the 11th meeting of the board or a given committee.

ii. To the extent the board creates a special committee, or designates the members of a standing committee to function with respect to a special purpose as members of a special committee. Only the members of the special committee are eligible for the payments described in this section with respect to meetings of such special committee.

C. Additional Terms

1. All equity and equity-based awards under this Policy (including stock options, restricted stock and deferred stock units) shall be made under and pursuant to the Company's 2010 Omnibus Long-Term Incentive Plan ("Plan"). Capitalized terms used herein and not otherwise defined shall have the meanings given to them in the Plan.

2. Deferred stock units are bookkeeping entries representing the equivalent of shares of the Company's common stock. Deferred stock units are paid in shares of the Company's common stock on the effective date of the director's retirement or removal from the board.

3. All vesting under the equity grants described in this Policy immediately ceases upon cessation of service as a director for any reason.

4. A director may not sell, transfer or otherwise dispose of any shares of restricted stock awarded under this Policy until they become vested; however, the director shall have the right to receive dividends with respect to such shares and to vote such shares prior to vesting.

5. The exercise price for all stock options under this Policy shall be the Company's closing stock price on the date of grant, or, if the date of grant is not a trading day, then the first trading day after the date of grant.

6. For purposes of determining the number of stock options in a given grant, stock options shall be valued using the Black-Scholes method.

7. The compensation described in this Policy is in addition to reimbursement of all out-of-pocket expenses incurred by directors in attending meetings of the board.

Approved January 29, 2019

Exhibit 10.21

Exact Sciences Corporation

Non-Employee Director Compensation Policy

The purpose of this Non-Employee Director Compensation Policy of Exact Sciences Corporation, a Delaware corporation (the "Company"), is to provide a total compensation package that enables the Company to attract and retain, on a long-term basis, high caliber directors who are not employees or officers of the Company or its subsidiaries.

In furtherance of the purpose stated above, all non-employee directors shall be paid compensation for services provided to the Company as set forth below:

A. Initial Compensation

Upon his or her initial election to the board, each new non-employee director shall be granted restricted stock or deferred stock units having a value equal to $300,000, with the number of restricted shares or deferred stock units to be issued being determined based on the closing sale price of the Company's common stock on the date of grant. A director shall elect whether such award is restricted stock or deferred stock units by delivering written or electronic notice of such election to the Chief Financial Officer before the director begins to serve on the board (or within 30 days after if it is not possible for the director to make his or her election prior to beginning service); provided, however, that if the Chief Financial Officer receives no such election, such grant shall be made in restricted stock. Such restricted stock or deferred stock units shall vest annually over three years (1/3 on the first anniversary of the grant, 1/3 on the second anniversary of the grant and 1/3 on the third anniversary of the grant). If a director ceases to serve as a director before such restricted shares or deferred stock units are fully vested due to death, or if there is a Change in Control prior to such vesting, then such restricted stock or deferred stock units shall become fully vested as of the date of such death or Change in Control, as applicable. If the director ceases to serve on the Board for any reason other than death, any restricted stock or deferred stock units granted under this Paragraph A that are not then vested shall be forfeited as of the date of such cessation of services.

B. Annual Compensation

1. Annual Cash Compensation

a. On the date of each annual meeting of the Company's stockholders, each non-employee director who is continuing as a director following such annual meeting shall be paid an annual cash compensation amount as follows:

Board Member Cash Compensation

Annual retainer for each director:	$50,000
Board chair (if independent chair) additional compensation:	$25,000
Lead independent director (if no independent chair) additional compensation:	$25,000

Committee Member Cash Compensation

Committee chair cash compensation

-	Audit and Finance	$25,000
-	Compensation and Management Development	$20,000
-	Nominating & Governance	$13,000
-	Innovation, Technology & Pipeline	$13,000

Committee member (other than committee chair) cash compensation

-	Audit and Finance	$12,500
-	Compensation and Management Development	$10,000
-	Nominating & Governance	$6,500
-	Innovation, Technology & Pipeline	$6,500

b. In lieu of cash, a director may elect to receive restricted stock having an equivalent dollar value based on the closing sale price of the Company's common stock on the date of grant. To be effective, notice of such election must be delivered to the Company's Chief Financial Officer in writing or electronically prior to the annual meeting at which such election shall first take effect, and such election shall be irrevocable and remain in effect until the later of (i) immediately prior to the second annual meeting following the date of delivery of such notice, or (ii) written or electronic notice from the director to the Chief Financial Officer terminating such election.

2. Annual Equity Compensation

a. On the date of each annual meeting of the Company's stockholders, each non-employee director who is continuing as a director following the date of such annual meeting shall be granted restricted stock or deferred stock units having a value of $200,000 with the number of restricted stock or deferred stock units to be issued being determined, based on the closing sale price of the Company's common stock on the date of grant. A director shall elect whether such award is restricted stock or deferred stock units by delivering written or electronic notice of such election to the Chief Financial Officer prior to January 1 of the calendar year in which such award will be made (or the date of the annual meeting with respect to the first award made to a director under this Policy if it is not possible for the director to make his or her election prior to January 1 of the calendar year in which such award will be made); provided, however, that if the Chief Financial Officer receives no such election, such grant shall be made in restricted stock.

b. On the date of each annual meeting of the Company's stockholders, the board chair (if independent), provided such individual will continue as board chair following the date of the annual meeting, shall be granted an additional annual award having a value equal to $15,000 based on the closing sale price of the Company's common stock on the date of grant. The chair may elect to receive such award in either restricted stock or deferred stock units by

delivering written or electronic notice of such election to the Chief Financial Officer prior to January 1 of the calendar year in which such award will be made (or the date of the annual meeting with respect to the first award made to the chair under this Policy if it is not possible for the chair to make his or her election prior to January 1 of the calendar year in which such award will be made); provided, however, that if the Chief Financial Officer receives no such election, such grant shall be made in restricted stock.

c. Grants of annual equity compensation described in Section 2 of this Policy shall not become vested until the first anniversary of the grant date (or, if earlier, the date of the next annual meeting of the Company's stockholders (the "Annual Award Vesting Date"). If a director ceases to serve as a director before the Annual Award Vesting Date due to the director's death, or if there is a Change in Control prior to the Annual Award Vesting Date, then the shares shall become fully vested as of the date of such death or Change in Control, as applicable. If a director ceases to serve as a director at any time for any reason other than death before the earlier of the Annual Award Vesting Date or a Change in Control, then the annual equity grant shall become vested pro rata (based on the number of days between the grant date and the date of cessation of services divided by (x) 365 days for awards made at an annual stockholders meeting or (y) the number of days from the date of commencement of services until the next annual stockholders meeting for an award made other than at an annual stockholders meeting), and to the extent the shares are not thereby vested they shall be forfeited as of the date of such cessation of services. These vesting rules will apply whether an award is payable in shares or deferred stock units.

3. Partial Year Compensation

If a director is elected or appointed to the board other than on the date of an annual meeting of stockholders, such director's annual cash and equity compensation for the period between the date of such election or appointment and the date of the next following annual meeting of the Company's stockholders shall be granted in accordance with subsection B of this Policy on the date of such meeting but adjusted pro rata to reflect the date of such director's election or appointment and the date of such meeting and, provided, further, that the number of restricted stock or deferred stock units to be issued pursuant to this paragraph shall be determined, based on the closing sale price of the Company's common stock on the date of such director's appointment, and shall be fully-vested on grant .

4. Per-Meeting Cash Compensation; Special Circumstances

a. Members of the Innovation, Technology & Pipeline Committee shall receive a cash payment, in addition to that described in Section B.1.a above, of $5,000 per full-day, on-site, special working meeting. It is contemplated that the Innovation, Technology & Pipeline Committee will have two such meetings a year and that such meetings would take place at the Company's headquarters in Madison, Wisconsin, at the Mayo Clinic in Rochester, Minnesota, or at some other location as determined by the Committee. In lieu of cash for any such meeting, a member of the Innovation, Technology & Pipeline Committee may elect to receive restricted stock having an equivalent dollar value based on the closing sale price of the Company's common stock on the date of such meeting (which shall be the date of grant). To be

effective, notice of such election must be delivered to the Company's Chief Financial Officer in writing or electronically prior to the date of such meeting.

b. Additional cash compensation shall be paid at the rate of $1,500 per meeting attended, whether such meeting is attended in person or by telephone, in the following special circumstances:

i. To the extent the number of board meetings or committee meetings, calculated on a per-committee basis, exceeds 10 in a given year. For purposes of this section, a year commences with the Company's annual meeting of stockholders. Only the members of a given committee are eligible for the payments described in this section with respect to meetings of that committee. For the avoidance of doubt, no additional compensation would be payable under this section if a director attends 9 board meetings, 9 compensation committee meetings and 9 audit committee meetings; rather, additional compensation would only be triggered by the 11th meeting of the board or a given committee.

ii. To the extent the board creates a special committee, or designates the members of a standing committee to function with respect to a special purpose as members of a special committee. Only the members of the special committee are eligible for the payments described in this section with respect to meetings of such special committee.

C. Additional Terms

1. All equity and equity-based awards under this Policy (including stock options, restricted stock and deferred stock units) shall be made under and pursuant to the Company's 2010 Omnibus Long-Term Incentive Plan ("Plan"). Capitalized terms used herein and not otherwise defined shall have the meanings given to them in the Plan.

2. Deferred stock units are bookkeeping entries representing the equivalent of shares of the Company's common stock. Deferred stock units are paid in shares of the Company's common stock on the effective date of the director's retirement or removal from the board.

3. All vesting under the equity grants described in this Policy immediately ceases upon cessation of service as a director for any reason.

4. A director may not sell, transfer or otherwise dispose of any shares of restricted stock awarded under this Policy until they become vested; however, the director shall have the right to receive dividends with respect to such shares and to vote such shares prior to vesting.

5. The exercise price for all stock options under this Policy shall be the Company's closing stock price on the date of grant, or, if the date of grant is not a trading day, then the first trading day after the date of grant.

6. For purposes of determining the number of stock options in a given grant, stock options shall be valued using the Black-Scholes method.

7. The compensation described in this Policy is in addition to reimbursement of all out-of-pocket expenses incurred by directors in attending meetings of the board.

Approved October 25, 2018

Exhibit 10.22

Exact Sciences Corporation Executive Deferred Compensation Plan

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January 1, 2019

IMPORTANT NOTE

This document has not been approved by the Department of Labor, Internal Revenue Service or any other governmental entity. An adopting Employer must determine whether the Plan is subject to the Federal securities laws and the securities laws of the various states. An adopting Employer may not rely on this document to ensure any particular tax consequences or to ensure that the Plan is "unfunded and maintained primarily for the purpose of providing deferred compensation to a select group of management or highly compensated employees" under Title I of the Employee Retirement Income Security Act of 1974, as amended, with respect to the Employer's particular situation. Fidelity Employer Services Company, its affiliates and employees cannot provide you with legal advice in connection with the execution of this document. This document should be reviewed by the Employer's attorney prior to execution.

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Preamble

The Plan is intended to be a "plan which is unfunded and is maintained by an employer primarily for the purpose of providing deferred compensation for a select group of management or highly compensated employees" within the meaning of Sections 201(2), 301(a)(3) and 401(a)(1) of the Employee Retirement Income Security Act of 1974, as amended, or an "excess benefit plan" within the meaning of Section 3(36) of the Employee Retirement Income Security Act of 1974, as amended, or a combination of both. The Plan is further intended to conform with the requirements of Internal Revenue Code Section 409A and the final regulations issued thereunder and shall be interpreted, implemented and administered in a manner consistent therewith.

Article 1 - General

1.1 **Plan**

The Plan will be referred to by the name specified in the Adoption Agreement.

1.2 **Effective Dates**

(a) Original Effective Date . The Original Effective Date is the date as of which the Plan was initially adopted.

(b) Amendment Effective Date . The Amendment Effective Date is the date specified in the Adoption Agreement as of which the Plan is amended and restated. Except to the extent otherwise provided herein or in the Adoption Agreement, the Plan shall apply to amounts deferred and benefit payments made on or after the Amendment Effective Date.

(c) Special Effective Date . A Special Effective Date may apply to any given provision if so specified in Appendix A of the Adoption Agreement. A Special Effective Date will control over the Original Effective Date or Amendment Effective Date, whichever is applicable, with respect to such provision of the Plan.

1.3 Amounts Not Subject to Code Section 409A

Except as otherwise indicated by the Plan Sponsor in Section 1.01 of the Adoption Agreement, amounts deferred before January 1, 2005 that are earned and vested on December 31, 2004 will be separately accounted for and administered in accordance with the terms of the Plan as in effect on December 31, 2004.

Article 2 - Definitions

Pronouns used in the Plan are in the masculine gender but include the feminine gender unless the context clearly indicates otherwise. Wherever used herein, the following terms have the meanings set forth below, unless a different meaning is clearly required by the context:

2.1 Account

"Account" means an account established for the purpose of recording amounts credited on behalf of a Participant and any income, expenses, gains, losses or distributions included thereon. The Account shall be a bookkeeping entry only and shall be utilized solely as a device for the measurement and determination of the amounts to be paid to a Participant or to the Participant's Beneficiary pursuant to the Plan.

2.2 Administrator

"Administrator" means the person or persons designated by the Plan Sponsor in Section 1.05 of the Adoption Agreement to be responsible for the administration of the Plan. If no Administrator is designated in the Adoption Agreement, the Administrator is the Plan Sponsor.

2.3 Adoption Agreement

"Adoption Agreement" means the agreement adopted by the Plan Sponsor that establishes the Plan.

2.4 Beneficiary

"Beneficiary" means the persons, trusts, estates or other entities entitled under Section 8.2 to receive benefits under the Plan upon the death of a Participant.

2.5 Board or Board of Directors

"Board" or "Board of Directors" means the Board of Directors of the Plan Sponsor.

2.6 Bonus

"Bonus" means an amount of incentive remuneration payable by the Employer in Cash to a Participant.

2.7 Change in Control

"Change in Control" means the occurrence of an event involving the Plan Sponsor that is described in Section 9.7.

2.8 Code

"Code" means the Internal Revenue Code of 1986, as amended.

2.9 Compensation

"Compensation" has the meaning specified in Section 3.01 of the Adoption Agreement.

2.10 Director

"Director" means a non-employee member of the Board who has been designated by the Employer as eligible to participate in the Plan.

2.11 Disability

"Disability" means a determination by the Administrator that the Participant is either (a) unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or

can be expected to last for a continuous period of not less than 12 months, or (b) is, by reason of any medically determinable physical or mental impairment which can be expected to result in death or last for a continuous period of not less than twelve months, receiving income replacement benefits for a period of not less than three months under an accident and health plan covering employees of the Employer. A Participant will be considered to have incurred a Disability if he is determined to be totally disabled by the Social Security Administration or the Railroad Retirement Board.

2.12 Eligible Employee

"Eligible Employee" means an employee of the Employer who satisfies the requirements in Section 2.01 of the Adoption Agreement.

2.13 Employer

"Employer" means the Plan Sponsor and any other entity which is authorized by the Plan Sponsor to participate in and, in fact, does adopt the Plan.

2.14 ERISA

"ERISA" means the Employee Retirement Income Security Act of 1974, as amended.

2.15 Identification Date

"Identification Date" means the date as of which Key Employees are determined which is specified in Section 1.06 of the Adoption Agreement.

2.16 Key Employee

"Key Employee" means an employee who satisfies the conditions set forth in Section 9.6.

2.17 Participant

"Participant" means an Eligible Employee or Director who commences participation in the Plan in accordance with Article 3.

2.18 Plan

"Plan" means the unfunded plan of deferred compensation set forth herein, including the Adoption Agreement and any trust agreement, as adopted by the Plan Sponsor and as amended from time to time.

2.19 Plan Sponsor

"Plan Sponsor" means the entity identified in Section 1.03 of the Adoption Agreement or any successor by merger, consolidation or otherwise.

2.20 Plan Year

"Plan Year" means the period identified in Section 1.02 of the Adoption Agreement.

2.21 Related Employer

"Related Employer" means the Employer and (a) any corporation that is a member of a controlled group of corporations as defined in Code Section 414(b) that includes the Employer and (b) any trade or business that is under common control as defined in Code Section 414(c) that includes the Employer.

2.22 Retirement

"Retirement" has the meaning specified in 6.01(f) of the Adoption Agreement.

2.23 Separation from Service

"Separation from Service" means the date that the Participant dies, retires or otherwise has a termination of employment with respect to all entities comprising the Related Employer. A Separation from Service does not occur if the Participant is on military leave, sick leave or other bona fide leave of absence if the period of leave does not exceed six months or such longer period during which the Participant's right to re-employment is provided by statute or contract. If the period of leave exceeds six months and the Participant's right to re-employment is not provided either by statute or contract, a Separation from Service will be deemed to have occurred on the first day following the six-month period. If the period of leave is due to any medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than six months, where the impairment causes the Participant to be unable to perform the duties of his position of employment or any substantially similar position of employment, a 29 month period of absence may be substituted for the six month period.

Whether a termination of employment has occurred is based on whether the facts and circumstances indicate that the Related Employer and the Participant reasonably anticipated that no further services would be performed after a certain date or that the level of bona fide services the Participant would perform after such date (whether as an employee or as an independent contractor) would permanently decrease to no more than 20 percent of the average level of bona fide services performed (whether as an employee or an independent contractor) over the immediately preceding 36 month period (or the full period of services to the Related Employer if the employee has been providing services to the Related Employer for less than 36 months).

An independent contractor is considered to have experienced a Separation from Service with the Related Employer upon the expiration of the contract (or, in the case of more than one contract, all contracts) under which services are performed for the Related Employer if the expiration constitutes a good-faith and complete termination of the contractual relationship.

If a Participant provides services as both an employee and an independent contractor of the Related Employer, the Participant must separate from service both as an employee

and as an independent contractor to be treated as having incurred a Separation from Service. If a Participant ceases providing services as an independent contractor and begins providing services as an employee, or ceases providing services as an employee and begins providing services as an independent contractor, the Participant will not be considered to have experienced a Separation from Service until the Participant has ceased providing services in both capacities.

If a Participant provides services both as an employee and as a member of the Board of Directors of a corporate Related Employer (or an analogous position with respect to a noncorporate Related Employer), the services provided as a Director are not taken into account in determining whether the Participant has incurred a Separation from Service as an employee for purposes of a nonqualified deferred compensation plan in which the Participant participates as an employee that is not aggregated under Code Section 409A with any plan in which the Participant participates as a Director.

If a Participant provides services both as an employee and as a member of the Board of Directors of a corporate related Employer (or an analogous position with respect to a noncorporate Related Employer), the services provided as an employee are not taken into account in determining whether the Participant has experienced a Separation from Service as a Director for purposes of a nonqualified deferred compensation plan in which the Participant participates as a Director that is not aggregated under Code Section 409A with any plan in which the Participant participates as an employee.

All determinations of whether a Separation from Service has occurred will be made in a manner consistent with Code Section 409A and the final regulations thereunder.

2.24 <u>Unforeseeable Emergency</u>

"Unforeseeable Emergency" means a severe financial hardship of the Participant resulting from an illness or accident of the Participant, the Participant's spouse, the Participant's Beneficiary, or the Participant's dependent (as defined in Code Section 152, without regard to Code section 152(b)(1), (b)(2) and (d)(1)(B); loss of the Participant's property due to casualty; or other similar extraordinary and unforeseeable circumstances arising as a result of events beyond the control of the Participant.

2.25 <u>Valuation Date</u>

"Valuation Date" means each business day of the Plan Year that the New York Stock Exchange is open.

2.26 <u>Years of Service</u>

"Years of Service" means each one year period for which the Participant receives service credit in accordance with the provisions of Section 7.01(d) of the Adoption Agreement.

Article 3 - Participation

3.1 Participation

The Participants in the Plan shall be those Directors and employees of the Employer who satisfy the requirements of Section 2.01 of the Adoption Agreement.

3.2 Termination of Participation

The Administrator may terminate a Participant's participation in the Plan in a manner consistent with Code Section 409A. If the Employer terminates a Participant's participation before the Participant experiences a Separation from Service the Participant's vested Accounts shall be paid in accordance with the provisions of Article 9.

Article 4 - Participant Elections

4.1 Deferral Agreement

If permitted by the Plan Sponsor in accordance with Section 4.01 of the Adoption Agreement, each Eligible Employee and Director may elect to defer his Compensation within the meaning of Section 3.01 of the Adoption Agreement by executing in writing or electronically, a deferral agreement in accordance with rules and procedures established by the Administrator and the provisions of this Article 4.

A new deferral agreement must be timely executed for each Plan Year during which the Eligible Employee or Director desires to defer Compensation. An Eligible Employee or Director who does not timely execute a deferral agreement shall be deemed to have elected zero deferrals of Compensation for such Plan Year.

A deferral agreement may be changed or revoked during the period specified by the Administrator. Except as provided in Section 9.3 or in Section 4.01(c) of the Adoption Agreement, a deferral agreement becomes irrevocable at the close of the specified period.

4.2 Amount of Deferral

An Eligible Employee or Director may elect to defer Compensation in any amount permitted by Section 4.01(a) of the Adoption Agreement.

4.3 Timing of Election to Defer

Each Eligible Employee or Director who desires to defer Compensation otherwise payable during a Plan Year must execute a deferral agreement within the period preceding the Plan Year specified by the Administrator. Each Eligible Employee who desires to defer Compensation that is a Bonus must execute a deferral agreement within the period preceding the Plan Year during which the Bonus is earned that is specified by the Administrator, except that if the Bonus can be treated as performance based compensation as described in Code Section 409A(a)(4)(B)(iii), the deferral agreement may be executed within the period specified by the Administrator, which period, in no

event, shall end after the date which is six months prior to the end of the period during which the Bonus is earned, provided the Participant has performed services continuously from the later of the beginning of the performance period or the date the performance criteria are established through the date the Participant executed the deferral agreement and provided further that the compensation has not yet become 'readily ascertainable' within the meaning of Treas. Reg. § 1.409A-2(a)(8). In addition, if the Compensation qualifies as 'fiscal year compensation' within the meaning of Treas. Reg. § 1.409A-2(a)(6), the deferral agreement may be made not later than the end of the Employer's taxable year immediately preceding the first taxable year of the Employer in which any services are performed for which such Compensation is payable.

Except as otherwise provided below, an employee who is classified or designated as an Eligible Employee during a Plan Year or a Director who is designated as eligible to participate during a Plan Year may elect to defer Compensation otherwise payable during the remainder of such Plan Year in accordance with the rules of this Section 4.3 by executing a deferral agreement within the thirty (30) day period beginning on the date the employee is classified or designated as an Eligible Employee or the date the Director is designated as eligible, whichever is applicable, if permitted by Section 4.01(b)(ii) of the Adoption Agreement. If Compensation is based on a specified performance period that begins before the Eligible Employee or Director executes his deferral agreement, the election will be deemed to apply to the portion of such Compensation equal to the total amount of Compensation for the performance period multiplied by the ratio of the number of days remaining in the performance period after the election becomes irrevocable and effective over the total number of days in the performance period. The rules of this paragraph shall not apply unless the Eligible Employee or Director can be treated as initially eligible in accordance with Treas. Reg. § 1.409A-2(a)(7).

4.4 Election of Payment Schedule and Form of Payment

All elections of a payment schedule and a form of payment will be made in accordance with rules and procedures established by the Administrator and the provisions of this Section 4.4.

(a) If the Plan Sponsor has elected to permit annual distribution elections in accordance with Section 6.01(h) of the Adoption Agreement the following rules apply. At the time an Eligible Employee or Director completes a deferral agreement, the Eligible Employee or Director must elect a distribution event (which includes a specified time) and a form of payment for the Compensation subject to the deferral agreement from among the options the Plan Sponsor has made available for this purpose and which are specified in 6.01(b) of the Adoption Agreement. Prior to the time required by Treas. Reg. § 1.409A-2, the Eligible Employee or Director shall elect a distribution event (which includes a specified time) and a form of payment for any Employer contributions that may be credited to the Participant's Account during the Plan Year. If an Eligible Employee or Director fails to elect a distribution event, he shall be deemed to have elected Separation from Service as the distribution event. If he fails to elect a

form of payment, he shall be deemed to have elected a lump sum form of payment.

(b) If the Plan Sponsor has elected not to permit annual distribution elections in accordance with Section 6.01(h) of the Adoption Agreement the following rules apply. At the time an Eligible Employee or Director first completes a deferral agreement but in no event later than the time required by Treas. Reg. § 1.409A-2, the Eligible Employee or Director must elect a distribution event (which includes a specified time) and a form of payment for amounts credited to his Account from among the options the Plan Sponsor has made available for this purpose and which are specified in Section 6.01(b) of the Adoption Agreement. If an Eligible Employee or Director fails to elect a distribution event, he shall be deemed to have elected Separation from Service in the distribution event. If the fails to elect a form of payment, he shall be deemed to have elected a lump sum form of payment.

Article 5 - Employer Contributions

5.1 Matching Contributions

If elected by the Plan Sponsor in Section 5.01(a) of the Adoption Agreement, the Employer will credit the Participant's Account with a matching contribution determined in accordance with the formula specified in Section 5.01(a) of the Adoption Agreement. The matching contribution will be treated as allocated to the Participant's Account at the time specified in Section 5.01(a)(iii) of the Adoption Agreement.

5.2 Other Contributions

If elected by the Plan Sponsor in Section 5.01(b) of the Adoption Agreement, the Employer will credit the Participant's Account with a contribution determined in accordance with the formula or method specified in Section 5.01(b) of the Adoption Agreement. The contribution will be treated as allocated to the Participant's Account at the time specified in Section 5.01(b)(iii) of the Adoption Agreement.

Article 6 - Accounts and Credits

6.1 Establishment of Account

For accounting and computational purposes only, the Administrator will establish and maintain an Account on behalf of each Participant which will reflect the credits made pursuant to Section 6.2, distributions or withdrawals, along with the earnings, expenses, gains and losses allocated thereto, attributable to the hypothetical investments made with the amounts in the Account as provided in Article 7. The Administrator will establish and maintain such other records and accounts, as it decides in its discretion to be reasonably required or appropriate to discharge its duties under the Plan.

6.2 Credits to Account

A Participant's Account will be credited for each Plan Year with the amount of his elective deferrals under Section 4.1 at the time the amount subject to the deferral election would otherwise have been payable to the Participant and the amount of Employer contributions treated as allocated on his behalf under Article 5.

Article 7 - Investment of Contributions

7.1 Investment Options

The amount credited to each Account shall be treated as invested in the investment options designated for this purpose by the Administrator.

7.2 Adjustment of Accounts

The amount credited to each Account shall be adjusted for hypothetical investment earnings, expenses, gains or losses in an amount equal to the earnings, expenses, gains or losses attributable to the investment options selected by the party designated in Section 9.01 of the Adoption Agreement from among the investment options provided in Section 7.1. If permitted by Section 9.01 of the Adoption Agreement, a Participant (or the Participant's Beneficiary after the death of the Participant) may, in accordance with rules and procedures established by the Administrator, select the investments from among the options provided in Section 7.1 to be used for the purpose of calculating future hypothetical investment adjustments to the Account or to future credits to the Account under Section 6.2 effective as of the Valuation Date coincident with or next following notice to the Administrator. Each Account shall be adjusted as of each Valuation Date to reflect: (a) the hypothetical earnings, expenses, gains and losses described above; (b) amounts credited pursuant to Section 6.2; and (c) distributions or withdrawals. In addition, each Account may be adjusted for its allocable share of the hypothetical costs and expenses associated with the maintenance of the hypothetical investments provided in Section 7.1.

Article 8 - Right to Benefits

8.1 Vesting

A Participant, at all times, has a 100% nonforfeitable interest in the amounts credited to his Account attributable to his elective deferrals made in accordance with Section 4.1.

A Participant's right to the amounts credited to his Account attributable to Employer contributions made in accordance with Article 5 shall be determined in accordance with the relevant schedule and provisions in Section 7.01 of the Adoption Agreement. Upon a Separation from Service and after application of the provisions of Section 7.01 of the Adoption Agreement, the Participant shall forfeit the nonvested portion of his Account.

8.2 Death

The Plan Sponsor may elect to accelerate vesting upon the death of the Participant in accordance with Section 7.01(c) of the Adoption Agreement and/or to accelerate distributions upon death in accordance with Section 6.01(b) or Section 6.01(d) of the Adoption Agreement. If the Plan Sponsor does not elect to accelerate distributions upon death in accordance with Section 6.01(b) or Section 6.01(d) of the Adoption Agreement, the vested amount credited to the Participant's Account will be paid in accordance with the provisions of Article 9.

A Participant may designate a Beneficiary or Beneficiaries, or change any prior designation of Beneficiary or Beneficiaries in accordance with rules and procedures established by the Administrator.

A copy of the death notice or other sufficient documentation must be filed with and approved by the Administrator. If upon the death of the Participant there is, in the opinion of the Administrator, no designated Beneficiary for part or all of the Participant's vested Account, such amount will be paid to his estate (such estate shall be deemed to be the Beneficiary for purposes of the Plan) in accordance with the provisions of Article 9.

8.3 Disability

If the Plan Sponsor has elected to accelerate vesting upon the occurrence of a Disability in accordance with Section 7.01(c) of the Adoption Agreement and/or to permit distributions upon Disability in accordance with Section 6.01(b) or Section 6.01(d) of the Adoption Agreement, the determination of whether a Participant has incurred a Disability shall be made by the Administrator in its sole discretion in a manner consistent with the requirements of Code Section 409A.

Article 9 - Distribution of Benefits

9.1 Amount of Benefits

The vested amount credited to a Participant's Account as determined under Articles 6, 7 and 8 shall determine and constitute the basis for the value of benefits payable to the Participant under the Plan.

9.2 Method and Timing of Distributions

Except as otherwise provided in this Article 9, distributions under the Plan shall be made in accordance with the elections made or deemed made by the Participant under Article 4. Subject to the provisions of Section 9.6 requiring a six month delay for certain distributions to Key Employees, distributions following a payment event shall commence at the time specified in Section 6.01(a) of the Adoption Agreement. If permitted by Section 6.01(g) of the Adoption Agreement, a Participant may elect, at least twelve months before a scheduled distribution event, to delay the payment date for a minimum period of sixty months from the originally scheduled date of payment, provided the election does not take effect for at least twelve months from the date on which the

election is made. The distribution election change must be made in accordance with procedures and rules established by the Administrator. The Participant may, at the same time the date of payment is deferred, change the form of payment but such change in the form of payment may not effect an acceleration of payment in violation of Code Section 409A or the provisions of Treas. Reg. § 1.409A-2(b). For purposes of this Section 9.2, a series of installment payments is always treated as a single payment and not as a series of separate payments.

9.3 Unforeseeable Emergency

A Participant may request a distribution due to an Unforeseeable Emergency if the Plan Sponsor has elected to permit Unforeseeable Emergency withdrawals under Section 8.01(a) of the Adoption Agreement. The request must be in writing and must be submitted to the Administrator along with evidence that the circumstances constitute an Unforeseeable Emergency. The Administrator has the discretion to require whatever evidence it deems necessary to determine whether a distribution is warranted, and may require the Participant to certify that the need cannot be met from other sources reasonably available to the Participant. Whether a Participant has incurred an Unforeseeable Emergency will be determined by the Administrator on the basis of the relevant facts and circumstances in its sole discretion, but, in no event, will an Unforeseeable Emergency be deemed to exist if the hardship can be relieved: (a) through reimbursement or compensation by insurance or otherwise, (b) by liquidation of the Participant's assets to the extent such liquidation would not itself cause severe financial hardship, or (c) by cessation of deferrals under the Plan. A distribution due to an Unforeseeable Emergency must be limited to the amount reasonably necessary to satisfy the emergency need and may include any amounts necessary to pay any federal, state, foreign or local income taxes and penalties reasonably anticipated to result from the distribution. The distribution will be made in the form of a single lump sum cash payment. If permitted by Section 8.01(b) of the Adoption Agreement, a Participant's deferral elections for the remainder of the Plan Year will be cancelled upon a withdrawal due to an Unforeseeable Emergency. If the payment of all or any portion of the Participant's vested Account is being delayed in accordance with Section 9.6 at the time he experiences an Unforeseeable Emergency, the amount being delayed shall not be subject to the provisions of this Section 9.3 until the expiration of the six month period of delay required by section 9.6.

9.4 Payment Election Overrides

If the Plan Sponsor has elected one or more payment election overrides in accordance with Section 6.01(d) of the Adoption Agreement, the following provisions apply. Upon the occurrence of the first event selected by the Plan Sponsor, the remaining vested amount credited to the Participant's Account shall be paid in the form designated to the Participant or his Beneficiary regardless of whether the Participant had made different elections of time and/or form of payment or whether the Participant was receiving installment payments at the time of the event.

9.5 Cashouts of Amounts Not Exceeding Stated Limit

If the vested amount credited to the Participant's Account does not exceed the limit established for this purpose by the Plan Sponsor in Section 6.01(e) of the Adoption Agreement at the time he incurs a Separation from Service for any reason, the Employer shall distribute such amount to the Participant at the time specified in Section 6.01(a) of the Adoption Agreement in a single lump sum cash payment following such Separation from Service regardless of whether the Participant had made different elections of time or form of payment as to the vested amount credited to his Account or whether the Participant was receiving installments at the time of such termination. A Participant's Account, for purposes of this Section 9.5, shall include any amounts described in Section 1.3.

9.6 Required Delay in Payment to Key Employees

Except as otherwise provided in this Section 9.6, a distribution made on account of Separation from Service (or Retirement, if applicable) to a Participant who is a Key Employee as of the date of his Separation from Service (or Retirement, if applicable) shall not be made before the date which is six months after the Separation from Service (or Retirement, if applicable).

(a) A Participant is treated as a Key Employee if: (i) he is employed by a Related Employer any of whose stock is publicly traded on an established securities market, and (ii) he satisfies the requirements of Code Section 416(i)(1)(A)(i), (ii) or (iii), determined without regard to Code Section 416(i)(5), at any time during the twelve month period ending on the Identification Date.

(b) A Participant who is a Key Employee on an Identification Date shall be treated as a Key Employee for purposes of the six month delay in distributions for the twelve month period beginning on the first day of a month no later than the fourth month following the Identification Date. The Identification Date and the effective date of the delay in distributions shall be determined in accordance with Section 1.06 of the Adoption Agreement.

(c) The Plan Sponsor may elect to apply an alternative method to identify Participants who will be treated as Key Employees for purposes of the six month delay in distributions if the method satisfies each of the following requirements: (i) is reasonably designed to include all Key Employees, (ii) is an objectively determinable standard providing no direct or indirect election to any Participant regarding its application, and (iii) results in either all Key Employees or no more than 200 Key Employees being identified in the class as of any date. Use of an alternative method that satisfies the requirements of this Section 9.6(c) will not be treated as a change in the time and form of payment for purposes of Treas. Reg. § 1.409A-2(b).

(d) The six month delay does not apply to payments described in Section 9.9(a), (b) or

(e) or to payments that occur after the death of the Participant. If the payment of all or any portion of the Participant's vested Account is being delayed in accordance with this Section 9.6 at the time he incurs a Disability which would otherwise require a distribution under the terms of the Plan, no amount shall be paid until the expiration of the six month period of delay required by this Section 9.6.

9.7 Change in Control

If the Plan Sponsor has elected to permit distributions upon a Change in Control, the following provisions shall apply. A distribution made upon a Change in Control will be made at the time specified in Section 6.01(a) of the Adoption Agreement in the form elected by the Participant in accordance with the procedures described in Article 4. Alternatively, if the Plan Sponsor has elected in accordance with Section 11.02 of the Adoption Agreement to require distributions upon a Change in Control, the Participant's remaining vested Account shall be paid to the Participant or the Participant's Beneficiary at the time specified in Section 6.01(a) of the Adoption Agreement as a single lump sum payment. A Change in Control, for purposes of the Plan, will occur upon a change in the ownership of the Plan Sponsor, a change in the effective control of the Plan Sponsor or a change in the ownership of a substantial portion of the assets of the Plan Sponsor, but only if elected by the Plan Sponsor in Section 11.03 of the Adoption Agreement. The Plan Sponsor, for this purpose, includes any corporation identified in this Section 9.7. All distributions made in accordance with this Section 9.7 are subject to the provisions of Section 9.6.

If a Participant continues to make deferrals in accordance with Article 4 after he has received a distribution due to a Change in Control, the residual amount payable to the Participant shall be paid at the time and in the form specified in the elections he makes in accordance with Article 4 or upon his death or Disability as provided in Article 8.

Whether a Change in Control has occurred will be determined by the Administrator in accordance with the rules and definitions set forth in this Section 9.7. A distribution to the Participant will be treated as occurring upon a Change in Control if the Plan Sponsor terminates the Plan in accordance with Section 10.2 and distributes the Participant's benefits within twelve months of a Change in Control as provided in Section 10.3.

(a) Relevant Corporations . To constitute a Change in Control for purposes of the Plan, the event must relate to: (i) the corporation for whom the Participant is performing services at the time of the Change in Control, (ii) the corporation that is liable for the payment of the Participant's benefits under the Plan (or all corporations liable if more than one corporation is liable) but only if either the deferred compensation is attributable to the performance of services by the Participant for such corporation (or corporations) or there is a bona fide business purpose for such corporation (or corporations) to be liable for such payment and, in either case, no significant purpose of making such corporation (or corporations) liable for such payment is the avoidance of federal income tax, or (iii) a corporation that is a majority shareholder of a corporation identified in (i) or (ii), or any corporation in a chain of corporations in which each corporation is a

majority shareholder of another corporation in the chain, ending in a corporation identified in (i) or (ii). A majority shareholder is defined as a shareholder owning more than fifty percent (50%) of the total fair market value and voting power of such corporation.

(b) Stock Ownership . Code Section 318(a) applies for purposes of determining stock ownership. Stock underlying a vested option is considered owned by the individual who owns the vested option (and the stock underlying an unvested option is not considered owned by the individual who holds the unvested option). If, however, a vested option is exercisable for stock that is not substantially vested (as defined by Treas. Reg. § 1.83-3(b) and (j)) the stock underlying the option is not treated as owned by the individual who holds the option.

(c) Change in the Ownership of a Corporation. A change in the ownership of a corporation occurs on the date that any one person or more than one person acting as a group, acquires ownership of stock of the corporation that, together with stock held by such person or group, constitutes more than fifty percent (50%) of the total fair market value or total voting power of the stock of such corporation. If any one person or more than one person acting as a group is considered to own more than fifty percent (50%) of the total fair market value or total voting power of the stock of a corporation, the acquisition of additional stock by the same person or persons is not considered to cause a change in the ownership of the corporation (or to cause a change in the effective control of the corporation as discussed below in Section 9.7(d)). An increase in the percentage of stock owned by any one person, or persons acting as a group, as a result of a transaction in which the corporation acquires its stock in exchange for property will be treated as an acquisition of stock. Section 9.7(c) applies only when there is a transfer of stock of a corporation (or issuance of stock of a corporation) and stock in such corporation remains outstanding after the transaction. For purposes of this Section 9.7(c), persons will not be considered to be acting as a group solely because they purchase or own stock of the same corporation at the same time or as a result of a public offering. Persons will, however, be considered to be acting as a group if they are owners of a corporation that enters into a merger, consolidation, purchase or acquisition of stock, or similar business transaction with the corporation. If a person, including an entity, owns stock in both corporations that enter into a merger, consolidation, purchase or acquisition of stock, or similar transaction, such shareholder is considered to be acting as a group with other shareholders in a corporation only with respect to ownership in that corporation prior to the transaction giving rise to the change and not with respect to the ownership interest in the other corporation.

(d) Change in the Effective Control of a Corporation. A change in the effective control of a corporation occurs on the date that either (i) any one person, or more than one person acting as a group, acquires (or has acquired during the twelve month period ending on the date of the most recent acquisition by such person or persons) ownership of stock of the corporation possessing thirty percent (30%) or more of the total voting power of the stock of such corporation, or (ii) a majority

of members of the corporation's Board of Directors is replaced during any twelve month period by Directors whose appointment or election is not endorsed by a majority of the members of the corporation's Board of Directors prior to the date of the appointment or election, provided that for purposes of this paragraph (ii), the term corporation refers solely to the relevant corporation identified in Section 9.7(a) for which no other corporation is a majority shareholder for purposes of Section 9.7(a). In the absence of an event described in Section 9.7(d)(i) or (ii), a change in the effective control of a corporation will not have occurred. A change in effective control may also occur in any transaction in which either of the two corporations involved in the transaction has a change in the ownership of such corporation as described in Section 9.7(c) or a change in the ownership of a substantial portion of the assets of such corporation as described in Section 9.7(e). If any one person, or more than one person acting as a group, is considered to effectively control a corporation within the meaning of this Section 9.7(d), the acquisition of additional control of the corporation by the same person or persons is not considered to cause a change in the effective control of the corporation or to cause a change in the ownership of the corporation within the meaning of Section 9.7(c). For purposes of this Section 9.7(d), persons will or will not be considered to be acting as a group in accordance with rules similar to those set forth in Section 9.7(c) with the following exception. If a person, including an entity, owns stock in both corporations that enter into a merger, consolidation, purchase or acquisition of stock, or similar transaction, such shareholder is considered to be acting as a group with other shareholders in a corporation only with respect to the ownership in that corporation prior to the transaction giving rise to the change and not with respect to the ownership interest in the other corporation.

(e) Change in the Ownership of a Substantial Portion of a Corporation's Assets. A change in the ownership of a substantial portion of a corporation's assets occurs on the date that any one person, or more than one person acting as a group (as determined in accordance with rules similar to those set forth in Section 9.7(d)), acquires (or has acquired during the twelve month period ending on the date of the most recent acquisition by such person or persons) assets from the corporation that have a total gross fair market value equal to or more than forty percent (40%) of the total gross fair market value of all of the assets of the corporation immediately prior to such acquisition or acquisitions. For this purpose, gross fair market value means the value of the assets of the corporation or the value of the assets being disposed of determined without regard to any liabilities associated with such assets. There is no Change in Control event under this Section 9.7(e) when there is a transfer to an entity that is controlled by the shareholders of the transferring corporation immediately after the transfer. A transfer of assets by a corporation is not treated as a change in ownership of such assets if the assets are transferred to (i) a shareholder of the corporation (immediately before the asset transfer) in exchange for or with respect to its stock, (ii) an entity, fifty percent (50%) or more of the total value or voting power of which is owned, directly or indirectly, by the corporation, (iii) a person, or more than one person acting as a group, that owns, directly or indirectly, fifty percent (50%) or more of the total value or voting power of all the outstanding stock of the corporation, or (iv) an

entity, at least fifty (50%) of the total value or voting power of which is owned, directly or indirectly, by a person described in Section 9.7(e)(iii). For purposes of the foregoing, and except as otherwise provided, a person's status is determined immediately after the transfer of assets.

9.8 Permissible Delays in Payment

Distributions may be delayed beyond the date payment would otherwise occur in accordance with the provisions of Articles 8 and 9 in any of the following circumstances (as long as the Employer treats all payments to similarly situated Participants on a reasonably consistent basis):

(a) The Employer may delay payment if it reasonably anticipates that its deduction with respect to such payment would be limited or eliminated by the application of Code Section 162(m). Payment must be made during the Participant's first taxable year in which the Employer reasonably anticipates, or should reasonably anticipate, that if the payment is made during such year the deduction of such payment will not be barred by the application of Code Section 162(m) or during the period beginning with the Participant's Separation from Service and ending on the later of the last day of the Employer's taxable year in which the Participant separates from service or the 15th day of the third month following the Participant's Separation from Service. If a scheduled payment to a Participant is delayed in accordance with this Section 9.8(a), all scheduled payments to the Participant that could be delayed in accordance with this Section 9.8(a) will also be delayed.

(b) The Employer may also delay payment if it reasonably anticipates that the making of the payment will violate federal securities laws or other applicable laws provided payment is made at the earliest date on which the Employer reasonably anticipates that the making of the payment will not cause such violation.

(c) The Employer reserves the right to amend the Plan to provide for a delay in payment upon such other events and conditions as the Secretary of the Treasury may prescribe in generally applicable guidance published in the Internal Revenue Bulletin.

9.9 Permitted Acceleration of Payment

The Employer may permit acceleration of the time or schedule of any payment or amount scheduled to be paid pursuant to a payment under the Plan provided such acceleration would be permitted by the provisions of Treas. Reg. § 1.409A-3(j)(4), including the following events:

(a) Domestic Relations Order . A payment may be accelerated if such payment is made to an alternate payee pursuant to and following the receipt and qualification of a domestic relations order as defined in Code Section 414(p).

(b) Compliance with Ethics Agreement and Legal Requirements. A payment may be accelerated as may be necessary to comply with ethics agreements with the Federal government or as may be reasonably necessary to avoid the violation of Federal, state, local or foreign ethics law or conflicts of laws, in accordance with the requirements of Code Section 409A.

(c) De Minimis Amounts. A payment will be accelerated if (i) the amount of the payment is not greater than the applicable dollar amount under Code Section 402(g)(1)(B), (ii) at the time the payment is made the amount constitutes the Participant's entire interest under the Plan and all other plans that are aggregated with the Plan under Treas. Reg. § 1.409A-1(c)(2).

(d) FICA Tax. A payment may be accelerated to the extent required to pay the Federal Insurance Contributions Act tax imposed under Code Sections 3101, 3121(a) and 3121(v)(2) of the Code with respect to compensation deferred under the Plan (the "FICA Amount"). Additionally, a payment may be accelerated to pay the income tax on wages imposed under Code Section 3401 of the Code on the FICA Amount and to pay the additional income tax at source on wages attributable to the pyramiding Code Section 3401 wages and taxes. The total payment under this subsection (d) may not exceed the aggregate of the FICA Amount and the income tax withholding related to the FICA Amount.

(e) Section 409A Additional Tax. A payment may be accelerated if the Plan fails to meet the requirements of Code Section 409A; provided that such payment may not exceed the amount required to be included in income as a result of the failure to comply with the requirements of Code Section 409A.

(f) Offset. A payment may be accelerated in the Employer's discretion as satisfaction of a debt of the Participant to the Employer, where such debt is incurred in the ordinary course of the service relationship between the Participant and the Employer, the entire amount of the reduction in any of the Employer's taxable years does not exceed $5,000, and the reduction is made at the same time and in the same amount as the debt otherwise would have been due and collected from the Participant.

(g) Other Events. A payment may be accelerated in the Administrator's discretion in connection with such other events and conditions as permitted by Code Section 409A.

Article 10 - Amendment and Termination

10.1 Amendment by Plan Sponsor

The Plan Sponsor reserves the right to amend the Plan (for itself and each Employer) through action of its Board of Directors. No amendment can directly or indirectly deprive any current or former Participant or Beneficiary of all or any portion of his Account which had accrued and vested prior to the amendment.

10.2 Plan Termination Following Change in Control or Corporate Dissolution

If so elected by the Plan Sponsor in 11.01 of the Adoption Agreement, the Plan Sponsor reserves the right to terminate the Plan and distribute all amounts credited to all Participant Accounts within the 30 days preceding or the twelve months following a Change in Control as determined in accordance with the rules set forth in Section 9.7. For this purpose, the Plan will be treated as terminated only if all agreements, methods, programs and other arrangements sponsored by the Related Employer immediately after the Change in Control which are treated as a single plan under Treas. Reg. § 1.409A-1(c)(2) are also terminated so that all Participants under the Plan and all similar arrangements are required to receive all amounts deferred under the terminated arrangements within twelve months of the date the Plan Sponsor irrevocably takes all necessary action to terminate the arrangements. In addition, the Plan Sponsor reserves the right to terminate the Plan within twelve months of a corporate dissolution taxed under Code Section 331 or with the approval of a bankruptcy court pursuant to 11 U. S. C. Section 503(b)(1)(A) provided that amounts deferred under the Plan are included in the gross incomes of Participants in the latest of (a) the calendar year in which the termination and liquidation occurs, (b) the first calendar year in which the amount is no longer subject to a substantial risk of forfeiture, or (c) the first calendar year in which payment is administratively practicable.

10.3 Other Plan Terminations

The Plan Sponsor retains the discretion to terminate the Plan if (a) all arrangements sponsored by the Plan Sponsor that would be aggregated with any terminated arrangement under Code Section 409A and Treas. Reg. § 1.409A-1(c)(2) are terminated, (b) no payments other than payments that would be payable under the terms of the arrangements if the termination had not occurred are made within twelve months of the termination of the arrangements, (c) all payments are made within twenty-four months of the date the Plan Sponsor takes all necessary action to irrevocably terminate and liquidate the arrangements,

(a) the Plan Sponsor does not adopt a new arrangement that would be aggregated with any terminated arrangement under Code Section 409A and the regulations thereunder at any time within the three year period following the date of termination of the arrangement, and

(b) the termination does not occur proximate to a downturn in the financial health of the Plan Sponsor. The Plan Sponsor also reserves the right to amend the Plan to provide that termination of the Plan will occur under such conditions and events as may be prescribed by the Secretary of the Treasury in generally applicable guidance published in the Internal Revenue Bulletin.

Article 11 - The Trust

11.1 Establishment of Trust

The Plan Sponsor may but is not required to establish a trust to hold amounts which the Plan Sponsor may contribute from time to time to correspond to some or all amounts credited to Participants under Section 6.2. In the event that the Plan Sponsor wishes to establish a trust to provide a source of funds for the payment of Plan benefits, any such trust shall be constructed to constitute an unfunded arrangement that does not affect the status of the Plan as an unfunded plan for purposes of Title I of ERISA and the Code. If the Plan Sponsor elects to establish a trust in accordance with Section 10.01 of the Adoption Agreement, the provisions of Sections 11.2 and 11.3 shall become operative.

11.2 Rabbi Trust

Any trust established by the Plan Sponsor shall be between the Plan Sponsor and a trustee pursuant to a separate written agreement under which assets are held, administered and managed, subject to the claims of the Plan Sponsor's creditors in the event of the Plan Sponsor's insolvency. The trust is intended to be treated as a rabbi trust in accordance with existing guidance of the Internal Revenue Service, and the establishment of the trust shall not cause the Participant to realize current income on amounts contributed thereto. The Plan Sponsor must notify the trustee in the event of a bankruptcy or insolvency.

11.3 Investment of Trust Funds

Any amounts contributed to the trust by the Plan Sponsor shall be invested by the trustee in accordance with the provisions of the trust and the instructions of the Administrator. Trust investments need not reflect the hypothetical investments selected by Participants under Section 7.1 for the purpose of adjusting Accounts and the earnings or investment results of the trust need not affect the hypothetical investment adjustments to Participant Accounts under the Plan.

Article 12 - Plan Administration

12.1 Powers and Responsibilities of the Administrator

The Administrator has the full power and the full responsibility to administer the Plan in all of its details; subject, however, to the applicable requirements of ERISA. The Administrator's powers and responsibilities include, but are not limited to, the following:

(a) To make and enforce such rules and procedures as it deems necessary or proper for the efficient administration of the Plan;

(b) To interpret the Plan, its interpretation thereof to be final, except as provided in Section 12.2, on all persons claiming benefits under the Plan;

(c) To decide all questions concerning the Plan and the eligibility of any person to participate in the Plan;

(d) To administer the claims and review procedures specified in Section 12.2;

(e) To compute the amount of benefits which will be payable to any Participant, former Participant or Beneficiary in accordance with the provisions of the Plan;

(f) To determine the person or persons to whom such benefits will be paid;

(g) To authorize the payment of benefits;

(h) To comply with the reporting and disclosure requirements of Part 1 of Subtitle B of Title I of ERISA;

(i) To appoint such agents, counsel, accountants, and consultants as may be required to assist in administering the Plan;

(j) By written instrument, to allocate and delegate its responsibilities, including the formation of an Administrative Committee to administer the Plan.

12.2 Claims and Review Procedures

(a) Claims Procedure . If any person believes he is being denied any rights or benefits under the Plan, such person may file a claim in writing with the Administrator. If any such claim is wholly or partially denied, the Administrator will notify such person of its decision in writing. Such notification will contain (i) specific reasons for the denial, (ii) specific reference to pertinent Plan provisions, (iii) a description of any additional material or information necessary for such person to perfect such claim and an explanation of why such material or information is necessary, and (iv) a description of the Plan's review procedures and the time limits applicable to such procedures, including a statement of the person's right to bring a civil action following an adverse decision on review. If the claim involves a Disability, the denial must also include the standards that governed the decision, including the basis for disagreeing with any health care professionals, vocational professionals or the Social Security Administration as well as an explanation of the scientific or clinical judgement underlying the denial. Such notification will be given within 90 days (45 days in the case of a claim regarding Disability) after the claim is received by the Administrator. The Administrator may extend the period for providing the notification by 90 days (30 days in the case of a claim regarding Disability, which may be extended an additional 30 days) if special circumstances require an extension of time for processing the claim and if written notice of such extension and circumstance is given to such person within the initial 90 day period (45 day period in the case of a claim regarding Disability). If such notification is not given within such period, the claim will be considered denied as of the last day of such period and such person may request a review of his claim.

(b) Review Procedure . Within 60 days (180 days in the case of a claim regarding Disability) after the date on which a person receives a written notification of denial of claim (or, if written notification is not provided, within 60 days (180 days in the case of a claim regarding Disability) of the date denial is considered to have occurred), such person (or his duly authorized representative) may (i) file a written request with the Administrator for a review of his denied claim and of

pertinent documents and (ii) submit written issues and comments to the Administrator. The Administrator will notify such person of its decision in writing. Such notification will be written in a manner calculated to be understood by such person and will contain specific reasons for the decision as well as specific references to pertinent Plan provisions. The notification will explain that the person is entitled to receive, upon request and free of charge, reasonable access to and copies of all pertinent documents and has the right to bring a civil action following an adverse decision on review. The decision on review will be made within 60 days (45 days in the case of a claim regarding Disability). The Administrator may extend the period for making the decision on review by 60 days (45 days in the case of a claim regarding Disability) if special circumstances require an extension of time for processing the request such as an election by the Administrator to hold a hearing, and if written notice of such extension and circumstances is given to such person within the initial 60-day period (45 days in the case of a claim regarding Disability). If the decision on review is not made within such period, the claim will be considered denied.

If the claim is regarding Disability, and the determination of Disability has not been made by the Social Security Administration or the Railroad Retirement Board, the person may, upon written request and free of charge, also receive the identification of medical or vocational experts whose advice was obtained in connection with the denial of a claim regarding Disability, even if the advice was not relied upon.

Before issuing any decision with respect to a claim involving Disability, the Administrator will provide to the person, free of charge, the following information as soon as possible and sufficiently in advance of the date on which the response is required to be provided to the person to allow the person a reasonable opportunity to respond prior to the due date of the response:

(i) Any new or additional evidence considered, relied upon, or generated by the Administrator or other person making the decision; and

(ii) A new or addition rationale if the decision will be based on that rationale.

(c) Exhaustion of Claims Procedures and Right to Bring Legal Claim. No action at law or equity shall be brought more than one year after the Administrator's affirmation of a denial of a claim, or, if earlier, more than four years after the facts or events giving rising to the claimant's allegation(s) or claim(s) first occurred.

12.3 Plan Administrative Costs

All reasonable costs and expenses (including legal, accounting, and employee communication fees) incurred by the Administrator in administering the Plan shall be paid by the Plan to the extent not paid by the Employer.

Article 13 - Miscellaneous

13.1 Unsecured General Creditor of the Employer

Participants and their Beneficiaries, heirs, successors and assigns shall have no legal or equitable rights, interests or claims in any property or assets of the Employer. For purposes of the payment of benefits under the Plan, any and all of the Employer's assets shall be, and shall remain, the general, unpledged, unrestricted assets of the Employer. Each Employer's obligation under the Plan shall be merely that of an unfunded and unsecured promise to pay money in the future.

13.2 Employer's Liability

Each Employer's liability for the payment of benefits under the Plan shall be defined only by the Plan and by the deferral agreements entered into between a Participant and the Employer. An Employer shall have no obligation or liability to a Participant under the Plan except as provided by the Plan and a deferral agreement or agreements. An Employer shall have no liability to Participants employed by other Employers.

13.3 Limitation of Rights

Neither the establishment of the Plan, nor any amendment thereof, nor the creation of any fund or account, nor the payment of any benefits, will be construed as giving to the Participant or any other person any legal or equitable right against the Employer, the Plan or the Administrator, except as provided herein; and in no event will the terms of employment or service of the Participant be modified or in any way affected hereby.

13.4 Anti-Assignment

Except as may be necessary to fulfill a domestic relations order within the meaning of Code Section 414(p), none of the benefits or rights of a Participant or any Beneficiary of a Participant shall be subject to the claim of any creditor. In particular, to the fullest extent permitted by law, all such benefits and rights shall be free from attachment, garnishment, or any other legal or equitable process available to any creditor of the Participant and his Beneficiary. Neither the Participant nor his Beneficiary shall have the right to alienate, anticipate, commute, pledge, encumber, or assign any of the payments which he may expect to receive, contingently or otherwise, under the Plan, except the right to designate a Beneficiary to receive death benefits provided hereunder. Notwithstanding the preceding, the benefit payable from a Participant's Account may be reduced, at the discretion of the Administrator, to satisfy any debt or liability to the Employer.

13.5 Facility of Payment

If the Administrator determines, on the basis of medical reports or other evidence satisfactory to the Administrator, that the recipient of any benefit payments under the Plan is incapable of handling his affairs by reason of minority, illness, infirmity or other incapacity, the Administrator may direct the Employer to disburse such payments to a person or institution designated by a court which has jurisdiction over such recipient or a person or institution otherwise having the legal authority under State law for the care and

control of such recipient. The receipt by such person or institution of any such payments therefore, and any such payment to the extent thereof, shall discharge the liability of the Employer, the Plan and the Administrator for the payment of benefits hereunder to such recipient.

13.6 Notices

Any notice or other communication to the Employer or Administrator in connection with the Plan shall be deemed delivered in writing if addressed to the Plan Sponsor at the address specified in Section 1.03 of the Adoption Agreement and if either actually delivered at said address or, in the case or a letter, five business days shall have elapsed after the same shall have been deposited in the United States mails, first-class postage prepaid and registered or certified.

13.7 Tax Withholding

If the Employer concludes that tax is owing with respect to any deferral or payment hereunder, the Employer shall withhold such amounts from any payments due the Participant or from amounts deferred, as permitted by law, or otherwise make appropriate arrangements with the Participant or his Beneficiary for satisfaction of such obligation. Tax, for purposes of this Section 13.7 means any federal, state, local or any other governmental income tax, employment or payroll tax, excise tax, or any other tax or assessment owing with respect to amounts deferred, any earnings thereon, and any payments made to Participants under the Plan.

13.8 Indemnification

(a) Each Indemnitee (as defined in Section 13.8(e)) shall be indemnified and held harmless by the Employer for all actions taken by him and for all failures to take action (regardless of the date of any such action or failure to take action), to the fullest extent permitted by the law of the jurisdiction in which the Employer is incorporated, against all expense, liability, and loss (including, without limitation, attorneys' fees, judgments, fines, taxes, penalties, and amounts paid or to be paid in settlement) reasonably incurred or suffered by the Indemnitee in connection with any Proceeding (as defined in subsection (e)). No indemnification pursuant to this Section shall be made, however, in any case where (1) the act or failure to act giving rise to the claim for indemnification is determined by a court to have constituted willful misconduct or recklessness or (2) there is a settlement to which the Employer does not consent.

(b) The right to indemnification provided in this Section shall include the right to have the expenses incurred by the Indemnitee in defending any Proceeding paid by the Employer in advance of the final disposition of the Proceeding, to the fullest extent permitted by the law of the jurisdiction in which the Employer is incorporated; provided that, if such law requires, the payment of such expenses incurred by the Indemnitee in advance of the final disposition of a Proceeding shall be made only on delivery to the Employer of an undertaking, by or on behalf

of the Indemnitee, to repay all amounts so advanced without interest if it shall ultimately be determined that the Indemnitee is not entitled to be indemnified under this Section or otherwise.

(c) Indemnification pursuant to this Section shall continue as to an Indemnitee who has ceased to be such and shall inure to the benefit of his heirs, executors, and administrators. The Employer agrees that the undertakings made in this Section shall be binding on its successors or assigns and shall survive the termination, amendment or restatement of the Plan.

(d) The foregoing right to indemnification shall be in addition to such other rights as the Indemnitee may enjoy as a matter of law or by reason of insurance coverage of any kind and is in addition to and not in lieu of any rights to indemnification to which the Indemnitee may be entitled pursuant to the by-laws of the Employer.

(e) For the purposes of this Section, the following definitions shall apply:

(i) "Indemnitee" shall mean each person serving as an Administrator (or any other person who is an employee, Director, or officer of the Employer) who was or is a party to, or is threatened to be made a party to, or is otherwise involved in, any Proceeding, by reason of the fact that he is or was performing administrative functions under the Plan.

(ii) "Proceeding" shall mean any threatened, pending, or completed action, suit, or proceeding (including, without limitation, an action, suit, or proceeding by or in the right of the Employer), whether civil, criminal, administrative, investigative, or through arbitration.

13.9 Successors

The provisions of the Plan shall bind and inure to the benefit of the Plan Sponsor, the Employer and their successors and assigns and the Participant and the Participant's designated Beneficiaries.

13.10 Disclaimer

It is the Plan Sponsor's intention that the Plan comply with the requirements of Code Section 409A. Neither the Plan Sponsor nor the Employer shall have any liability to any Participant should any provision of the Plan fail to satisfy the requirements of Code Section 409A.

13.11 Governing Law

The Plan will be construed, administered and enforced according to the laws of the State specified by the Plan Sponsor in Section 12.01 of the Adoption Agreement.

IN WITNESS WHEREOF, and as evidence of the adoption of the Plan, the undersigned officer duly authorized has appended his signature this 28th day of December, 2018.

Exact Sciences Corporation

By: /s/ Kyle Stacey

Its: VP, Controller

EXHIBIT 10.30

THIRD AMENDMENT TO
MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH
AMENDED AND RESTATED LICENSE AGREEMENT

This Third Amendment (this " **Amendment** ") to that certain Amended and Restated License Agreement dated effective January 31, 2015 (the " **Restated Agreement** "), by and between Mayo Foundation for Medical Education and Research (" **MAYO** ") and Exact Sciences Corporation (" **EXACT** "), as previously amended by (i) that certain First Amendment dated effective as of January 11, 2016 (the " **First Amendment** ") and (ii) that certain Second Amendment dated effective October 1, 2017 (the " **Second Amendment** "; the Restated Agreement, as amended by the First Amendment and the Second Amendment, the " **Existing Agreement** "), is entered into by and between MAYO and Exact Sciences Development Company, LLC (" **ESDC** "), a wholly owned subsidiary of EXACT. This Amendment is executed on the dates indicated below, but shall be deemed effective as of January 1, 2019 (" **Amendment Effective Date** ").

WHEREAS , pursuant to the Second Amendment, the Restated Agreement, as then amended, was assigned from EXACT to ESDC; and

WHEREAS , the parties desire to amend the Existing Agreement to reflect that, subsequent to the retirement of David A. Ahlquist, M.D. effective December 31, 2018, certain activities shall be continued by John B. Kisiel, M.D;

NOW, THEREFORE , in consideration of the promises and mutual covenants contained in this Amendment and the Existing Agreement, and other good and valuable consideration, the receipt and legal sufficiency of which are hereby acknowledged, the parties agree as follows:

AGREEMENT

A. **Effect of Amendment.** This Amendment amends the Existing Agreement. Except as provided in this Amendment, all of the terms and conditions of the Existing Agreement remain in full force and effect; however, if there is a conflict between the terms of this Amendment and the Existing Agreement, the terms of this Amendment will govern. Capitalized terms not defined in this Amendment will have the meanings assigned to them in the Existing Agreement.

B. **Section 1.09 "Know-How".** Section 1.09(b) is deleted and replaced with:

> (b) research and development information, technical data, unpatented inventions, know-how and supportive information developed by Dr. Ahlquist, Dr. Kisiel and/or other individuals as a result of Dr. Ahlquist's or Dr. Kisiel's activities pursuant to Section 2.06 to the extent it is necessary for the development or manufacture of a Licensed Product; and

C. **Section 1.12 "Materials".** Section 1.12(a) is deleted and replaced with:

(a) MAYO Materials are biological specimens of human origin, including without limitation tissues, blood, plasma, urine, stool and derivatives thereof used by MAYO pursuant to work in Dr. Ahlquist's or Dr. Kisiel's laboratory within the Field pursuant to Section 2.06 hereto or provided by MAYO (including without limitation by Dr. Ahlquist or Dr. Kisiel) to EXACT for use within the Field.

D. **Section 1.15 "Patent Rights".** Section 1.15(b) is deleted and replaced with:

(b) Any patent applications filed as a result of Dr. Ahlquist's, Dr. Kisiel's, or any other, activities pursuant to Section 2.06 hereto, together with divisionals, continuations, and continuations-in-part (but only for subject matter supported pursuant to 35 U.S.C. §112 by the foregoing) therefrom, patents issuing thereon, re-examinations and re-issues thereof, as well as extensions and supplementary protection certificates and any foreign counterpart of any of the foregoing;

E. **Section 2.06** MAYO and Ahlquist Commitment to Confer. Section 2.06 is deleted and replaced with:

2.06 COMMITMENT TO CONFER.

(a) MAYO will collaborate with EXACT on the development of Licensed Products, including sharing Know-How and providing access to MAYO Materials and laboratory equipment, conducting scientific studies, providing biostatistical support, and making submissions for peer-reviewed publications (MAYO file #2009-169; Know-How Related to Development, with Exact Sciences, of a Product for the Screening of Patients for Colorectal and other Aerodigestive Cancers Using Stool Samples").

(b) Between the Effective Date and the Amendment Effective Date, Dr. Ahlquist was obligated to, and did, consult on, collaborate with, and oversee EXACT on product development efforts, as a special advisor to the EXACT board of directors and senior management. Beginning on the Amendment Effective Date and continuing through the five (5) year anniversary of the Effective Date, subject of MAYO approval, and for so long as Dr. Kisiel is an employee of MAYO (the " **Commitment to Confer Period** "), Dr. Kisiel will consult on, collaborate with, and oversee EXACT on product development efforts, as a special advisor to the EXACT board of directors and senior management. EXACT will confer with Dr. Kisiel in person in Rochester, MN, Madison, WI or as mutually agreed, or by telephone. All travel expenses incurred by Dr. Kisiel in this role as advisor shall be paid by EXACT. EXACT anticipates Dr. Kisiel will contribute up to 50% of his time to services for EXACT, with the remainder of his time allocated to clinical practice. MAYO shall be solely responsible for compensating Dr. Kisiel, provided, however, that in consideration of the services provided under this Section 2.06(b), EXACT shall pay MAYO the

amounts set forth in Section 3.05. If for any reason Dr. Kisiel becomes unavailable to direct the performance of the work under this Restated Agreement, MAYO shall notify EXACT and the Parties will work together to identify a mutually acceptable successor to provide the advisory services formerly provided by Dr. Kisiel, as well as mutually acceptable compensation to replace that described in Section 3.05 for Dr. Kisiel, with the intent to keep Dr. Kisiel's research team and projects intact; provided, however, if the Parties fail to agree on a mutually acceptable successor within a reasonable period of time, EXACT may, upon written notice to MAYO, terminate the Commitment to Confer Period and the Parties' obligations under this Section 2.06(b) as well as EXACT's payment obligations under Section 3.05 (for the avoidance of doubt, any such terminations shall not have the effect of terminating EXACT's other rights under this Restated Agreement, including without limitation its license rights).

(c) Notwithstanding EXACT's rights to sublicense pursuant to Section 2.01 hereto, EXACT shall not have the right to sublicense any obligation of Dr. Kisiel to confer. In addition, in the event of a Change of Control, MAYO may, within thirty (30) days of the effective date of such Change of Control, terminate the Parties' obligations under Section 2.06(b), which shall automatically result in the termination of EXACT's payment obligations under Section 3.05 (for the avoidance of doubt, any such terminations shall not have the effect of terminating EXACT's other rights under this Restated Agreement, including without limitation its license rights).

F. **Section 2.07** License Grant for New Markers. Section 2.07 is deleted and replaced with:

2.07 LICENSE GRANT FOR NEW MARKERS. MAYO grants to EXACT a perpetual exclusive license with the right to sublicense, to make, have made, use, offer for sale, sell, and import Licensed Products that incorporate, use, or derive from any markers identified by Dr. Ahlquist, Dr. Kisiel (or his successor) or any member of Dr. Ahlquist's or Dr. Kisiel's (or his successor's) research team from the Effective Date through the expiration or earlier termination of the Commitment to Confer Period, whether such markers are patented or unpatented. MAYO represents and warrants that all such markers that have been identified as of the Effective Date are listed on Exhibit B hereto, and MAYO agrees that it shall update Exhibit B from time to time to include all new markers within the Field. Exhibit B shall be updated on a semi-annual basis. All rights granted under this Section 2.07 are subject to MAYO's and its Affiliates' reserved, irrevocable right to use such markers in connection with MAYO's and its Affiliates' educational, research and non-commercial, and non-competitive with EXACT, clinical programs (for the avoidance of doubt, MAYO will not use such markers to develop or offer to third parties products or services that are competitive to any product or service offered or sold by EXACT or its Affiliates).

G. **Section 3.05** Compensation to Mayo for Ahlquist Know-How. Section 3.05 is deleted and replaced with:

> **3.05** COMPENSATION TO MAYO FOR KISIEL KNOW-HOW. During the Commitment to Confer Period, EXACT will reimburse MAYO for twenty-five percent (25%) of Dr. Kisiel's salary and benefits (the " **Reimbursement Amount** "). As of the Amendment Effective Date, Mayo projects that the Reimbursement Amount for calendar year 2019 will be approximately one hundred eighty-eight thousand, eight hundred and eighty-eight dollars ($188,888). The actual Reimbursement Amount, subject to reasonable standard programmed adjustments, will be invoiced by Mayo on a calendar quarterly basis and shall be paid by Exact within thirty (30) days of receipt of such invoice. The financial information in this Section 3.05 is MAYO's Confidential Information.
>
> This amount will be proportionately adjusted each calendar year based on any increase in that year's rate of salary and benefits for Dr. Kisiel as compared to the prior year.

H. **Exhibit B to the Existing Agreement.** MAYO hereby updates Exhibit B to the Existing Agreement (as amended by this Amendment) (" **Exhibit B** ") by providing Annex I to this Amendment. MAYO represents and warrants that all markers required to be identified on Exhibit B are listed on Annex I.

I. **Construction.** References in the Existing Agreement to "EXACT" shall be deemed to refer to ESDC except where the context requires otherwise.

J. **Entire Amendment.** This Amendment and the Existing Agreement together constitute the entire agreement between the Parties with respect to the subject matter hereof and merge all prior and contemporaneous communications regarding the same subject matter. They may not be further modified except by a written agreement dated subsequent to the Amendment Effective Date and signed on behalf of MAYO and ESDC.

K. **Counterparts.** This Amendment may be executed in counterparts, each of which will be deemed an original, but all of which together will constitute one and the same instrument. Electronic transmission of a signed counterpart of this Amendment will constitute due and sufficient delivery of such counterpart.

(signature page follows)

EXHIBIT 10.30

IN WITNESS WHEREOF , the parties, intending to be legally bound thereby, have executed this Amendment as of the signature dates indicated below and intend it to be effective as of the Amendment Effective Date.

MAYO FOUNDATION FOR MEDICAL EDUCATION AND RESEARCH	**EXACT SCIENCES DEVELOPMENT COMPANY, LLC**
By: /s/ Leif R. Nelson	By: /s/ Kevin T. Conroy
Name: Leif R. Nelson	Name: Kevin T. Conroy
Title: Senior Director, Business Development	Title: President & Chief Executive Officer
Date: December 28, 2018	Date: December 28, 2018

EXHIBIT 10.30

ANNEX I

Updated Exhibit B

See attached.

EXHIBIT 10.8

EMPLOYMENT AGREEMENT

This **EMPLOYMENT AGREEMENT** (" **Agreement** ") is entered into effective as of September 11, 2017 (the " **Effective Date** "), by and between Scott Johnson (" **Employee** ") and Exact Sciences Corporation, a Delaware corporation (the " **Company** ," and together with Employee, the " **Parties** ").

WHEREAS , the Company desires to employ Employee as its Senior Vice President, Research & Development, and Employee desires to accept such employment, under this Agreement.

NOW, THEREFORE , in consideration of the mutual covenants and conditions hereinafter set forth, and other good and valuable consideration, receipt of which is hereby acknowledged, the Parties agree as follows:

1. Employment . The Company shall employ Employee as the Company's Senior Vice President, Research & Development and Employee shall serve the Company in such position, under this Agreement and subject to the authority and direction of the Board of Directors of the Company (the " **Board** ") or its designee. Employee shall (a) devote his or her full-time professional efforts, attention and energies to the business of the Company, (b) owe an undivided duty of loyalty to the Company and (c) faithfully and to the best of Employee's abilities perform his or her duties hereunder. Employee may serve as a director or committee member of other corporations, charitable organizations and trade associations (provided that the Company is notified in advance of all such positions) and may otherwise engage in charitable and community activities, deliver lectures and fulfill speaking engagements (with the prior approval of the CEO), and manage personal investments, but only if such services and activities do not interfere with the performance of Employee's duties and responsibilities under this Agreement.

2. Term of Employment . Employee's employment (the " **Employment Term** ") shall continue until terminated as provided in **Section 6** below. A " **Separation from Service** " means the termination of Employee's employment with, and performance of services for, the Company and each Affiliate. If Employee is employed by, or performing services for, an Affiliate or a division of the Company or an Affiliate, Employee shall not be deemed to incur a Separation from Service if such Affiliate or division ceases to be an Affiliate or division of the Company, as the case may be, and Employee immediately thereafter becomes an employee of (or service provider to) the Company or an Affiliate or a successor company or an affiliate or subsidiary thereof. Approved temporary absences from employment because of illness, vacation or leave of absence and transfers among the Company and its Affiliates will not be considered a Separation from Service. Notwithstanding the foregoing, with respect to any amount or benefit under this Agreement that constitutes nonqualified deferred compensation under Section 409A of the Internal Revenue Code of 1986, as amended (the " **Code** "), and that is payable upon a Separation from Service, "Separation from Service" means a "separation from service" as defined under Code Section 409A.

3. Compensation . During the Employment Term, Employee shall receive the following compensation from the Company.

3.1 Base Salary . Employee's annual base salary on Effective Date is Three Hundred Thirty-Five Thousand dollars ($335,000.00), payable in accordance with the normal payroll practices of the Company (" **Base Salary** "). Employee's Base Salary shall be subject to annual review by the Company's Chief Executive Officer (the " **CEO** "), the Board and its Compensation Committee (the " **Committee** "). During the Employment Term, the Company shall periodically, in the discretion of, and at intervals determined by, the Committee, review the Base Salary amount to determine any modifications. In no event shall the Base Salary, following any such modification, be less than the Base Salary amount for the immediately preceding twelve (12)-month period other than as permitted in **Section 6.1(c)** below.

3.2 Annual Bonus Compensation . Employee shall be eligible to be considered for an annual, discretionary cash bonus each calendar year. Employee's target annual bonus percentage for each calendar year shall be forty percent (40%) of his or her Base Salary as of January 1 of the applicable new calendar year. Employee acknowledges that any such annual bonus shall be entirely within the discretion of the CEO and the Committee based upon the achievement of goals (including corporate and individual goals) and other discretionary factors as determined by the Board or the Committee after consultation with the CEO. Except as otherwise provided in the discretion of the Committee or in this Agreement, Employee shall not be eligible to be considered for, or to receive, an annual bonus for any calendar year unless he or she remains employed with the Company through December 31 of the applicable calendar year and through the date of payment of such bonus. If an annual bonus is awarded to Employee, it shall be paid no later than March 15 following the end of the calendar year for which it was awarded.

3.3 Equity Incentives .

(a) The Board, upon the recommendation of the Committee, or the Committee, may grant Employee from time to time options to purchase shares of the Company's common stock and other equity compensation plan awards, including restricted stock units, both as a reward for past individual and corporate performance and as an incentive for future performance. Such options and other awards, if granted, shall be pursuant to the Company's then current equity compensation plan. For purposes of this Agreement, " **Equity Awards** " means Employee's stock options, stock appreciation rights, restricted stock units (including performance stock units) and restricted shares (including performance shares), in each case that are issued and outstanding under a Company equity compensation plan; and, for the avoidance of doubt, Equity Awards shall not include any rights or benefits under the Company's 2010 Employee Stock Purchase Plan, as amended, or any successor plan thereto. For purposes of this Agreement, a " **Performance Award** " means an Equity Award that vests or becomes earned subject to the attainment of performance goals.

(b) Effective September 11, 2017, Employee will receive an initial grant of thirty thousand (30,000) restricted stock units ("RSUs") to be settled in shares of the Company's common stock pursuant to the Company's stock option plan upon commencement of employment. Twenty-five percent (25%) of the shares underlying the RSUs shall vest on the first anniversary of the date of grant and annually thereafter, commencing on the first anniversary of the grant date, subject to the acceleration of vesting (i) as described in Section 6.3 hereof, (ii) as described in Section 7.1(d) and 7.2(b) hereof, and (iii) as may be set forth in the grant agreements issued by the Company, as amended, provided, that in the event of a conflict between any grant agreement and this Agreement this Agreement shall control.

4. Benefits .

4.1 Benefits . Employee shall be entitled to participate in the sick leave, insurance (including medical, life and long-term disability), profit-sharing, retirement and other benefit programs that are generally provided to similarly situated and performing employees of the Company, all in accordance with the rules and policies of the Company as to such matters and the plans established therefore.

4.2 Vacation and Personal Time . The Company shall provide Employee with four (4) weeks of paid vacation and other personal time off each calendar year Employee is employed by the Company, in accordance with Company policy. The foregoing vacation and personal time off days shall be in addition to standard paid holiday days for employees of the Company. Employee shall not be permitted to accrue more than four (4) weeks of paid vacation or other personal time off.

4.3 Indemnification . To the fullest extent permitted by applicable law or the Company's articles of incorporation and bylaws, the Company shall, during the Employment Term and after Employee's Separation from Service, indemnify Employee (including providing advancement of expenses) for any judgments, fines, amounts paid in settlement and reasonable expenses, including attorneys' fees, incurred by Employee in connection with the defense of any lawsuit or other claim or investigation to which Employee is made, or threatened to be made, a party or witness by reason of being or having been an officer, director or employee of the Company or any of its subsidiaries or affiliates as deemed under the Securities Exchange Act of 1934, as amended (" **Affiliates** "), or a fiduciary of any of their benefit plans, other than actions by the Company against Employee alleging breach of this Agreement by Employee.

4.4 Liability Insurance . Both during the Employment Term and after Employee's Separation from Service, the Company shall cause Employee to be covered under a directors and officers' liability insurance policy for his or her acts (or non-acts) as an officer of the Company or any of its Affiliates. Such policy shall be maintained by the Company, at its expense in an amount and on terms (including the time period of coverage after Employee's Separation from Service) at least as favorable to Employee as policies covering the Company's other executive officers.

5. Business Expenses . Upon submission of a satisfactory accounting by Employee, consistent with the policies of the Company, the Company shall reimburse Employee for any reasonable and necessary out-of-pocket expenses actually incurred by Employee in the furtherance of the business of the Company.

6. Separation from Service .

6.1 By Employee .

(a) Without Good Reason . Employee may initiate Employee's Separation from Service under this Agreement at any time without Good Reason with at least thirty (30) business days' written notice (the " **Employee Notice Period** ") to the Company. Upon Separation from Service by Employee under this section, the Company may, in its sole discretion and at any time during the Employee Notice Period, suspend Employee's duties for the remainder of the Employee Notice Period, as long as the Company continues to pay compensation to Employee, including benefits, throughout the Employee Notice Period.

(b) With Good Reason . Subject to **Section 7.1** below, Employee may initiate Employee's Separation from Service under this Agreement with Good Reason at any time within ninety (90) days after the occurrence of an event constituting Good Reason.

(c) Good Reason Defined . " **Good Reason** " means, provided that Employee has complied with the Good Reason Process following the occurrence of any of the following events without Employee's consent: (i) Employee's Base Salary is reduced (x) in a manner that is not applied proportionately to other senior executive officers of the Company or (y) by more than thirty percent (30%) of Employee's then current Base Salary; (ii) Employee's duties, authority or responsibilities are materially reduced or are materially inconsistent with the scope of authority, duties and responsibilities of Employee's position; (iii) the occurrence of a material breach by the Company of any of its obligations to Employee under this Agreement; or (iv) a relocation of Employee's principal place of employment by more than fifty (50) miles.

(d) Good Reason Process . " **Good Reason Process** " means that (i) Employee reasonably determines in good faith that a Good Reason condition has occurred; (ii) Employee notifies the Company in writing of the occurrence of the Good Reason condition within sixty (60) days of such occurrence; (iii) Employee cooperates in good faith with the

Company's efforts, for a period of not less than thirty (30) days following such notice (the " **Cure Period** "), to remedy the condition; (iv) notwithstanding such efforts, the Good Reason condition continues to exist following the Cure Period; and (v) Employee Separates from Service for Good Reason within sixty (60) days after the end of the Cure Period. If the Company cures the Good Reason condition during the Cure Period, and Employee Separates from Service due to such condition (notwithstanding its cure), then Employee shall not be deemed to have Separated from Service for Good Reason.

6.2 By the Company .

(a) With Cause . The Company may initiate Employee's Separation from Service under this Agreement for Cause immediately upon written notice to Employee.

(b) Cause Defined. "Cause" means any of the following:

(i) Employee's willful failure or refusal to perform Employee's duties that continues for more than three (3) days after written notice from the Company;

(ii) Employee's willful failure or refusal to follow or comply with any Company policy, rule or procedure that continues for more than three (3) days after written notice from the Company;

(iii) Employee's commission of any fraud or embezzlement in connection with Employee's duties or committed in the course of Employee's employment;

(iv) Employee's gross negligence or willful misconduct with regard to the Company or any of its Affiliates resulting in a material economic loss to the Company;

(v) Employee's conviction of, or plea of guilty or nolo contendere to, a felony or other crime involving moral turpitude;

(vi) Employee's conviction of, or plea of guilty or nolo contendere to, a misdemeanor the circumstances of which involve fraud, dishonesty or moral turpitude and that is substantially related to the circumstances of Employee's job with the Company;

(vii) Employee's willful and material violation of any statutory or common law duty of loyalty to the Company or any of its Affiliates; or

(viii) Employee's material breach of this Agreement, the Non-Disclosure and Invention Agreement or the Restrictive Covenant Agreement.

A Separation from Service for Cause shall be deemed to include a determination by the Company in its sole discretion following Employee's Separation from Service that circumstances existing prior to the Separation from Service or during the payment of severance benefits would have entitled the Company or an Affiliate to have terminated Employee's service for Cause. All rights Employee has or may have under this Agreement shall be suspended automatically during the pendency of any investigation by the Company, or during any negotiations between the Parties, regarding any actual or alleged act or omission by Employee of the type described in the applicable definition of Cause.

(c) Without Cause . Subject to **Section 7.1** below, the Company may initiate Employee's Separation from Service under this Agreement without Cause upon at least thirty (30) days' written notice (the " **Company Notice Period** ") to Employee. Upon any Separation from Service initiated by the Company without Cause, the Company may, in its sole discretion and at any time during the Company Notice Period, suspend Employee's duties for the remainder of the Company Notice Period, as long as the Company continues to pay compensation to Employee, including benefits, throughout the Company Notice Period.

6.3 Death or Disability . Notwithstanding **Section 2** above, in the event of the death of Employee or disability of Employee that prevents Employee from performing the Essential Job Functions of his or her position (even with a Reasonable Accommodation) during the Employment Term, (i) Employee shall incur a Separation from Service and this Agreement shall immediately and automatically terminate, (ii) the Company shall pay Employee (or in the case of death, Employee's designated beneficiary) Base Salary and accrued but unpaid bonuses, in each case up to the date of Separation from Service and (iii) one hundred percent (100%) of Employee's Equity Awards shall become fully vested and exercisable; and Employee shall be entitled to exercise such Equity Awards (if exercisable) in accordance with **Section 7.6** below. None of Employee, his or her beneficiary or his or her estate shall be entitled to any severance benefits set forth in **Section 7** below if Employee's Separation from Service occurs as a result of Employee's death or disability. In the event of the disability of Employee, the Parties shall comply with applicable federal, state and local law. For purposes of this **Section 6.3** , " **Essential Job Functions** " and " **Reasonable Accommodation** " shall have the meanings of these terms under applicable law, and shall be interpreted to grant Employee the same, and no greater, rights and responsibilities provided by applicable law.

6.4 Survival . Each of the Non-Disclosure and Invention Agreement and the Restrictive Covenant Agreement described in **Section 8** below and attached hereto as **Exhibit A** and **Exhibit B** respectively, shall survive the termination of this Agreement.

7. Severance and Other Rights Relating to Separation from Service and Change in Control .

7.1 Separation from Service by the Company without Cause or by Employee for Good-Reason. If the Company initiates Employee's Separation from Service without Cause or if Employee initiates Employee's Separation from Service for Good Reason, then subject to the conditions described in **Section 7.3** below, the Company shall provide Employee the following payments and other benefits:

(a) (i) Salary continuation for a period of twelve (12) months at Employee's then current Base Salary, which shall commence on the first payroll date that is on or that immediately follows the sixtieth (60th) day following the Separation from Service; (ii) any accrued but unpaid Base Salary as of the Separation from Service; and (iii) any earned, awarded and accrued, but unpaid, bonus as of the Separation from Service, all on the same terms and at the same times as would have applied had Employee not incurred a Separation from Service.

(b) If Employee elects COBRA coverage for health and/or dental insurance in a timely manner, the Company shall pay the monthly premium payments for such timely elected coverage (consistent with what was in place at the Separation from Service) when each premium is due until the earliest of the following: (i) twelve (12) months from the Separation from Service; (ii) the date Employee obtains new employment that offers health and/or dental insurance that is reasonably comparable to that offered by the Company; or (iii) the date COBRA continuation coverage would otherwise terminate in accordance with the provisions of COBRA. Thereafter, health and dental insurance coverage shall be continued

only to the extent required by COBRA and only to the extent Employee timely pays the premium payments himself or herself.

(c) Within thirty (30) days of the Separation from Service, the Company shall pay Employee Ten Thousand Dollars ($10,000) towards the cost of an outplacement consulting package for Employee.

(d) The time vesting and exercisability of one hundred percent (100%) of Employee's Equity Awards shall accelerate by a period of twelve (12) months; and Employee shall be entitled to exercise such Equity Awards (if exercisable) in accordance with **Section 7.6** below. For purposes of Performance Awards, Employee shall be treated under this **Section 7.1(d)** as having remained in service for an additional twelve (12) months following actual Separation from Service, provided that Performance Awards shall not become vested or earned solely as a result of this **Section 7.1(d)** , and such vesting and earning shall remain subject to the attainment of all applicable performance goals, and such Performance Awards, if and to the extent they become vested or earned, shall be payable at the same time as under the applicable award agreement.

7.2 Change in Control . The Board has determined that it is in the best interests of the Company and its stockholders to ensure that the Company will have the continued dedication of Employee, notwithstanding the possibility, threat or occurrence of a Change in Control. The Board believes it is imperative to diminish the inevitable distraction of Employee by virtue of the personal uncertainties and risks created by a pending or threatened Change in Control, to encourage Employee's full attention and dedication to the Company currently and in the event of any threatened or pending Change in Control and to provide Employee with compensation and benefits arrangements upon a Change in Control that ensure that the compensation and benefits expectations of Employee will be satisfied and that are competitive with those of other similarly-situated companies. Therefore, in order to accomplish these objectives, the Board has caused the Company to include the provisions set forth in this **Section 7.2** .

(a) Change in Control Defined . " **Change in Control** " means, and shall be deemed to have occurred if, on or after the Effective Date, (i) any "person" (as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended) or group acting in concert, other than a trustee or other fiduciary holding securities under an employee benefit plan of the Company acting in such capacity or a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of stock of the Company, becomes the "beneficial owner" (as defined in Rule 13d-3 under said Act), directly or indirectly, of securities of the Company representing more than fifty percent (50%) of the total voting power represented by the Company's then outstanding voting securities, (ii) during any twelve (12)-month period, individuals who at the beginning of such period constitute the Board and any new director whose election by the Board or nomination for election by the Company's stockholders was approved by a vote of at least two thirds (2/3) of the directors then still in office who either were directors at the beginning of the period or whose election or nomination for election was previously so approved, cease for any reason to constitute a majority thereof, (iii) the consummation of a merger or consolidation of the Company with any other corporation other than a merger or consolidation that would result in the voting securities of the Company outstanding immediately prior thereto continuing to represent (either by remaining outstanding or by being converted into voting securities of the surviving entity) at least fifty percent (50%) of the total voting power represented by the voting securities of the Company or such surviving entity outstanding immediately after such merger or consolidation or (iv) the sale or disposition by the Company of (in one (1) transaction or a series of related transactions) all or substantially all of the Company's assets.

(b) Acceleration of Vesting of Equity Awards .

(i) Upon a Change in Control, the time vesting and exercisability of one hundred percent (100%) of Employee's Equity Awards shall immediately accelerate by a period of twelve (12) months, provided that this **Section 7.2(b)(i)** shall apply to Performance Awards such that if the applicable performance period is scheduled to end within twelve (12) months following the Change in Control, the Performance Award shall be deemed to have been fully vested and earned as of the Change in Control based upon the greater of (A) an assumed achievement of all relevant performance goals at the "target" level or (B) the actual level of achievement of all relevant performance goals as of the Change in Control.

(ii) If within four (4) months before or twelve (12) months after a Change in Control, Employee incurs a Separation from Service initiated by the Company (or a successor) without Cause or initiated by Employee for Good Reason, then one hundred percent (100%) of Employee's Equity Awards shall become fully vested and exercisable; and Employee shall be entitled to exercise such Equity Awards (if exercisable) in accordance with **Section 7.6** below. Performance Awards shall be deemed to have been fully vested and earned under this **Section 7.2(b)(ii)** based upon the greater of (1) an assumed achievement of all relevant performance goals at the "target" level or (2) the actual level of achievement of all relevant performance goals as of the Change in Control.

7.3 Conditions Precedent . The Company's obligations to Employee described in **Sections 7.1** and **7.2** above are contingent on Employee's delivery to the Company of a signed waiver and release of claims against the Company and its Affiliates in a form reasonably satisfactory to the Company within twenty-one (21) days (or forty-five (45) days to the extent required by applicable law) after the day on which the Company provides the release to Employee, and not revoking such release (if a right to revocation exists under applicable law). Moreover, Employee's rights to receive ongoing payments and benefits pursuant to **Sections 7.1** and **7.2** above (including the right to ongoing payments under the Company's equity compensation plans) are conditioned on Employee's ongoing compliance with his or her obligations as described in **Section 8** below, and Company may set off any such payments or benefits, except to the extent prohibited by law, in the event of Employee's failure to comply with any such obligations. Any cessation by the Company of any such payments and benefits shall be in addition to, and not in lieu of, any and all other remedies available to the Company for Employee's breach of his or her obligations described in **Section 8** below.

7.4 No Severance Benefits . Employee shall not be entitled to any severance benefits if Employee initiates Employee's Separation from Service without Good Reason or if the Company initiates Employee's Separation from Service without Cause; provided, however, that Employee shall be entitled to (i) Base Salary prorated through the Separation from Service; and (ii) medical coverage and other benefits required by law and plans (as provided in **Section 7.5** below).

7.5 Benefits Required by Law and Plans . In the event of Employee's Separation from Service, Employee shall be entitled to medical and other insurance coverage, if any, as is required by law and, to the extent not inconsistent with this Agreement, to receive such additional benefits as Employee may be entitled under the express terms of applicable benefit plans (other than bonus or severance plans) of the Company or its Affiliates.

7.6 Exercise Period of Equity Awards after Separation from Service . Notwithstanding any provision of this Agreement or any applicable Equity Award agreement to the contrary, (i) in the event of Employee's Separation from Service initiated by the Company without Cause or by Employee for Good Reason or due to Employee's disability or death, Employee's vested and

exercisable Equity Awards shall remain exercisable (if exercisable) until the earlier of two (2) years from such Separation from Service or the latest date on which those Equity Awards expire or are eligible to be exercised under the applicable award agreements, determined without regard to such Separation from Service and (ii) in the event of Employee's Separation from Service initiated by the Cause for Cause of by Employee without Good Reason, the exercise periods of Employee's Equity Awards shall continue to be governed by the terms of the applicable award agreements.

8. Restrictions .

8.1 Non-Disclosure and Invention Agreement . In consideration for employment or continued employment by the Company, as well as the salary and additional compensation and benefits described in this Agreement, as well as the Company's provision of confidential information of the Company to Employee, Employee has entered or shall enter into and shall comply with the terms of the Employee Non-Disclosure and Invention Assignment Agreement in substantially the form attached hereto as **Exhibit A** (the " **Non-Disclosure and Invention Agreement** ").

8.2 Restrictive Covenant Agreement. In consideration for employment or continued employment by the Company, as well as the salary and additional compensation and benefits described in this Agreement, as well as the Company's provision of confidential information of the Company to Employee, Employee has entered or shall enter into and shall comply with the terms of the Employee Non-Competition, Non-Solicitation and No-Interference Agreement in substantially the form attached hereto as **Exhibit B** (the " **Restrictive Covenant Agreement** ").

9. Arbitration . Unless other arrangements are agreed to by the Parties, any disputes arising under or in connection with this Agreement, other than a dispute in which the primary relief sought is an equitable remedy such as an injunction, shall be resolved by binding arbitration to be conducted pursuant to the Agreement for Arbitration Procedures of Certain Employment Disputes in substantially the form attached hereto as **Exhibit C** .

10. Assignments: Transfers: Effect of Merger . No rights or obligations of the Company under this Agreement may be assigned or transferred by the Company except that such rights or obligations may be assigned or transferred pursuant to a merger or consolidation, or pursuant to the sale or transfer of all or substantially all of the assets of the Company, provided that the assignee or transferee is the successor to all or substantially all of the assets of the Company. This Agreement shall not be terminated by any merger, consolidation or transfer of assets of the Company referred to above. In the event of any such merger, consolidation or transfer of assets, this Agreement shall be binding upon the surviving or resulting corporation or the person or entity to which such assets are transferred. Concurrently with any merger, consolidation or transfer of assets referred to above, the Company shall cause any successor or transferee unconditionally to assume, either contractually or as a matter of law, all of the obligations of the Company hereunder. This Agreement shall inure to the benefit of, and be enforceable by or against, Employee or Employee's personal or legal representatives, executors, administrators, successors, heirs, distributees, designees and legatees. None of Employee's rights or obligations under this Agreement may be assigned or transferred by Employee other than Employee's rights to compensation and benefits, which may be transferred only by will or operation of law. If Employee should die while any amounts or benefits have been accrued by Employee but not yet paid as of the date of Employee's death and which would be payable to Employee hereunder had Employee continued to live, all such amounts and benefits unless otherwise provided herein shall be paid or provided in accordance with the terms of this Agreement to such person or persons appointed in writing by Employee to receive such amounts or, if no such person is so appointed, to Employee's estate.

11. No Set-off; No Mitigation Required . Except as expressly provided otherwise in this Agreement, the obligation of the Company to make any payments provided for hereunder and otherwise to perform its obligations hereunder shall not be affected by any set-off, counterclaim, recoupment, defense or other claim, right or action that the Company may have against Employee or others. In no event shall Employee be obligated to seek other employment or take other action by way of mitigation of the amounts payable to Employee under this Agreement, and such amounts shall not be reduced (except as otherwise specifically provided herein) whether or not Employee obtains other employment.

12. Taxes . The Company shall have the right to deduct from any payments made pursuant to this Agreement any and all federal, state and local taxes or other amounts required by law to be withheld.

13. Code Section 409A . This Agreement is intended to comply with Code Section 409A to the extent subject thereto, and, accordingly, to the maximum extent permitted, this Agreement shall be interpreted and administered to be in compliance therewith. Notwithstanding any provision of this Agreement to the contrary, to the extent required to avoid accelerated taxation or tax penalties under Code Section 409A, any amounts or benefits that would otherwise be payable under this Agreement during the six (6)-month period immediately following Employee's Separation from Service shall instead be paid on the first payroll date after the six (6)-month anniversary of Employee's Separation from Service (or Employee's death, if earlier). For purposes of Code Section 409A, Employee's right to receive any installment payments pursuant to this Agreement shall be treated as a right to receive a series of separate and distinct payments. Whenever a payment under this Agreement specifies a payment period with reference to a number of days, the actual date of payment within the specified period shall be in the sole discretion of the Company. Notwithstanding the foregoing, the Company shall not have any obligation to take any action to prevent the assessment of any excise tax or penalty on any person under Code Section 409A and the Company shall not have any liability to any person for such tax or penalty.

14. Code Section 280G . Notwithstanding any provision of this Agreement or any other plan, arrangement or agreement to the contrary, if any of the payments or benefits provided or to be provided by the Company or an Affiliate to Employee or for Employee's benefit under this Agreement or otherwise (" **Covered Payments** ") constitute "parachute payments" within the meaning of Code Section 280G and would, but for this **Section 14** , be subject to the excise tax imposed under Code Section 4999 or any similar tax imposed by state or local law or any interest or penalties with respect to such taxes (collectively, the " **Excise Tax** "), then prior to making the Covered Payments, a calculation shall be made comparing (i) the Net Benefit to Employee of the Covered Payments after payment of the Excise Tax to (ii) the Net Benefit to Employee if the Covered Payments are limited to the extent necessary to avoid being subject to the Excise Tax; and if the amount calculated under (i) is less than the amount under (ii), the Covered Payments shall be reduced to the minimum extent necessary to ensure that no portion of the Covered Payments is subject to the Excise Tax. " **Net Benefit** " means the present value of the Covered Payments net of all taxes. All determinations required to be made under this **Section 14** shall be made by the Company in its sole discretion.

15. Miscellaneous . No amendment, modification or waiver of this Agreement or consent to any departure thereof shall be effective unless in writing signed by the Party against whom it is sought to be enforced. This Agreement contains the entire Agreement that exists between the Parties with respect to the subjects herein contained and replaces and supersedes all prior agreements, oral or written, between the Parties with respect to the subjects herein contained. Except as and to the extent expressly provided in this Agreement, nothing herein shall affect any terms in the Non-Disclosure and Invention Agreement, the Restrictive Covenant Agreement, the Agreement for Arbitration Procedures of Certain Employment Disputes or any equity compensation plans or corresponding award agreements between the Parties now and hereafter in effect from time to time. If any provision of this Agreement is held for any reason to be unenforceable, the remainder of this Agreement shall remain in full force and effect. Each section is intended to be a severable and independent section within this Agreement. The headings in this Agreement are intended solely for convenience of reference and shall be given no effect in the construction or interpretation of this Agreement. This Agreement is made in the State of Wisconsin and shall be governed by and construed in accordance with the laws of said State, without regard to principles of conflicts of law.

This Agreement may be executed in one (1) or more counterparts, each of which shall be deemed an original but all of which together shall constitute one (1) and the same instrument. All notices and all other communications provided for in this Agreement shall be in writing and shall be considered duly given upon personal delivery, delivery by nationally reputable overnight courier or on the third (3rd) business day after mailing from within the United States by first class certified or registered mail, return receipt requested, postage prepaid, all addressed to the address set forth below each Party's signature to this Agreement. Any Party may change its address by furnishing notice of its new address to the other Party in writing in accordance herewith, except that any notice of change of address shall be effective only upon receipt.

IN WITNESS WHEREOF , Employee and the Company have executed this Employment Agreement as of the Effective Date.

EMPLOYEE

Sign name: /s/ Scott Johnson

Print name: Scott Johnson

Notice address: _____

_____

EXACT SCIENCES CORPORATION

Sign name: /s/ Kevin T. Conroy

Print name: Kevin T. Conroy

Title: President and Chief Executive Officer

Notice address: 441 Charmany Drive

Madison, WI 53719

EXHIBIT 21

SUBSIDIARIES OF EXACT SCIENCES CORPORATION

Registrant's consolidated subsidiaries are shown below, together with the state or jurisdiction of organization of each subsidiary and the percentage of voting securities that Registrant owns in each subsidiary.

Name of Subsidiary	Jurisdiction of Incorporation or Organization	Percent of Outstanding Voting Securities Owned as of December 31, 2018
Beijing Exact Sciences Medical Technology Company Ltd.	China	100 %
CG Growth, LLC	Wisconsin	100 %
Exact Sciences Development Company, LLC	Delaware	100 %
Exact Sciences Europe Ltd.	England and Wales	100 %
Exact Sciences Finance Corporation	Delaware	100 %
Exact Sciences Laboratories LLC	Delaware	100 %
Sampleminded, Inc.	Utah	100 %
Biomatrica, Inc.	California	100 %

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Exact Sciences Corporation
Madison, Wisconsin

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-218535, effective June 6, 2017) and Form S-8 (No. 333-219553, effective July 28, 2017; No. 333-212730, effective July 28, 2016; No. 333-211099, effective May 3, 2016; No. 333-207703, effective October 30, 2015; No. 333-190350, effective August 2, 2013; No. 333-168909, effective August 17, 2010; No. 333-164467, effective January 22, 2010; and No. 333-158307, effective March 31, 2009) of Exact Sciences Corporation of our reports dated February 21, 2019, relating to the consolidated financial statements, and the effectiveness of Exact Sciences Corporation's internal control over financial reporting, which appear in this Form 10-K.

/s/ BDO USA, LLP
Madison, Wisconsin
February 21, 2019

EXHIBIT 31.1

CERTIFICATION

I, Kevin T. Conroy, certify that:

1. I have reviewed this annual report on Form 10-K of Exact Sciences Corporation;

2. Based on my knowledge, this annual 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 annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual 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 annual report;

4. The registrant's other certifying officer and I are 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 our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our 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 annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

   d) Disclosed in this annual 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. The registrant's other certifying officer and I have disclosed, based on our 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.

Dated: February 21, 2019

/s/ Kevin T. Conroy
Name: Kevin T. Conroy
Title: President and Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

CERTIFICATION

I, Jeffrey T. Elliott, certify that:

1. I have reviewed this annual report on Form 10-K of Exact Sciences Corporation;

2. Based on my knowledge, this annual 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 annual report;

3. Based on my knowledge, the financial statements, and other financial information included in this annual 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 annual report;

4. The registrant's other certifying officer and I are 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 our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this annual report is being prepared;

   b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our 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 annual report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this annual report based on such evaluation; and

   d) Disclosed in this annual 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. The registrant's other certifying officer and I have disclosed, based on our 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.

Dated: February 21, 2019

/s/ Jeffrey T. Elliott
Name: Jeffrey T. Elliott
Title: Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 32

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 on Form 10-K of Exact Sciences Corporation (the "Company") for the year ended December 31, 2018 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), we, Kevin T. Conroy, President and Chief Executive Officer of the Company and Jeffrey T. Elliott, Chief Financial 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, to our knowledge that:

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

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

Dated: February 21, 2019

/s/ Kevin T. Conroy
Name: Kevin T. Conroy
Title: President and Chief Executive Officer
(Principal Executive Officer)

Dated: February 21, 2019

/s/ Jeffrey T. Elliott
Name: Jeffrey T. Elliott
Title: Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)