NanoString Technologies Inc
Form 424B5
March 18, 2019

Subject to completion, dated March 18, 2019
The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been filed with the Securities and Exchange Commission and is effective. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and they are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.
Filed Pursuant to Rule 424(b)(5)
Registration No. 333-230361

Preliminary prospectus supplement
(To prospectus dated March 18, 2019)
4,500,000 shares
Common Stock
We are offering 2,500,000 shares of our common stock and the selling stockholder named in this prospectus supplement is offering 2,000,000 shares of our common stock. We will not receive any proceeds from the sale of shares of our common stock by the selling stockholder.
Our common stock is listed on The Nasdaq Global Market under the symbol “NSTG”. The last reported sale price of our common stock on The Nasdaq Global Market on March 15, 2019 was $27.51 per share.

	Per share	Total
Public offering price	$	$
Underwriting discounts and commissions[1]	$	$
Proceeds, before expenses, to us	$	$
Proceeds, before expenses, to the selling stockholder	$	$

[1] See “Underwriting” for a description of compensation payable to the underwriters.
We have granted the underwriters an option for a period of 30 days to purchase up to an additional 675,000 shares of common stock, at the public offering price less underwriting discounts and commissions. If the underwriters exercise their option in full, the total underwriting discounts and commissions payable by us will be $, and the total proceeds, before expenses, to us will be $.
Investing in our common stock involves a high degree of risk. Please refer to the “Risk Factors” beginning on page S-5 of this prospectus supplement.
Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus supplement or the accompanying prospectus. Any representation to the contrary is a criminal offense.
The underwriters expect to deliver the shares to purchasers on or about , 2019.
Joint Book-Running Managers
J.P. Morgan UBS Investment Bank Cowen
Lead Manager
Baird
, 2019

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Prospectus

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None of we, the selling stockholder nor the underwriters have authorized anyone to provide you with information that is different from that contained in this prospectus supplement, the accompanying prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. Neither we nor the selling stockholder take any responsibility for, or can provide any assurances as to the reliability of, any other information that others may give you. We, the selling stockholder and the underwriters are offering to sell shares of common stock and seeking offers to buy shares of common stock only in jurisdictions where offers and sales are permitted. The information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus, and in any free writing prospectus that we have authorized for use in connection with this offering, is accurate only as of the date of those respective documents, regardless of the time of delivery of those respective documents or sale of our common stock.

For investors outside the United States: none of we, the selling stockholder or the underwriters have done anything that would permit this offering or possession or distribution of this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering outside the United States.

About this prospectus supplement

This document consists of two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement. The second part is the accompanying prospectus dated March 18, 2019, which includes the documents incorporated by reference therein and provides more general information. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or the documents incorporated by reference herein or therein, you should rely on the information in this prospectus supplement. Generally, when we refer to the prospectus, we are referring to this prospectus supplement and the accompanying prospectus combined. You should read both this prospectus supplement and the accompanying prospectus, together with additional information described under the heading “Where you can find more information.”

Unless the context indicates otherwise, as used in this prospectus supplement, the terms “NanoString,” “we,” “us” and “our” refer to NanoString Technologies, Inc. and its subsidiaries. We use “NanoString,” “NanoString Technologies,” “nCounter,” “Prosigna,” “nCounter Elements,” “nCounter SPRINT,” “Vantage 3D,” “3D Biology,” “Hyb & Seq,” “GeoMx,” and "LymphM and other marks as trademarks in the United States and other countries. This prospectus supplement, the accompanying prospectus and the other documents incorporated by reference herein and therein contain references to our trademarks as well as third-party trademarks. Solely for convenience, trademarks and trade names, including logos, artwork and other visual displays, may appear without the ® or TM symbols, but such references are not intended to indicate in any way that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks and trade names. We do not intend our use of third-party trade names or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

Prospectus supplement summary

This summary highlights selected information about us, this offering and information appearing elsewhere in this prospectus supplement, in the accompanying prospectus and in the documents we incorporated by reference. This summary is not complete and does not contain all the information that you should consider before investing in our common stock pursuant to this prospectus supplement and the accompanying prospectus. Before making an investment decision, to fully understand this offering and its consequences to you, you should carefully read this entire prospectus supplement and the accompanying prospectus, including "Risk Factors" beginning on page S-5 of this prospectus supplement, the financial statements and related notes and the other information that we incorporate by reference herein, including our Annual Report on Form 10-K filed with the Securities and Exchange Commission, or the SEC, on March 11, 2019.

Overview

We develop, manufacture and sell products that unlock scientifically valuable and clinically actionable information from minute amounts of biological material. Our core technology is a unique, proprietary optical barcoding chemistry that enables the labeling and counting of single molecules. This proprietary chemistry may reduce the number of steps required to conduct certain types of scientific experiments and allow for multiple experiments to be conducted at once. As a result, we are able to develop tools that are easier for researchers to use and that may generate faster and more consistent scientific results.

We use our technology to develop tools for scientific research, primarily in the fields of genomics and proteomics, and also to develop clinical diagnostic tests. We currently have one commercially available product platform, our nCounter Analysis System instruments and related consumables. nCounter can be used to analyze the activity of up to 800 genes in a single experiment. nCounter is also used by clinicians to analyze gene activity relevant for diagnostic applications. Our proprietary nCounter-based Prosigna assay analyzes the activity of 50 genes to assess the risk of recurrence in breast cancer patients previously treated with radiation therapy. As of December 31, 2018, we had an installed base of approximately 730 nCounter systems, which our customers have used to publish more than 2,300 peer-reviewed scientific papers.

We have discovered other novel applications that utilize our proprietary barcoding chemistry, and we have two new product platforms under development. Following completion of product development, each of these new systems is expected to be commercialized as a new instrument along with associated consumables.

The first new platform, our GeoMx Digital Spatial Profiling, or DSP system, is designed to enable the field of spatial genomics. While nCounter and other existing technologies analyze gene activity as a whole throughout the totality of a biological sample, GeoMx DSP is used to analyze specifically selected regions of a biological sample in order to see how gene activity or protein levels might vary across those regions or in certain cell types. In advance of the launch of the commercial version of GeoMx DSP, we have provided early access to the system's capabilities by offering selected customers the opportunity to send biological samples to our Seattle facility to be tested by us on prototype instruments. As of March 18, 2019, we have conducted over 70 projects for approximately 50 customers pursuant to this Technology Access Program, or TAP. In addition, in the third quarter of 2018 we announced the GeoMx Priority Site, or GPS, Program. The GPS Program is designed to provide customers the opportunity to be among the first to receive a GeoMx DSP instrument following its commercial launch, as well as advanced service and support. Inclusion in the GPS Program has also provided researchers the opportunity to begin generating data on samples through our TAP service. As of December 31, 2018, we have received over 30 orders for GeoMx DSP pursuant to our GPS Program. The full commercial launch of GeoMx DSP instruments and consumables is expected to commence during the first half of 2019, with installations of commercial instruments expected to commence in the second half of 2019.

The second new platform, our Hyb & Seq molecular profiling system, is designed to use a modified version of our proprietary chemistry to determine and analyze gene sequences within a biological sample, or to potentially profile the activity of an even greater number of genes as compared to our nCounter Analysis System. Hyb & Seq is designed to determine gene sequences using a work flow with fewer steps as compared to currently available gene sequencing technologies. Hyb & Seq is expected to become commercially available during 2021.

New discoveries in genetics have generated a significant amount of scientific information and medical advancement. The decoding of the human genome, and the subsequent generation of large amounts of gene sequence data, has led to the emergence of pathway-based biology whereby researchers seek to understand how networks of genes may work together to produce a biological function or condition. The desire to interpret gene sequence data and map biological pathways has led to demand for technologies that can precisely and efficiently measure the activation state of hundreds of genes simultaneously.

Demand for these new or improved technologies has been driven by researchers in disease areas such as cancer, immunology and neurology. Researchers in these fields are increasingly attempting to determine which sequences of genes or mutations are important in disease-related biological pathways so that new potential treatments might be developed. For example, in the field of cancer, researchers and clinicians have learned that cancer cell behavior is impacted by multiple genes and proteins, and that analysis of these factors together may be important in determining whether or not a cancer might be responsive to a certain treatment. In addition, more cancers are being detected earlier and tumor samples are becoming smaller and smaller. Tumor samples are often stored in a format known as formalin-fixed paraffin embedded, or FFPE, which complicates subsequent analysis of genetic material. Researchers and clinicians may face similar challenges with analysis of biological samples in other therapeutic areas of interest.

Our proprietary chemistry, which has been incorporated into our nCounter product platform and our two product platforms in development, addresses many of the fundamental challenges of genetic and molecular profiling and biological pathway research. The sensitivity and precision of our chemistry allows the measurement of subtle changes in the activity of multiple genes from minute amounts of a biological sample. Our chemistry is particularly compatible with FFPE, increasing its popularity among cancer researchers. Our chemistry also supports product configurations that are easy to use with simple workflow as compared to many other scientific platforms used for genetic and proteomic research, including absence of library preparation and amplification steps that can be cumbersome or time consuming or that may introduce the possibility of measurement errors. The sensitivity and workflow efficiency of our product platforms also allows for testing of many different samples in a single day, enabling our products to be potentially useful in hospital or similar settings to conduct clinical diagnostic tests.

We market and sell our systems and related consumables to researchers in academic, government and biopharmaceutical laboratories for research use and to clinical laboratories and medical centers for diagnostic use, both through our direct sales force and through selected distributors in certain international markets. We generated revenue of $106.7 million, $114.9 million, and $86.5 million in 2018, 2017, and 2016, respectively, while incurring net losses of $77.4 million, $43.6 million, and $47.1 million in 2018, 2017, and 2016, respectively.

Corporate information

We were incorporated in Delaware in June 2003. Our principal executive offices are located at 530 Fairview Avenue North, Seattle, Washington 98109. Our telephone number is (206) 378-6266. Our website address is www.nanostring.com. Information contained on, or that can be accessed through, our website is not part of, and is not incorporated by reference into this prospectus supplement and should not be considered to be part of this prospectus supplement.

The offering	
Common stock offered by us	2,500,000 shares (or 3,175,000 shares if the underwriters exercise their option to purchase additional shares in full)
Common stock offered by the selling stockholder	2,000,000 shares
Common stock to be outstanding immediately after this offering	33,413,397 shares (or 34,088,397 if the underwriters elect to exercise in full their option to purchase additional shares).
Option to purchase additional shares	We have granted the underwriters an option to purchase up to 675,000 additional shares of common stock. This option is exercisable, in whole or in part, for a period of 30 days from the date of this prospectus supplement.
Use of proceeds	We estimate that the net proceeds to us from this offering will be approximately $64.3 million, or approximately $81.8 million if the underwriters exercise their option to purchase additional shares in full, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We plan to use the net proceeds from this offering for working capital and general corporate purposes. See the section of this prospectus supplement titled "Use of proceeds" for a more complete description of the intended use of proceeds from this offering. We will not receive any proceeds from the sale of shares of our common stock by the selling stockholder.
Risk factors	See "Risk Factors" beginning on page S-5 and other information included and incorporated by reference in this prospectus supplement and the accompanying prospectus for a discussion of factors that you should carefully read and consider before deciding to invest in our common stock.
NASDAQ Global Market symbol	"NSTG"

The number of shares of our common stock to be outstanding after this offering is based on 30,913,397 shares of our common stock outstanding as of December 31, 2018 and excludes the following, in each case as of such date:

- 5,042,352 shares of common stock issuable upon exercise of options outstanding, at a weighted-average exercise price of $12.46 per share;
- 1,141,129 shares of common stock issuable upon the vesting of restricted stock units;
- 1,124,616 shares of common stock reserved for future issuance under stock-based compensation plans, including 737,732 shares of common stock reserved for issuance under our 2013 Equity Incentive Plan, and any future automatic increase in shares reserved for issuance under such plan, 120,000 shares reserved for future issuance under our 2018 Inducement Equity Incentive Plan and 266,884 shares of common stock reserved for issuance under our 2013 Employee Stock Purchase Plan, and any future automatic increase in shares reserved for issuance under such plan; and

- 905,798 shares of common stock issuable upon the exercise of warrants outstanding, at a weighted-average exercise price of $18.38 per share.

Except as otherwise indicated herein, all information in this prospectus supplement, including the number of shares that will be outstanding after this offering, assumes no exercise of the underwriters' option to purchase additional shares.

Risk factors

Investors should carefully consider the risks described below and in the filings incorporated by reference before deciding whether to invest in our securities. The risks described below and those described in the filings incorporated by reference are not the only ones we face. If any of the following risks actually occurs, our business, financial condition or results of operations could be adversely affected. In such case, the trading price of our common stock could decline and you could lose all or part of your investment. Our actual results could differ materially from those anticipated in the forward-looking statements made throughout this prospectus supplement and in the documents incorporated by reference as a result of different factors, including the risks we face described below and those described in the filings incorporated by reference.

Risks related to our business and strategy

We have incurred losses since we were formed and expect to incur losses in the future. We cannot be certain that we will achieve or sustain profitability.

We have incurred losses since we were formed and expect to incur losses in the future. We incurred net losses of $77.4 million, $43.6 million, and $47.1 million for the years ended December 31, 2018, 2017, and 2016, respectively. As of December 31, 2018, we had an accumulated deficit of $391.3 million. We expect that our losses will continue for at least the next several years as we will be required to invest significant additional funds toward ongoing development and commercialization of our technology. We also expect that our operating expenses will continue to increase as we grow our business, but there can be no assurance that our revenue and gross profit will increase sufficiently such that our net losses decline, or we attain profitability, in the future. Our ability to achieve or sustain profitability is based on numerous factors, many of which are beyond our control, including the market acceptance of our products, future product development and our market penetration and margins. We may never be able to generate sufficient revenue to achieve or sustain profitability.

Our financial results may vary significantly from quarter to quarter which may adversely affect our stock price.

Investors should consider our business and prospects in light of the risks and difficulties we expect to encounter in the new, uncertain and rapidly evolving markets in which we compete. Because these markets are new and evolving, predicting their future growth and size is difficult. We expect that our visibility into future sales of our products, including volumes, prices and product mix between instruments and consumables, and the amount and timing of payments pursuant to collaboration agreements will continue to be limited and could result in unexpected fluctuations in our quarterly and annual operating results.

Numerous other factors, many of which are outside our control, may cause or contribute to significant fluctuations in our quarterly and annual operating results. These fluctuations may make financial planning and forecasting difficult. In addition, these fluctuations may result in unanticipated changes in our available cash, which could negatively affect our business and prospects. Factors that may contribute to fluctuations in our operating results include many of the risks described in this section. Also, one or more of such factors may cause our revenue or operating expenses in one period to be disproportionately higher or lower relative to the others. For example, in May 2017, our collaboration with Medivation, Inc. and Astellas Pharma Inc., or Astellas Pharma, was terminated, resulting in the recognition of $11.3 million of collaboration revenue during the second quarter of 2017. In October 2017, Merck notified us of the decision to not continue to pursue regulatory approval of the companion diagnostic for their product, KEYTRUDA, under our collaboration, resulting in the recognition of $11.6 million of collaboration revenue during the fourth quarter of 2017. In August 2018, we and Merck agreed to mutually terminate our development collaboration agreement, effective as of September 30, 2018, following the completion of certain close-out activities. Furthermore, our instruments involve a significant capital commitment by our customers and accordingly involve a lengthy sales cycle. We may expend significant effort in attempting to make a particular sale, which may be deferred by the customer or never occur. Accordingly, comparing our operating results on a period-to-period basis may not be meaningful, and investors should not rely on our past results as an indication of our future performance. If such fluctuations occur or if our operating results deviate from our expectations or the expectations of securities analysts, our stock price may be adversely affected.

If we do not achieve, sustain or successfully manage our anticipated growth, our business and growth prospects will be harmed.

We have experienced significant revenue growth in recent periods and we may not achieve similar growth rates in the future. Investors should not rely on our operating results for any prior periods as an indication of our future operating performance. If we are unable to maintain adequate revenue growth, our financial results could suffer and our stock price could decline. Furthermore, growth will place significant strains on our management and our operational and financial systems and processes. For example, the commercial launch of our GeoMx DSP, which we anticipate will occur in 2019, is a key element of our growth strategy and will require us to hire and retain additional sales and marketing personnel and resources. If we do not successfully generate demand for our GeoMx DSP instrument, other new product offerings, or manage our anticipated expenses accordingly, our operating results will be harmed.

Our future success is dependent upon our ability to expand our customer base and introduce new applications and products.

Our current customer base is primarily composed of academic and government research laboratories, biopharmaceutical companies and clinical laboratories (including physician-owned laboratories) that perform analyses using our nCounter Analysis Systems. Our success will depend, in part, upon our ability to increase our market penetration among all of these customers and to expand our market by developing and marketing new research applications, new instruments, and new diagnostic products. During 2017, in an effort to enhance future results, we added sales staff focused on consumable sales to existing customers, enabling existing sales representatives to increase focus on instrument sales. We expect that increasing the installed base of our nCounter Analysis Systems will drive demand for our relatively high margin consumable products. If we are not able to successfully increase our installed base of nCounter Analysis Systems, sales of our consumable products and our margins may not meet expectations. Moreover, we must convince physicians and third-party payors that our diagnostic products, such as Prosigna, are cost effective in obtaining information that can help inform treatment decisions and that our nCounter Analysis Systems could enable an equivalent or superior approach that lessens reliance on centralized laboratories. In the U.S., Medicare and most private insurers provide coverage and payment for patients to be tested with Prosigna; however, other countries, such as Germany, provide more limited coverage and payment for Prosigna.

We also plan to develop and introduce new products which would be sold primarily to new customer types, such as our GeoMx DSP instrument for use in pathology labs and a sequencer based on our Hyb & Seq chemistry targeted for use by hospitals and oncology clinics. We anticipate that our GeoMx DSP instrument will become commercially available in 2019 and scaling and training our sales force to attract new customers will require substantial time and expense. Any failure to expand our existing customer base through the launch of our GeoMx DSP instrument, or other new applications and products would adversely affect our operating results.

Our research business depends on levels of research and development spending by academic and governmental research institutions and biopharmaceutical companies, a reduction in which could limit demand for our products and adversely affect our business and operating results.

In the near term, we expect that a large portion of our revenue will be derived from sales of our nCounter Analysis Systems to academic and government research laboratories and biopharmaceutical companies worldwide for research and development applications. The demand for our products will depend in part upon the research and development budgets of these customers, which are impacted by factors beyond our control, such as:

- changes in government programs (such as the National Institutes of Health) that provide funding to research institutions and companies;
- macroeconomic conditions and the political climate;
- changes in the regulatory environment;
- differences in budgetary cycles;
- competitor product offerings or pricing;
- market-driven pressures to consolidate operations and reduce costs; and
- market acceptance of relatively new technologies, such as ours.

In addition, academic, governmental and other research institutions that fund research and development activities may be subject to stringent budgetary constraints that could result in spending reductions, reduced allocations or budget cutbacks, which could jeopardize the ability of these customers to purchase our products. Our operating results may fluctuate substantially due to reductions and delays in research and development expenditures by these customers. Any decrease in our customers' budgets or expenditures, or in the size, scope or frequency of capital or operating expenditures, could materially and adversely affect our business, operating results and financial condition.

Our sales cycle is lengthy and variable, which makes it difficult for us to forecast revenue and other operating results.

Our sales process involves numerous interactions with multiple individuals within an organization, and often includes in-depth analysis by potential customers of our products, performance of proof-of-principle studies, preparation of extensive documentation and a lengthy review process. As a result of these factors, the large capital investment required in purchasing our instruments and the budget cycles of our customers, the time from initial contact with a customer to our receipt of a purchase order can vary significantly and be up to 12 months or longer. With the introduction of our nCounter SPRINT system in July 2015, which is targeted at individual researchers that often have less certain funding than other potential customers, our visibility regarding timing of sales has decreased. Given the length and uncertainty of our sales cycle, we have in the past experienced, and likely will in the future experience, fluctuations in our instrument sales on a period-to-period basis. These factors also make it difficult to forecast revenue on a quarterly basis. Furthermore, from time-to-time, we may lease instruments or place instruments under reagent rental agreements, wherein a customer does not purchase an instrument upfront but instead pays a rental fee associated with each purchase of reagents. An increase in instruments placed under these lease or reagent rental agreements may reduce the number of instruments we would otherwise sell in any period. In addition, any failure to meet customer expectations could result in customers choosing to continue to use their existing systems or to purchase systems other than ours.

Our reliance on distributors for sales of our products outside of the United States, and on clinical laboratories for delivery of Prosigna testing services, could limit or prevent us from selling our products and impact our revenue.

We have established distribution agreements for our nCounter Analysis Systems and related consumable products in many countries where we do not sell directly. We intend to continue to grow our business internationally, and to do so we must attract additional distributors and retain existing distributors to maximize the commercial opportunity for our products. There is no guarantee that we will be successful in attracting or retaining desirable sales and distribution partners or that we will be able to enter into such arrangements on favorable terms. Distributors may not commit the necessary resources to market and sell our products to the level of our expectations or may choose to favor marketing the products of our competitors. If current or future distributors do not perform adequately, or we are unable to enter into effective arrangements with distributors in particular geographic areas, we may not realize long-term international revenue growth.

Similarly, we or our distributors have entered into agreements with clinical laboratories globally to provide Prosigna testing services. We do not provide testing services directly and, thus, we are reliant on these clinical laboratories to actively promote and sell Prosigna testing services. These clinical laboratories may take longer than anticipated to begin offering Prosigna testing services and may not commit the necessary resources to market and sell Prosigna testing services to the level of our expectations. Furthermore, we intend to contract with additional clinical laboratories to offer Prosigna testing services, including physician-owned laboratories, and we may be unsuccessful in attracting and contracting with new clinical laboratory providers. If current or future Prosigna testing service providers do not perform adequately, or we are unable to enter into contracts with additional clinical laboratories to provide Prosigna testing services, we may not be successful selling Prosigna and our future revenue prospects may be adversely affected.

Our future capital needs are uncertain and we may need to raise additional funds in the future.

We believe that our existing cash and cash equivalents, together with funds available under our term loan agreement and revolving credit facility, will be sufficient to meet our anticipated cash requirements for at least the next 12 months. However, we may need to raise substantial additional capital to:

- expand the commercialization of our products;

- fund our operations; and
- further our research and development.

Our future funding requirements will depend on many factors, including:

- market acceptance of our products;
- the cost and timing of establishing additional sales, marketing and distribution capabilities;
- revenue and cash flow derived from existing or future collaborations;
- the cost of our research and development activities;
- the cost and timing of regulatory clearances or approvals;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products and technologies, including new licensing arrangements for new products.

We cannot assure you that we will be able to obtain additional funds on acceptable terms, or at all. If we raise additional funds by issuing equity or equity-linked securities, or convertible debt, our stockholders may experience dilution. For example, in January 2018, we entered into a sales agreement with Cowen and Company, LLC, or Cowen, to sell up to $40.0 million worth of shares of our common stock, from time to time, through an "at the market" equity offering program under which Cowen will act as sales agent. In July 2018 and August 2018, we sold an aggregate of 4,600,000 shares of common stock in an underwritten public offering for net proceeds of $53.8 million. In October 2018, we entered into a new $100.0 million term loan facility with CR Group L.P. Additional debt financing, if available, may involve additional covenants restricting our operations or our ability to incur additional debt. Any debt or additional equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. We have in the past pursued these types of transactions, and may in the future pursue similar transactions or other strategic transactions, on our own or with other advisors, that may impact our business and prospects and the value of our common stock. If we do not have, or are not able to obtain, sufficient funds, we may have to delay development or commercialization of our products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations. Any of these factors could harm our operating results.

Our research and development efforts will be hindered if we are not able to contract with third parties for access to archival tissue samples.

Under standard clinical practice, tumor biopsies removed from patients are preserved and stored in formalin-fixed paraffin embedded, or FFPE, format. We rely on our ability to secure access to these archived FFPE tumor biopsy samples, as well as information pertaining to the clinical outcomes of the patients from which they were derived for our clinical development activities. Others compete with us for access to these samples. Additionally, the process of negotiating access to archived samples is lengthy because it typically involves numerous parties and approval levels to resolve complex issues such as usage rights, institutional review board approval, privacy rights, publication rights, intellectual property ownership and research parameters. In January 2017, the Department of Health and Human Services finalized new rules, which became effective as of January 19, 2018, expanding the language to be included in informed consent forms related to the collection of identifiable private information or identifiable biospecimens. If this new requirement, or other factors arising in the future, impact our ability to negotiate access to archived tumor tissue samples with hospitals, clinical partners, pharmaceutical companies, or companies developing therapeutics on a timely basis or on commercially reasonable terms, or at all, or if other laboratories or our competitors secure access to these samples before us, our ability to research, develop and commercialize future products will be limited or delayed.

We may not be able to develop new products, enhance the capabilities of our systems to keep pace with rapidly changing technology and customer requirements or successfully manage the transition to new product offerings, any of which could have a material adverse effect on our business and operating results.

Our success depends on our ability to develop new products and applications for our technology in existing and

new markets, while improving the performance and cost-effectiveness of our systems. New technologies, techniques or products could emerge that might offer better combinations of price and performance than our current or future products and systems. Existing markets for our products, including gene expression analysis, gene fusions and copy number variation, as well as new markets, such as protein expression and gene mutations, and potential markets for our research and diagnostic product candidates, are characterized by rapid technological change and innovation. Competitors may be able to respond more quickly and effectively than we can to new or changing opportunities, technologies, standards or customer requirements. We anticipate that we will face increased competition in the future as existing companies and competitors develop new or improved products and as new companies enter the market with new technologies. It is critical to our success that we anticipate changes in technology and customer requirements and successfully introduce new, enhanced and competitive technologies to meet our customers' and prospective customers' needs on a timely and cost-effective basis. If we do not successfully innovate and introduce new technology into our product lines, our business and operating results will be adversely impacted.

The development of new products typically requires new scientific discoveries or advancements and complex technology and engineering. Such developments may involve external suppliers and service providers, making the management of development projects complex and subject to risks and uncertainties regarding timing, timely delivery of required components or services and satisfactory technical performance of such components or assembled products. For example, in 2017, we worked with our supplier of cartridges used in our nCounter SPRINT systems to improve the design which resolved the previous leakage issues in the microfluidic device produced for us. If we do not achieve the required technical specifications or successfully manage new product development processes, or if development work is not performed according to schedule, then such new technologies or products may be adversely impacted and our business and operating results may be harmed.

Additionally, we must carefully manage the introduction of new products. If customers believe that such products will offer enhanced features or be sold for a more attractive price, they may delay purchases until such products are available. If customers conclude that such new products offer better value as compared to our existing products, we may suffer from reduced sales of our existing products and our overall revenue may decline. We may also have excess or obsolete inventory of older products as we transition to new products and our experience in managing product transitions is limited. If we do not effectively manage the transitions to new product offerings, our revenue, results of operations and business will be adversely affected.

New market opportunities may not develop as quickly as we expect, limiting our ability to successfully market and sell our products.

The market for our products is new and evolving. Accordingly, we expect the application of our technologies to emerging opportunities will take several years to develop and mature and we cannot be certain that these market opportunities will develop as we expect. For example, in September 2015, we launched our first 3D Biology application, a new product that allows users to simultaneously measure gene and protein expression from a single sample. In 2016 and 2017, we launched additional 3D Biology panels, including our first for the measurement of DNA mutations and in 2017 we launched our 360 panels for use in breast cancer, immuno-oncology and hematology. In 2018, we expanded beyond oncology and launched panels in neuroscience and CAR-T characterization. We recently launched our GeoMx DSP product on an early access basis, which will target the pathology market, a market we have not previously targeted.

The future growth of the market for these new products depends on many factors beyond our control, including recognition and acceptance of our applications by the scientific community and the growth, prevalence and costs of competing methods of genomic analysis. If the markets for our new products do not develop as we expect, our business may be adversely affected. If we are not able to successfully market and sell our products or to achieve the revenue or margins we expect, our operating results may be harmed.

We are dependent on single source suppliers for some of the components and materials used in our products, and the loss of any of these suppliers could harm our business.

We rely on Precision System Science, Co., Ltd of Chiba, Japan, to build our nCounter Prep Station, Korvis LLC of Corvallis, Oregon, to build our nCounter Digital Analyzer and GeoMx DSP, Paramit Corporation of Morgan Hill, California, to build our new nCounter SPRINT Profiler and IDEX Corporation of Lake Forest, Illinois to build the fluidics cartridge, a key component of our nCounter SPRINT Profiler. Each of these contract manufacturers are sole

suppliers. Since our contracts with these instrument suppliers do not commit them to carry inventory or make

available any particular quantities, they may give other customers' needs higher priority than ours, and we may not be able to obtain adequate supplies in a timely manner or on commercially reasonable terms. We also rely on sole suppliers for various components we use to manufacture our consumable products. We periodically forecast our needs for such components and enter into standard purchase orders with them. If we were to lose such suppliers, there can be no assurance that we will be able to identify or enter into agreements with alternative suppliers on a timely basis on acceptable terms, if at all. If we should encounter delays or difficulties in securing the quality and quantity of materials we require for our products, our supply chain would be interrupted which would adversely affect sales. If any of these events occur, our business and operating results could be harmed.

We may experience manufacturing problems or delays that could limit our growth or adversely affect our operating results.

Our consumable products are manufactured at our Seattle, Washington facility using complex processes, sophisticated equipment and strict adherence to specifications and quality systems procedures. Any unforeseen manufacturing problems, such as contamination of our facility, equipment malfunction, quality issues with components and materials sourced from third-party suppliers or failure to strictly follow procedures or meet specifications, could result in delays or shortfalls in production or require us to voluntarily recall our consumable products. Identifying and resolving the cause of any such manufacturing or supplier issues could require substantial time and resources. If we are unable to keep up with demand for our products by successfully manufacturing and shipping our products in a timely manner, our revenue could be impaired, market acceptance for our products could be adversely affected and our customers might instead purchase our competitors' products.

In addition, the introduction of new products may require the development of new manufacturing processes and procedures as well as new suppliers. For example, our GeoMx DSP systems may require that we establish supply relationships with antibody providers. While all of our CodeSets are produced using the same basic processes, significant variations may be required to meet new product specifications. Developing new processes and negotiating supply agreements can be very time consuming, and any unexpected difficulty in doing so could delay the introduction of a product.

If our Seattle facilities become unavailable or inoperable, we will be unable to continue our research and development, manufacturing our consumables or processing sales orders, and our business will be harmed.

We manufacture our consumable products in our headquarters facilities in Seattle, Washington. In addition, Seattle is the center for research and development, order processing, receipt of our instruments manufactured by third-party contract manufacturers and shipping products to customers. Our facilities and the equipment we use to manufacture our consumable products would be costly, and would require substantial lead time, to repair or replace. Seattle is situated near active earthquake fault lines. These facilities may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes and power outages, which may render it difficult or impossible for us to produce our products for some period of time. The inability to manufacture consumables or to ship products to customers for even a short period of time may result in the loss of customers or harm our reputation, and we may be unable to regain those customers in the future. Although we possess insurance for damage to our property and the disruption of our business, this insurance, and in particular earthquake insurance, which is limited, may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, if at all.

We expect to generate a substantial portion of our product and service revenue internationally and are subject to various risks relating to our international activities, which could adversely affect our operating results.

For 2018, 2017, and 2016 approximately 40%, 40%, and 38% respectively, of our product and service revenue was generated from sales to customers located outside of North America. We believe that a significant percentage of our future revenue will come from international sources as we expand our overseas operations and develop opportunities in additional areas. Engaging in international business involves a number of difficulties and risks, including:

- required compliance with existing and changing foreign regulatory requirements and laws;
- required compliance with anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act and U.K. Bribery Act, data privacy requirements, labor laws and anti-competition regulations;

- export or import restrictions;
- various reimbursement and insurance regimes;
- laws and business practices favoring local companies;
- longer payment cycles and difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- political and economic instability, such as the anticipated exit of Great Britain from the European Economic Community;
- potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements and other trade barriers;
- difficulties and costs of staffing and managing foreign operations; and
- difficulties protecting or procuring intellectual property rights.

As we expand internationally, our results of operations and cash flows will become increasingly subject to fluctuations due to changes in foreign currency exchange rates. Historically, most of our revenue has been denominated in U.S. dollars, although we have sold our products and services in local currency outside of the United States, principally the Euro. Our expenses are generally denominated in the currencies in which our operations are located, which is primarily in the United States. As our operations in countries outside of the United States grow, our results of operations and cash flows will increasingly be subject to fluctuations due to changes in foreign currency exchange rates, which could harm our business in the future. For example, if the value of the U.S. dollar increases relative to foreign currencies, our product and service revenue could be adversely affected as we convert revenue from local currencies to U.S. dollars. Similarly, a strong U.S. dollar relative to the local currencies of our international customers can potentially reduce demand for our products, which may compound the adverse effect of foreign exchange translation on our revenue. If we dedicate significant resources to our international operations and are unable to manage these risks effectively, our business, operating results and prospects will suffer.

Significant U.K. or European developments stemming from the U.K.’s decision to withdraw from the European Union could have a material adverse effect on us.

In June 2016, the United Kingdom held a referendum and voted in favor of leaving the European Union, and in March 2017, the government of the United Kingdom formally initiated the withdrawal process. Negotiations for the United Kingdom's exit from the EU, or Brexit, has created political and economic uncertainty, particularly in the United Kingdom and the European Union, and this uncertainty may last for years. Our business in the United Kingdom, the European Union, and worldwide could be affected during this period of uncertainty, and perhaps longer, by the impact of the United Kingdom’s referendum. There are many ways in which our business could be affected, only some of which we can identify as of the date of this report.

The decision of the United Kingdom to withdraw from the European Union has caused and, along with events that could occur in the future as a consequence of the United Kingdom’s withdrawal may continue to cause significant volatility in global financial markets, including in global currency and debt markets. This volatility could cause a slowdown in economic activity in the United Kingdom, Europe or globally, which could adversely affect our operating results and growth prospects. In addition, our business could be negatively affected by new trade agreements or data transfer agreements between the United Kingdom and other countries, including the United States, and by the possible imposition of trade or other regulatory and immigration barriers in the United Kingdom. In addition, the Europe-wide market authorization framework for our products (and for the drugs sold by our collaboration partners in the pharmaceutical industry) and access to European Union research funding by research scientists based in the United Kingdom may also change. Furthermore, we currently operate in Europe through a subsidiary based in the United Kingdom, which provides us with certain operational, tax and other benefits, as well as through other subsidiaries in Europe. The United Kingdom’s withdrawal from the European Union could adversely affect our ability to realize those benefits and we may incur costs and suffer disruptions in our European operations as a result. These possible negative impacts, and others resulting from the United Kingdom’s actual or threatened withdrawal from the European Union, may adversely affect our operating results and growth prospects.

Changes in tax laws or regulations that are applied adversely to us or our customers may have a material adverse effect on our business, cash flow, financial condition or results of operations.

New income, sales, use or other tax laws, statutes, rules, regulations or ordinances could be enacted at any time, which could affect the tax treatment of our domestic and foreign earnings. Any new taxes could adversely affect our domestic and international business operations, and our business and financial performance. Further, existing tax laws, statutes, rules, regulations or ordinances could be interpreted, changed, modified or applied adversely to us. For example, the legislation commonly known as the Tax Cut & Jobs Act, which was signed into law on December 22, 2017, significantly revised the Internal Revenue Code of 1986, as amended, or the Code. The newly enacted federal income tax law, among other things, contains significant changes to corporate taxation, including a reduction of the federal statutory rates from a top marginal rate of 35% to a flat rate of 21%, limitation of the tax deduction for interest expense to 30% of adjusted earnings (except for certain small businesses), limitation of the deduction for net operating losses to 80% of current year taxable income, elimination of net operating loss carrybacks, one time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, elimination of U.S. tax on foreign earnings (subject to certain important exceptions), immediate deductions for certain new investments instead of deductions for depreciation expense over time, and modifying or repealing many business deductions and credits. Notwithstanding the reduction in the corporate income tax rate, the overall impact of the new federal tax law is uncertain and our business and financial condition could be adversely affected. It is also unknown if and to what extent various states will conform to the newly enacted federal tax law. The impact of this tax reform on holders of our common stock is likewise uncertain and could be adverse.

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

As of December 31, 2018, we had federal net operating loss carryforwards, or NOLs, to offset future taxable income of approximately $288.7 million. The federal NOL carryforwards generated during and after fiscal 2018 totaling $55.0 million are carried forward indefinitely, while all others, if not utilized, will expire in various years beginning in 2025. A lack of future taxable income would adversely affect our ability to utilize these NOLs. In addition, under Section 382 of the Code, a corporation that undergoes an “ownership change” is subject to limitations on its ability to utilize its NOLs to offset future taxable income. We may have already experienced one or more ownership changes. Depending on the timing of any future utilization of our carryforwards, we may be limited as to the amount that can be utilized each year as a result of such previous ownership changes. However, we do not believe such limitations will cause our NOL and credit carryforwards to expire unutilized. In addition, future changes in our stock ownership as well as other changes that may be outside of our control, could result in additional ownership changes under Section 382 of the Code. Our NOLs may also be impaired under similar provisions of state law or limited pursuant to provisions of the recent Tax Cut and Jobs Act amendments to the Code. We have recorded a full valuation allowance related to our NOLs and other deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

Provisions of our debt instruments may restrict our ability to pursue our business strategies.

Our term loan agreement with CR Group L.P. and revolving credit facility with Silicon Valley Bank require us, and any debt instruments we may enter into in the future may require us, to comply with various covenants that limit our ability to, among other things:

- dispose of assets;
- complete mergers or acquisitions;
- incur indebtedness;
- encumber assets;
- pay dividends or make other distributions to holders of our capital stock;
- make specified investments;
- engage in any new line of business; and
- engage in certain transactions with our affiliates.

These restrictions could inhibit our ability to pursue our business strategies. In addition, we are subject to financial covenants based on total revenue and minimum cash balances. If we default under our term loan agreement or revolving credit facility, and such event of default is not cured or waived, the lenders could terminate commitments

to lend and cause all amounts outstanding with respect to the debt to be due and payable immediately, which in turn could result in cross defaults under other debt instruments. Our assets and cash flow may not be sufficient to fully repay borrowings under all of our outstanding debt instruments if some or all of these instruments are accelerated upon a default. We may incur additional indebtedness in the future. The debt instruments governing such indebtedness could contain provisions that are as, or more, restrictive than our existing debt instruments. If we are unable to repay, refinance or restructure our indebtedness when payment is due, the lenders could proceed against the collateral granted to them to secure such indebtedness or force us into bankruptcy or liquidation.

Acquisitions or joint ventures could disrupt our business, cause dilution to our stockholders and otherwise harm our business.

We may acquire other businesses, products or technologies as well as pursue strategic alliances, joint ventures, technology licenses or investments in complementary businesses. We have not made any acquisitions to date, and our ability to do so successfully is unproven. Any of these transactions could be material to our financial condition and operating results and expose us to many risks, including:

- disruption in our relationships with customers, distributors or suppliers as a result of such a transaction;
- unanticipated liabilities related to acquired companies;
- difficulties integrating acquired personnel, technologies and operations into our existing business;
- diversion of management time and focus from operating our business;
- increases in our expenses and reductions in our cash available for operations and other uses; and
- possible write-offs or impairment charges relating to acquired businesses.

Foreign acquisitions involve unique risks in addition to those mentioned above, including those related to integration of operations across different cultures and languages, currency risks and the particular economic, political and regulatory risks associated with specific countries.

Also, the anticipated benefit of any strategic transaction may not materialize. Future acquisitions or dispositions could result in potentially dilutive issuances of our equity securities, the incurrence of debt, contingent liabilities or amortization expenses or write-offs of goodwill, any of which could harm our financial condition. We cannot predict the number, timing or size of future joint ventures or acquisitions, or the effect that any such transactions might have on our operating results.

If we are unable to recruit, train and retain key personnel, we may not achieve our goals.

Our future success depends on our ability to recruit, train, retain and motivate key personnel, including our senior management, research and development, manufacturing and sales and marketing personnel. Competition for qualified personnel is intense, particularly in the Seattle, Washington area. Our growth depends, in particular, on attracting, retaining and motivating highly-trained sales personnel with the necessary scientific background and ability to understand our systems at a technical level to effectively identify and sell to potential new customers. We do not maintain fixed term employment contracts or key man life insurance with any of our employees. Because of the complex and technical nature of our products and the dynamic market in which we compete, any failure to attract, train, retain and motivate qualified personnel could materially harm our operating results and growth prospects.

Undetected errors or defects in our products could harm our reputation, decrease market acceptance of our products or expose us to product liability claims.

Our products may contain undetected errors or defects when first introduced or as new versions are released. Disruptions or other performance problems with our products may damage our customers' businesses, harm our reputation and result in reduced revenues. If that occurs, we may also incur significant costs, the attention of our key personnel could be diverted, or other significant customer relations problems may arise. We may also be subject to warranty and liability claims for damages related to errors or defects in our products. A material liability claim or other occurrence that harms our reputation or decreases market acceptance of our products could adversely impact our business and operating results.

The sale and use of products or services based on our technologies, or activities related to our research and clinical

studies, could lead to the filing of product liability claims if someone were to allege that one of our products contained a design or manufacturing defect which resulted in the failure to adequately perform the analysis for which it was designed. A product liability claim could result in substantial damages and be costly and time consuming to defend, either of which could materially harm our business or financial condition. We cannot assure investors that our product liability insurance would adequately protect our assets from the financial impact of defending a product liability claim. Any product liability claim brought against us, with or without merit, could increase our product liability insurance rates or prevent us from securing insurance coverage in the future.

We face risks related to handling of hazardous materials and other regulations governing environmental safety.

Our operations are subject to complex and stringent environmental, health, safety and other governmental laws and regulations that both public officials and private individuals may seek to enforce. Our activities that are subject to these regulations include, among other things, our use of hazardous materials and the generation, transportation and storage of waste. We could discover that we, an acquired business or our suppliers are not in material compliance with these regulations. Existing laws and regulations may also be revised or reinterpreted, or new laws and regulations may become applicable to us, whether retroactively or prospectively, that may have a negative effect on our business and results of operations. It is also impossible to eliminate completely the risk of accidental environmental contamination or injury to individuals. In such an event, we could be liable for any damages that result, which could adversely affect our business.

If we experience a significant disruption in our information technology systems or breaches of data security, our business could be adversely affected.

We rely on information technology systems to keep financial records, manage our manufacturing operations, fulfill customer orders, capture laboratory data, maintain corporate records, communicate with staff and external parties and operate other critical functions. Our information technology systems are potentially vulnerable to disruption due to breakdown, malicious intrusion and computer viruses or other disruptive events including but not limited to natural disaster. If we were to experience a prolonged system disruption in our information technology systems or those of certain of our vendors, it could negatively impact our ability to serve our customers, which could adversely impact our business. Although we maintain offsite back-ups of our data, if operations at our facilities were disrupted, it may cause a material disruption in our business if we are not capable of restoring function on an acceptable timeframe. In addition, our information technology systems are potentially vulnerable to data security breaches — whether by employees or others — which may expose sensitive data to unauthorized persons. Such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the public exposure of personal information (including sensitive personal information) of our employees, customers and others, any of which could have a material adverse effect on our business, reputation, financial condition and results of operations. In addition, 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, including state data protection regulations and the E.U. General Data Protection Regulation, or GDPR, and other regulations, the breach of which could result in significant penalties. In addition, these breaches and other inappropriate access can be difficult to detect, and any delay in identifying them may lead to increased harm of the type described above.

We intend to seek strategic collaborations and partnerships and other transactions, which may result in the use of a significant amount of our management resources or significant costs, and we may not be able to fully realize the potential benefit of such transactions.

We intend to seek strategic collaborations and partnerships to support the continued growth of the company. Accordingly, we may be engaged in evaluating potential transactions including, without limitation, strategic partnerships, divestitures of existing businesses or assets, a merger or consolidation with a third party that results in a change in control, a sale or transfer of all or a significant portion of our assets or a purchase by a third party of our securities that may result in a minority or control investment by such third party. From time to time, we may engage in discussions that may result in one or more transactions. Although there would be uncertainty that any of these discussions would result in definitive agreements or the completion of any transaction, we may devote a significant amount of our management resources to such a transaction, which could negatively impact our operations. In addition, we may incur significant costs in connection with seeking strategic transactions regardless of whether the transaction is completed. In the event that we consummate a strategic collaboration or partnership or other transaction in the

future, we cannot assure you that we would fully realize the potential benefit of such a transaction

which could adversely affect our future financial results or that such transaction would positively impact the value of stockholders' investment in us.

Our strategy to seek to enter into strategic collaborations and licensing arrangements with third parties to develop diagnostic tests and other products may not be successful.

We have relied, and expect to continue to rely, on strategic collaborations and licensing agreements with third parties for discoveries based on which we develop diagnostic tests and research products. For example, we licensed the rights to intellectual property that forms the basis of Prosigna from Bioclassifier, LLC, which was founded by several of our research customers engaged in translational research. Similarly, in connection with our collaboration with Celgene Corporation, we licensed the rights to intellectual property relating to a gene signature for lymphoma subtyping, which was discovered by a consortium of researchers including several of our research customers, from the National Institutes of Health. In connection with our collaboration with Merck to develop a companion diagnostic test and the subsequent termination of the collaboration agreement, Merck granted to us a non-exclusive license to certain intellectual property that relates to Merck's tumor inflammation signature. We intend to enter into more such arrangements with our research customers and other researchers, including biopharmaceutical companies and research institutions, for development of future diagnostic products. However, there is no assurance that we will be successful in doing so. Establishing collaborations and licensing arrangements is difficult and time-consuming. Discussions may not lead to collaborations or licenses on favorable terms, if at all. To the extent we agree to work exclusively with a party in a given area, our opportunities to collaborate with others could be limited. Certain parties may seek to partner with companies in addition to us in connection with a project. This, in turn, may limit the commercial potential of any products that are the subject of such collaborations. Potential collaborators or licensors may elect not to work with us based upon their assessment of our financial, regulatory, commercial or intellectual property position. In particular, our customers are not obligated to collaborate with us or license technology to us, and they may choose to develop diagnostic products themselves or collaborate with our competitors.

New diagnostic product development involves a lengthy and complex process, and we may be unable to commercialize on a timely basis, or at all, any of the tests or products we develop individually or with our collaborators.

Few research and development projects result in successful commercial products, and success in early clinical studies often is not replicated in later studies. At any point, we may abandon development of a product candidate or we may be required to expend considerable resources repeating clinical studies, which would adversely impact potential revenue and our expenses. In addition, any delay in product development would provide others with additional time to commercialize competing products before we do, which in turn may adversely affect our growth prospects and operating results.

In addition, the success of the development programs for any product candidates or assays developed in collaboration with others will be dependent on the continued pursuit and success of the related drug trials by our collaborators. For example, in October 2017, Merck notified us of their decision not to continue to pursue regulatory approval of the companion diagnostic we were developing for their product, KEYTRUDA, and in August 2018, we and Merck agreed to mutually terminate our development collaboration agreement. There is no guarantee that our collaborators will continue to pursue clinical trials for product candidates or assays that are the subject of our collaborations or that such clinical trials will be successful and, as a result, we may expend considerable time and resources developing in vitro diagnostic assays that will not gain regulatory approval. For example, pursuant to our collaboration with Celgene Corporation, we are developing a companion diagnostic, LymphMark, that is expected to be a potential companion diagnostic to aid in identifying patients with diffuse large B-cell lymphoma for treatment. Depending on the outcome of the clinical trial being run by Celgene, we anticipate we may file for regulatory approval of LymphMark with the U.S. Food and Drug Administration. Furthermore, significant consolidation in the life sciences industry has occurred during the last several years and in connection with such consolidation, the combined company often reassesses its development priorities which may impact our existing collaborations or future opportunities. For example, in May 2017, Astellas Pharma announced a joint decision with Pfizer Inc., or Pfizer, to discontinue the planned ENDEAR trial which was the subject of our collaboration. We were informed that the decision resulted from an oncology portfolio review by Astellas Pharma and Pfizer. In January 2019, Bristol Myers Squibb announced that it was acquiring Celgene; this transaction is expected to close in the third quarter of 2019. Even if we establish new

relationships, we or our collaborators may terminate those relationships or they may never result in the successful development or commercialization of future tests or other products. From time to time we have agreed to modify the terms of our agreements with collaborators, including financial terms, and in the

future it is possible that we will agree to modify the terms of existing and future agreements with collaborators.

In August 2017, we entered into a collaboration agreement with Lam Research Corporation, or Lam, with respect to the development and commercialization of our Hyb & Seq sequencing platform and related assays. Pursuant to the terms of the collaboration agreement, Lam will contribute up to $50.0 million, payable quarterly, for allowable development costs. In exchange, Lam is eligible to receive certain single-digit percentage royalty payments on net sales by us of certain products and technologies developed under the collaboration agreement, if any. In addition, we issued Lam a warrant to purchase up to 1.0 million shares of our common stock. Any product development activities pursuant to this collaboration are uncertain and development costs may exceed $50.0 million, in which case we would need to obtain additional funding to complete development of our Hyb & Seq sequencing platform and related assays. Ultimately the development may not be successful, which could negatively impact our prospects for future revenue growth.

Although we expect such collaborations to provide funding to cover our costs of development, the failure, discontinuation or modification of these clinical trials could negatively impact our ability to attract new collaboration partners, and would reduce our prospects for introducing new diagnostic products, revenue growth, and future operating results.

The life sciences research and diagnostic markets are highly competitive. If we fail to compete effectively, our business and operating results will suffer.

We face significant competition in the life sciences research and diagnostic markets. We currently compete with both established and early stage life sciences research companies that design, manufacture and market instruments and consumables for gene expression analysis, single-cell analysis, polymerase chain reaction, or PCR, digital PCR, other nucleic acid detection and additional applications. These companies use well-established laboratory techniques such as microarrays or quantitative PCR as well as newer technologies such as next generation sequencing such as RNA-sequencing. We believe our principal competitors in the life sciences research and diagnostic markets are Agilent Technologies, Becton-Dickinson, Bio-Rad, Bio-Techne, Fluidigm, HTG Molecular Diagnostics, Illumina, Luminex, Merck Millipore, O-Link, Perkin Elmer, Qiagen, Roche Applied Science, Thermo Fisher Scientific, and 10x Genomics. In addition, there are a number of new market entrants in the process of developing novel technologies for the life sciences market, including those that may compete with GeoMx DSP.

We also compete with commercial diagnostic laboratory companies. We believe our principal competitor in the breast cancer diagnostics market is Genomic Health, which provides gene expression analysis at its central laboratory in Redwood City, California and currently commands a substantial majority of the market. We also face competition from companies such as Agendia, bioTheranostics, and Myriad Genetics.

Many of our current competitors are large publicly-traded companies, or are divisions of large publicly-traded companies, and may enjoy a number of competitive advantages over us, including:

- greater name and brand recognition, financial and human resources;
- broader product lines;
- larger sales forces and more established distributor networks;
- substantial intellectual property portfolios;
- larger and more established customer bases and relationships; and
- better established, larger scale, and lower cost manufacturing capabilities.

We believe that the principal competitive factors in all of our target markets include:

- cost of capital equipment;
- cost of consumables and supplies;
- reputation among customers;
- innovation in product offerings;
- flexibility and ease-of-use;
- accuracy and reproducibility of results; and

- compatibility with existing laboratory processes, tools and methods.

We believe that additional competitive factors specific to the diagnostics market include:

- availability of reimbursement for testing services;
- breadth of clinical decisions that can be influenced by information generated by tests;
- volume, quality, and strength of clinical and analytical validation data;
- inclusion in treatment guidelines; and
- economic benefit accrued to customers based on testing services enabled by products.

We cannot assure investors that our products will compete favorably or that we will be successful in the face of increasing competition from new products and technologies introduced by our existing competitors or new companies entering our markets. In addition, we cannot assure investors that our competitors do not have or will not develop products or technologies that currently or in the future will enable them to produce competitive products with greater capabilities or at lower costs than ours. For example, we recently concluded that certain of our customers have shifted certain types of experiments that previously had been performed on our nCounter system to RNA-sequencing technology. Although we are pursuing several strategies to mitigate this trend, there can be no assurance we will be successful in doing so. Any failure to compete effectively could materially and adversely affect our business, financial condition and operating results.

If Prosigna fails to achieve and sustain sufficient market acceptance, we will not generate expected revenue, and our prospects may be harmed.

Commercialization of Prosigna in Europe, the United States and the other jurisdictions in which we intend to pursue regulatory approval or clearance is a key element of our strategy. Currently, most oncologists seeking sophisticated gene expression analysis for diagnosing and profiling breast cancer in their patients ship tissue samples to a limited number of centralized laboratories typically located in the United States. We may experience reluctance, or refusal, on the part of physicians to order, and third-party payors to pay for, Prosigna if the results of our research and clinical studies, and our sales and marketing activities relating to communication of these results, do not convey to physicians and patients that Prosigna provides equivalent or better prognostic information than those centralized laboratories. In addition, our diagnostic tests are performed by pathologists in local laboratories, rather than by a vendor in a remote centralized laboratory, which requires us to educate pathologists regarding the benefits of this business model and oncologists regarding the reliability and consistency of results generated locally. Also, we offer Prosigna in other countries outside of the United States, where genomic testing for breast cancer is not widely available and the market for such tests is new. The future growth of the market for genomic breast cancer testing will depend on physicians' acceptance of such testing and the availability of reimbursement for such tests.

These hurdles may make it difficult to convince healthcare providers that tests using our technologies are appropriate options for cancer diagnostics, may be equivalent or superior to available tests, and may be at least as cost effective as alternative technologies. If we fail to successfully commercialize Prosigna on a widespread basis, we may never receive a return on the significant investments in sales and marketing, medical, regulatory, manufacturing and quality assurance personnel we have made, and further investments we intend to make, which would adversely affect our growth prospects, operating results and financial condition.

Risks related to government regulation and diagnostic product reimbursement

Our "Research Use Only" products for the research, life sciences market could become subject to more stringent regulatory surveillance as medical devices by the FDA or other regulatory agencies in the future which could increase our costs and delay our commercialization efforts, thereby materially and adversely affecting our business and results of operations.

In the United States, most of our products are currently labeled and sold for Research Use Only, or RUO, and not for the diagnosis or treatment of disease, and are sold to pharmaceutical and biotechnology companies, academic and government institutions and research laboratories. Because such products are not intended for diagnostic use, and the products do not include clinical or diagnostic claims or provide directions to use as diagnostic products, they are not subject to the same level of control by the Food and Drug Administration, or FDA, as medical devices.

In particular, while the FDA regulations require that RUO products be appropriately labeled, "For Research Use Only," the regulations do not subject such products to the FDA's pre- and post-market controls for medical devices. Pursuant to FDA guidance on RUO products, a company may not make clinical or diagnostic claims about an RUO product or provide clinical directions or clinical support services to customers for RUO products. If the FDA were to modify its approach to regulating products labeled for research use only, it could reduce our revenue or increase our costs and adversely affect our business, prospects, results of operations or financial condition. In the event that the FDA requires marketing authorization of our RUO products in the future, there can be no assurance that the FDA will ultimately grant any clearance or approval requested by us in a timely manner, or at all.

In addition, we sell dual-use instruments with software that has both FDA-cleared functions, and research functions for which FDA approval or clearance is not required. Dual-use instruments are subject to FDA regulation since they are intended, at least in part, for use by customers performing clinical diagnostic testing. In November 2014, the FDA issued a guidance document that described FDA's approach to regulating molecular diagnostic instruments that combine both approved/cleared device functions and device functions for which approval/clearance is not required. There is a risk that requirements for dual use instruments could change causing additional costs and delays for development of these products. For example, there could be enforcement action if the FDA determines that approval or clearance was required for those functions for which FDA approval or clearance has not been obtained, or the instruments are being promoted for off-label use. There is also a risk that the FDA could broaden its current regulatory enforcement of dual-use instruments through additional FDA oversight of such products or impose additional requirements upon such products. In July 2017, FDA adopted a new regulation exempting certain clinical multiplex test systems, like the ones used with our Prosigna assay, from premarket notification requirements. However, these new regulations will not impact the FDA clearance requirements for our nCounter Dx Analysis System which will still require 510(k) clearance for use with specific assays, such as Prosigna.

If Medicare and other third-party payors in the United States and foreign countries do not approve reimbursement for diagnostic tests enabled by our technology, or revise or rescind reimbursement rates, the commercial success of our diagnostic products would be compromised.

Successful commercialization of our diagnostic products depends, in large part, on the availability of adequate reimbursement for testing services that our diagnostic products enable from government insurance plans, managed care organizations and private insurance plans. There is significant uncertainty surrounding third-party reimbursement for the use of tests that incorporate new technology. For example, after the FDA clearance of Prosigna in September 2013, it took over two years to achieve broad Medicare reimbursement of Prosigna testing.

If we are unable to obtain positive policy decisions from third-party payors approving reimbursement for our tests at adequate levels, the commercial success of our diagnostic products would be compromised and our revenue would be significantly limited. Even if we do obtain reimbursement for our tests, Medicare, Medicaid and other payors may withdraw their coverage policies, cancel their contracts at any time, review and adjust the rate of reimbursement, require co-payments from patients or stop paying for our tests, which would reduce revenue for testing services based on our technology, and indirectly, demand for our diagnostic products. In addition, insurers, including managed care organizations as well as government payors such as Medicare and Medicaid, have increased their efforts to control the cost, utilization and delivery of healthcare services, which may include decreased coverage or reduced reimbursement. From time to time, Congress has considered and implemented changes to the Medicare fee schedules in conjunction with budgetary legislation, and pricing and payment terms, including the possible requirement of a patient co-payment for Medicare beneficiaries for tests covered by Medicare, and are subject to change at any time. The Protecting Access to Medicare Act, or PAMA, of 2014 revised the Medicare Clinical Laboratory Fee Schedule, or CLFS, to base prices on private payor rates that are reported to the Centers for Medicare and Medicaid Services, or CMS. In June 2016, CMS released the final Clinical Diagnostic Tests Laboratory Payment System regulations, in response to PAMA. Under the definitions in the regulations, Prosigna is defined as a Clinical Diagnostic Laboratory Test, or CDLT, and therefore will be repriced every three years based on a weighted median of private payor payments submitted by reporting labs. As a result, if private payor payment amounts decline, there is a risk that Medicare prices will fall as well, though PAMA limits these reductions to no more than 10% less than the prior year during calendar years 2018-2020 and no more than 15% less during years 2021-2023. In 2017, as part of the market-based pricing determinations for 2018 required by PAMA, only one private payor payment from a single commercial laboratory was

reported, and it was an anomalous payment amount, well below the current Medicare reimbursement price. CMS used that single payment amount as the weighted median, which triggered an automatic 10% reduction in Prosigna's Medicare reimbursement rate of $3,443 to $3,099, effective January 1, 2018, followed

by a subsequent 10% reduction to $2,789, effective January 1, 2019. There will be an additional 10% automatic reduction in the Medicare reimbursement rate for Prosigna for calendar year 2020. Reductions in the prices at which testing services based on our technology are reimbursed could reduce our customers' interest in offering Prosigna and have a negative impact on our revenue.

Under PAMA, CMS is required to reprice CLDTs, including Prosigna, every three years. The next repricing will be announced by CMS in late 2020, based on private payor reimbursement data collected by reporting laboratories during the period January 1, 2019 to June 30, 2019. These new prices will take effect on January 1, 2021. Depending on the pricing data reported by these laboratories to CMS, Prosigna's Medicare reimbursement price may change.

In many countries outside of the United States, various coverage, pricing and reimbursement approvals are required. For example, we have received positive reimbursement decisions for Prosigna have occurred in France, certain regions of Spain, Canada, Israel, Switzerland and Denmark, but despite these positive developments, we continue to expect that it will take several years to establish broad coverage and reimbursement for testing services based on our products with most payors in countries outside of the United States, and our efforts may not be successful.

We continue to pursue positive reimbursement and coverage decisions from government insurance plans, managed care organizations and private insurance plans. From time to time, if positive coverage decisions are obtained, we may publicly announce such decisions. In most cases where coverage is denied by a third-party payor, there will be subsequent opportunities to submit additional information or clinical evidence and have such decision reconsidered. We intend to evaluate the benefit of continued pursuit of a positive reimbursement determination on a case by case basis and in most cases expect to continue to pursue a positive coverage decision with those payors based on additional information or subsequent clinical developments; as a result, we do not intend to publicly announce any denials of coverage or the absence of a coverage determination on a regular basis.

Our nCounter reagents may be used by clinical laboratories to create Laboratory-Developed Tests, (LDT), which could, in the future, be the subject of additional FDA regulation as medical devices, which could materially and adversely affect our business and results of operations.

A clinical laboratory can use our custom-manufactured reagents to create what is called a Laboratory Developed Test, or LDT. LDTs, according to the FDA, are diagnostic tests that are developed, validated and performed by a single laboratory and include genetic tests. Historically, LDTs generally have not been subject to FDA regulations. In October 2014, the FDA issued draft guidance documents proposing the use of a risk-based approach to regulating LDTs. Any restrictions on LDTs by the FDA could decrease demand for our reagents. Additionally, compliance with additional regulatory burdens could be time consuming and costly for our customers. While FDA announced in November 2016 that it did not intend to seek finalization of the draft LDT guidance in the near term, FDA could alter its position or Congress could enact legislation that could result in FDA regulation of some LDTs. To date, draft legislative proposals have been discussed, but no legislation has been introduced. If FDA changed its policy or legislation were enacted, it could adversely affect demand for these specialized reagents or our instruments.

Our nCounter reagents allow users to design and validate their own customized assays using standard sets of barcodes provided by us with the laboratories' choice of oligonucleotide probes. These reagents, which are offered to customers in the United States through a custom manufacturing service, may be used by laboratories in conjunction with analyte-specific reagents and general purpose reagents to create diagnostic tests or test systems validated within the accredited testing laboratory.

Approval and/or clearance by the FDA and foreign regulatory authorities for our diagnostic tests will take significant time and require significant research, development and clinical study expenditures and ultimately may not succeed.

Before we begin to label and market our products for use as clinical diagnostics in the United States, unless an exemption applies we are required to obtain prior 510(k) clearance, or pre-market approval (PMA) from the FDA. In September 2013, we received FDA 510(k) clearance for Prosigna as a prognostic indicator for distant recurrence-free survival at 10 years in post-menopausal women with Stage I/II lymph node-negative or Stage II lymph node-positive (1-3 positive nodes) hormone receptor-positive breast cancer who have undergone surgery in conjunction with locoregional treatment and consistent with the standard of care. In addition, we are currently collaborating with Celgene on a companion diagnostic test for their drug REVLIMID. In August 2014, the FDA issued a companion

diagnostics final guidance stating that if the device is essential to the safety or efficacy of the drug, the FDA generally will require approval or clearance for the device at the time when the FDA approves the drug. The FDA stated in the companion diagnostics final guidance that while in some instances a companion diagnostic could come to market through a 510(k), FDA expects that companion diagnostics usually will require a PMA. In July 2016, the FDA issued a draft co-development companion diagnostic and therapeutic guidance document which similarly reflected this information. The draft guidance appears to also relate, at least in part, to what may be considered complementary diagnostics, i.e., diagnostics that are beneficial for therapeutic product development or clinical decision making but that do not meet the definition of an IVD companion diagnostic. If we developed a diagnostic device to be used in conjunction with a pharmaceutical product that was then cleared or approved but not as a companion diagnostic for the therapeutic product, this may result in potentially reduced revenue for the test as the labeling of the drug may not reference the need for the diagnostic test.

Any 510(k) clearance, de novo authorization or PMA approval we obtain for any future product would place substantial restrictions on how our device is marketed or sold. The FDA will continue to place considerable restrictions on our products, including, but not limited to, the obligation to comply with the Quality System Regulation, or QSR, registering manufacturing facilities, listing the products with the FDA, and complying with labeling, marketing, complaint handling, medical device reporting requirements, and reporting certain corrections and removals. Obtaining FDA clearance or approval for diagnostics can be expensive and uncertain, and generally takes from several months to several years from submission, and generally requires detailed and comprehensive scientific and clinical data, as well as compliance with FDA regulations. In addition, we have limited experience in obtaining PMA approval from the FDA and are therefore supplementing our operational capabilities to manage the more complex processes needed to obtain and maintain PMAs. Notwithstanding the expense, these efforts may never result in FDA approval, de novo authorizations, or 510(k) clearance. Even if we were to obtain regulatory approval, authorization or clearance, it may not be for the uses we believe are important or commercially attractive, in which case we would not market our product for those uses.

Sales of our diagnostic products outside the United States are subject to foreign regulatory requirements governing clinical studies, vigilance reporting, marketing approval, manufacturing, regulatory inspections, product licensing, pricing and reimbursement. These regulatory requirements vary greatly from country to country. As a result, the time required to obtain approvals outside the United States may differ from that required to obtain FDA approval or clearance, and we may not be able to obtain foreign regulatory approvals on a timely basis or at all. Approval or clearance by the FDA does not ensure approval by regulatory authorities in other countries, and approval by one foreign regulatory authority does not ensure approval or clearance by regulatory authorities in other countries or by the FDA, and foreign regulatory authorities could require additional testing beyond what the FDA requires. In addition, FDA regulates exports of medical devices. Failure to comply with these regulatory requirements or to obtain required approvals or clearances could impair our ability to commercialize our diagnostic products outside of the United States.

If we are unable to obtain additional regulatory clearances, registrations, or approvals to market Prosigna in additional countries or if regulatory limitations are placed on our diagnostic products, our business and growth will be harmed. In addition, if we do not obtain additional regulatory clearances or approvals necessary to market products other than Prosigna for diagnostic purposes, we will be limited to marketing such products for research use only.

We have received regulatory clearance in the United States under a 510(k) for a version of our first diagnostic product, Prosigna, providing an assessment of a patient's risk of recurrence for breast cancer, we have obtained a CE mark for Prosigna which permits us to market that assay for diagnostic purposes in the European Union, and we have received regulatory clearances in selected other jurisdictions. Other than with respect to Prosigna in such jurisdictions in which we have received regulatory clearance, we are limited to marketing our products for research use only, which means that we cannot make diagnostic or clinical claims. We intend to seek regulatory authorizations to market Prosigna in other jurisdictions and, potentially, for other indications. In addition, pursuant to our collaborations with pharmaceutical companies for the development of companion diagnostic tests for use with their drugs, we are responsible for obtaining any regulatory authorizations needed to use the companion diagnostic tests in clinical trials as well as the regulatory approvals to sell the companion diagnostic tests following completion of such trials. For example, we are currently working on the development of LymphMark, a companion diagnostic test for REVLIMID

that we have developed in a collaboration with Celgene. Some of the compensation we expect to receive pursuant to these collaborations is based on the receipt of such approvals. Any failure to obtain regulatory approvals for our diagnostic tests in a particular jurisdiction may also reduce sales of our nCounter systems for clinical use in that jurisdiction, as the lack of a robust menu of available diagnostic tests would make those systems

less attractive to testing laboratories.

We cannot assure investors that we will be successful in obtaining these regulatory clearances, registrations, or approvals. If we do not obtain additional regulatory clearances or approvals to market future products or expand future indications for diagnostic purposes, if additional regulatory limitations are placed on our products or if we fail to successfully commercialize such products, the market potential for our diagnostic products would be constrained, and our business and growth prospects would be adversely affected.

We expect to rely on third parties in conducting any future studies of our diagnostic products that may be required by the FDA or other regulatory authorities, and to fulfill product registration requirements in foreign countries, and those third parties may not perform satisfactorily.

We do not have the ability to independently conduct the clinical studies or other studies that may be required to obtain FDA and other regulatory clearance or approval for our diagnostic products, including additional indications. Accordingly, we expect to rely on third parties, such as medical institutions, clinical investigators, consultants, and our pharmaceutical collaborators to conduct such studies. For example, we contract with clinical laboratories to perform the companion diagnostic tests we have developed that are used in the clinical trials run by pharmaceutical companies pursuant to our companion diagnostic collaborations. Our reliance on these third parties for clinical development activities will reduce our control over these activities. These third-party contractors may not complete activities on schedule or conduct studies in accordance with regulatory requirements or the study design. Our reliance on third parties that we do not control will not relieve us of any applicable requirement to ensure compliance with various procedures required under good clinical practices and regulatory requirements. 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 their failure to adhere to our clinical protocols or regulatory requirements or for other reasons, the studies may be extended, delayed, suspended or terminated, and we may not be able to obtain regulatory approval for our diagnostic products. In addition, under our contracts with our pharmaceutical collaborators, we potentially could be held liable for the failure of our third party subcontractors to perform their contractual obligations.

Our pharmaceutical collaborators may decide to end their clinical program, modify or terminate a clinical trial, or not pursue regulatory filings for a companion diagnostic test. For example, in October 2017, Merck notified us of the decision to not continue to pursue regulatory approval of the companion diagnostic for their product, KEYTRUDA, under our collaboration and, in August 2018, we and Merck agreed to mutually terminate our development collaboration agreement. It is also possible that a clinical trial run by one of our collaborators may not meet its endpoint and consequently may not support a regulatory filing for the companion diagnostic we are developing.

In many countries, we are not able to directly apply for product registrations, and therefore must rely on third-party contractors or product distributors resident in those countries to fulfill the product registration requirements. Our reliance on these third parties reduces our control over the registration activities, and those parties may not appropriately register the products. Our reliance on third parties does not relieve us of the obligation to comply with applicable requirements, and therefore any failure on the part of the third parties could subject us to enforcement action in the country in which the registration was not properly fulfilled.

We are subject to ongoing and extensive regulatory requirements, and our failure to comply with these requirements could substantially harm our business.

Certain of our products are regulated as in vitro diagnostic medical devices, including Prosigna and the nCounter FLEX Analysis System. Accordingly, we and certain of our contract manufacturers are subject to ongoing International Organization for Standardization, or ISO, as well as regulation by the FDA and other national health authorities. These may include routine inspections by Notified Bodies, FDA, and other health authorities, of our manufacturing facilities and our records for compliance with requirements such as ISO 13485 and the QSR, which establish extensive requirements for quality assurance and control as well as manufacturing and change control procedures. We are also subject to other regulatory obligations, such as requirements pertaining to the registration of our manufacturing facilities and the listing of our devices with the FDA; continued adverse event and malfunction reporting; reporting certain corrections and removals; and labeling and promotional requirements. Other agencies may also issue guidelines and regulations that could impact the development of our products, including companion diagnostic tests. For example, the European Medicines Agency, a European Union agency which is responsible for the

scientific evaluation of medicines used in the EU, recently launched an initiative to determine guidelines for the

use of genomic biomarkers in the development and life-cycle of drugs. On May 25, 2017 the European Union adopted the IVD Directive Regulation, which increases the regulatory requirements applicable to some in vitro diagnostics in the EU and would require that we re-classify and obtain approval, registration, or clearance for our existing CE-marked IVD products within a five-year grace period (by May 25, 2022).

We may also be subject to additional FDA or global regulatory authority post-marketing obligations or requirements by the FDA or global regulatory authority to change our current product classifications which would impose additional regulatory obligations on us. The promotional claims we can make for Prosigna are limited to the intended use as required by regulatory authority. If we are not able to maintain regulatory compliance, we may not be permitted to market our medical device products and/or may be subject to enforcement by EU Competent Authorities and the FDA and other global regulatory authority such as the issuance of warning or untitled letters, fines, injunctions, and civil penalties; recall or seizure of products; operating restrictions; and criminal prosecution. In addition, we may be subject to similar regulatory regimes of foreign jurisdictions as we continue to commercialize our products in new markets outside of the U.S. and Europe. Adverse Notified Body, EU Competent Authority or FDA or global regulatory authority action in any of these areas could significantly increase our expenses and limit our revenue and profitability.

We may be subject, directly or indirectly, to healthcare fraud and abuse laws and other laws applicable to our marketing practices. If we are unable to comply, or have not complied, with such laws, we could face substantial penalties.

Our operations are directly, or indirectly through our customers, subject to various fraud and abuse laws, including, without limitation, the federal and state anti-kickback statutes and state, federal and foreign marketing compliance laws and gift bans. These laws may impact, among other things, our proposed sales and marketing and education programs and require us to implement additional internal systems for tracking certain marketing expenditures and reporting them to government authorities. In addition, we may be subject to privacy regulations by both the federal government and the states in which we conduct our business as well as by foreign governments and entities. The laws that may affect our ability to operate include:

- the federal Anti-kickback Law and state equivalents;
- the federal physician self-referral prohibition, commonly known as the Stark Law, and the state equivalents;
- the federal Health Insurance Portability and Accountability Act of 1996, as amended;
- the Medicare civil money penalty and exclusion requirements;
- the federal False Claims Act and state equivalents;
- state physician gift bans and state, federal and foreign marketing expenditure disclosure laws;
- the Foreign Corrupt Practices Act, which applies to our international activities; and
- the European Union's General Data Protection Regulation.

If our operations are found to be in violation of any of the laws described above or any other governmental regulations that apply to us, we may be subject to penalties, including civil and criminal penalties, damages, fines and the curtailment or restructuring of our operations, any of which could adversely affect our ability to operate our business and our results of operations.

Healthcare policy changes, including legislation reforming the United States healthcare system, may have a material adverse effect on our financial condition and results of operations.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act, collectively, the ACA, enacted in March 2010, made changes that significantly impact the pharmaceutical and medical device industries and clinical laboratories. For example, beginning in 2013, each medical device manufacturer must pay a sales tax in an amount equal to 2.3% of the price for which such manufacturer sells its medical devices. In December 2015, Congress passed a two-year suspension of the medical device tax from January 1, 2016 to December 31, 2017. In January 2018, Congress suspended the tax again for a two-year period. The tax applies to our listed medical device products, which include the nCounter Dx Analysis System and Prosigna. The Budget Control Act of 2011, contained automatic spending cuts to the federal budget known as sequestration. As a result of sequestration, Medicare payments are reduced by 2% per year. For Prosigna, pricing

changes can occur through the annual adjustment to the CLFS; this resulted in a 10% reduction in the Medicare reimbursement price for Prosigna starting on January 1, 2018 and future 10% reductions in 2019 and 2020. These or any future proposed or mandated reductions in payments may apply to some or all of the clinical laboratory tests that our customers use our technology to deliver to Medicare beneficiaries, and may indirectly reduce demand for our products.

Other significant measures contained in the ACA include coordination and promotion of research on comparative clinical effectiveness of different technologies and procedures, initiatives to revise Medicare payment methodologies, such as bundling of payments across the continuum of care by providers and physicians, and initiatives to promote quality indicators in payment methodologies. The ACA also included significant new fraud and abuse measures, including required disclosures of financial arrangements with physician customers, lower thresholds for violations and increasing potential penalties for such violations.

In addition to the ACA, the effect of which cannot presently be quantified, various healthcare reform proposals have also emerged from federal and state governments. Changes in healthcare policy, such as the creation of broad test utilization limits for diagnostic products in general or requirements that Medicare patients pay for portions of clinical laboratory tests or services received, could substantially impact the sales of our tests, increase costs and divert management's attention from our business. In addition, sales of our tests outside of the United States will subject us to foreign regulatory requirements, which may also change over time.

We cannot predict whether future healthcare initiatives, including potential repeal of the ACA in whole or in part, will be implemented at the federal or state level or in countries outside of the United States in which we may do business, or the effect any future legislation or regulation will have on us. Changes in the United States healthcare industry may result in decreased profits to us, lower reimbursements by payors for our products or reduced medical procedure volumes, all of which may adversely affect our business, financial condition and results of operations.

Risks related to intellectual property

If we are unable to protect our intellectual property effectively, our business would be harmed.

We rely on patent protection as well as trademark, copyright, trade secret and other intellectual property rights protection and contractual restrictions to protect our proprietary technologies, all of which provide limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. As of December 31, 2018, we owned or licensed 27 issued U.S. patents and approximately 36 pending U.S. patent applications, including provisional and non-provisional filings. We also owned or licensed approximately 266 pending and granted counterpart applications worldwide, including 118 country-specific validations of 13 European patents. We continue to file new patent applications to protect the full range of our technologies. 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.

Our success depends in part on obtaining patent protection for our products and processes, preserving trade secrets, patents, copyrights and trademarks, operating without infringing the proprietary rights of third parties, and acquiring licenses for technology or products. We cannot assure investors 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 such patents to be issued. As the patent and prior art landscape for translational research and molecular diagnostic life science products grows more crowded and becomes more complex we may find it more difficult to obtain patent protection for our products including those related to digital spatial profiling and sequencing, for example. Our existing patents and any future patents we obtain may not be sufficiently broad to prevent others from practicing our technologies or from developing competing products and may therefore fail to provide us with any competitive advantage. Additionally, we cannot assure investors that our currently pending or future patent applications have or will be filed in all of our potential markets. Further, we cannot assure investors 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 cannot guarantee investors 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 the third party or the unenforceability or invalidity of such patents and could deprive us of the ability to prevent others from using the technologies claimed in such issued patents.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual

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questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States. Furthermore, in the biotechnology field, courts frequently render opinions that may affect the patentability of certain inventions or discoveries, including opinions that may affect the patentability of methods for analyzing or comparing DNA.

In particular, the patent positions of companies engaged in development and commercialization of genomic diagnostic tests, like Prosigna, are particularly uncertain. Various courts, including the U.S. Supreme Court, have rendered decisions that impact the scope of patentability of certain inventions or discoveries relating to genomic diagnostics. Specifically, these decisions stand for the proposition that patent claims that recite laws of nature (for example, the relationships between gene expression levels and the likelihood of risk of recurrence of cancer) are not themselves patentable unless those patent claims have sufficient additional features that provide practical assurance that the processes are genuine inventive applications of those laws rather than patent drafting efforts designed to monopolize the law of nature itself. What constitutes a "sufficient" additional feature is uncertain. Furthermore, in view of these decisions, in December 2014 the U.S. Patent and Trademark Office, or USPTO, published revised guidelines for patent examiners to apply when examining process claims for patent eligibility. This guidance was updated by the USPTO in July 2015 and additional illustrative examples provided in May 2016. The USPTO provided additional guidance on examination procedures pertaining to subject matter eligibility in April 2018 and June 2018. The guidance indicates that claims directed to a law of nature, a natural phenomenon, or an abstract idea that do not meet the eligibility requirements should be rejected as non statutory, patent ineligible subject matter; however, method of treatment claims that practically apply natural relationships should be considered patent eligible. We cannot assure you that our patent portfolio will not be negatively impacted by the current uncertain state of the law, new court rulings or changes in guidance or procedures issued by the USPTO. From time to time, the U.S. Supreme Court, other federal courts, the U.S. Congress or the USPTO may change the standards of patentability and validity of patents within the genomic diagnostic space, and any such changes could have a negative impact on our business.

The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our patents. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

Changes in either the patent laws or in interpretations of patent laws in the United States or other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. For example:

- We might not have been the first to make the inventions covered by each of our pending patent applications.
- We might not have been the first to file patent applications for these inventions.
- Others may independently develop similar or alternative products and technologies or duplicate any of our products and technologies.
- It is possible that our pending patent applications will not result in issued patents, and even if they issue as patents, they may not provide a basis for commercially viable products, may not provide us with any competitive advantages, or may be challenged and invalidated by third parties.
- We may not develop additional proprietary products and technologies that are patentable.
- The patents of others may have an adverse effect on our business.
- We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, we may fail to apply for patents on important products and technologies in a timely fashion or at all.

In addition to pursuing patents on our technology, we take steps to protect our intellectual property and proprietary technology by entering into confidentiality agreements and intellectual property assignment agreements with our employees, consultants, corporate partners and, when needed, our advisors. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the

event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure. Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had illegally obtained and was using our trade secrets, it would be expensive and time consuming, and the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets.

In addition, competitors could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own competitive technologies that fall outside of our intellectual property rights. In addition, competitors may develop their own versions of our tests in countries where we did not apply for patents, where our patents have not issued or where our intellectual property rights are not recognized and compete with us in those countries and markets. If our intellectual property is not adequately protected so as to protect our market against competitors' products and methods, our competitive position could be adversely affected, as could our business.

We have not yet registered certain of our trademarks in all of our potential markets. If we apply to register these trademarks, our applications may not be allowed for registration, and our registered trademarks may not be maintained or enforced. In addition, opposition or cancellation proceedings may be filed against our trademark applications and registrations, and our trademarks may not survive such proceedings. If we do not secure registrations for our trademarks, we may encounter more difficulty in enforcing them against third parties than we otherwise would.

To the extent our intellectual property, including licensed intellectual property, offers inadequate protection, or is found to be invalid or unenforceable, we would be exposed to a greater risk of direct competition. If our intellectual property does not provide adequate protection against our competitors' products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent disputes can be time consuming and expensive.

We depend on certain technologies that are licensed to us. We do not control these technologies and any loss of our rights to them could prevent us from selling our products.

We rely on licenses in order to be able to use various proprietary technologies that are material to our business, including our core digital molecular barcoding technology licensed from the Institute for Systems Biology, technology relating to Prosigna licensed from Bioclassifier, LLC, intellectual property relating to a gene signature for lymphoma subtyping from the National Institutes of Health for use in our collaboration with Celgene Corporation, and intellectual property relating to the tumor inflammation signature from Merck. We do not own the patents that underlie these licenses. Our rights to use these technologies and employ the inventions claimed in the licensed patents are subject to the continuation of and compliance with the terms of those licenses.

We may need to license other technologies to commercialize future products. We may also need to negotiate licenses to patents and patent applications after launching any of our commercial products. Our business may suffer if the patents or patent applications are unavailable for license or if we are unable to enter into necessary licenses on acceptable terms.

In some cases, we do not control the prosecution, maintenance, or filing of the patents to which we hold licenses, or the enforcement of these patents against third parties. Some of our patents and patent applications were either acquired from another company who acquired those patents and patent applications from yet another company, or are licensed from a third party. Thus, these patents and patent applications are not written by us or our attorneys, and we did not have control over the drafting and prosecution. The former patent owners and our licensors might not have given the same attention to the drafting and prosecution of these patents and applications as we would have if we had been the owners of the patents and applications and had control over the drafting and prosecution. We cannot be certain that drafting or prosecution of the licensed patents and patent applications by the licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights.

Enforcement of our licensed patents or defense of any claims asserting the invalidity of these patents is often subject to the control or cooperation of our licensors. Certain of our licenses contain provisions that allow the licensor to terminate the license upon specific conditions. Therefore, our business may suffer if these licenses terminate, if the licensors fail to abide by the terms of the license or fail to prevent infringement by third parties or if

the licensed patents or other rights are found to be invalid. Our rights under the licenses are subject to our continued compliance with the terms of the license, including the payment of royalties due under the license. Because of the complexity of our products and the patents we have licensed, determining the scope of the license and related royalty obligation can be difficult and can lead to disputes between us and the licensor. An unfavorable resolution of such a dispute could lead to an increase in the royalties payable pursuant to the license or termination of the license. If a licensor believed we were not paying the royalties due under the license or were otherwise not in compliance with the terms of the license, the licensor might attempt to revoke the license. If such an attempt were successful, we might be barred from producing and selling some or all of our products.

In addition, certain of the patents we have licensed relate to technology that was developed with U.S. government grants. Federal regulations impose certain domestic manufacturing requirements with respect to some of our products embodying these patents.

Involvement in lawsuits to protect or enforce our patents and proprietary rights, to determine the scope, coverage and validity of others' proprietary rights, or to defend against third-party claims of intellectual property infringement, could be time-intensive and costly and may adversely impact our business or stock price.

We have received notices of claims of infringement and misappropriation or misuse of other parties' proprietary rights in the past and may from time to time receive additional notices. Some of these claims have led and may lead to litigation. We cannot assure investors that we will prevail in such actions, or that other actions alleging misappropriation or misuse by us of third-party trade secrets, infringement by us of third-party patents and trademarks or other rights, or the validity of our patents, trademarks or other rights, will not be asserted or prosecuted against us. Litigation may also be necessary for us to protect or enforce our patent and proprietary rights, defend against third-party claims or to determine the scope, coverage and validity of the proprietary rights of others. Litigation could result in substantial legal fees and could adversely affect the scope of our patent protection and reduce our ability to compete in the marketplace. The outcome of any litigation or other proceeding is inherently uncertain and might not be favorable to us. If we resort to legal proceedings to enforce our intellectual property rights or to determine the validity, scope and coverage of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. Any litigation that may be necessary in the future could result in substantial costs and diversion of resources and could have a material adverse effect on our business, operating results or financial condition.

Numerous significant intellectual property issues have been litigated, and will likely continue to be litigated, between existing and new participants in our existing and targeted markets. Our success depends in part on our non-infringement of the patents or proprietary rights of third parties. We develop complex products that integrate a wide range of technologies which may impact our ability to do so clear of third party rights and therefore may need to license other technologies or challenge the scope, coverage and validity of the proprietary rights of others to commercialize future products. As we develop new technologies such as those related to genomic diagnostic tests, digital spatial profiling and sequencing, for example, and move into new markets and applications for our products, we expect incumbent participants in such markets may assert their patents and other proprietary rights against us as part of a business strategy to slow our entry into such markets, impede our successful competition and/or extract substantial license and royalty payments from us. In addition, we may be unaware of pending third-party patent applications that relate to our technology and our competitors and others may have patents or may in the future obtain patents and claim that use of our products infringes these patents. Our competitors and others may now, and in the future, have significantly larger and more mature patent portfolios than we currently have. In addition, future litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our own patents may provide little or no deterrence or protection. Therefore, our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. We are aware of a third party, Genomic Health, Inc., that has issued patents and pending patent applications in the United States, Europe and other jurisdictions that claim methods of using certain genes that are included in Prosigna. We believe that Prosigna does not infringe any valid issued claim. We could incur substantial costs and divert the attention of our management and technical personnel in defending against any of these claims. Any adverse ruling or perception of an adverse ruling in defending ourselves against these claims could have an adverse impact on our stock price, which may be disproportionate to the actual impact of the ruling itself. Parties making claims against us may be able to

obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products, and could result in the award of substantial damages against us. In the event of a

successful claim of infringement against us, we may be required to pay damages and obtain one or more licenses from third parties, or be prohibited from selling certain products. We may not be able to obtain these licenses at a reasonable cost, if at all. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our gross margins. In addition, we could encounter delays in product introductions while we attempt to develop alternative methods or products to avoid infringing third-party patents or proprietary rights. Defense of any lawsuit or failure to obtain any of these licenses on favorable terms could prevent us from commercializing products, and the prohibition of sale of any of our products could materially affect our ability to grow and gain market acceptance for our products.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

In addition, our agreements with some of our suppliers, distributors, customers, collaborators and other entities with whom we do business require us to defend or indemnify these parties to the extent they become involved in infringement claims against us, including the claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify any of these third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, operating results, or financial condition.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed alleged trade secrets of our employees' former employers.

Many of our employees were previously employed at universities or other life sciences companies, including our competitors or potential competitors. Although no claims against us are currently pending, we or our employees may be subject to claims that these employees or we have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights. A loss of key research personnel work product could hamper or prevent our ability to commercialize certain potential products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Our products contain third-party open source software components, and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our products.

Our products contain software tools licensed by third-party authors under "open source" licenses. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or other contractual protections regarding infringement claims or the quality of the code. Some open source licenses contain requirements that we make available source code for modifications or derivative works we create based upon the type of open source software we use. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source licenses, be required to release the source code of our proprietary software to the public. This would allow our competitors to create similar products with less development effort and time and ultimately could result in a loss of product sales.

Although we monitor our use of open source software to avoid subjecting our products to conditions we do not intend, the terms of many open source licenses have not been interpreted by U.S. courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our products. Moreover, we cannot assure investors that our processes for controlling our use of open source software in our products will be effective. If we are held to have breached the terms of an open source software license, we could be required to seek licenses from third parties to continue offering our products on terms that are not economically feasible, to re-engineer our products, to discontinue the sale of our products if re-engineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, operating results, and financial condition.

We use third-party software that may be difficult to replace or cause errors or failures of our products that could lead to lost customers or harm to our reputation.

We use software licensed from third parties in our products. In the future, this software may not be available to us on commercially reasonable terms, or at all. Any loss of the right to use any of this software could result in delays in the production of our products until equivalent technology is either developed by us, or, if available, is identified, obtained and integrated, which could harm our business. In addition, any errors or defects in third-party software, or other third-party software failures could result in errors, defects or cause our products to fail, which could harm our business and be costly to correct. Many of these providers attempt to impose limitations on their liability for such errors, defects or failures, and if enforceable, we may have additional liability to our customers or third-party providers that could harm our reputation and increase our operating costs.

We will need to maintain our relationships with third-party software providers and to obtain software from such providers that does not contain any errors or defects. Any failure to do so could adversely impact our ability to deliver reliable products to our customers and could harm our results of operations.

Risks related to our common stock

The price of our common stock may be volatile, and you could lose all or part of your investment.

The trading price of our common stock has fluctuated and may continue to fluctuate substantially. The trading price of our common stock depends on a number of factors, including those described in this “Risk Factors” section, many of which are beyond our control and may not be related to our operating performance. These fluctuations could cause stockholders to lose all or part of their investment in our common stock. Factors that could cause fluctuations in the trading price of our common stock include the following:

- actual or anticipated quarterly variation in our results of operations or the results of our competitors;
- announcements by us or our competitors of new products, significant contracts, commercial relationships or capital commitments;
- failure to obtain or delays in obtaining product approvals or clearances from the FDA or foreign regulators;
- adverse regulatory or reimbursement announcements;
- issuance of new or changed securities analysts’ reports or recommendations for our stock;
- developments or disputes concerning our intellectual property or other proprietary rights;
- commencement of, or our involvement in, litigation;
- market conditions in the research and diagnostics markets;
- manufacturing disruptions;
- any future sales of our common stock or other securities;
- any change to the composition of the board of directors or key personnel;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- general economic conditions and slow or negative growth of our markets; and
- the other factors described in this “Risk Factors” section.

The stock market in general, and market prices for the securities of life sciences and diagnostic companies like ours in particular, have from time to time experienced volatility that often has been unrelated to the operating performance of the underlying companies. These broad market and industry fluctuations may adversely affect the market price of our common stock, regardless of our operating performance. In several recent situations where the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and harm our operating results.

If securities or industry analysts do not publish research reports about our business, or if they issue an adverse opinion about our business, our stock price and trading volume could decline.

The trading market for our common stock will be influenced by the research and reports that industry or securities analysts publish about us or our business. If one or more of the analysts who cover us issues an adverse opinion about our company, our stock price would likely decline. If one or more of these analysts ceases coverage of us or fails to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Future sales of our common stock in the public market could cause our stock price to fall.

Our stock price could decline as a result of sales of a large number of shares of our common stock or the perception that these sales could occur, including by our officers, directors and their respective affiliates. These sales, or the possibility that these sales may occur, also might make it more difficult for us to sell equity securities in the future at a time and at a price that we deem appropriate.

We register the offer and sale of all shares of common stock that we may issue under our equity compensation plans. In addition, in the future, we may issue additional shares of common stock or other equity or debt securities convertible into common stock in connection with a financing, acquisition, litigation settlement, employee arrangements or otherwise. For example, in July and August 2018, we sold an aggregate of 4,600,000 shares of common stock in an underwritten public offering for net proceeds of $53.8 million. Any such future issuance, including any issuances pursuant to our “at the market” equity offering program under our sales agreement with Cowen, could result in substantial dilution to our existing stockholders and could cause our stock price to decline.

We have broad discretion over the use of the proceeds to us from our July 2018 and August 2018 underwritten public offering and our October 2018 term loan agreement and will have broad discretion over the use of the proceeds to us from our “at the market” equity offering program and may apply the proceeds to uses that do not improve our operating results or the value of your securities.

We have broad discretion over the use of proceeds to us from our July 2018 and August 2018 underwritten public offering and our October 2018 term loan agreement and we will have broad discretion to use the net proceeds to us from our “at the market” equity offering program put into place in January 2018, and investors will be relying solely on the judgment of our board of directors and management regarding the application of these proceeds. Although we expect to use the net proceeds from our “at the market” equity offering program for general corporate purposes, investors will not have the opportunity, as part of their investment decision, to assess whether the proceeds are being used appropriately. Our use of the proceeds may not improve our operating results or increase the value of the securities offered pursuant to the foregoing fundraising transactions.

Anti-takeover provisions in our charter documents and under Delaware or Washington law could make an acquisition of us difficult, limit attempts by our stockholders to replace or remove our current management and limit our stock price.

Provisions of our certificate of incorporation and bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares, or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our stock. Among other things, the certificate of incorporation and bylaws:

- permit the board of directors to issue up to 15,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;
- provide that the authorized number of directors may be changed only by resolution of the board of directors;
- provide that all vacancies, including newly-created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- divide the board of directors into three classes;
- provide that a director may only be removed from the board of directors by the stockholders for cause;

- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and may not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and meet specific requirements as to the form and content of a stockholder's notice;
- prevent cumulative voting rights (therefore allowing the holders of a plurality of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose);
- provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officer or by the board of directors; and
- provide that stockholders are permitted to amend the bylaws only upon receiving at least two-thirds of the total votes entitled to be cast by holders of all outstanding shares then entitled to vote generally in the election of directors, voting together as a single class.

In addition, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which generally prohibits a Delaware corporation from engaging in any of a broad range of business combinations with any "interested" stockholder for a period of three years following the date on which the stockholder became an "interested" stockholder. Likewise, because our principal executive offices are located in Washington, the anti-takeover provisions of the Washington Business Corporation Act may apply to us under certain circumstances now or in the future. These provisions prohibit a "target corporation" from engaging in any of a broad range of business combinations with any stockholder constituting an "acquiring person" for a period of five years following the date on which the stockholder became an "acquiring person."

Complying with the laws and regulations affecting public companies increases our costs and the demands on management and could harm our operating results.

As a public company, we incur and will continue to incur significant legal, accounting and other expenses that we did not incur as a private company. We ceased to be an "emerging growth company" on December 31, 2018 and are no longer eligible for reduced disclosure requirements and exemptions applicable to "emerging growth companies."As such, we will be required to hold a say-on-pay vote and a say-on-frequency vote at our 2019 annual meeting of stockholders. We expect that our loss of "emerging growth company" status will require additional attention from management and will result in increased costs to us, which could include higher legal fees, accounting fees and fees associated with investor relations activities, among others. In addition, the Sarbanes-Oxley Act and rules subsequently implemented by the SEC and The Nasdaq Global Market impose numerous requirements on public companies, including requiring changes in corporate governance practices. Also, the Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and operating results. Our management and other personnel must devote a substantial amount of time to compliance with these laws and regulations. These burdens may increase as new legislation is passed and implemented, including any new requirements that the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 may impose on public companies. These requirements have increased and will likely continue to increase our legal, accounting, and financial compliance costs and have made and will continue to make some activities more time consuming and costly. For example, as a public company it is more difficult and more expensive for us to obtain director and officer liability insurance, and in the future we may be required to accept reduced policy limits and coverage or to incur substantial costs to maintain the same or similar coverage. These rules and regulations could also make it more difficult for us to attract and retain qualified persons to serve on our board of directors or our board committees or as executive officers.

The Sarbanes-Oxley Act requires the SEC to implement new requirements on registrants, and these new requirements that were implemented require, among other things, that we assess the effectiveness of our internal control over financial reporting annually and SEC requirements also require us to assess the effectiveness of our disclosure controls and procedures quarterly. In particular, Section 404 of the Sarbanes-Oxley Act, or Section 404, requires us to perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on, and our independent registered public accounting firm to attest to, the effectiveness of our internal control over financial reporting. As an "emerging growth company," we availed ourselves of the exemption from the requirement that our independent registered public accounting firm attest to the effectiveness of our internal control over financial reporting under Section 404. However, we may no longer avail ourselves of this exemption

since we ceased to be an “emerging growth company” on December 31, 2018. As a result, our

independent registered public accounting firm is required to undertake an assessment of our internal control over financial reporting and the cost of our compliance with Section 404 will correspondingly increase. Our compliance with applicable provisions of Section 404 will require that we incur substantial accounting expense and expend significant management time on compliance-related issues as we implement additional corporate governance practices and comply with reporting requirements.

As disclosed in our Annual Report on Form 10-K, filed with the SEC on March 11, 2019, during the fourth quarter of fiscal 2018, management identified material weaknesses in internal control related to ineffective aspects of its overall control environment related to information technology general controls. This material weakness contributed to additional material weaknesses, specifically in the areas of: (i) user access and program change management over certain information technology systems and (ii) controls over monitoring of certain access rights related to processing journal entries, both of which support our financial reporting processes. As a result, management concluded that our internal control over financial reporting was not effective as of December 31, 2018. We have taken initial steps to implement remediation efforts; however, there can be no assurance that our efforts to remediate the material weaknesses will be successful or will be completed by the end of our 2019 fiscal year. Pursuing these remediation efforts will result in additional technology and other expenses.

If we are unable to remediate these material weaknesses, or are otherwise unable to maintain effective internal control over financial reporting or disclosure controls and procedures, our ability to record, process and report financial information accurately, and to prepare financial statements within required time periods, could be adversely affected, which could subject us to litigation or investigations requiring management resources and payment of legal and other expenses and negatively impact the price of our common stock. In addition, we could be subject to sanctions or investigations by the SEC or other regulatory authorities, which would require additional financial and management resources.

Furthermore, investor perceptions of our company may suffer as a result of the material weaknesses in our internal controls, and this could cause a decline in the market price of our stock. Irrespective of compliance with Section 404, any failure of our internal control over financial reporting could have a material adverse effect on our stated operating results and harm our reputation. If we are unable to remediate the material weaknesses effectively or efficiently or avoid future material weaknesses, it could harm our operations, financial reporting, or financial results and could result in an adverse opinion on our internal control over financial reporting from our independent registered public accounting firm.

Risks related to this offering

We will have broad discretion over the use of the proceeds to us from this offering and may apply it to uses that do not improve our operating results or the value of your securities.

We will have broad discretion to use the net proceeds to us from this offering, and investors will be relying solely on the judgment of our board of directors and management regarding the application of these proceeds. Although we expect to use the net proceeds from this offering for working capital and general corporate purposes, we have not allocated these net proceeds for specific purposes. Investors will not have the opportunity, as part of their investment decision, to assess whether the proceeds are being used appropriately. Our use of the proceeds may not improve our operating results or increase the value of the securities being offered hereby.

Special note regarding forward-looking statements

This prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus supplement and the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering contain "forward-looking statements" within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act that are based on our beliefs and assumptions and on information currently available to our management. Forward-looking statements can be identified by words such as "believe," "anticipate," "could," "continue," "depends," "expect," "expand," "forecast," "intend," "predict," "plan," "rely," "should," "wi the negative of these terms and other similar expressions, although not all forward-looking statements contain these words. You should read these statements carefully because they discuss future expectations, contain projections of future results of operations or financial condition, or state other "forward-looking" information. These statements relate to our future plans, objectives, expectations, intentions and financial performance and the assumptions that underlie these statements. These forward-looking statements include, but are not limited to:

- our expectations regarding our future operating results and capital needs, including our expectations regarding instrument, consumable and total revenue, operating expenses, sufficiency of cash on hand and operating and net loss;
- our ability to successfully launch and commercialize our Digital Spatial Profiling and Hyb & Seq. platforms;
- the success, costs and timing of implementation of our business model, strategic plans for our business and future product development plans;
- the regulatory regime and our ability to secure and maintain regulatory clearance or approval or reimbursement for the clinical use of our products, domestically and internationally;
- our ability to realize the potential payments set forth in our collaboration agreements;
- our strategic relationships, including with patent holders of our technologies, manufacturers and distributors of our products, collaboration partners and third parties who conduct our clinical studies;
- our intellectual property position;
- our ability to attract and retain key scientific or management personnel;
- our expectations regarding the competitive position, market size and growth potential for our business; and
- our ability to sustain and manage growth, including our ability to expand our customer base, develop new products, enter new markets and hire and retain key personnel.

These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance time frames or achievements to be materially different from any future results, performance, time frames or achievements expressed or implied by the forward-looking statements. Given these risks, uncertainties and other factors, you should not place undue reliance on these forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date such forward-looking statements are made. You should read carefully this prospectus supplement, the accompanying prospectus and any related free writing prospectuses that we have authorized for use in connection with this offering, together with the information incorporated herein and therein by reference as described in the section titled "Where you can find more information," completely and with the understanding that our actual future results may be materially different from what we expect. We hereby qualify all of our forward-looking statements by these cautionary statements. Except as required by law, we assume no obligation to update these forward-looking statements publicly, or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus supplement, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

Use of proceeds

We estimate that the net proceeds to us from this offering will be approximately $64.3 million, or approximately $81.8 million if the underwriters exercise in full their option to purchase additional shares of common stock, after deducting the underwriting discounts and commissions and the estimated expenses of this offering. We plan to use the net proceeds to us from this offering for working capital and general corporate purposes.

Each $1.00 increase (decrease) in the assumed public offering price of $27.51 per share, which was the last reported sale price of our common stock on The Nasdaq Global Market on March 15, 2019, would increase (decrease) the net proceeds to us from this offering by approximately $2.4 million, or approximately $3.0 million if the underwriters exercise in full their option to purchase additional shares of common stock, assuming the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of shares we are offering. Each increase (decrease) of 1,000,000 shares in the number of shares offered by us would increase (decrease) the net proceeds to us from this offering by approximately $25.9 million, assuming that the assumed public offering price remains the same, and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We do not expect that a change in the public offering price or the number of shares by these amounts would have a material effect on our uses of the proceeds from this offering.

We cannot specify with certainty all of the particular uses for the net proceeds to be received by us from this offering. In addition, the amount, allocation and timing of our actual expenditures will depend upon numerous factors, including market acceptance of our products; the cost and timing of establishing additional sales, marketing and distribution capabilities; the cost of our research and development activities; the cost and timing of regulatory clearances or approvals; the effect of competing technological and market developments; the nature and timing of any additional companion diagnostic development collaborations we may establish; and the extent to which we acquire or invest in businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types of transactions. Accordingly, we will have broad discretion in using these proceeds. Pending their uses, we plan to invest the net proceeds to us of this offering in short-term, interest-bearing, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

We will not receive any proceeds from the sale of shares of our common stock by the selling stockholder.

Dilution

Dilution is the amount by which the price paid by the purchasers of the shares of common stock sold in the offering exceeds the net tangible book value per share of common stock after the offering. Net tangible book value per share is determined by subtracting our total liabilities from the total book value of our tangible assets and dividing the difference by the number of shares of common stock deemed to be outstanding at that date.

Our historical net tangible book value as of December 31, 2018 was $36.9 million, or $1.19 per share.

After giving effect to the issuance and sale by us of 2,500,000 shares of common stock in this offering at the assumed public offering price of $27.51 per share, which is the last reported sale price of our common stock on The Nasdaq Global Market on March 15, 2019, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2018, would have been $101.2 million, or $3.03 per share. This represents an immediate increase in as adjusted net tangible book value of $1.84 per share to our existing stockholders and immediate dilution of $24.48 per share to new investors purchasing common stock in this offering.

The following table illustrates this dilution on a per share basis to new investors:

Assumed public offering price per share		$27.51
Net tangible book value per share as of December 31, 2018	$1.19	
Increase per share attributable to this offering	1.84	
As adjusted net tangible book value per share as of December 31, 2018, after giving effect to this offering		3.03
Dilution per share to new investors participating in this offering		$24.48

If the underwriters exercise in full their option to purchase an additional 675,000 shares of our common stock at the assumed public offering price of $27.51 per share, which is the last reported sale price of our common stock on The Nasdaq Global Market on March 15, 2019, the as adjusted net tangible book value per share after giving effect to this offering would be $3.48 per share, representing an immediate increase to existing stockholders of $2.29 per share, and immediate dilution to new investors in this offering of $24.03 per share.

Each $1.00 increase (decrease) in the assumed public offering price of $27.51 per share, which was the last reported sale price of our common stock on The Nasdaq Global Market on March 15, 2019, would increase (decrease) our as adjusted net tangible book value by approximately $2.4 million, or approximately $0.07 per share, and increase (decrease) the dilution per share to investors participating in this offering by approximately $0.93 per share, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus supplement, remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We may also increase or decrease the number of shares we are offering. An increase of 1,000,000 in the number of shares offered by us would increase our as adjusted net tangible book value by approximately $25.9 million, or $0.66 per share, and the dilution per share to investors participating in this offering would decrease by $0.66 per share, assuming that the assumed public offering price remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. Similarly, a decrease of 1,000,000 shares in the number of shares offered by us would decrease our as adjusted net tangible book value by approximately $25.9 million, or $0.71 per share, and the dilution per share to investors participating in this offering would increase by $0.71 per share, assuming that the assumed public offering price remains the same, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. The as adjusted information discussed above is illustrative only and will change based on the actual public offering price and other terms of this offering determined at pricing.

The outstanding share information in the table above is based on 30,913,397 shares of our common stock outstanding as of December 31, 2018 and excludes the following, in each case as of such date:

- 5,042,352 shares of common stock issuable upon exercise of options outstanding, at a weighted-average exercise price of $12.46 per share;
- 1,141,129 shares of common stock issuable upon the exercise of restricted stock units;

- 1,124,616 shares of common stock reserved for future issuance under stock-based compensation plans, including 737,732 shares of common stock reserved for issuance under our 2013 Equity Incentive Plan, and any future automatic increase in shares reserved for issuance under such plan, 120,000 shares reserved for future issuance under our 2018 Inducement Equity Incentive Plan and 266,884 shares of common stock reserved for issuance under our 2013 Employee Stock Purchase Plan, and any future automatic increase in shares reserved for issuance under such plan; and
- 905,798 shares of common stock issuable upon the exercise of warrants outstanding as of December 31, 2018, at a weighted-average exercise price of $18.38 per share.

To the extent that options are exercised, new options are issued under our equity incentive plans, or we issue additional shares of common stock in the future, there will be further dilution to investors participating in this offering.

Selling Stockholder

The following table and footnotes set forth information with respect to the beneficial ownership of our common stock by the selling stockholder as of January 31, 2019, subject to certain assumptions set forth in the footnotes and as adjusted to reflect the issuance and sale of shares of common stock by us and the sale of shares of common stock by the selling stockholder in this offering.

Beneficial ownership of shares is determined under the rules of the SEC and generally includes any shares over which a person exercises sole or shared voting or investment power and includes share issuable upon exercise of options held by the person that may be exercised or converted within 60 days of January 31, 2019. Except as indicated by footnote, and subject to applicable community property laws, we believe each person identified in the table possesses sole voting and investment power with respect to all shares of common stock beneficially owned by such person. Shares of common stock subject to options currently exercisable or exercisable within 60 days of January 31, 2019, are deemed to be outstanding for calculating the number and percentage of outstanding shares of the person holding such options but are not deemed to be outstanding for calculating the percentage ownership of any other person.

Applicable percentage ownership in the following table is based on 31,060,827 shares of common stock outstanding as of January 31, 2019.

The address of the person listed on the table is c/o The Blackstone Group L.P., 345 Park Avenue, New York, New York 10154. When we refer to the "selling stockholder" in this prospectus supplement, we mean the person listed in the table below as offering shares, as well as the pledgees, donees, assignees, transferees, successors and others who may hold any of the selling stockholder's interest.

Name of Selling Stockholder	Shares beneficially owned prior to the offering		Number of shares offered	Shares beneficially owned after the offering[1]		Shares beneficially owned after the offering if underwriters' option is exercised in full[1]	
	Shares	Percentage		Shares	Percentage	Shares	Percentage
Clarus Lifesciences II, L.P.[1]	4,036,025	13.0 %	2,000,000	2,036,025	6.1 %	2,036,025	6.0 %

(1) The number of shares owned set forth above is based solely on the most recently available Schedule 13D/A filed with the SEC on January 11, 2019. Consists of 4,036,025 shares held directly by Clarus Lifesciences II, L.P. ("Clarus"). Clarus Ventures II GP, L.P ("Clarus GP") is the general partner of Clarus. Blackstone Clarus II L.L.C. is the general partner of Clarus GP. The sole member of Blackstone Clarus II L.L.C. is Blackstone Holdings II L.P. The general partner of Blackstone Holdings II L.P. is Blackstone Holdings I/II GP Inc. The controlling stockholder of Blackstone Holdings I/II GP Inc. is The Blackstone Group L.P. The general partner of The Blackstone Group L.P. is Blackstone Group Management L.L.C. Blackstone Group Management L.L.C. is wholly-owned by Blackstone's senior managing directors and controlled by its founder, Stephen A. Schwarzman. Each of such entities and Mr. Schwarzman may be deemed to beneficially own the shares beneficially owned by Clarus, but each (other than Clarus) disclaims beneficial ownership of such shares. The address for each of Clarus and Clarus GP is c/o Clarus Ventures LLC, 101 Main Street, Suite 1210, Cambridge, Massachusetts 02142.

For more information about our relationships with the selling stockholder and its affiliates, see "Related Party Transactions" in our Annual Report on Form 10-K, filed with the SEC on March 11, 2019, which is incorporated herein by reference.

Material U.S. federal income and estate tax consequences to non-U.S. holders

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of our common stock to non-U.S. holders, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed, possibly retroactively, so as to result in U.S. federal tax consequences different from those set forth below. We have not sought any ruling from the IRS with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any non-U.S., state or local jurisdiction or under U.S. federal gift and estate tax laws, except to the limited extent below. In addition, this discussion does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

- banks, insurance companies, real estate investment trusts, regulated investment companies or other financial institutions;
- persons subject to the alternative minimum tax or net investment income tax;
- tax-exempt organizations or governmental organizations;
- controlled foreign corporations, passive foreign investment companies and corporations that accumulate earnings to avoid U.S. federal income tax;
- brokers or dealers in securities or currencies;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- persons that own, or are deemed to own, more than five percent of our capital stock (except to the extent specifically set forth below);
- certain former citizens or long-term residents of the United States;
- entities or arrangements classified as partnerships for U.S. federal income tax purposes and other pass-through entities (and investors therein);
- persons who hold our common stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction;
- persons who hold or receive our common stock pursuant to the exercise of any employee stock option or otherwise as compensation;
- persons subject to special tax accounting rules as a result of any item of gross income with respect to our common stock being taken into account in an “applicable financial statement” as defined in Section 451(b) of the Code;
- persons who do not hold our common stock as a capital asset (within the meaning of Section 1221 of the Code); or
- persons deemed to sell our common stock under the constructive sale provisions of the Code.

In addition, if a partnership or entity or arrangement classified as a partnership for U.S. federal income tax purposes holds our common stock, the tax treatment of a partner generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our common stock, and partners in such partnerships, should consult their tax advisors.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our common stock arising under the U.S. federal income, estate or gift tax rules or under the laws of any state, local, non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

Non-U.S. holder defined

For purposes of this discussion, you are a non-U.S. holder if you are a beneficial owner of our common stock that is not, for U.S. federal income tax purposes:

- an individual citizen or resident of the United States;
- a corporation or other entity taxable as a corporation created or organized in the United States or under the laws of the United States or any political subdivision thereof;
- an estate whose income is subject to U.S. federal income tax regardless of its source; or
- a trust (x) whose administration is subject to the primary supervision of a U.S. court and which has one or more U.S. persons who have the authority to control all substantial decisions of the trust or (y) which has made an election to be treated as a U.S. person.

Distributions

As described in the section titled "Dividend Policy," we have never declared or paid cash dividends on our common stock, and we do not plan to make any such payments for the foreseeable future. However, if we do make distributions on our common stock, those payments will constitute dividends for U.S. tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. To the extent those distributions exceed both our current and our accumulated earnings and profits, they will constitute a return of capital and will first reduce your basis in our common stock, but not below zero, and then will be treated as gain from the sale of stock.

Subject to the discussions below on effectively connected income, backup withholding and foreign accounts, any dividend paid to you generally will be subject to U.S. withholding tax either at a rate of 30% of the gross amount of the dividend or such lower rate as may be specified by an applicable income tax treaty. In order to receive a reduced treaty rate, you must provide us with an IRS Form W-8BEN, IRS Form W-8BEN-E or other appropriate version of IRS Form W-8 certifying qualification for the reduced rate. A non-U.S. holder of shares of our common stock eligible for a reduced rate of U.S. withholding tax pursuant to an income tax treaty may be able to obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS. If the non-U.S. holder holds the stock through a financial institution or other agent acting on the non-U.S. holder's behalf, the non-U.S. holder will be required to provide appropriate documentation to the agent, which then will be required to provide certification to us or our paying agent, either directly or through other intermediaries.

Dividends received by you that are effectively connected with your conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, attributable to a permanent establishment or fixed base maintained by you in the United States) are generally exempt from such withholding tax. In order to obtain this exemption, you must provide us with an IRS Form W-8ECI properly certifying such exemption. Such effectively connected dividends, although not subject to withholding tax, are taxed at the same graduated rates applicable to U.S. persons, net of certain deductions and credits, subject to an applicable income tax treaty providing otherwise. In addition, if you are a corporate non-U.S. holder, dividends you receive that are effectively connected with your conduct of a U.S. trade or business may also be subject to a branch profits tax at a rate of 30% or such lower rate as may be specified by an applicable income tax treaty.

Gain on disposition of our common stock

Subject to the discussion below regarding backup withholding, you generally will not be required to pay U.S. federal income tax on any gain realized upon the sale or other disposition of our common stock unless:

- the gain is effectively connected with your conduct of a U.S. trade or business (and, if required by an applicable income tax treaty, the gain is attributable to a permanent establishment or fixed base maintained by you in the United States);
- you are an individual who is present in the United States for a period or periods aggregating 183 days or more during the calendar year in which the sale or disposition occurs and certain other conditions are met; or

- our common stock constitutes a U.S. real property interest by reason of our status as a "United States real property holding corporation" for U.S. federal income tax purposes, or USRPHC, at any time within the shorter of the five-year period preceding your disposition of, or your holding period for, our common stock.

We believe that we are not currently and will not become a USRPHC, and the remainder of this discussion so assumes. However, because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. Even if we become a USRPHC, however, as long as our common stock is regularly traded on an established securities market, such common stock will be treated as U.S. real property interests only if you actually or constructively hold more than five percent of such regularly traded common stock at any time during the applicable period described above.

If you are a non-U.S. holder described in the first bullet above, you will be required to pay tax on the net gain derived from the sale under regular graduated U.S. federal income tax rates, and corporate non-U.S. holders described in the first bullet above may be subject to the branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty. If you are an individual non-U.S. holder described in the second bullet above, you will be required to pay a flat 30% tax on the gain derived from the sale, which gain may be offset by U.S. source capital losses (even though you are not considered a resident of the United States, provided you have timely filed U.S. federal income tax returns with respect to such losses). You should consult your tax advisor regarding any applicable income tax or other treaties that may provide for different rules.

Backup withholding and information reporting

Generally, we must report annually to the IRS the amount of dividends paid to you, your name and address, and the amount of tax withheld, if any. A similar report is sent to you. Pursuant to applicable income tax treaties or other agreements, the IRS may make these reports available to tax authorities in your country of residence.

Payments of dividends or of proceeds on the disposition of stock made to you may be subject to information reporting and backup withholding at a current rate of 24% unless you establish an exemption, for example by properly certifying your non-U.S. status on an IRS Form W-8BEN, IRS Form W-8BEN-E or another appropriate version of IRS Form W-8. Notwithstanding the foregoing, backup withholding and information reporting may apply if either we or our paying agent has actual knowledge, or reason to know, that you are a U.S. person.

Backup withholding is not an additional tax; rather, the U.S. federal income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

Foreign Account Tax Compliance Act (FATCA)

The Foreign Account Tax Compliance Act, Treasury Regulations issued thereunder and official IRS guidance, collectively, "FATCA," generally impose a U.S. federal withholding tax at a rate of 30% on dividends on and gross proceeds from the sale or other disposition of our common stock paid to a “foreign financial institution” (as specially defined under the FATCA rules), unless such institution enters into an agreement with the U.S. government to withhold on certain payments and to collect and provide to the U.S. tax authorities substantial information regarding the U.S. account holders of such institution (which includes certain equity and debt holders of such institution, as well as certain account holders that are foreign entities with U.S. owners) or otherwise establishes an exemption. FATCA also generally imposes a U.S. federal withholding tax of 30% on dividends on and gross proceeds from the sale or other disposition of our common stock paid to a "non-financial foreign entity" (as specially defined for purposes of these rules) unless such entity provides the withholding agent with a certification identifying certain substantial direct and indirect U.S. owners of the entity, certifies that there are none or otherwise establishes an exemption. The withholding provisions under FATCA generally apply to dividends on our common stock. The Treasury Secretary has issued proposed regulations providing that the withholding provisions under FATCA do not apply with respect to payment of gross proceeds from a sale or other disposition of our common stock, which may be relied upon by taxpayers until final regulations are issued. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this paragraph. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA withholding on their investment in, and ownership and disposition of, our common stock.

The preceding discussion of U.S. federal income tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, including the consequences of any proposed change in applicable laws.

Federal estate tax

Our common stock beneficially owned by an individual who is not a citizen or resident of the United States (as defined for U.S. federal estate tax purposes) at the time of death will generally be includable in the decedent's gross estate for U.S. federal estate tax purposes, unless an applicable estate tax treaty provides otherwise.

Underwriting

We and the selling stockholder are offering the shares of common stock described in this prospectus supplement through a number of underwriters. J.P. Morgan Securities LLC, UBS Securities LLC and Cowen and Company LLC are acting as representatives of the underwriters. We and the selling stockholder will enter into an underwriting agreement with the underwriters. Subject to the terms and conditions of the underwriting agreement, we and the selling stockholder will agree to sell to the underwriters, and each underwriter will severally agree to purchase, at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement, the number of shares of common stock listed next to its name in the following table:

Name	Number of Shares
J.P. Morgan Securities LLC	
UBS Securities LLC	
Cowen and Company, LLC	
Robert W. Baird & Co. Incorporated	
Total	4,500,000

The underwriters will be committed to purchase all the shares of common stock offered by us and the selling stockholder if they purchase any shares. The underwriting agreement will also provide that if an underwriter defaults, the purchase commitments of non-defaulting underwriters may also be increased or the offering may be terminated.

The underwriters propose to offer the shares of common stock directly to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of $ per share. Any such dealers may resell shares to certain other brokers or dealers at a discount of up to $ per share from the public offering price. After the initial offering of the shares to the public, if all of the shares of common stock are not sold at the public offering price, the underwriters may change, the offering price and the other selling terms. Sales of shares made outside of the United States may be made by affiliates of the underwriters.

The underwriters will have an option to buy up to 675,000 additional shares of common stock from us. The underwriters will have 30 days from the date of this prospectus supplement to exercise this option to purchase additional shares. If any shares are purchased with this option to purchase additional shares, the underwriters will purchase shares in approximately the same proportion as shown in the table above. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the shares are being offered.

The underwriting fee is equal to the public offering price per share of common stock less the amount paid by the underwriters to us and the selling stockholder per share of common stock. The underwriting fee is $ per share. The following table shows the per share and total underwriting discounts and commissions to be paid by us and the selling stockholder to the underwriters assuming both no exercise and full exercise of the underwriters' option to purchase additional shares.

Paid by us		Total	
Without option exercise	With full option exercise		